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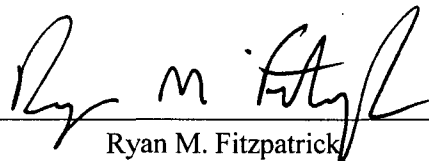
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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

**Annual Groundwater Monitoring
Report, January - December 2001**

Indian Basin Remediation Project
Eddy County, New Mexico



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Indian Basin Remediation Project
Eddy County, New Mexico

Executive Summary

The Indian Basin Gas Plant (site) is located approximately 20 miles northwest of Carlsbad, in Eddy County, New Mexico. Cleanup efforts at the site, collectively known as the Indian Basin Remediation Project (IBRP), were initiated in April 1991 to recover free phase petroleum hydrocarbons related to the release of a liquid by-product of natural gas production known as "condensate". The subsurface at the site includes two distinct geologic zones known as the "Shallow Zone" and the "Lower Queen", both with saturated and unsaturated strata. Currently, there are a total of 150 wells present at the site related to the IBRP. These wells are used for a combination of groundwater monitoring, groundwater and condensate recovery, treated groundwater infiltration, and condensate vapor extraction.

In order to determine and evaluate the groundwater flow conditions and separate-phase condensate occurrences, site-wide well gauging events were performed in April and October 2001. The liquid-level measurements obtained from each well and the surveyed well elevations were used to calculate groundwater elevations, with density corrections where condensate was present. The resulting elevation data were used to generate groundwater flow contour maps. Review of these maps and the elevation data indicate Shallow Zone and Lower Queen groundwater flow were consistent with patterns observed in previous years. Flow in the Shallow Zone is to the southeast at an approximate gradient of 0.018 and flow in the Lower Queen is generally radial with a northerly component at an approximate gradient of 0.0005.

Groundwater samples were also collected from selected wells during each of the gauging events to evaluate groundwater quality at the site. Groundwater samples were primarily analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX). The analytical results indicate that total BTEX concentrations in both water-bearing units have remained consistent or declined slightly in most wells. Fluctuations in dissolved BTEX concentrations observed in some wells may be attributable to seasonal fluctuations in water levels.

Remediation efforts completed at the site in 2001 included continued groundwater extraction and treatment (including dual pump recovery) in the Lower Queen and vapor extraction in the Shallow Zone and Lower Queen. The groundwater extraction and treatment remedy was operated to both recover and control potential migration of condensate in both the liquid and dissolved phase. Recovered groundwater was treated and then infiltrated in upgradient wells. The vapor extraction system (VES) was expanded to include 6 additional blowers and was modified so that there would be one blower per extraction well. The changes to the VES were completed to enhance

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removal of condensate from the subsurface via both recovery in the vapor phase and aerobic biodegradation of condensate.

During 2001, a total of approximately 1,698 barrels of condensate were recovered at the site, as follows:

- Approximately 19 barrels of condensate were removed in the liquid phase through pump and treat efforts in the Lower Queen;
- The equivalent of approximately 5 barrels of condensate was removed in the vapor phase by VES wells in the Shallow Zone; and,
- The equivalent of approximately 330 barrels of condensate was removed in the vapor phase by VES wells in the Lower Queen; and
- The equivalent of approximately 1,344 barrels of condensate was removed by aerobic biodegradation enhanced by the use of vapor extraction.

Cumulatively, from the initiation of remedial efforts in April 1991 through December 2001, a total of approximately 15,887 barrels of condensate have been removed.

Through the operation of the VES and groundwater recovery systems, Marathon has maintained hydraulic control of the condensate and dissolved hydrocarbons in groundwater at the site. Ongoing remediation efforts in the year 2002 and beyond will include the following:

- Continued operation of the groundwater recovery system to contain the extent of the condensate plume;
- Compliance monitoring and reporting, regular groundwater monitoring; and
- Continued operation of the VES, while continuing to evaluate and modify the wells that will be used for vapor extraction to maximize condensate removal.

An evaluation of the Shallow Zone monitoring wells was completed due to the limited extent of condensate in the Shallow Zone wells and the low dissolved phase concentrations of BTEX. Based on this evaluation, 42 Shallow Zone monitoring wells have been identified for abandonment. The wells were selected based on historical gauging results and the location of the wells. Of these wells, 24 wells were selected since they have been dry for at least two years. In addition, 18 wells were determined to be redundant since they are located relatively close to other wells, did not monitor known areas of groundwater concern, or they did not provide pertinent information in

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defining the groundwater flow direction. Please note that none of the wells included in the OCD-approved Groundwater Monitoring Plan is proposed to be abandoned.

No changes to the current Groundwater Monitoring Plan are proposed at this time. However, during each gauging event, liquid-level measurements (depth to water and condensate thickness) will be collected from each accessible monitoring well. In addition, the purging and sampling techniques will be conducted following low-flow procedures during future sampling events. Low-flow procedures are preferred for VOC analysis since these procedures minimize aeration of the groundwater sample during sample collection, which improves the sample quality for VOC analysis (*Ground Water Sampling Procedure Low Stress Purging and Sampling*, USEPA Region II, March 1998).

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Indian Basin Remediation Project
Eddy County, New Mexico

1. Introduction

ARCADIS has prepared this Annual Groundwater Monitoring report on behalf of Marathon Oil Company (Marathon). This report presents the results of the cleanup and monitoring activities conducted between January and December 2001 at the Indian Basin Gas Plant located in Eddy County, New Mexico. These activities are collectively known as the Indian Basin Remediation Project (IBRP). This report has been prepared in accordance with the groundwater monitoring work plan approved by the New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division (OCD) in correspondence to Marathon dated March 4, 1999.

The following section presents a brief summary of the project background. The remaining sections discuss activities conducted during 2001, including investigation activities, monitoring well gauging, groundwater sampling, and operation and maintenance of the remediation system.

2. Background

The Indian Basin Gas Plant (site) and IBRP are located approximately 20 miles northwest of Carlsbad, New Mexico, as shown on Figure 1. The site is situated in Township 21 South, in Eddy County, and occupies portions of Range 23 East (sections 13, 23, 24, 25, and 26) and Range 24 East (sections 19 and 30). Remediation efforts at the site have been ongoing since April 1991 and are designed to remove separate phase petroleum hydrocarbons present in the subsurface, primarily condensate, the liquid by-product of natural gas production.

The geology underlying the site is comprised of two distinct zones, both with saturated and unsaturated strata. The geologic units are known as the Shallow Zone and the Lower Queen. As of the end of 2001 there was a total of 77 monitoring wells and 1 infiltration well present in the Shallow Zone, and there was a total of 57 monitoring wells, 2 infiltration wells, 10 vapor extraction wells, and 3 supply wells in the Lower Queen. A summary of the completion details regarding installation of these wells is provided in Table 1A and 1B. Figure 2 depicts the site layout, including the locations of each Shallow Zone and Lower Queen well. Additional details regarding local and regional geology and hydrogeology are presented in the report titled *Comprehensive Site Characterization Report for the IBRP*, submitted to the OCD on behalf of Marathon by IT Corporation in December 1998.

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3. Groundwater and Condensate Gauging

In order to determine and evaluate the groundwater flow conditions and separate-phase condensate occurrences at the site as well as changes in these conditions, site-wide well gauging events were performed in April and October 2001. The gauging events consisted of collecting liquid-level measurements from both the Shallow Zone and Lower Queen. The results of the 2001 gauging events as well as precipitation recharge (rainfall) are discussed in the following sections. A summary of historical liquid-level measurement data for the site is presented in Appendix A.

3.1 Shallow Zone Aquifer

A total of 79 locations, consisting of 77 monitoring wells and 2 recovery sumps, completed in the Shallow Zone were gauged during both gauging events in 2001. The liquid-level measurements from each gauging event and the top of casing elevations for the wells were then used to calculate groundwater elevation at each well (density corrections were made as required where condensate was present).

As the data in Appendix A indicate, 39 of the locations completed in the Shallow Zone did not contain groundwater for one or both of the 2001 gauging events. Total fluctuations in groundwater elevation throughout the Shallow Zone in 2001 ranged from 0.01 feet in Wells MW-12 and MW-31, to 2.42 in Well MW-126, including density corrections for the presence of condensate, as indicated by the data presented in Appendix A.

Based on the groundwater elevation measurements from each gauging event, groundwater elevation contour maps were generated for each event. These maps are shown on Figures 3 and 4. As shown on the figures, the observed groundwater flow direction tends to be to the southeast at an approximate gradient of 0.018. The flow direction and gradient are consistent with patterns observed in previous years.

During 2001, a measurable thickness of condensate was detected in Shallow Zone Wells MW-14, MW-69, and MW-126 for both events. The condensate thicknesses ranged from 0.01 feet in Well MW-14 in April 2001 to 5.45 feet in MW-69 in October 2001. Figures 5 and 6 depict the observed condensate distribution for the Shallow Zone during each monitoring event.

3.2 Lower Queen Aquifer

A total of 68 locations, consisting of 66 monitoring wells and 2 plant water supply wells, completed in the Lower Queen were gauged during both gauging events in 2001.

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The liquid-level measurements from each gauging event and the top of casing elevations for the wells were then used to calculate groundwater elevation at each well (density corrections were made as required where condensate was present).

As the data in Appendix A indicate, Well VE-04 did not contain groundwater for both of the 2001 gauging events. Total fluctuations in groundwater elevation throughout the Lower Queen aquifer in 2001 (pumping wells were not considered) ranged from zero feet in Well VE-17 to 1.31 feet in Well MW-82.

Based on the groundwater elevation measurements from each gauging event, groundwater elevation contour maps were generated for each event. These maps are shown on Figures 7 and 8. As shown on the figures, the observed groundwater flow direction in the Lower Queen tends to be generally radial with a northerly component at an approximate gradient of 0.0005. This flow direction and gradient are consistent with patterns observed in previous years.

During one or more of the gauging events in 2001, condensate was observed in Lower Queen Wells MW-68, MW-84, MW-112, MW-113, MW-120, MW-121, MW-123, MW-125, MW-127, MW-129, and MW-130. Observed condensate thicknesses in these wells ranged from 0.03 feet in Well MW-127 in October 2001 to 2.04 feet in Well MW-84 in April 2001. Figures 9 and 10 depict the observed condensate distribution for the Lower Queen during each monitoring event.

3.3 Precipitation Recharge

The site has historically received the highest amounts of precipitation between the months of June and October. The average annual rainfall measured at the site over the past five years is approximately 9 inches. During 2001, the data collected using the rain gauge maintained at the site indicate that the highest amount of precipitation was received in June (1.1 inches) with a total of 6.02 inches for the year. Table 2 summarizes monthly rainfall received at the site during 2001.

4. Groundwater Sampling and Analysis

Two groundwater sampling events were completed at the site in 2001 by personnel from ARCADIS. The sampling events were performed according to the modified Groundwater Monitoring Plan, as approved by the OCD in March 1999. The sampling involved the following:

- In April 2001, groundwater samples were collected from 13 Shallow Zone and 25 Lower Queen wells. These samples were submitted for laboratory analysis and

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analyzed for BTEX, total dissolved solids (TDS), and chloride using USEPA Methods 8021B, 160.1, and 325.2, respectively; and

- In October 2001, groundwater samples were collected from 13 Shallow Zone wells and 19 Lower Queen wells. These samples were submitted for BTEX analysis using USEPA Method 8260B.

In order to ensure the quality of the analytical data, trip and field blanks were collected for each event and submitted for analysis. Table 3 summarizes the BTEX analytical results for April 2001 and Table 4 summarizes the BTEX analytical results for October 2001. Summaries of historical BTEX and general chemistry analytical data are presented in Appendix B. The complete laboratory analytical reports for each groundwater sampling event are presented on a CD-Rom inserted in Appendix C.

The groundwater monitoring analytical results for both the Shallow Zone and Lower Queen are discussed in the following sections.

4.1 Shallow Zone Aquifer

During 2001, groundwater samples were collected from a total of 14 different wells completed in the Shallow Zone in April and October 2001. The results of the BTEX laboratory analysis of these groundwater samples is summarized as follows:

- Of the 14 wells sampled, groundwater samples from 11 wells (MW-43, MW-46, MW-50, MW-54, MW-61, MW-65, MW-78, MW-79, MW-90, MW-91, and MW-106) did not contain any BTEX compounds at concentrations above the laboratory limits of detection for at least one of the two sampling events (April and October);
- Where detected, benzene concentrations ranged from 21 micrograms per liter (ug/L) in Well MW-49 (April and October 2001) to 82 ug/L in Well MW-90 (April 2001);
- Toluene concentrations ranged from 6 ug/L in Well MW-43 (October 2001) to 36 ug/L in Well MW-49 (April 2001);
- Ethylbenzene concentrations ranged from 10 ug/L in Well MW-55 (October 2001) to 65 ug/L in Well MW-90 April 2001); and
- Total xylene concentrations ranged from 117 ug/L in Well MW-49 (April 2001) to 140 ug/L in Well MW-90 (April 2001).

Figures 5 and 6 illustrate the distribution of dissolved BTEX compounds in the Shallow Zone aquifer during 2001. As indicated by the historical data in Appendix B,

BTEX concentrations in this water-bearing zone have generally remained stable or declined slightly over time.

4.2 Lower Queen Aquifer

During 2001, groundwater samples were collected from a total of 25 different Lower Queen wells. The laboratory analysis of these samples is summarized as follows:

- Of the 25 wells sampled, 24 did not contain any BTEX compounds at concentrations above the laboratory limits of detection for at least one of the two sampling events (April and October);
- Benzene was detected in the sample from Well MW-98 at a concentration of 32 ug/L (April 2001);
- Toluene was detected in the sample from Well MW-62 at a concentration of 8.3 ug/L (April 2001);
- Ethylbenzene was detected in the sample from Well MW-98 at a concentration of 49 ug/L (April 2001); and
- Total xylene concentrations ranged from 24 ug/L in MW-62 (April 2001) to 116 ug/L in MW-98 (April 2001).

Figures 9 and 10 illustrate the distribution of dissolved BTEX compounds in the Lower Queen during 2001. Similar to that observed in the Shallow Zone, BTEX concentrations in this water-bearing zone have generally remained stable or declined slightly over time as indicated by the data in Appendix B.

5. Remediation System Operation and Maintenance

Remediation efforts completed at the site as part of the IBRP from April 1991 through December 2001 have included emergency excavation work; pumping in Rocky Arroyo sumps, open excavations, and Shallow Zone wells; condensate recovery from Shallow Zone Well MW-69; groundwater and condensate recovery (and treatment) including dual pump recovery from the Lower Queen; and vapor extraction in both the Shallow Zone and Lower Queen. The following sections discuss remedial activities conducted at the site during 2001.

5.1 Groundwater Recovery and Infiltration

Groundwater and total fluids (condensate and groundwater) recovery wells operating at the site currently include Wells MW-58, MW-65A, MW-72, MW-75, MW-81, MW-

83, MW-84, MW-85, MW-86, and MW-110. Recovered groundwater is treated and then infiltrated in upgradient wells IW-1 and IW-2 in the Lower Queen. During 2001, there was no active groundwater recovery from the Shallow Zone.

Approximately 1,378,166 barrels of total fluids were recovered from the Lower Queen and treated, removing approximately 19 barrels of condensate. Subsequently, approximately 1,258,094 barrels of treated water were infiltrated in Lower Queen Infiltration Wells IW-1 and IW-2, and 28,277 barrels of untreated water and condensate were sent to the gas plant for disposal in the Class II injection wells. Typically, the amount infiltrated is less than the amount recovered due to the removal of condensate, evaporation, and meter error.

Operation of the recovery and infiltration wells is permitted by the New Mexico State Engineer's Office (NMSEO), which requires monthly reports of groundwater withdrawal and infiltration volumes. A summary of monthly and cumulative recovery and infiltration data for 2001 is presented in Table 5.

5.2 Groundwater Treatment

Recovered groundwater at the site is treated by two air-strippers, designated "east" and "west". During 2001, Marathon personnel collected monthly water samples from the influent and effluent of the air strippers. The monthly sampling events were performed according to the Groundwater Discharge Plan GW-21. The monthly samples were submitted for BTEX analysis using USEPA Method 8260B. Quarterly samples were also submitted for polynuclear aromatic hydrocarbons analysis using USEPA Method 8310 and major cations and anions using USEPA approved methods. The complete laboratory analytical reports for each sampling event can be found electronically on a CD-Rom inserted in Appendix C. Tables 6 and 7 summarize the air stripper influent and effluent analytical data during each sampling event for the east and west air strippers, respectively. As the data presented in the tables indicate, the constituent concentrations in the effluent groundwater were consistently below the New Mexico Water Quality Control Commission groundwater quality standards.

5.3 Vapor Extraction

The following sections provide information regarding the initial startup of the vapor extraction system (VES), field testing and expansion of the VES, and the mass removal results of the VES during 2001.

5.3.1 Startup of Vapor Extraction System

The VES was first started at the site in March 1992, using Shallow Zone Wells MW-19, MW-20, MW-21, MW-35, and MW-56. The Shallow Zone VES operated from 1992 through 1994, removing the equivalent of 135 barrels of condensate in the vapor phase, as calculated from effluent vapor concentrations and vapor extraction flow rates. Vapor extraction in the Shallow Zone recommenced in August 1997, using Wells MW-11, MW-19, MW-26, and MW-41.

VES was initiated in the Lower Queen in January 1997, using Wells VE-1 through VE-5 and MW-61A. The system operated through June 1997, removing the equivalent of approximately 13 barrels of condensate in the vapor phase. Based on the low mass removal rates generated by this system it was decided to discontinue VES operation in this location. Five new vapor extraction wells (VE-16 through VE-20) were installed in 1997, and the system was then relocated to these new wells in June 1997 and operated through the end of 1998.

5.3.2 VES Expansion Field Design Testing

Marathon undertook an extensive program of soil vapor extraction testing in 1999 via evaluating the operation of three VES blowers (VES-100, VES-200, and VES-300). The goal of this testing was two-fold; 1) to maximize recovery of condensate in the vapor phase and 2) to evaluate the feasibility of using VES as a means to increase the rates of condensate recovery and in turn speed completion of the IBRP. The soil vapor extraction testing continued in 2000 with 19 short term vapor extraction tests (14 to 30 days) being conducted using five VES blowers (VES-100, VES-200, VES-300, VES-400, and VES-500). In addition, during 2000, Marathon modified the construction of various Lower Queen monitoring and recovery wells to isolate the zones in which condensate was present. The goals of the well modifications were to allow more effective application of vapor extraction as a stand-alone method of recovering free product and to allow for successful execution of the proposed field design testing needed to help develop a full-scale system design.

Field testing was conducted with a single blower on individual wells to evaluate the flow and vacuum characteristics of each well. In addition, flow rate and hydrocarbon concentration data were used to calculate vapor phase condensate removal rates. Similarly, oxygen concentration readings and air flow rate were used to estimate the oxygen uptake due to microbial respiration in the subsurface, which in turn was used to estimate condensate mass removal via biodegradation.

Total condensate recovery achieved at each well during the field design testing varied across the site. However, with few exceptions the vapor extraction from the modified wells (i.e., discretely screened) yielded the best mass removal rates. Condensate recovery rates for the testing program ranged from approximately 1 barrel per month in well MW-104 to up to 67 barrels a month in well MW-110. The average removal rate was 23 barrels per month per well.

Data from single well testing was also compared to data from multiple well testing to determine which scenario would provide the most efficient mass removal. During July and August, MW-110 was tested using blower VES-400 for 32 days. Over that time, approximately 47 barrels of condensate were removed. Following this, Wells MW-110 and MW-127 were tested simultaneously using blower VES-400. MW-110 and MW-127 were tested for 24 days removing approximately 19 barrels of condensate. The flow rates during both tests were similar at approximately 300 scfm. The multiple well testing provided a condensate removal rate of 0.79 barrels per day, which was only 53 % of the condensate removal rate observed during the single well testing (1.47 barrels per day).

5.3.3 VES Full-Scale Expansion

Based upon the results of the vapor testing completed in 1999 and 2000, 6 blowers (VES-600, VES-700, VES-800, VES-900, VES-1000, VES-1100) were added to the VES. Two of the existing blowers, VES-400 and VES-500, were equipped with thermal oxidizers; however, VOC control was no longer needed so these blowers were removed from the Site. Blowers VES-600 and VES-700 were added to the system in July 2001 and Blowers VES-800, VES-900, VES-1000, and VES-1100 were added to the system in September 2001. The VES was configured so that each blower was extracting vapor from only one well. This configuration allows for operation of a maximum of 9 blowers extracting from up to 9 wells at any one time. A summary of VES operation at the site during 2001 is presented in Table 8.

VES emissions are regulated by the New Mexico Environment Department Bureau of Air Quality under Permit No. 1859-M1-R1 and operating permit P-176. The permit requires monthly sampling and quarterly reporting to track mass removal and emissions concentrations. The following sections discuss VES performance in both hydrogeologic zones at the site during 2001.

5.3.4 Shallow Zone Vapor Extraction

Vapor extraction in the Shallow Zone was conducted from September through December 2001 and included Wells MW-14, MW-69, and MW-126. The vapor

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extraction ranged from the equivalent of 0.1 barrels of condensate in November to the equivalent of 2.1 barrels of condensate in December. For the year, a total equivalent of approximately 5 barrels of condensate was removed from the Shallow Zone in the vapor phase.

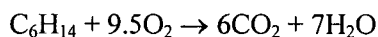
5.3.5 Lower Queen Vapor Extraction

During 2001, vapor extraction in the Lower Queen primarily included Wells MW-68, MW-84, MW-85, MW-104, MW-110, MW-112, MW-113, MW-120, MW-121, MW-125, and MW-130. The combined vapor extraction in 2001 ranged from the equivalent of 7.0 barrels of condensate in April to the equivalent of 59.1 barrels of condensate in September. For the year, a total equivalent of approximately 330 barrels of condensate was removed from the Lower Queen in the vapor phase.

5.3.6 Aerobic Biodegradation

As previously mentioned, there has been evidence that a significant amount of aerobic biodegradation of condensate is occurring in the site subsurface. In fact, data suggests that the mass destruction due to aerobic biodegradation may be limited by a lack of sufficient oxygen in the subsurface to support the aerobic respiration. These data indicate that more extensive use of vapor extraction at the site would not only increase vapor-phase mass recovery, but would also increase aerobic biodegradation by adding oxygen to the subsurface.

When oxygen levels measured in soil gas are less than normal atmospheric oxygen levels, the observed reduction can be attributed to microbial aerobic respiration. Thus, aerobic biodegradation of hydrocarbons can be estimated by using the stoichiometry of hydrocarbon oxidation (*Test Plan and Technical Protocol for a Field Treatability Test for Bioventing*, Air Force Center for Environmental Excellence, May 1992) as follows:



This equation uses hexane as a representative hydrocarbon. Using the above equation, it takes approximately three and a half pounds of oxygen to degrade one pound of hydrocarbons. Assuming that some oxygen is utilized in reactions not associated with the degradation of hydrocarbons, it was assumed that five pounds of oxygen would be required to degrade one pound of hydrocarbons.

Table 8 presents a summary of estimated aerobic biodegradation of condensate at the site in 2001. As the data in Table 8 show, it can be estimated that approximately 1,344 barrels of condensate were degraded in 2001.

6. Summary and Action Plan

6.1 Condensate Mass Removal

During 2001, a total of approximately 1,698 barrels of condensate were removed at the site. Of the total recovery, approximately 19 barrels of condensate were removed in the liquid phase through pump and treat efforts in the Lower Queen and approximately 335 barrels of condensate were removed in the vapor phase by VES efforts in the Shallow Zone and Lower Queen. In addition to the liquid phase and vapor phase recovery, it is estimated that an additional 1,344 barrels of condensate were removed via enhanced aerobic degradation in the subsurface.

Overall, the total condensate removed at the site in 2001 represents a decline of less than 1% (13 barrels), as compared to that achieved in 2000. The 2001 removal results continue the substantial increasing trend in recovery as compared to the condensate removed in 1997 and 1998. A chart comparing the mass removal in the liquid phase, vapor phase, and through aerobic degradation for the period of 1997 through 2001 is included as Figure 11. As shown on Figure 11, there was a significant decrease of condensate recovered in the liquid phase and a significant increase of condensate that was removed via enhanced aerobic degradation. The decrease in condensate recovery in the liquid phase was initially observed during the second half of 2000 and continued through 2001. The significant increase in condensate removal from the VES can be attributed to following three items:

- Focused vapor extraction in discrete zones from the well modifications;
- Increasing the scale of the VES through the addition of six blowers; and
- Operating one blower per extraction well, thus increasing the maximum attainable flow rate.

Approximately 62% of the condensate recovered in the vapor phase during 2001 occurred from September through December 2001, after the six blowers were added to the VES. The condensate that was aerobically biodegraded during this same time period accounted for approximately 51% of the total for 2001. Therefore, it is anticipated that total condensate removal in 2002 is expected to increase as compared to 2001 given that the expanded full-scale VES system will be able to operate for the entire year rather than only four months.

Cumulatively, from the initiation of remedial efforts in April 1991 through December 2001, a total of approximately 15,887 barrels of condensate have been recovered. Of the 15,887 barrels of condensate recovered to date, approximately 3,006 barrels have

been removed in the liquid phase from recovery wells and sumps, and the equivalent of approximately 4,244 barrels have been removed or degraded in the vapor phase by VES operation. A summary of monthly and cumulative condensate removed from May 1991 through December 2001 is presented in Table 9.

6.2 Planned Activities

The following sections summarize the activities that will be completed in 2002.

6.2.1 Groundwater Remediation Systems

Through the operation of the VES and groundwater recovery systems, Marathon has provided hydraulic control of the condensate and dissolved hydrocarbons in groundwater at the site (as demonstrated by routine gauging and sampling data). Routine operation and maintenance of the remediation systems, compliance monitoring and reporting, and semi-annual groundwater monitoring will continue at the site in 2002.

The ongoing remediation efforts in the year 2002 and beyond will include the following:

- Operation of the groundwater recovery system to contain the extent of the condensate plume;
- Compliance monitoring and reporting, semi-annual groundwater monitoring; and
- Continued operation of the VES, while continuing to evaluate the wells that will be used for vapor extraction. The current system has the capacity for 9 blowers and 9 wells and allows for the flexibility to change which wells are used for vapor extraction.

6.2.2 Shallow Zone Well Abandonment

An evaluation of the Shallow Zone monitoring wells was completed due to the limited extent of condensate in the Shallow Zone wells and the low dissolved phase concentrations of BTEX. Based on this evaluation, 42 Shallow Zone monitoring wells have been identified for abandonment. These wells are summarized on Table 10 and are depicted on Figure 12. The wells were selected based on historical gauging results and the location of the wells. Of these wells, 24 wells were selected since they have been dry for at least 2 years. In addition, 18 wells were determined to be redundant since they are located relatively close to other wells, did not monitor known areas of

groundwater concern, or they did not provide pertinent information in defining the groundwater flow direction. A description of the well abandonment procedures is provided as follows:

- Wells will be grouted in-place using a neat cement grout or concrete grout consisting of 2 to 8 percent bentonite;
- A grout pump and tremie pipe will be used to deliver the grout to the bottom of the well;
- The well surface completion (stickup or flush mount) will be removed and the well will be cut one foot below the existing grade; and
- A concrete pad will be installed at the surface.

Please note that none of the wells included in the OCD-approved Groundwater Monitoring Plan is proposed to be abandoned.

6.3 Groundwater Monitoring Plan

The current groundwater monitoring plan was approved by the OCD (with conditions) in correspondence with Marathon dated March 4, 1999. No changes to the current Groundwater Monitoring Plan are proposed at this time. However, during each gauging event, liquid level measurements (depth to water and condensate thickness) will be collected from each accessible monitoring well. In addition, the purging and sampling techniques will be conducted using low-flow procedures during future sampling events. Low-flow procedures are preferred for VOC analysis since these procedures minimize aeration of the groundwater sample during sample collection, which improves the sample quality for VOC analysis (*Ground Water Sampling Procedure Low Stress Purging and Sampling*, USEPA Region II, March 1998). In addition, low-flow purging and sampling procedures result in the generation of less purge water that needs to be disposed. A copy of the March 1998 USEPA low-flow procedures is included in Appendix D. A summary of the approved Groundwater Monitoring Plan is presented in Table 11.

Table 1A. Shallow Zone Monitoring Well Construction Details
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Well ID	Well Type	Measuring Point Elevation (feet amsl)	Total Depth (feet btoc)	Top of Screen/ OpenHole Interval (feet btoc)	Screen/Open Hole Depth (feet)	Casing Diameter (inches)
MW-1	monitoring	3792.50	15.00	9.00	6.00	2
MW-2	monitoring	3788.72	14.00	4.00	10.00	2
MW-3	monitoring	3787.50	15.00	5.00	10.00	2
MW-4	monitoring	3785.88	17.00	8.00	9.00	2
MW-5	monitoring	3801.69	11.00	6.00	5.00	2
MW-6	monitoring	3785.17	12.00	7.00	5.00	2
MW-7	monitoring	3784.46	16.00	6.00	10.00	2
MW-8	monitoring	3795.04	15.50	5.00	10.50	2
MW-9	monitoring	3807.85	11.00	6.00	5.00	2
MW-10	monitoring	3790.78	17.00	7.00	10.00	4
MW-11	monitoring	3806.96	22.00	12.00	10.00	4
MW-12	monitoring	3809.86	23.00	13.00	10.00	2
MW-13	monitoring	3801.58	20.00	10.00	10.00	2
MW-14	monitoring	3803.61	22.00	12.00	10.00	4
MW-15	monitoring	3803.59	17.00	7.00	10.00	2
MW-16	monitoring	3801.04	20.00	10.00	10.00	4
MW-17	monitoring	3799.55	18.00	8.00	10.00	2
MW-18	monitoring	3795.82	15.00	5.00	10.00	4
MW-19	monitoring	3797.21	17.00	7.00	10.00	4
MW-20	monitoring	3797.59	14.00	4.00	10.00	2
MW-21	monitoring	3798.21	21.00	11.00	10.00	2
MW-22	monitoring	3799.20	16.00	6.00	10.00	2
MW-23	monitoring	3794.48	10.00	5.00	5.00	2
MW-24	monitoring	3794.09	11.00	6.00	5.00	2
MW-25	monitoring	3786.97	8.00	3.00	5.00	2
MW-26	monitoring	3793.01	19.00	9.00	10.00	2
MW-27	monitoring	3790.93	15.00	10.00	5.00	2
MW-28	monitoring	3797.03	16.00	6.00	10.00	2
MW-29	monitoring	3794.06	12.00	7.00	5.00	2
MW-30	monitoring	3788.30	12.00	7.00	5.00	2
MW-31	monitoring	3791.15	16.50	7.00	9.50	4
MW-32	monitoring	3797.47	14.00	9.00	5.00	2
MW-33	monitoring	3802.48	18.00	9.00	9.00	4
MW-34	monitoring	3806.00	17.00	8.00	9.00	2
MW-35	monitoring	3800.81	19.00	14.00	5.00	4
MW-36	monitoring	3792.94	7.00	5.00	2.00	2
MW-37	monitoring	3795.03	19.00	9.00	10.00	4
MW-38	monitoring	3797.32	19.00	9.00	10.00	4
MW-39	monitoring	3796.20	19.00	9.00	10.00	4
MW-40	monitoring	3803.12	12.00	7.00	5.00	2
MW-41	monitoring	3799.04	22.00	12.00	10.00	4
MW-42	monitoring	3804.73	22.00	12.00	10.00	2
MW-43	monitoring	3802.05	22.00	12.00	10.00	4
MW-44	monitoring	3804.14	22.00	12.00	10.00	4
MW-45	monitoring	3808.68	24.00	9.50	14.50	2

Table 1A. Shallow Zone Monitoring Well Construction Details
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Well ID	Well Type	Measuring Point Elevation (feet amsl)	Total Depth (feet btoc)	Top of Screen/ OpenHole Interval (feet btoc)	Screen/Open Hole Depth (feet)	Casing Diameter (inches)
MW-46	monitoring	3805.54	18.00	8.00	10.00	4
MW-47	monitoring	3805.09	19.00	9.00	10.00	2
MW-48	monitoring	3806.18	18.00	8.00	10.00	2
MW-49	monitoring	3805.61	24.00	14.00	10.00	2
MW-50	monitoring	3813.35	35.00	20.00	15.00	2
MW-51	infiltration	3810.86	18.00	8.00	10.00	2
MW-52	monitoring	3817.49	19.00	9.00	10.00	2
MW-53	monitoring	3809.92	13.00	6.00	7.00	2
MW-54	monitoring	3823.86	76.00	41.00	35.00	4
MW-55	monitoring	3794.40	65.00	20.00	45.00	4
MW-56	monitoring	3782.45	42.00	27.00	15.00	4
MW-61	monitoring	3816.20	55.00	45.00	10.00	4
MW-65	monitoring	3763.31	55.00	35.00	20.00	4
MW-69	recovery	3805.11	48.00	13.00	35.00	4
MW-77	monitoring	3775.48	80.00	17.50	62.50	8
MW-78	monitoring	3785.82	85.00	13.00	72.00	8
MW-79	monitoring	3788.39	80.00	8.00	72.00	8
MW-80	monitoring	3821.64	90.00	19.00	71.00	8
MW-90	monitoring	3781.73	60.00	12.50	47.50	4
MW-91	monitoring	3783.07	70.00	12.50	57.50	4
MW-92	monitoring	3785.29	70.00	12.50	57.50	4
MW-93	monitoring	3817.50	70.00	12.50	57.50	4
MW-99	monitoring	3770.05	70.00	12.50	57.50	4
MW-100	monitoring	3773.31	70.00	12.50	57.50	4
MW-101	monitoring	3762.71	70.00	12.50	57.50	4
MW-102	monitoring	3753.69	80.00	12.50	67.50	4
MW-103	monitoring	3743.14	70.00	12.50	57.50	4
MW-105	monitoring	3736.93	80.00	12.50	67.5	4
MW-106	monitoring	3721.97	92.00	12.50	79.5	4
MW-107	monitoring	3726.27	70.00	12.50	57.5	4
MW-109	monitoring	3809.53	--	--	--	--
MW-117	phase II infill	3807.86	47.00	17.00	30.00	4
MW-126	phase II infill	3795.58	70.00	30.00	40.00	7
Sump A10	monitoring	3800.99	--	--	--	--
Sump 16A	monitoring	3785.14	--	--	--	--

Notes:

feet amsl Feet above mean sea level

feet btoc Feet below top of casing

-- Data not available

Table 1B. Lower Queen Monitoring Well Construction Details
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Well ID	Well Type	Measuring Point Elevation (feet amsl)	Total Depth (feet btoc)	Top of Screen/ Open Hole Interval (feet btoc)	Screen/Open Hole Depth (feet)	Casing Diameter (inches)
MW-57	monitoring	3787.70	175.00	155.00	20.00	4
MW-58	recovery	3824.07	216.00	191.00	25.00	4
MW-59	monitoring	3819.59	--	--	--	--
MW-60	monitoring	3815.28	220.00	170.00	50.00	4
MW-61A	monitoring	3819.97	214.00	173.50	40.50	4
MW-62	monitoring	3819.90	223.00	177.00	46.00	4
MW-63	monitoring	3826.16	220.00	174.00	46.00	4
MW-64	monitoring	3798.57	200.00	154.00	46.00	4
MW-65A	recovery	3763.26	166.00	115.00	51.00	4
MW-66	monitoring	3828.98	232.50	182.00	50.50	4
MW-67	monitoring	3765.87	163.00	112.00	51.00	4
MW-68	recovery	3797.83	200.00	149.00	51.00	4
MW-70	monitoring	3822.57	222.00	172.00	50.00	4
MW-71	monitoring	3778.05	233.00	165.00	68.00	4
MW-72	dual recovery	3819.32	241.50	181.50	60.00	6
MW-73	monitoring	3820.09	220.00	10.00	210.00	8
MW-74	monitoring	3820.82	220.00	170.00	50.00	6
MW-75	dual recovery	3816.12	220.00	170.00	50.00	6
MW-76	recovery	3796.01	220.00	9.00	211.00	8
MW-81	dual recovery	3817.03	225.00	71.00	154.00	8
MW-82	recovery	3825.07	250.00	67.50	182.50	6
MW-83	recovery	3794.12	202.00	152.00	50.00	6
MW-84	recovery	3759.60	170.00	120.00	50.00	6
MW-85	dual recovery	3824.93	235.00	162.00	73.00	6
MW-86	recovery	3823.99	225.00	185.00	40.00	6
MW-87	monitoring	3740.50	170.00	145.00	25.00	4
MW-87A	monitoring	3739.53	130.00	10.00	120.00	8
MW-88	monitoring	3789.7	175.00	142.50	32.50	8
MW-89	monitoring	3827.68	232.00	188.50	43.50	4
MW-94	recovery	3821.48	230.00	65.00	165.00	8
MW-95	monitoring	3746.26	145.00	111.00	34.00	4
MW-96	monitoring	3739.80	135.00	97.50	37.50	4
MW-97	monitoring	3750.16	148.00	107.50	40.50	4
MW-98	monitoring	3770.15	165.00	127.50	37.50	4
MW-104	monitoring	3793.64	220.00	145.00	75.00	6
MW-108	monitoring	3747.13	--	--	--	--
MW-110	recovery	3812.61	235.00	175.00	60.00	6
MW-111	monitoring	3824.44	230.00	190.00	40.00	4
MW-112	phase I infill	3780.11	211.00	140.00	71.00	6
MW-113*	phase I infill	3772.67	200.00	125.00	75.00	6
MW-114	phase I infill	3805.32	220.00	111.00	109.00	8
MW-115	phase I infill	3804.69	224.00	35.00	189.00	8
MW-116	phase I infill	3792.11	220.00	150.00	70.00	6
MW-117A	phase II infill	3808.24	225.00	46.00	179.00	8
MW-118	phase II infill	3762.88	202.00	112.00	90.00	4
MW-119	phase II infill	3824.74	245.00	185.00	60.00	4

Table 1B. Lower Queen Monitoring Well Construction Details
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Well ID	Well Type	Measuring Point Elevation (feet amsl)	Total Depth (feet btoc)	Top of Screen/ Open Hole Interval (feet btoc)	Screen/Open Hole Depth (feet)	Casing Diameter (inches)
MW-120	phase II infill	3820.65	240.00	180.00	60.00	4
MW-121	phase II infill	3820.88	225.00	175.00	50.00	4
MW-122	phase II infill	3822.79	225.00	36.00	189.00	7
MW-123	phase II infill	3768.77	225.00	125.00	100.00	4
MW-124	phase II infill	3777.83	225.00	17.00	208.00	7
MW-125	phase II infill	3790.61	225.00	130.00	95.00	4
MW-127	phase II infill	3825.17	245.00	195.00	50.00	4
MW-128	phase II infill	3786.08	225.00	37.50	187.50	7
MW-129	phase II infill	3800.82	245.00	155.00	90.00	4
MW-130	phase II infill	3775.54	225.00	145.00	80.00	4
MW-131	phase II infill	3784.23	245.00	145.00	100.00	4
IW-1	infiltration	3808.55	230.00	73.00	157.00	12
IW-2	infiltration	3835.86	300.00	159.00	141.00	12
SW-1	monitoring	3808.19	--	--	--	--
SW-2	monitoring	3808.79	--	--	--	--
SW-3	monitoring	3842.29	230.00	81.50	148.50	8
VE-1	vapor extraction	--	214.00	80.00	134.00	8
VE-2	vapor extraction	--	210.00	75.00	135.00	8
VE-3	vapor extraction	--	202.00	75.00	127.00	8
VE-4	vapor extraction	--	183.00	60.00	123.00	8
VE-5	vapor extraction	--	168.00	60.00	108.00	8
VE-16	vapor extraction	3750.96	150.00	42.50	107.50	8
VE-17	vapor extraction	3756.73	130.00	40.00	90.00	8
VE-18	vapor extraction	3756.82	163.00	37.50	125.50	8
VE-19	vapor extraction	3761.18	150.00	115.00	35.00	6
VE-20	vapor extraction	3768.41	160.00	37.50	122.50	8

Notes:

feet amsl Feet above mean sea level

feet btoc Feet below top of casing

-- Data not available

* Construction details not available, modification details are estimated

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Table 2. Summary of Historical Rainfall with Monthly Rainfall During 2001
Marathon Oil Company, Indian Basin Remediation Project
Eddy County, New Mexico.

Historical Rainfall	
Year	Rainfall (inches)
1994	9.31
1995	7.84
1996	16.60
1997	10.65
1998	3.95
1999	4.70
2000	9.75

Monthly Rainfall During 2001	
Month	Rainfall (inches)
January	0.10
February	0.70
March	0.90
April	0.10
May	0.50
June	1.10
July	0.60
August	0.30
September	0.20
October	0.00
November	1.00
December	0.52
2001 Annual Total	6.02

Source: Rain gauge at Indian Basin Gas Plant

Table 3. Summary of BTEX Analytical Results, April 2001 Groundwater Sampling Event, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Well ID	Sample Date	Analytical Parameters				
		Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Total BTEX (ug/L)
<i>Shallow Zone Wells</i>						
MW-14	---	Not Sampled - Condensate Present				
MW-39	---	Not Sampled - Well Dry				
MW-43	4/19/2001	<5	<5	<5	<10	0
MW-46	4/19/2001	<5	<5	<5	<10	0
MW-49	4/17/2001	21	36	16	117	190
MW-50	4/17/2001	<5	<5	<5	<15	0
MW-54	4/23/2001	<5	<5	<5	<15	0
MW-55	4/24/2001	50	<5	12	<5	62
MW-61	4/23/2001	<5	<5	<5	<10	0
MW-65	4/20/2001	<5	<5	<5	<10	0
MW-69	---	Not Sampled - Condensate Present				
MW-77	---	Not Sampled - Condensate Present				
MW-78	---	Not Sampled - Condensate Present				
MW-79	4/19/2001	<5	<5	<5	<10	0
MW-90	4/24/2001	82	9.3	65	140	296.3
MW-91	4/20/2001	40.6	16.4	<5	<10	57
MW-105	4/18/2001	<5	<5	<5	<15	0
MW-106	4/18/2001	<5	9.4	<5	<15	9.4
<i>Lower Queen Wells</i>						
MW-57	4/24/2001	<5	<5	<5	<5	0
MW-59	4/19/2001	<5	<5	<5	<10	0
MW-60	4/19/2001	<5	<5	<5	<10	0
MW-61A	4/18/2001	<5	<5	<5	<15	0
MW-62	4/20/2001	<5	8.3	<5	24	32.3
MW-63	4/24/2001	<5	<5	<5	<15	0
MW-64	4/20/2001	<5	<5	<5	<10	0
MW-66	4/18/2001	<5	<5	<5	<15	0
MW-67	4/19/2001	<5	<5	<5	<10	0
MW-70	4/24/2001	<5	<5	<5	<15	0
MW-71	4/18/2001	<5	<5	<5	<15	0
MW-73	4/23/2001	<5	<5	<5	<5	0
MW-74	4/24/2001	<100	<100	<100	<100	0
MW-87	4/19/2001	<5	<5	<5	<10	0
MW-87A	4/19/2001	<5	<5	<5	<10	0
MW-88	4/17/2001	<5	<5	<5	<15	0
MW-89	4/18/2001	<5	<5	<5	<10	0
MW-94	4/24/2001	<5	<5	<5	<15	0
MW-95	4/24/2001	<5	<5	<5	<15	0
MW-96	4/19/2001	<5	<5	<5	<10	0
MW-97	4/19/2001	<5	<5	<5	<10	0
MW-98	4/24/2001	32	<5	49	116	197
MW-104	4/23/2001	<5	<5	<5	<15	0
MW-108	4/19/2001	<5	<5	<5	<10	0
MW-111	4/18/2001	<5	<5	<5	<15	0

Notes:

ug/L Micrograms per liter.

<5 Compound detected below the detection limit - limit indicated.

--- Not Sampled.

6 Indicates result above the detection limit and below the OCD standard

21 Indicates result at/above OCD standard.

OCD Cleanup Goals/Regulatory Limits

Benzene 10 ug/L

Toluene 750 ug/L

Ethylbenzene 750 ug/L

Total Xylenes 620 ug/L

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Table 4. Summary of BTEX Analytical Results, October 2001 Groundwater Sampling Event, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

		Analytical Parameters				
Well ID	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Total BTEX (ug/L)
<i>Shallow Zone Wells</i>						
MW-14	---	Not Sampled - Condensate Present				
MW-39	---	Not Sampled - Well Dry				
MW-43	10/31/2001	<5	6	<5	<10	6
MW-46	10/31/2001	<100	<100	<100	<200	0
MW-49	10/31/2001	21	<5	<5	<10	21
MW-50	10/31/2001	<5	<5	<5	<10	0
MW-54	11/1/2001	<5	<5	<5	<10	0
MW-55	11/1/2001	32	<5	10	<10	42
MW-61	10/31/2001	<5	<5	<5	<10	0
MW-65	11/1/2001	<5	<5	<5	<10	0
MW-69	---	Not Sampled - Condensate Present				
MW-77	---	Not Sampled - Not Enough Water				
MW-78	11/2/2001	<5	<5	<5	<10	0
MW-79	11/1/2001	<5	<5	<5	<10	0
MW-90	11/1/2001	<5	<5	<5	<10	0
MW-91	11/1/2001	<200	<200	<200	<500	0
MW-105	--	Not Sampled - Well Dry				
MW-106	10/31/2001	<5	<5	<5	<10	0
<i>Lower Queen Wells</i>						
MW-60	11/1/2001	<5	<5	<5	<10	0
MW-61A	10/31/2001	<5	<5	<5	<10	0
MW-64	11/5/2001	<5	<5	<5	<10	0
MW-66	11/1/2001	<5	<5	<5	<10	0
MW-67	11/5/2001	<5	<5	<5	<10	0
MW-71	10/31/2001	<5	<5	<5	<10	0
MW-73	11/1/2001	<5	<5	<5	<10	0
MW-74	11/1/2001	<50	<50	<50	<100	0
MW-87	11/1/2001	<5	<5	<5	<10	0
MW-87A	11/1/2001	<5	<5	<5	<10	0
MW-88	10/31/2001	<5	<5	<5	<10	0
MW-89	11/2/2001	<5	<5	<5	<10	0
MW-95	11/6/2001	<5	<5	<5	<10	0
MW-96	11/1/2001	<5	<5	<5	<10	0
MW-97	11/1/2001	<5	<5	<5	<10	0
MW-98	11/6/2001	<5	<5	<5	<10	0
MW-104	11/5/2001	<5	<5	<5	<10	0
MW-108	11/5/2001	<5	<5	<5	<10	0
MW-111	11/2/2001	<5	<5	<5	<10	0

Notes:

ug/L Micrograms per liter.

<5 Compound detected below the detection limit - limit indicated.

--- Not Sampled.

6 Indicates result above the detection limit and below the OCD standard

21 Indicates result at/above OCD standard.

OCD Cleanup Goals/Regulatory Limits

Benzene	10 ug/L
Toluene	750 ug/L
Ethylbenzene	750 ug/L
Total Xylenes	620 ug/L

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Table 5. Summary of 2001 Groundwater Recovery and Infiltration Data, Marathon Oil Company, Indian Basin Remediation Project Eddy County, New Mexico.

Month	Lower Queen	
	Recovery	Infiltration (IW-1 & IW-2)
January	145,056	101,713
February	111,367	92,708
March	99,490	89,634
April	116,470	106,592
May	111,594	108,778
June	96,642	84,792
July	98,155	78,950
August	87,594	95,580
September	110,293	114,518
October	150,251	136,794
November	130,374	128,332
December	120,879	119,703
Totals	1,378,166	1,258,094

Notes:

Amounts listed in barrels, one barrel is the equivalent of 42 gallons

Table 6. Summary of 2001 Analytical Results, East Air Stripper, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

	WQCC Standards	01/31/01		02/20/01		03/20/01		04/30/01		05/31/01		06/18/01	
		Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
VOCs (ug/L):													
Benzene	10	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	750	<5	<5	<5	<5	7	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	750	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Xylenes	620	<10	<10	<10	<10	<5	<5	<5	<5	<10	<10	<10	<10
PAHs (ug/L):													
Acenaphthene	NS	--	--	--	<5	--	--	--	--	--	<5	--	--
Acenaphthylene	NS	--	--	--	<5	--	--	--	--	--	<5	--	--
Anthracene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Benzo(b)fluoranthene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Benzo(k)fluoranthene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Benzo(a)anthracene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Benzo(a)pyrene	0.7	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Benzo(ghi)perylene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Chrysene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Dibenzo(ah)anthracene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Fluoranthene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Fluorene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Indeno(1,2,3-cd)pyrene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Naphthalene	NS	--	--	--	<5	--	--	--	--	--	<5	--	--
Phenanthrene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Pyrene	NS	--	--	--	<0.1	--	--	--	--	--	<0.1	--	--
Total Naphthalene plus monomethylnaphthalene	30	--	--	--	ND	--	--	--	--	--	ND	--	--
General Chemistry (mg/L):													
Bromide	NS	--	--	--	<5	--	--	--	--	--	<5	--	--
Chloride	250	--	--	--	53	--	--	--	--	--	30	--	--
Fluoride	1.6	--	--	--	0.91	--	--	--	--	--	<5	--	--
Sulfate	600	--	--	--	160	--	--	--	--	--	129	--	--
Metals (mg/L):													
Calcium	NS	--	--	--	116	--	--	--	--	--	122	--	--
Magnesium	NS	--	--	--	54.8	--	--	--	--	--	53.3	--	--
Potassium	NS	--	--	--	1.7	--	--	--	--	--	1.5	--	--
Sodium	NS	--	--	--	39	--	--	--	--	--	35.9	--	--

Notes:

- mg/L Milligrams per liter, equivalent to parts per million.
 ug/L Micrograms per liter, equivalent to parts per billion.
 <10 Indicates that the parameter was not identified above the noted laboratory detection limit.
 -- Indicates that analysis was not performed for the given parameter.
 ND Indicates that no such parameters were detected.
 WQCC New Mexico Water Quality Control Commission.
 NS Indicates that no standard has been published.

Table 6. Summary of 2001 Analytical Results, East Air Stripper, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

	WQCC Standards	07/17/01 Influent Effluent	08/27/01 Influent Effluent	09/24/01 Influent Effluent	10/22/01 Influent Effluent	11/19/01 Influent Effluent	12/19/01 Influent Effluent
VOCs (ug/L):							
Benzene	10	<5	<5	<5	<5	<5	<5
Toluene	750	<5	<5	<5	<5	<5	<5
Ethylbenzene	750	<5	<5	<5	<5	<5	<5
Total Xylenes	620	<10	<10	<10	<10	<5	<5
PAHs (ug/L):							
Acenaphthene	NS	--	--	--	--	--	--
Acenaphthylene	NS	--	--	--	--	--	--
Anthracene	NS	--	--	--	--	--	--
Benzo(b)fluoranthene	NS	--	--	--	--	--	--
Benzo(k)fluoranthene	NS	--	--	--	--	--	--
Benzo(a)anthracene	NS	--	--	--	--	--	--
Benzo(a)pyrene	0.7	--	--	--	--	--	--
Benzo(ghi)perylene	NS	--	--	--	--	--	--
Chrysene	NS	--	--	--	--	--	--
Dibenz(ah)anthracene	NS	--	--	--	--	--	--
Fluoranthene	NS	--	--	--	--	--	--
Fluorene	NS	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	NS	--	--	--	--	--	--
Naphthalene	NS	--	--	--	--	--	--
Phenanthrene	NS	--	--	--	--	--	--
Pyrene	NS	--	--	--	--	--	--
Total Naphthalene plus monomethylnaphthalene	30	--	--	--	--	--	--
General Chemistry (mg/L):							
Bromide	NS	--	--	--	--	--	--
Chloride	250	--	--	--	--	--	--
Fluoride	1.6	--	--	--	--	--	--
Sulfate	600	--	--	--	--	--	--
Metals (mg/L):							
Calcium	NS	--	--	--	--	--	--
Magnesium	NS	--	--	--	--	--	--
Potassium	NS	--	--	--	--	--	--
Sodium	NS	--	--	--	--	--	--

Notes:

mg/L Milligrams per liter, equivalent to parts per million.

ug/L Micrograms per liter, equivalent to parts per billion.

<10 Indicates that the parameter was not identified above the noted laboratory detection limit.

-- Indicates that analysis was not performed for the given parameter.

ND Indicates that no such parameters were detected

WQCC New Mexico Water Quality Control Commission

NS Indicates that no standard has been published.

Table 7. Summary of 2001 Analytical Results, West Air Stripper, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

	WQCC Standards	1/31/2001 ¹ Influent Effluent	02/20/01 Influent Effluent	3/21/2001 ¹ Influent Effluent	04/30/01 Influent Effluent	05/31/01 Influent Effluent	06/18/01 Influent Effluent
VOCs (ug/L):							
Benzene	10	--	<5	--	<5	<5	<5
Toluene	750	--	<5	--	<5	<5	<5
Ethylbenzene	750	--	<5	--	<5	<5	<5
Total Xylenes	620	--	10	--	<5	<10	<10
PAHs (ug/L):							
Acenaphthene	NS	--	--	--	--	--	--
Acenaphthylene	NS	--	<5	--	--	<5	--
Anthracene	NS	--	<1	--	--	<1	--
Benzo(b)fluoranthene	NS	--	<0.1	--	--	<0.1	--
Benzo(k)fluoranthene	NS	--	<0.1	--	--	<0.1	--
Benzo(a)anthracene	NS	--	<0.1	--	--	<0.1	--
Benzo(a)pyrene	0.7	--	<0.1	--	--	<0.1	--
Benzo(ghi)perylene	NS	--	<0.1	--	--	<0.1	--
Chrysene	NS	--	<1	--	--	<1	--
Dibenzo(ah)anthracene	NS	--	<0.1	--	--	<0.1	--
Fluoranthene	NS	--	<1	--	--	<1	--
Indeno(1,2,3-cd)pyrene	NS	--	<0.1	--	--	<0.1	--
Naphthalene	NS	--	<5	--	--	<5	--
Phenanthrene	NS	--	<1	--	--	<1	--
Pyrene	NS	--	<1	--	--	<1	--
Total Naphthalene plus monomethylnaphthalene	30	--	ND	--	--	ND	--
General Chemistry (mg/L):							
Bromide	NS	--	--	--	--	--	--
Chloride	250	--	<5	--	--	<5	--
Fluoride	1.6	--	53	--	--	30	--
Sulfate	600	--	0.94	--	--	<5	--
		--	170	--	--	126	--
Metals (mg/L):							
Calcium	NS	--	117	--	--	118	--
Magnesium	NS	--	55.7	--	--	52.6	--
Potassium	NS	--	1.7	--	--	1.5	--
Sodium	NS	--	38.6	--	--	35.8	--

Notes:

- 1 Samples were not collected from the West Air Stripper during January, March, and August 2001.
- mg/L Milligrams per liter, equivalent to parts per million.
- ug/L Micrograms per liter, equivalent to parts per billion.
- <10 Indicates that the parameter was not identified above the noted laboratory detection limit.
- Indicates that analysis was not performed for the given parameter.
- ND Indicates that no such parameters were detected.
- WQCC New Mexico Water Quality Control Commission.
- NS Indicates that no standard has been published.

Table 7. Summary of 2001 Analytical Results, West Air Stripper, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

	WQCC Standards	07/17/01 Influent Effluent	8/27/2001 ¹ Influent Effluent	09/24/01 Influent Effluent	10/22/01 Influent Effluent	11/19/01 Influent Effluent	12/18/01 Influent Effluent
VOCs (ug/L):							
Benzene	10	<5	--	<5	<5	<5	<5
Toluene	750	<5	--	<5	<5	<5	<5
Ethylbenzene	750	<5	--	<5	<5	<5	<5
Total Xylenes	620	<10	--	<10	<10	<10	<10
PAHs (ug/L):							
Acenaphthene	NS	--	--	--	--	<5	--
Acenaphthylene	NS	--	--	--	--	<5	--
Anthracene	NS	--	--	--	--	<1	--
Benzo(b)fluoranthene	NS	--	--	--	--	<0.1	--
Benzo(k)fluoranthene	NS	--	--	--	--	<0.1	--
Benzo(a)anthracene	NS	--	--	--	--	<0.1	--
Benzo(a)pyrene	0.7	--	--	--	--	<0.1	--
Benzo(ghi)perylene	NS	--	--	--	--	<0.1	--
Chrysene	NS	--	--	--	--	<1	--
Dibenz(a,h)anthracene	NS	--	--	--	--	<0.1	--
Fluoranthene	NS	--	--	--	--	<1	--
Fluorene	NS	--	--	--	--	<1	--
Indeno(1,2,3-cd)pyrene	NS	--	--	--	--	<0.1	--
Naphthalene	NS	--	--	--	--	<5	--
Phenanthrene	NS	--	--	--	--	<1	--
Pyrene	NS	--	--	--	--	<1	--
Total Naphthalene plus monomethylnaphthalene	30	--	--	--	--	ND	--
General Chemistry (mg/L):							
Bromide	NS	--	--	--	--	<5	--
Chloride	250	--	--	--	--	46	--
Fluoride	1.6	--	--	--	--	<5	--
Sulfate	600	--	--	--	--	217	--
Metals (mg/L):							
Calcium	NS	--	--	--	--	122	--
Magnesium	NS	--	--	--	--	58.4	--
Potassium	NS	--	--	--	--	1.7	--
Sodium	NS	--	--	--	--	29.6	--

Notes:

- 1 Samples were not collected from the West Air Stripper during January, March, and August 2001
- mg/L Milligrams per liter, equivalent to parts per million.
- ug/L Micrograms per liter, equivalent to parts per billion.
- <10 Indicates that the parameter was not identified above the noted laboratory detection limit.
- Indicates that analysis was not performed for the given parameter.
- ND Indicates that no such parameters were detected
- WQCC New Mexico Water Quality Control Commission.
- NS Indicates that no standard has been published.

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Table 8. Summary of SVE Operation, Vapor-Phase Mass Removal, and Aerobic Biodegradation, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

VES-100				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	MW-125	Lower Queen	1.68	9.98
February	MW-125	Lower Queen	1.55	20.17
March 1 - 15	MW-125	Lower Queen	0.71	3.95
March 16 - 31	MW-68	Lower Queen	0.68	0.30
1st Quarter 2001 Estimated Subtotal			4.62	34.40
April	MW-68	Lower Queen	1.28	7.00
May	MW-68	Lower Queen	1.23	7.70
June 1 - 17	MW-68	Lower Queen	0.51	7.24
June 17 - 30	MW-84	Lower Queen	2.21	4.74
2nd Quarter 2001 Estimated Subtotal			5.23	26.68
July	MW-84	Lower Queen	4.78	17.84
August	MW-84	Lower Queen	0.78	5.09
September	MW-84	Lower Queen	1.66	9.86
3rd Quarter 2001 Estimated Subtotal			7.22	32.79
October	MW-84	Lower Queen	2.22	8.45
November 1 - 8	MW-84	Lower Queen	0.23	1.8
November 9 - 30	MW-112	Lower Queen	1.27	6.7
December	MW-112	Lower Queen	3.98	14.0
4th Quarter 2001 Estimated Subtotal			7.70	30.91
2001 Subtotal, VES-100			24.77	124.78

VES-200				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	NR	--	--	--
February	NR	--	--	--
March	NR	--	--	--
1st Quarter 2001 Estimated Subtotal			0.00	0.00
April	NR	--	--	--
May	NR	--	--	--
June	NR	--	--	--
2nd Quarter 2001 Estimated Subtotal			0.00	0.00
July	NR	--	--	--
August	MW-104	Lower Queen	0.06	0.18
September 1 - 12	MW-104	Lower Queen	0.08	0.24
September 13 - 30	MW-14	Shallow Zone	0.89	5.50
3rd Quarter 2001 Estimated Subtotal			1.03	5.92
October 1 - 16	MW-14	Shallow Zone	0.97	1.15
October 17 - 31	MW-126	Shallow Zone	0.08	2.09
November	MW-126	Shallow Zone	0.00	3.25
December 1 - 18	MW-126	Shallow Zone	0.07	1.28
December 18 - 31	MW-14	Shallow Zone	1.55	3.84
4th Quarter 2001 Estimated Subtotal			2.67	11.61
2001 Subtotal, VES-200			3.70	17.53

VES-300				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	MW-85	Lower Queen	4.63	15.27
February	MW-85	Lower Queen	3.79	11.55
March	MW-85	Lower Queen	4.16	8.24
1st Quarter 2001 Estimated Subtotal			12.58	35.06
April	MW-85	Lower Queen	2.59	10.36
May	MW-85	Lower Queen	2.75	13.61
June	MW-85	Lower Queen	2.85	15.67
2nd Quarter 2001 Estimated Subtotal			8.19	39.64
July	MW-85	Lower Queen	2.81	9.80
August	MW-85	Lower Queen	1.66	4.75
September 1 - 20	MW-85	Lower Queen	0.20	1.19
September 20 - 30	MW-69	Shallow Zone	0.20	2.86
3rd Quarter 2001 Estimated Subtotal			4.87	18.60
October	MW-69	Shallow Zone	0.43	8.81
November	MW-69	Shallow Zone	0.10	4.89
December	MW-69	Shallow Zone	0.44	5.07
4th Quarter 2001 Estimated Subtotal			0.97	18.77
2001 Subtotal, VES-300			26.61	112.07

VES-400				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	MW-110	Lower Queen	3.72	60.23
February	MW-110	Lower Queen	7.95	62.15
March	MW-110	Lower Queen	6.12	58.66
1st Quarter 2001 Estimated Subtotal			17.80	181.04
April	MW-110	Lower Queen	3.00	34.25
May	MW-110	Lower Queen	7.83	66.28
June	MW-110	Lower Queen	5.65	45.54
2nd Quarter 2001 Estimated Subtotal			16.49	146.07
July	NR	--	--	--
August	NR	--	--	--
September	NR	--	--	--
3rd Quarter 2001 Estimated Subtotal			0.00	0.00
October	NR	--	--	--
November	NR	--	--	--
December	NR	--	--	--
4th Quarter 2001 Estimated Subtotal			0.00	0.00
2001 Subtotal, VES-400			34.29	327.11

Notes:

Condensate recovery and operational data provided by Marathon Oil.

bbl - Barrels of condensate recovered, one barrel is the equivalent of 42 gallons.

NR - Not running.

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Table 8. Summary of SVE Operation, Vapor-Phase Mass Removal, and Aerobic Biodegradation, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

VES-500				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	MW-120	Lower Queen	0.61	9.69
February	MW-120	Lower Queen	0.38	11.60
March	MW-120	Lower Queen	0.00	0.00
1st Quarter 2001 Estimated Subtotal			0.99	21.29
April	MW-120	Lower Queen	0.16	0.51
May	MW-120	Lower Queen	0.00	0.02
June	MW-120	Lower Queen	0.00	0.00
2nd Quarter 2001 Estimated Subtotal			0.16	0.52
July	NR	--	--	--
August	NR	--	--	--
September	NR	--	--	--
3rd Quarter 2001 Estimated Subtotal			0.00	0.00
October	NR	--	--	--
November	NR	--	--	--
December	NR	--	--	--
4th Quarter 2001 Estimated Subtotal			0.00	0.00
2001 Subtotal, VES-500			1.14	21.82

VES-600				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	NR	--	--	--
February	NR	--	--	--
March	NR	--	--	--
1st Quarter 2001 Estimated Subtotal			0.00	0.00
April	NR	--	--	--
May	NR	--	--	--
June	NR	--	--	--
2nd Quarter 2001 Estimated Subtotal			0.00	0.00
July	MW-110	Lower Queen	13.98	54.72
August	MW-110	Lower Queen	26.03	46.64
September	MW-110	Lower Queen	19.71	52.89
3rd Quarter 2001 Estimated Subtotal			59.72	154.25
October	MW-110	Lower Queen	15.24	42.79
November	MW-110	Lower Queen	13.85	50.32
December	MW-110	Lower Queen	13.76	52.51
4th Quarter 2001 Estimated Subtotal			42.85	145.62
2001 Subtotal, VES-600			102.57	299.87

VES-700				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	NR	--	--	--
February	NR	--	--	--
March	NR	--	--	--
1st Quarter 2001 Estimated Subtotal			0.00	0.00
April	NR	--	--	--
May 15	MW-121	Lower Queen	0.47	--
June	NR	--	--	--
2nd Quarter 2001 Estimated Subtotal			0.47	0.00
July	MW-120	Lower Queen	9.74	19.50
August	MW-120	Lower Queen	2.62	11.21
September	MW-120	Lower Queen	6.91	9.79
3rd Quarter 2001 Estimated Subtotal			19.27	40.50
October 1 - 16	MW-120	Lower Queen	4.54	6.09
October 17 - 31	MW-121	Lower Queen	1.12	4.56
November	MW-121	Lower Queen	5.06	14.31
December	MW-121	Lower Queen	8.48	12.55
4th Quarter 2001 Estimated Subtotal			19.20	37.51
2001 Subtotal, VES-700			38.94	78.01

VES-800				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	NR	--	--	--
February	NR	--	--	--
March	NR	--	--	--
1st Quarter 2001 Estimated Subtotal			0.00	0.00
April	NR	--	--	--
May	NR	--	--	--
June	NR	--	--	--
2nd Quarter 2001 Estimated Subtotal			0.00	0.00
July	NR	--	--	--
August	NR	--	--	--
September	MW-85	Lower Queen	2.23	8.60
3rd Quarter 2001 Estimated Subtotal			2.23	8.60
October	MW-85	Lower Queen	2.99	10.87
November	MW-85	Lower Queen	0.79	7.05
December	MW-85	Lower Queen	3.46	13.40
4th Quarter 2001 Estimated Subtotal			7.24	31.32
2001 Subtotal, VES-800			9.47	39.92

Notes:
Condensate recovery and operational data provided by Marathon Oil.
bbl - Barrels of condensate recovered, one barrel is the equivalent of 42 gallons.
NR - Not running.

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Table 8. Summary of SVE Operation, Vapor-Phase Mass Removal, and Aerobic Biodegradation, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

VES-900				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	NR	--	--	--
February	NR	--	--	--
March	NR	--	--	--
1st Quarter 2001 Estimated Subtotal			0.00	0.00
April	NR	--	--	--
May	NR	--	--	--
June	NR	--	--	--
2nd Quarter 2001 Estimated Subtotal			0.00	0.00
July	NR	--	--	--
August	NR	--	--	--
September	MW-113	Lower Queen	18.43	49.19
3rd Quarter 2001 Estimated Subtotal			18.43	49.19
October	MW-113	Lower Queen	14.84	45.18
November	MW-113	Lower Queen	8.45	24.51
December	MW-113	Lower Queen	5.25	28.27
4th Quarter 2001 Estimated Subtotal			28.54	97.96
2001 Subtotal, VES-900			46.97	147.15

VES-1100				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	NR	--	--	--
February	NR	--	--	--
March	NR	--	--	--
1st Quarter 2001 Estimated Subtotal			0.00	0.00
April	NR	--	--	--
May	NR	--	--	--
June	NR	--	--	--
2nd Quarter 2001 Estimated Subtotal			0.00	0.00
July	NR	--	--	--
August	NR	--	--	--
September	MW-125	Lower Queen	0.98	1.29
3rd Quarter 2001 Estimated Subtotal			0.98	1.29
October	MW-125	Lower Queen	0.00	0.00
November	MW-125	Lower Queen	8.70	9.41
December	MW-125	Lower Queen	9.71	23.63
4th Quarter 2001 Estimated Subtotal			18.41	33.04
2001 Subtotal, VES-1100			19.39	34.33

VES-1000				
Date	Well	Location	Vapor Phase Condensate Recovered (bbl)	Biodegradation Condensate Recovered (bbl)
January	NR	--	--	--
February	NR	--	--	--
March	NR	--	--	--
1st Quarter 2001 Estimated Subtotal			0.00	0.00
April	NR	--	--	--
May	NR	--	--	--
June	NR	--	--	--
2nd Quarter 2001 Estimated Subtotal			0.00	0.00
July	NR	--	--	--
August	NR	--	--	--
September	MW-130	Lower Queen	8.85	50.97
3rd Quarter 2001 Estimated Subtotal			8.85	50.97
October	MW-130	Lower Queen	7.55	23.63
November	MW-130	Lower Queen	5.19	26.64
December	MW-130	Lower Queen	5.77	40.15
4th Quarter 2001 Estimated Subtotal			18.51	90.42
2001 Subtotal, VES-1000			27.36	141.39

Summary of 2001 Condensate Recovery		
	Vapor Phase	Biodegradation
Shallow Zone Wells	4.73	38.74
Lower Queen Wells	330.48	1305.24
Total	335.21	1343.98

Notes:
Condensate recovery and operational data provided by Marathon Oil.
bbl - Barrels of condensate recovered, one barrel is the equivalent of 42 gallons.
NR - Not running.

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Table 9. Summary of Historical Condensate Recovery Data, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Date	Emergency Response Pumping	Vacuum Truck Recovery	Open Pit Volatilization	Open Frac Tank Volatilization	Shallow Zone Sump 16A	Shallow Zone Sump A-11	Shallow Zone MW-69	Shallow Zone MW-86	Lower Queen Pump and Treat	Vapor Extraction Shallow Zone	Vapor Extraction Lower Queen	Aerobic Biodegradation	Total Condensate Recovery
Apr-91	717.3	33.0	465.0	4,447.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,662.3
May-91	2,041.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,041.0
Jun-91	714.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	714.0
Jul-91	220.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	220.0
Aug-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sep-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oct-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nov-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	0.0	0.0	0.0	26.0
Dec-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	12.5
Subtotal 1991	3,692.3	33.0	465.0	4,447.0	0.0	0.0	0.0	0.0	38.5	0.0	0.0	0.0	8,675.8
Jan-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	13.0
Feb-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5
Mar-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	5.1	0.0	0.0	8.2
Apr-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.9	0.0	0.0	9.7
May-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	5.1	0.0	0.0	13.6
Jun-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	4.9	0.0	0.0	6.1
Jul-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	5.1	0.0	0.0	12.4
Aug-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	5.1	0.0	0.0	13.0
Sep-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5
Oct-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	5.1	0.0	0.0	9.9
Nov-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.9	0.0	0.0	5.5
Dec-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.1	0.0	0.0	5.9
Subtotal 1992	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.5	45.8	0.0	0.0	99.3
Jan-93	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	4.2	0.0	0.0	5.4
Feb-93	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.3	0.0	0.0	0.0	2.9
Mar-93	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	1.9	0.0	0.0	0.0	4.7
Apr-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.7
May-93	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	1.1	5.1	0.0	0.0	9.6
Jun-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	4.6	0.0	0.0	5.4
Jul-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	1.6
Aug-93	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	4.7	0.0	0.0	0.0	6.4
Sep-93	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	3.7	0.0	0.0	0.0	8.3
Oct-93	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	5.5	10.6	0.0	0.0	22.3
Nov-93	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	1.6	12.2	0.0	0.0	22.6
Dec-93	0.0	0.0	0.0	0.0	0.0	0.0	15.3	0.0	1.8	12.7	0.0	0.0	29.8
Subtotal 1993	0.0	0.0	0.0	0.0	3.4	6.6	36.7	0.0	22.9	53.1	0.0	0.0	122.7

Notes:
Amounts listed in barrels, one barrel is the equivalent of 42 gallons

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Table 9: Summary of Historical Condensate Recovery Data, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Date	Emergency Response Pumping	Vacuum Truck Recovery	Open Pit Volatilization	Open Frac Tank Volatilization	Shallow Zone Sump 16A	Shallow Zone Sump A-11	Shallow Zone MW-69	Shallow Zone MW-86	Lower Queen Pump and Treat	Vapor Extraction Shallow Zone	Vapor Extraction Lower Queen	Aerobic Biodegradation	Total Condensate Recovery
Jan-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	2.5	10.1	0.0	0.0	18.0
Feb-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	4.2	9.6	0.0	0.0	20.5
Mar-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8	3.2	9.0	0.0	0.0	30.0
Apr-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	2.3	8.0	0.0	0.0	21.1
May-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.1	2.6	0.0	0.0	0.0	32.7
Jun-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.8	2.9	0.0	0.0	0.0	26.7
Jul-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	4.1	0.0	0.0	0.0	11.0
Aug-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	1.9
Sep-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	1.6	0.0	0.0	0.0	7.7
Oct-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.5	0.0	0.0	0.0	4.6
Nov-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.9	0.0	0.0	0.0	7.0
Dec-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.8	0.0	0.0	0.0	4.5
Subtotal 1994	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114.5	34.6	36.7	0.0	0.0	185.8
Jan-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	5.1	0.0	0.0	0.0	6.2
Feb-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	2.6	0.0	0.0	0.0	10.2
Mar-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.1	0.0	0.0	0.0	7.1
Apr-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	5.3	0.0	0.0	0.0	6.8
May-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.5	0.0	0.0	0.0	4.1
Jun-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.3	0.0	0.0	0.0	3.8
Jul-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.1	0.0	0.0	0.0	5.1
Aug-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.9	0.0	0.0	0.0	10.9
Sep-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.9	0.0	0.0	0.0	4.0
Oct-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	6.3
Nov-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	5.3
Dec-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	8.8
Subtotal 1995	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	58.1	0.0	0.0	0.0	78.5

Notes:

Amounts listed in barrels, one barrel is the equivalent of 42 gallons

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Table 9. Summary of Historical Condensate Recovery Data, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Date	Emergency Response Pumping	Vacuum Truck Recovery	Open Pit Volatilization	Open Frac Tank Volatilization	Shallow Zone Sump 16A	Shallow Zone Sump A-11	Shallow Zone MW-69	Shallow Zone MW-86	Lower Queen Pump and Treat	Vapor Extraction Shallow Zone	Vapor Extraction Lower Queen	Aerobic Biodegradation	Total Condensate Recovery
Jan-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0	7.9
Feb-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.9	0.0	0.0	0.0	65.9
Mar-96	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	56.0	0.0	0.0	0.0	57.2
Apr-96	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0	45.5	0.0	0.0	0.0	53.4
May-96	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	64.8	0.0	0.0	0.0	64.9
Jun-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	139.0	49.0	0.0	0.0	0.0	188.0
Jul-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	27.5	0.0	0.0	0.0	52.5
Aug-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.3	0.0	0.0	0.0	22.3
Sep-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.4	0.0	0.0	0.0	16.4
Oct-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.7
Nov-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6
Dec-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	4.0
Subtotal 1996	0.0	0.0	0.0	0.0	0.0	0.0	9.2	164.0	362.7	0.0	0.0	0.0	535.9
Jan-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.1	0.0	1.3
Feb-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	3.9	0.0	11.1
Mar-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.2	0.0	2.1	0.0	34.3
Apr-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	0.0	3.1	0.0	12.8
May-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.8	0.0	2.4	0.0	40.2
Jun-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	0.0	1.2	0.0	29.5
Jul-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0	0.3	0.0	44.3
Aug-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.5	1.7	0.4	0.0	28.6
Sep-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.3
Oct-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.8	0.0	0.1	0.0	31.9
Nov-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	0.0	0.1	0.0	20.6
Dec-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.4	0.0	0.1	0.0	26.5
Subtotal 1997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	265.6	1.9	14.0	0.0	281.5

Notes:

Amounts listed in barrels, one barrel is the equivalent of 42 gallons

ARCADIS

Table 9. Summary of Historical Condensate Recovery Data, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Date	Emergency Response Pumping	Vacuum Truck Recovery	Open Pit Volatilization	Open Frac Tank Volatilization	Shallow Zone Sump 16A	Shallow Zone Sump A-11	Shallow Zone MW-69	Shallow Zone MW-86	Lower Queen Pump and Treat	Vapor Extraction Shallow Zone	Vapor Extraction Lower Queen	Aerobic Biodegradation	Total Condensate Recovery
Jan-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	0.0	0.3	0.0	23.8
Feb-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.5	0.0	0.1	0.0	83.6
Mar-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.7	0.1	0.4	0.0	38.2
Apr-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	0.5	1.6	0.0	29.6
May-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.4	0.0	1.3	0.0	39.7
Jun-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.9	2.8	0.1	0.0	46.8
Jul-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.7	8.7	16.6	0.0	43.0
Aug-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.7	5.2	14.7	0.0	37.6
Sep-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.1	5.5	10.2	0.0	87.8
Oct-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	7.7	18.9	0.0	79.6
Nov-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	10.8	12.5	0.0	65.3
Dec-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.3	24.3	16.9	0.0	95.5
Subtotal 1998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	511.3	65.5	93.6	0.0	670.4
Jan-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.1	0.0	27.2	28.0	87.3
Feb-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.4	0.0	18.7	21.0	81.1
Mar-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	29.8	147.0	215.8
Apr-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.2	0.0	18.7	39.0	104.9
May-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.7	0.0	40.2	28.0	86.9
Jun-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	93.5	29.0	131.3
Jul-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	15.7	70.0	94.3
Aug-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	13.5	70.0	91.9
Sep-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.2	0.0	24.3	53.0	153.5
Oct-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	124.0	0.0	32.5	100.0	256.5
Nov-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	107.6	0.0	44.9	110.0	262.5
Dec-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	105.6	0.0	55.4	101.0	262.0
Subtotal 1999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	617.6	0.0	414.4	796.0	1,828.0

Notes:
Amounts listed in barrels, one barrel is the equivalent of 42 gallons

ARCADIS

Table 9: Summary of Historical Condensate Recovery Data, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Date	Emergency Response Pumping	Vacuum Truck Recovery	Open Pit Volatilization	Open Frac Tank Volatilization	Shallow Zone Sump 16A	Shallow Zone Sump A-11	Shallow Zone MW-69	Shallow Zone MW-86	Lower Queen Pump and Treat	Vapor Extraction Shallow Zone	Vapor Extraction Lower Queen	Aerobic Biodegradation	Total Condensate Recovery
Jan-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.8	0.0	61.8	33.5	206.1
Feb-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114.4	0.0	33.5	40.1	188.0
Mar-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	146.0	0.0	32.7	51.7	230.5
Apr-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.9	0.0	51.4	97.7	188.0
May-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.1	0.0	32.3	53.8	178.2
Jun-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.4	0.0	21.5	81.9	180.8
Jul-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.3	0.0	21.1	90.3	171.7
Aug-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	16.0	73.3	91.2
Sep-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.15	0.0	9.5	39.7	49.3
Oct-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.1	0.0	15.5	25.7	65.2
Nov-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	16.8	60.4	78.6
Dec-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	59.4	83.8
Subtotal 2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	667.4	0.0	336.5	707.4	1,711.3
Jan-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	95.2	105.8
Feb-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	13.7	105.5	123.2
Mar-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	71.2	82.8
Apr-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	52.1	59.2
May-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	12.3	87.6	100.9
Jun-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2	73.2	84.4
Jul-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.3	101.9	133.2
Aug-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.2	67.9	99.0
Sep-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	1.1	59.1	192.4	259.1
Oct-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	48.5	153.6	203.6
Nov-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.1	43.5	148.9	200.1
Dec-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	50.4	194.7	247.2
Subtotal 2001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	4.73	330.47	1,344.0	1,698.5
TOTALS	3,692.3	33.0	465.0	4,447.0	3.4	6.6	180.8	164.0	2,651.5	207.7	1,188.9	2,847.4	15,987.6

Notes:
Amounts listed in barrels, one barrel is the equivalent of 42 gallons

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Table 10. Summary of Shallow Zone Wells Proposed for Abandonment, Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Well Proposed To Be Abandoned	Rationale (see below for definition)
MW-1	1
MW-2	2
MW-3	2
MW-5	2
MW-6	2
MW-7	2
MW-8	2
MW-9	2
MW-15	1
MW-17	1
MW-18	2
MW-20	3
MW-21	1
MW-23	2
MW-25	2
MW-27	2
MW-28	1
MW-29	2
MW-30	2
MW-31	1
MW-32	1
MW-33	1
MW-34	1
MW-35	1
MW-36	2
MW-37	1
MW-38	1
MW-39	3
MW-40	2
MW-42	1
MW-44	1
MW-47	1
MW-52	2
MW-53	2
MW-80	2
MW-92	1
MW-93	2
MW-99	2
MW-101	2
MW-102	1
MW-103	1
MW-107	2

Key to Rationale

¹ Area near well is monitored by other well/wells

² Well dry for three or more years

³ Well dry for two years

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Table 11. Groundwater Monitoring Plan
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico.

Shallow Zone

Well ID	Sampling Schedule				
	Month April	semi-annual	Analytical Parameters annual	e/o year	Month October
MW-14	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-39	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-43	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-46	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-49	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-50	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-54	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-55	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-61	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-65	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-69	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-77	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-78	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-79	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-90	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-91	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-105	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-106	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X

Lower Queen

Well ID	Sampling Schedule				
	Month April	semi-annual	Analytical Parameters annual	e/o year	Month October
MW-57	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	
MW-59	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	
MW-60	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-61A	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-62	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	
MW-63	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	
MW-64	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-66	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-67	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-70	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	
MW-71	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-73	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-74	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-87	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-87A	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-88	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-89	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-94	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	
MW-95	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-96	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-97	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-98	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-104	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-108	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X
MW-111	X	BTEX	Chloride, TDS	SVOCs, WQCC metals	X

Notes:

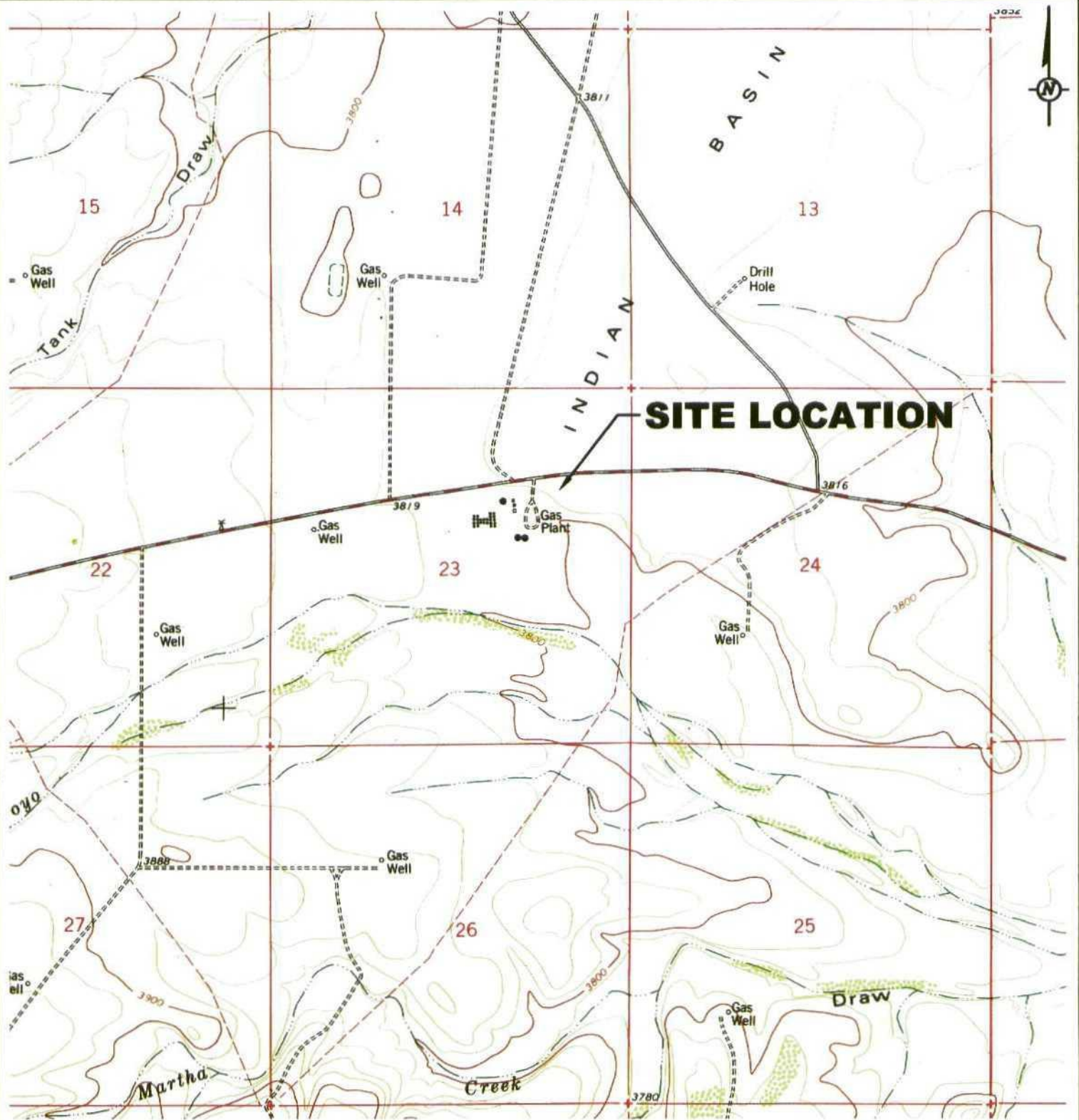
SVOC and WQCC metals analysis will fall on even years (i.e., 2002, 2004, etc.)

SVOCs Semi-Volatile Organic Compounds via Method 8310

WQCC metals New Mexico Water Quality Control Commission metals (dissolved only for arsenic, lead, selenium, aluminum, barium, boron, cadmium, chromium, cobalt, copper, iron, manganese, molybdenum, nickel, silver, and zinc)

TDS Total Dissolved Solids

e/o year Every other year



SOURCE: USGS 7.5 MIN. TOPOGRAPHICAL QUADRANGLE:
MARTHA CREEK, N. MEX., 1978

0 2000
SCALE IN FEET



DRAWN
T. GAFFNEY

DATE
02/01/02

PROJECT MANAGER
M. HANSEN

DEPARTMENT MANAGER
A. HANNUM

SITE LOCATION

MARATHON OIL COMPANY
INDIAN BASIN REMEDIATION PROJECT
EDDY COUNTY, NEW MEXICO

LEAD DESIGN PROF.

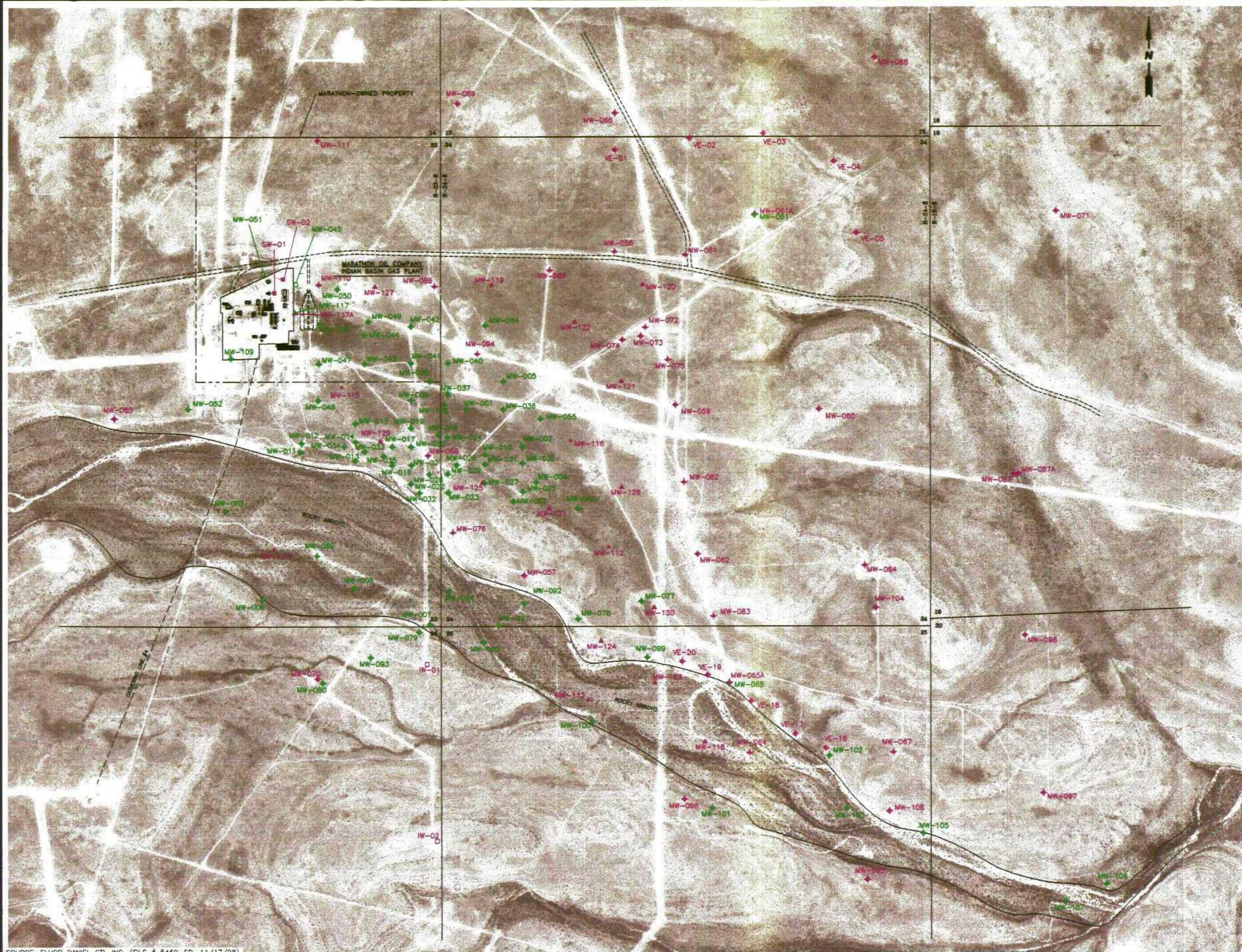
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J. HORST

PROJECT NUMBER

DRAWING NUMBER

NP000483.0004

1



LEGEND

- ◆ MONITORING WELL
- INFILTRATION WELL
- ◆ RECOVERY WELL
- ◆ VAPOR EXTRACTION WELL
- INDUSTRIAL SUPPLY WELL
- ◆ PHASE I INFILL WELLS INSTALLED DURING JULY 1999
- ▲ PHASE II INFILL WELLS INSTALLED DURING AUGUST 1999
- ◆ COLOR DENOTES WELL COMPLETION AS FOLLOWS:
 - GREEN COMPLETED IN SHALLOW ZONE
 - PURPLE COMPLETED IN LOWER ZONE

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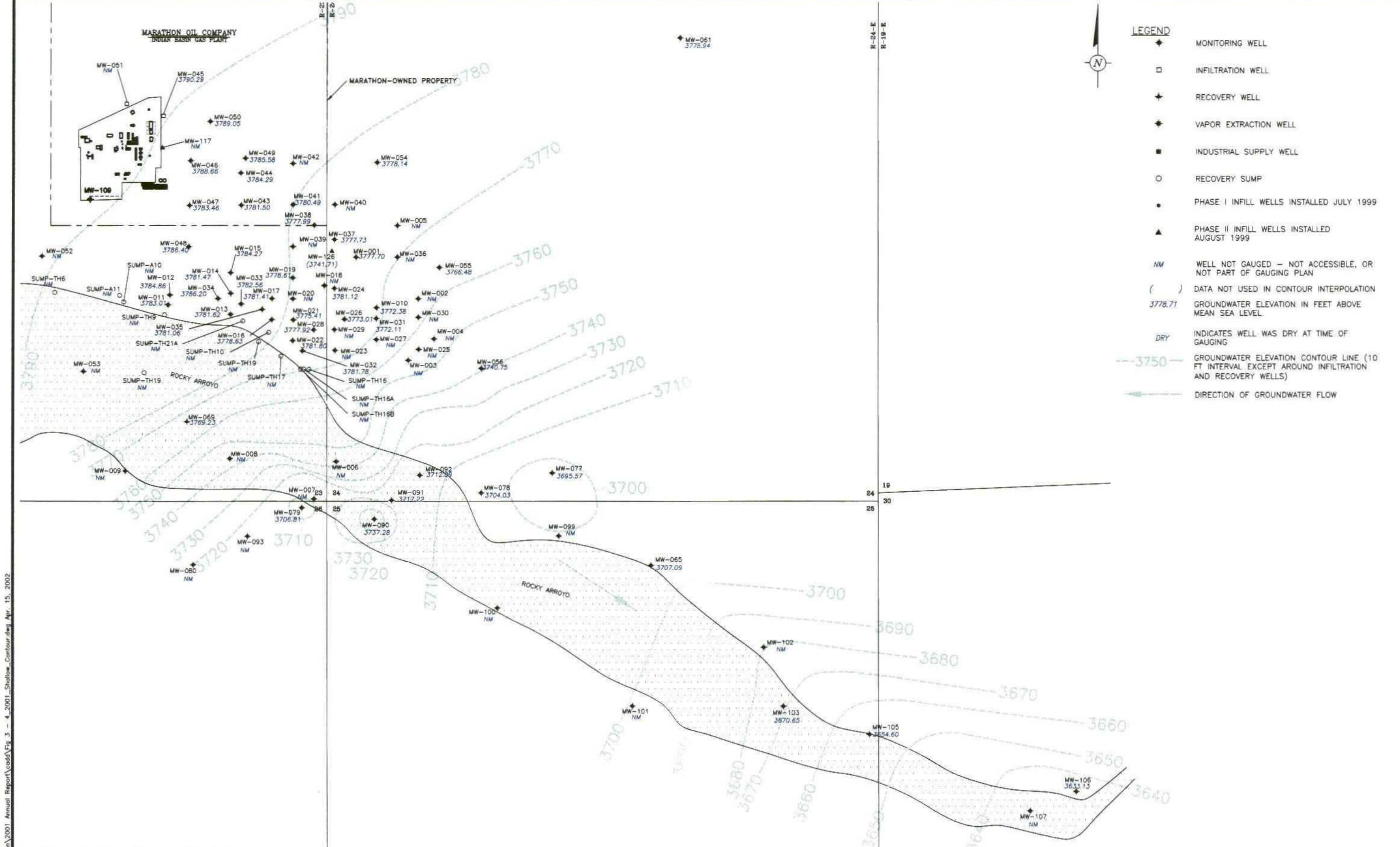
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MARATHON OIL COMPANY
INDIAN BASIN REMEDIATION PROJECT
EDDY COUNTY, NEW MEXICO

DRAWN T. GAFFNEY	DATE 02/01/02	PROJECT MANAGER M. HANSEN	DEPARTMENT MANAGER A. HANNUM
SITE LAYOUT		LEAD DESIGN PROF. CHECKED J. HORST	
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MARATHON OIL COMPANY
INDIAN BASIN REMEDIATION PROJECT
EDDY COUNTY, NEW MEXICO

DRAWN: M. WASILEWSKI DATE: 02/02/01

PROJECT MANAGER: M. HANSEN DEPARTMENT MANAGER: A. HANNUM

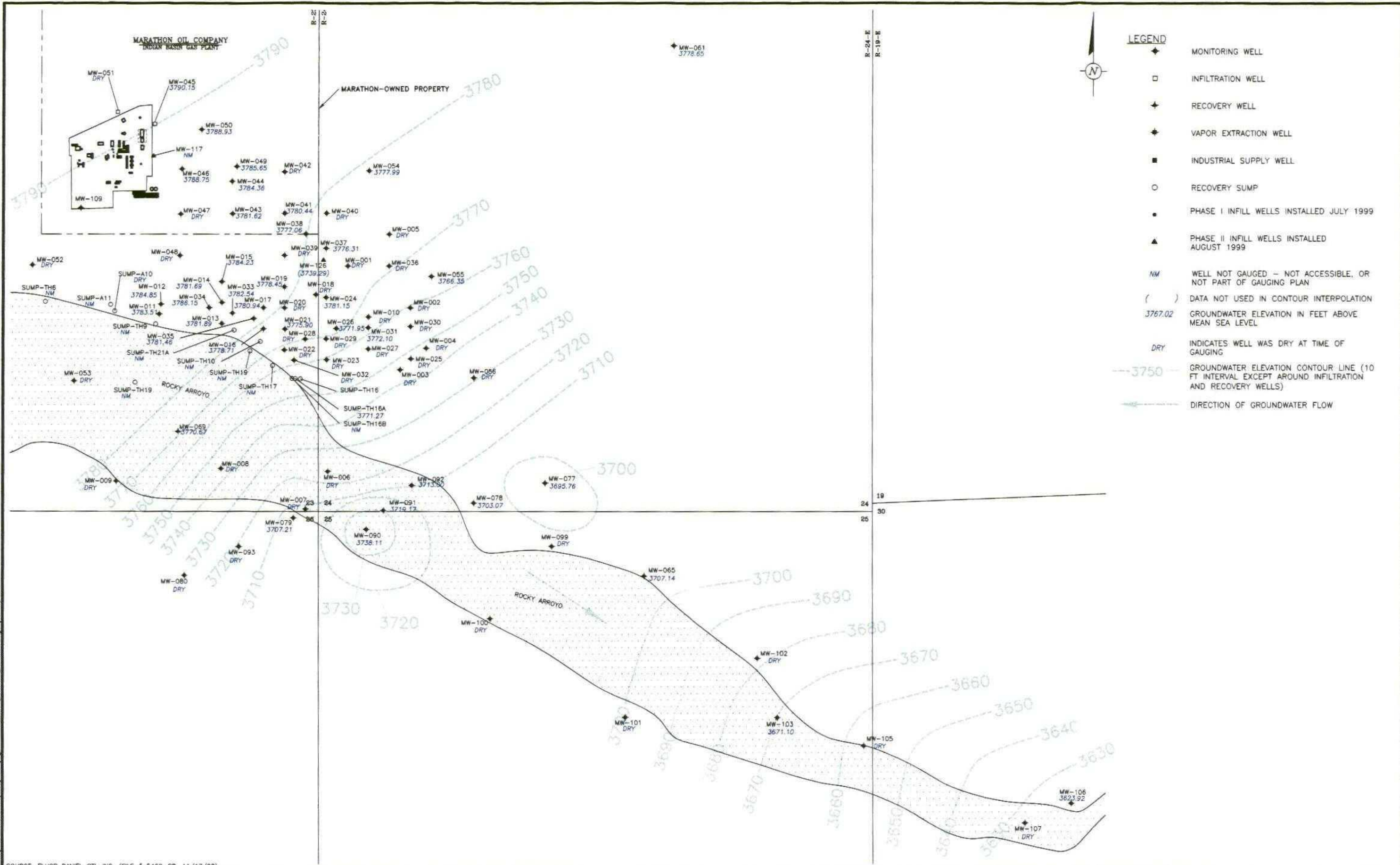
SHALLOW ZONE GROUNDWATER ELEVATION CONTOURS

APRIL 2001

LEAD DESIGN PROF.: J. HORST

PROJECT NUMBER: NP000483.0004 DRAWING NUMBER: 3

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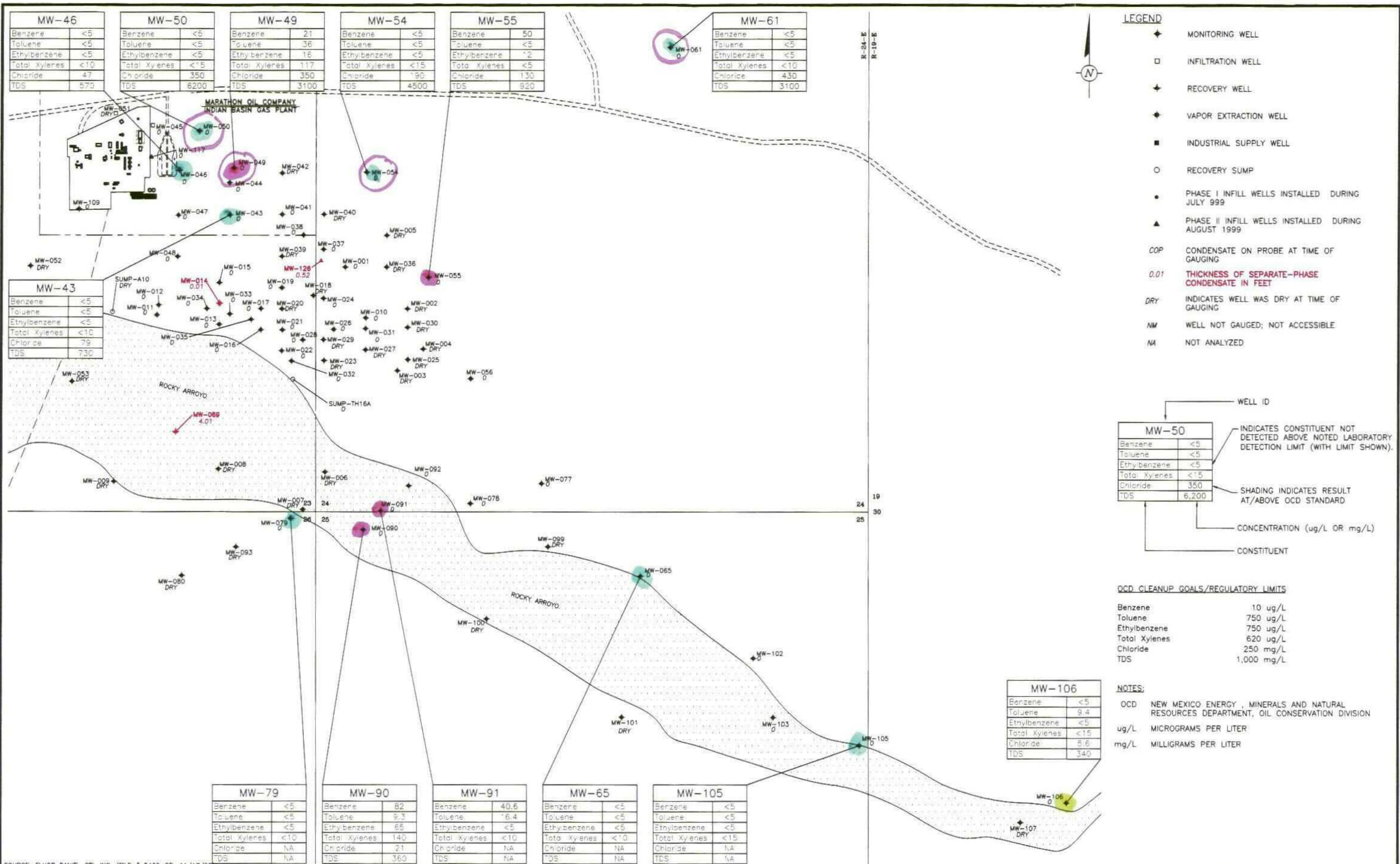
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 EDDY COUNTY, NEW MEXICO

DRAWN M. WASILEWSKI	DATE 02/02/02	PROJECT MANAGER M. HANSEN	DEPARTMENT MANAGER A. HANSEN
SHALLOW ZONE GROUNDWATER ELEVATION CONTOURS		LEAD DESIGN PROF. J. HORST	CHECKED J. HORST
OCTOBER 2001		PROJECT NUMBER NP000483.0003	DRAWING NUMBER 4



6:\PROJECT\MCC\Indian Basin\2001 Annual Report\cond\fig 5 - April 2001 Shallow CONDENSATE.dwg 04/15/02

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EDDY COUNTY, NEW MEXICO

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T. GAFFNEY

DATE
02/01/02

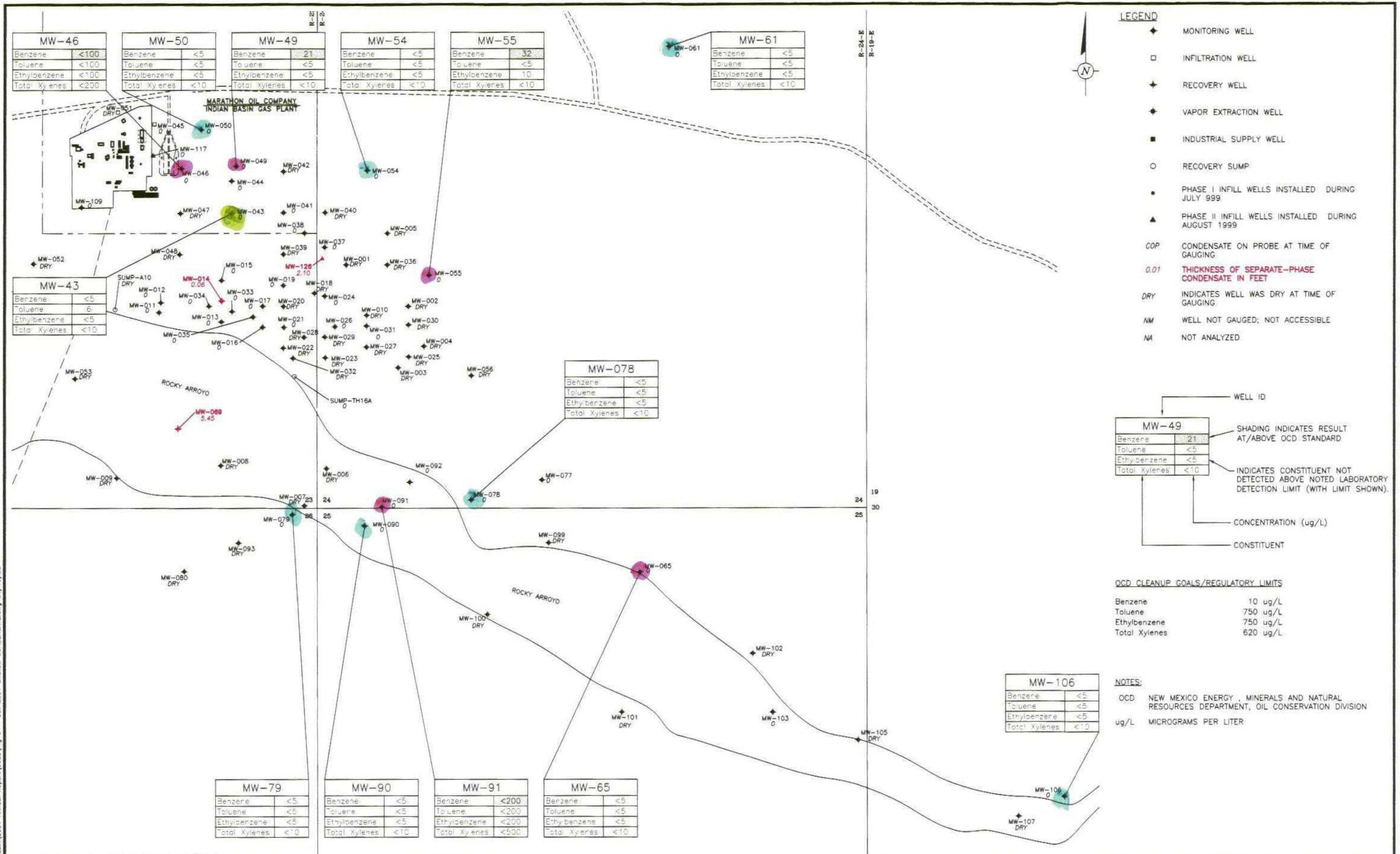
PROJECT MANAGER
M. HANSEN

LEAD DESIGN PROF.
J. HORST

PROJECT NUMBER
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G:\PROJECTS\BTEX\Indian Basin\2001 Annual Report\cond\fig 6 - Oct 2001 Shallow CONDENSATE.dwg 04/15/02



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MARATHON OIL COMPANY
INDIAN BASIN REMEDIATION PROJECT
EDDY COUNTY, NEW MEXICO

DRAWN
T. GAFFNEY

DATE
2/1/02

BTEX AND SEPARATE-PHASE
CONDENSATE DISTRIBUTION
SHALLOW ZONE
OCTOBER 2001

PROJECT MANAGER
M. HANSEN

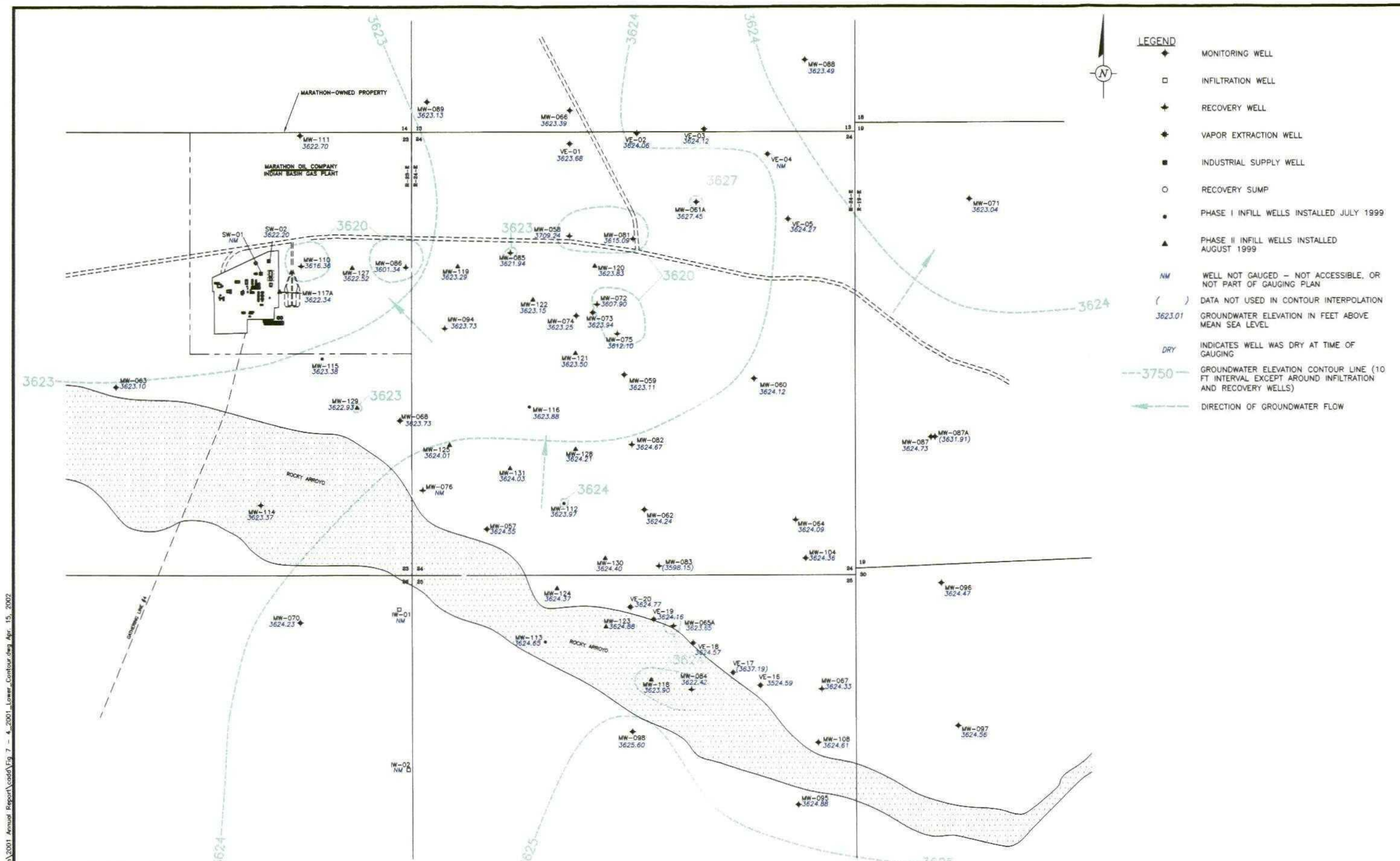
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PROJECT NUMBER
NP000483.0004

DEPARTMENT MANAGER
A. HANNUK

CHECKED
J. HORST

DRAWING NUMBER
6

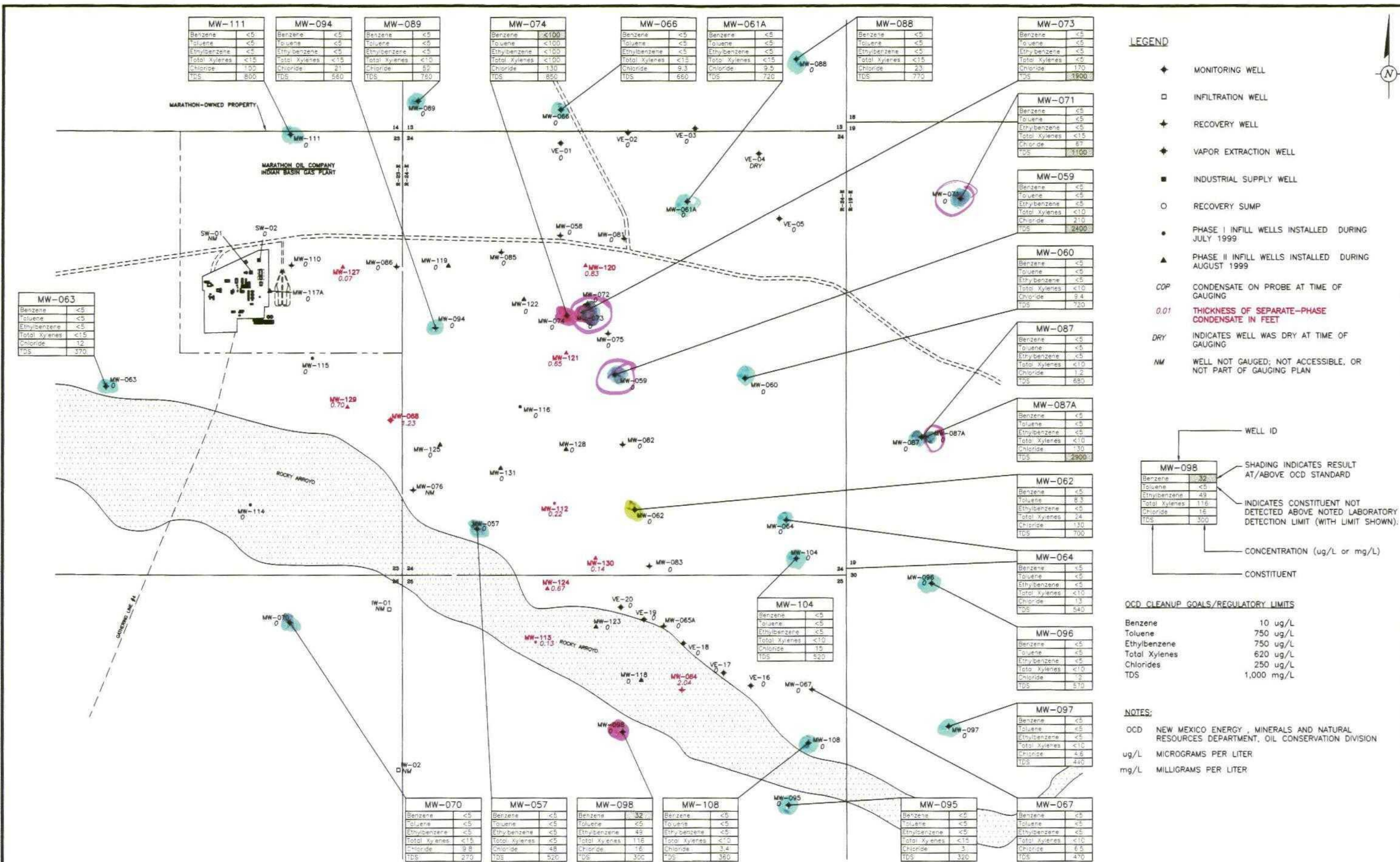


- LEGEND**
- ◆ MONITORING WELL
 - INFILTRATION WELL
 - ★ RECOVERY WELL
 - ✦ VAPOR EXTRACTION WELL
 - INDUSTRIAL SUPPLY WELL
 - RECOVERY SUMP
 - PHASE I INFILL WELLS INSTALLED JULY 1999
 - ▲ PHASE II INFILL WELLS INSTALLED AUGUST 1999
 - NM WELL NOT GAUGED - NOT ACCESSIBLE, OR NOT PART OF GAUGING PLAN
 - () DATA NOT USED IN CONTOUR INTERPOLATION
 - 3623.01 GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - DRY INDICATES WELL WAS DRY AT TIME OF GAUGING
 - 3750--- GROUNDWATER ELEVATION CONTOUR LINE (10 FT INTERVAL EXCEPT AROUND INFILTRATION AND RECOVERY WELLS)
 - DIRECTION OF GROUNDWATER FLOW

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			LOWER QUEEN GROUNDWATER ELEVATION CONTOURS			LEAD DESIGN PROF. J. HORST	CHECKED J. HORST				
			APRIL 2001			PROJECT NUMBER NP000483.0004	DRAWING NUMBER 7				

C:\PROJECTS\MOX\Indian Basin\2001 Annual Report\cadd\Fig 7 - 4_2001_Lower Contour.dwg Apr. 15, 2002



LEGEND

- MONITORING WELL
- INFILTRATION WELL
- RECOVERY WELL
- VAPOR EXTRACTION WELL
- INDUSTRIAL SUPPLY WELL
- RECOVERY SUMP
- PHASE I INFILL WELLS INSTALLED DURING JULY 1999
- PHASE II INFILL WELLS INSTALLED DURING AUGUST 1999
- COP CONDENSATE ON PROBE AT TIME OF GAUGING
- 0.01 THICKNESS OF SEPARATE-PHASE CONDENSATE IN FEET
- DRY INDICATES WELL WAS DRY AT TIME OF GAUGING
- NM WELL NOT GAUGED; NOT ACCESSIBLE, OR NOT PART OF GAUGING PLAN

WELL ID	MW-098
Benzene	32
Toluene	43
Ethylbenzene	176
Total Xylenes	16
Chloride	300
TDS	300

SHADING INDICATES RESULT AT/ABOVE OCD STANDARD

INDICATES CONSTITUENT NOT DETECTED ABOVE NOTED LABORATORY DETECTION LIMIT (WITH LIMIT SHOWN):

CONCENTRATION (ug/L or mg/L)

CONSTITUENT

OCD CLEANUP GOALS/REGULATORY LIMITS

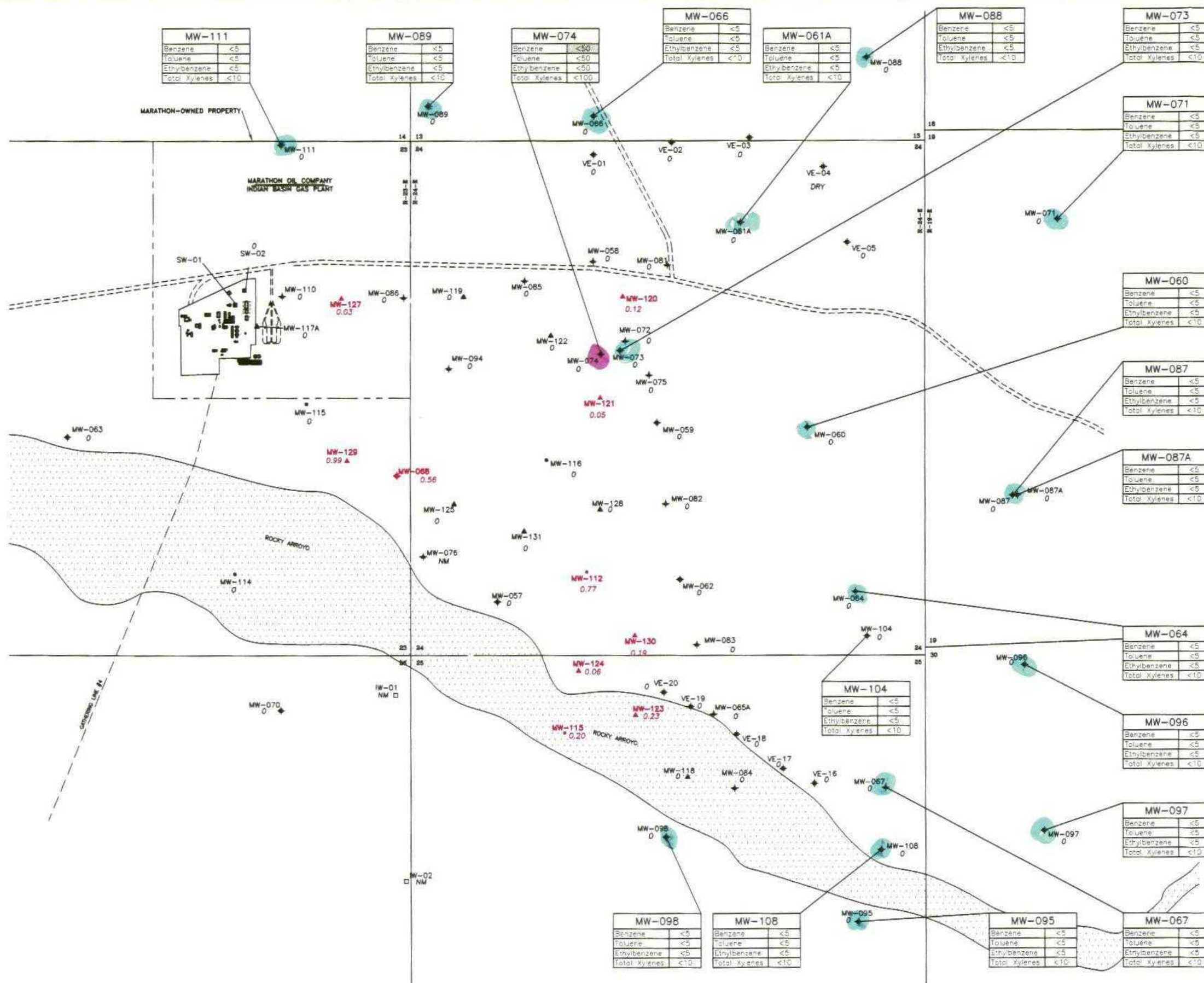
Benzene	10 ug/L
Toluene	750 ug/L
Ethylbenzene	750 ug/L
Total Xylenes	620 ug/L
Chlorides	250 ug/L
TDS	1,000 mg/L

NOTES:

- OCD NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT, OIL CONSERVATION DIVISION
- ug/L MICROGRAMS PER LITER
- mg/L MILLIGRAMS PER LITER

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		BTEX, CHLORIDE, TDS AND SEPARATE-PHASE CONDENSATE DISTRIBUTION LOWER QUEEN, APRIL 2001	LEAD DESIGN PROF. J. HORST			CHECKED J. HORST	PROJECT NUMBER NP000483.0004	DRAWING NUMBER 9	



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MARATHON OIL COMPANY
INDIAN BASIN REMEDIATION PROJECT
EDDY COUNTY, NEW MEXICO

DRAWN
T. GAFFNEY

DATE
2/1/02

BTEX AND
SEPARATE-PHASE CONDENSATE
DISTRIBUTION
LOWER QUEEN, OCTOBER 2001

PROJECT MANAGER
M. HANSEN

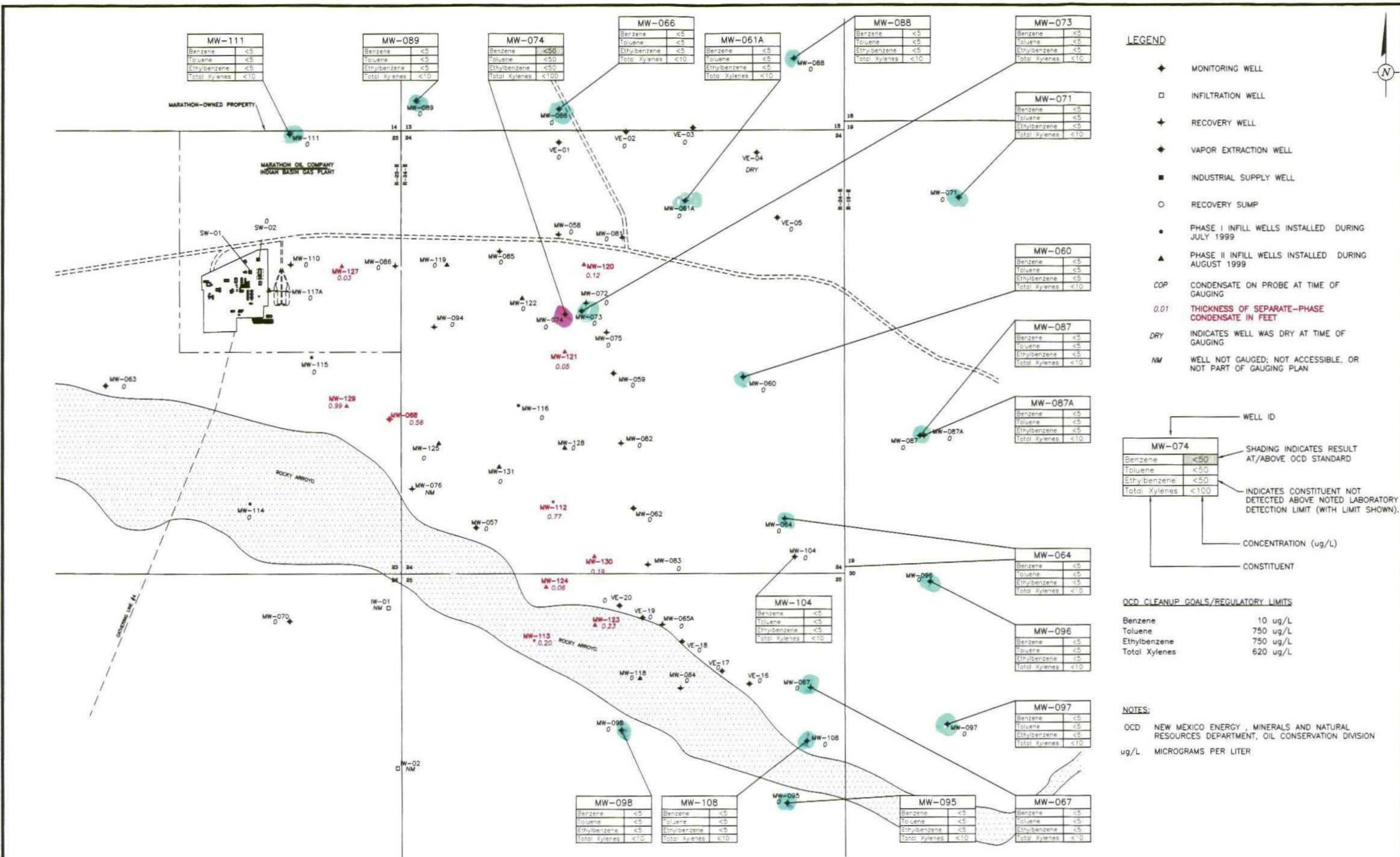
LEAD DESIGN PROF.

PROJECT NUMBER
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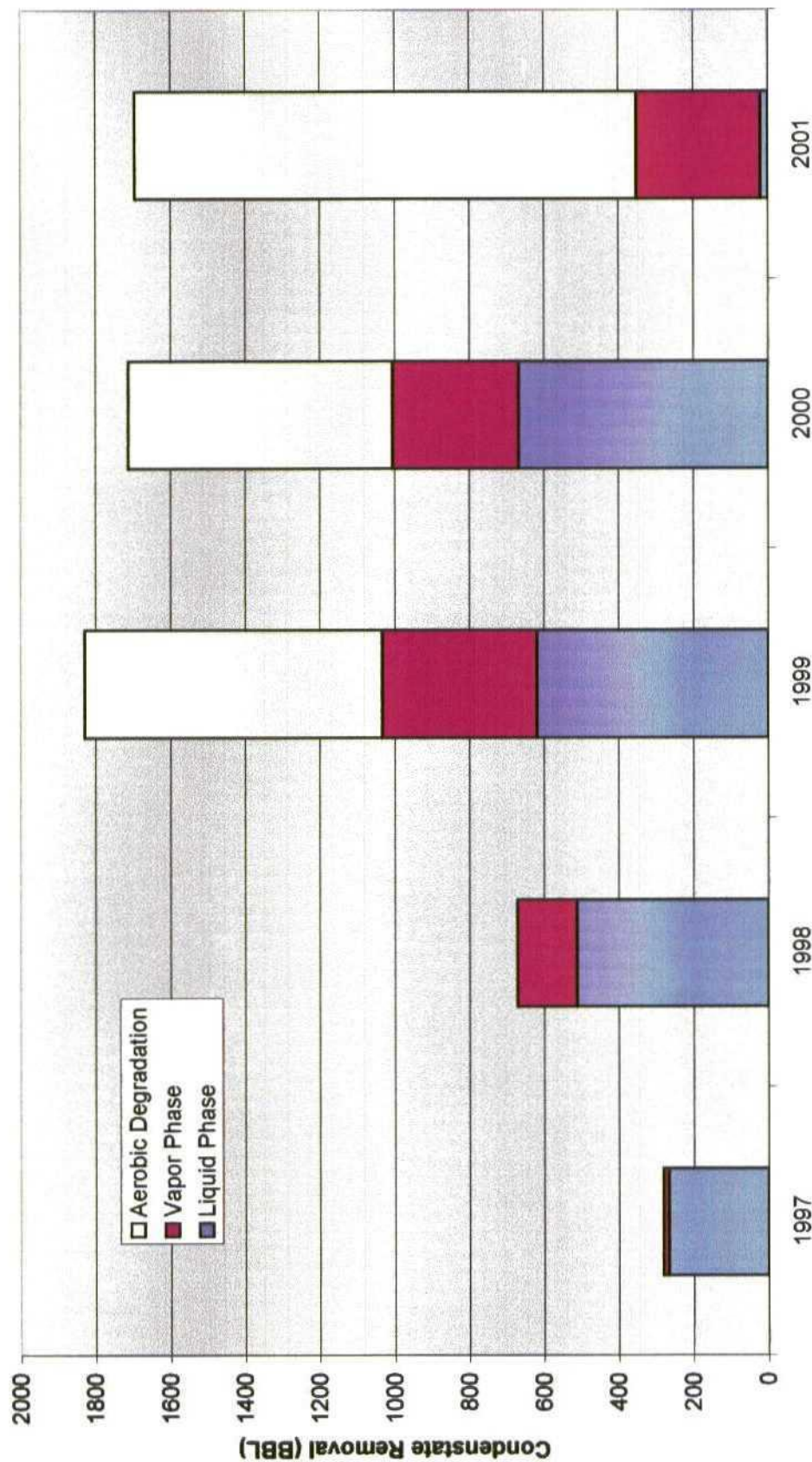
DEPARTMENT MANAGER
A. HANNUM

CHECKED
J. HORST

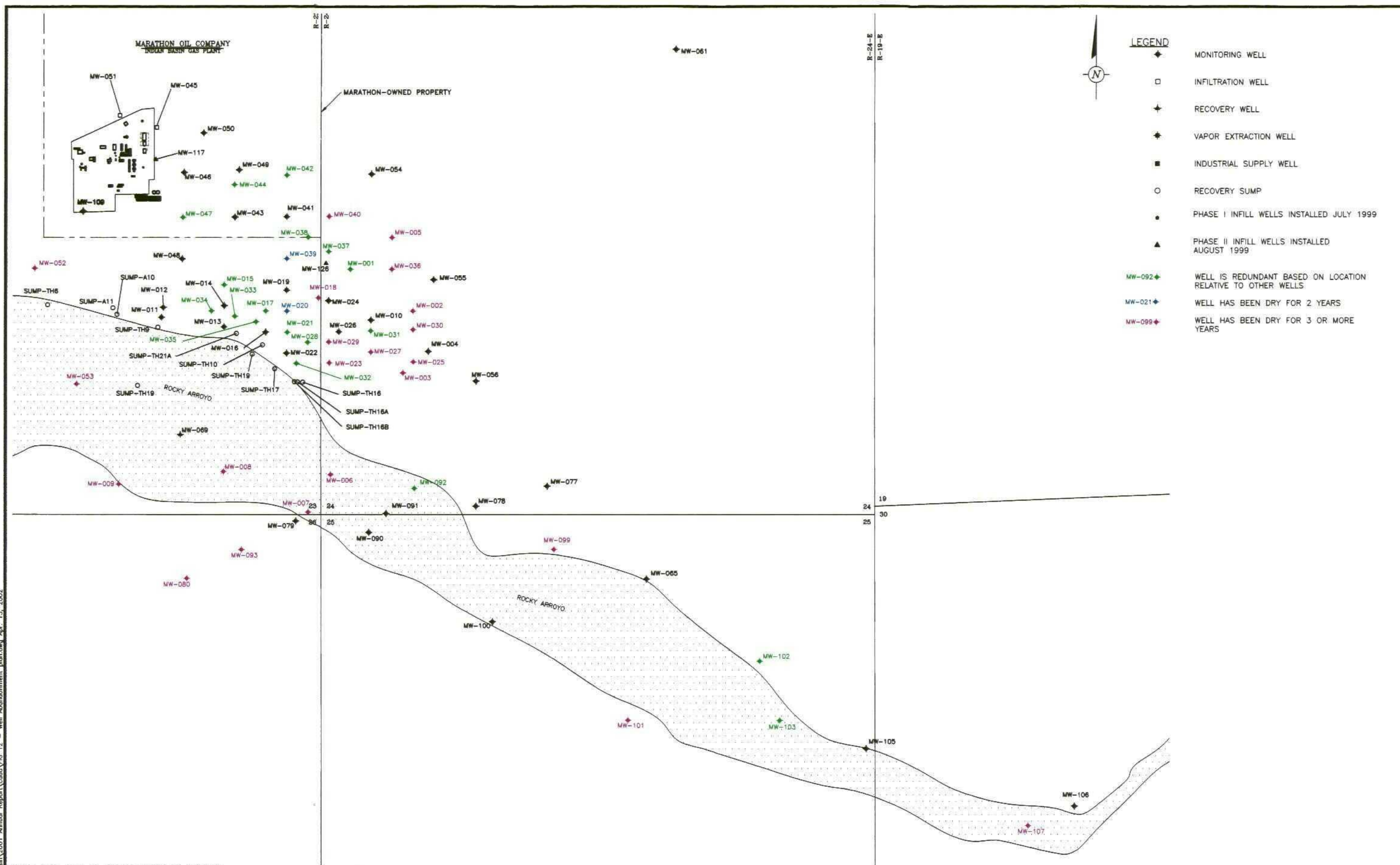


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Figure 11 - Estimated Yearly Condensate Removal (1997 - 2001)
Marathon Oil Company
Indian Basin Remediation Project
Eddy County, New Mexico



G:\PROJECTS\MOG\Indian Basin\2001 Annual Report\cadd\FIG 12 - Well Abandonment plan.dwg Apr. 15, 2002



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			CMD

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MARATHON OIL COMPANY
INDIAN BASIN REMEDIATION PROJECT
EDDY COUNTY, NEW MEXICO

DRAWN
M. WASILEWSKI

DATE
02/14/02

PROJECT MANAGER
M. HANSEN

DEPARTMENT MANAGER
A. HANSEN

LEAD DESIGN PROF.

CHECKED
J. HORST

PROJECT NUMBER

DRAWING NUMBER

SHALLOW ZONE

WELL ABANDONMENT PLAN

NP000483.0004

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Appendix A

Historical Fluid Level Data

Appendix A
Historic Fluid Level Data, May 1991 - October 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
Shallow Zone Wells					
MW-1	12/01/91	3792.50	9.68	0	3782.82
MW-1	04/01/96	3792.50	D	--	--
MW-1	01/27/98	3792.50	14.90	0	3777.60
MW-1	06/16/98	3792.50	D	--	--
MW-1	04/26/00	3792.50	14.98	0	3777.52
MW-1	09/27/00	3792.50	D	--	--
MW-1	04/16/01	3792.50	14.80	--	3777.70
MW-1	10/29/01	3792.50	D	--	--
MW-2	01/28/98	3788.72	D	--	--
MW-2	06/16/98	3788.72	D	--	--
MW-2	01/16/96	3788.72	D	--	--
MW-2	04/26/00	3788.72	D	--	--
MW-2	09/27/00	3788.72	D	--	--
MW-2	04/16/01	3788.72	D	--	--
MW-2	10/29/01	3788.72	D	--	--
MW-3	04/19/96	3787.50	D	--	--
MW-3	07/16/96	3787.50	D	--	--
MW-3	10/13/96	3787.50	D	--	--
MW-3	01/28/98	3787.50	D	--	--
MW-3	06/16/98	3787.50	D	--	--
MW-3	04/26/00	3787.50	D	--	--
MW-3	09/27/00	3787.50	D	--	--
MW-3	04/16/01	3787.50	D	--	--
MW-3	10/29/01	3787.50	D	--	--
MW-4	04/15/92	3785.88	18.58	0	3767.30
MW-4	07/01/92	3785.88	17.74	0	3768.14
MW-4	10/01/92	3785.88	18.54	0	3767.34
MW-4	01/01/93	3785.88	18.57	0	3767.31
MW-4	04/01/93	3785.88	18.57	0	3767.31
MW-4	01/28/98	3785.88	D	--	--
MW-4	06/16/98	3785.88	D	--	--
MW-4	01/05/00	3785.88	18.78	0	3767.10
MW-4	04/26/00	3785.88	D	--	--
MW-4	09/27/00	3785.88	D	--	--
MW-4	04/16/01	3785.88	D	--	--
MW-4	10/29/01	3785.88	D	--	--
MW-5	01/16/96	3801.69	D	--	--
MW-5	04/19/96	3801.69	D	--	--
MW-5	07/15/96	3801.69	D	--	--
MW-5	10/13/96	3801.69	D	--	--
MW-5	01/27/98	3801.69	D	--	--
MW-5	06/16/98	3801.69	D	--	--
MW-5	04/26/00	3801.69	D	--	--
MW-5	09/27/00	3801.69	D	--	--
MW-5	04/16/01	3801.69	D	--	--
MW-5	10/29/01	3801.69	D	--	--
MW-6	01/16/96	3785.17	D	--	--
MW-6	01/27/98	3785.17	D	--	--
MW-6	06/15/98	3785.17	D	--	--
MW-6	04/26/00	3785.17	D	--	--
MW-6	09/27/00	3785.17	D	--	--
MW-6	04/16/01	3785.17	D	--	--
MW-6	10/29/01	3785.17	D	--	--
MW-7	01/16/96	3784.46	D	--	--
MW-7	04/17/96	3784.46	D	--	--
MW-7	07/15/96	3784.46	D	--	--
MW-7	10/13/96	3784.46	D	--	--
MW-7	01/27/98	3784.46	D	--	--
MW-7	06/15/98	3784.46	D	--	--
MW-7	04/26/00	3784.46	D	--	--

Appendix A
Historic Fluid Level Data, May 1991 - October 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-7	09/27/00	3784.46	D	--	--
MW-7	04/16/01	3784.46	D	--	--
MW-7	10/29/01	3784.46	D	--	--
MW-8	01/16/96	3795.04	D	--	--
MW-8	04/17/96	3795.04	D	--	--
MW-8	10/13/96	3795.04	D	--	--
MW-8	01/27/98	3795.04	D	--	--
MW-8	06/15/98	3795.04	D	--	--
MW-8	04/26/00	3795.04	D	--	--
MW-8	09/27/00	3795.04	D	--	--
MW-8	04/16/01	3795.04	D	--	--
MW-8	10/29/01	3795.04	D	--	--
MW-9	01/16/96	3807.85	D	--	--
MW-9	04/17/96	3807.85	D	--	--
MW-9	07/15/96	3807.85	D	--	--
MW-9	10/13/96	3807.85	D	--	--
MW-9	01/27/98	3807.85	D	--	--
MW-9	06/15/98	3807.85	D	--	--
MW-9	04/26/00	3807.85	D	--	--
MW-9	09/27/00	3807.85	D	--	--
MW-9	04/16/01	3807.85	D	--	--
MW-9	10/29/01	3807.85	D	--	--
MW-10	12/01/91	3790.78	16.68	0	3774.10
MW-10	04/15/92	3790.78	16.70	0	3774.08
MW-10	07/01/92	3790.78	16.02	0	3774.76
MW-10	10/01/92	3790.78	16.97	0	3773.81
MW-10	01/01/93	3790.78	17.74	0	3773.04
MW-10	04/01/93	3790.78	18.31	0	3772.47
MW-10	01/01/94	3790.78	18.21	0	3772.57
MW-10	01/16/96	3790.78	D	--	--
MW-10	04/17/96	3790.78	D	--	--
MW-10	07/16/96	3790.78	D	--	--
MW-10	10/13/96	3790.78	17.00	0	3773.78
MW-10	02/04/97	3790.78	17.99	0	3772.79
MW-10	03/18/97	3790.78	17.88	0	3772.90
MW-10	04/29/97	3790.78	18.21	0	3772.57
MW-10	07/15/97	3790.78	18.20	0	3772.58
MW-10	10/14/97	3790.78	18.45	0	3772.33
MW-10	01/28/98	3790.78	18.20	0	3772.58
MW-10	04/27/98	3790.78	18.19	0	3772.59
MW-10	06/16/98	3790.78	D	--	--
MW-10	10/10/98	3790.78	18.96	0	3771.82
MW-10	01/27/99	3790.78	18.21	0	3772.57
MW-10	04/19/99	3790.78	18.20	0	3772.58
MW-10	01/05/00	3790.78	18.24	0	3772.54
MW-10	04/26/00	3790.78	18.20	0	3772.58
MW-10	09/27/00	3790.78	D	--	--
MW-10	04/16/01	3790.78	18.40	0	3772.38
MW-10	10/29/01	3790.78	D	--	--

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Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-11	12/01/91	3806.96	22.08	0	3784.88
MW-11	04/15/92	3806.96	22.73	0	3784.23
MW-11	07/01/92	3806.96	18.00	0	3788.96
MW-11	10/01/92	3806.96	22.47	0	3784.49
MW-11	01/01/93	3806.96	24.03	0	3782.93
MW-11	04/01/93	3806.96	24.38	0	3782.58
MW-11	10/01/93	3806.96	24.43	0	3782.53
MW-11	01/01/94	3806.96	24.30	0	3782.66
MW-11	04/01/94	3806.96	24.38	0	3782.58
MW-11	07/01/94	3806.96	24.34	0	3782.62
MW-11	10/01/94	3806.96	22.23	0	3784.73
MW-11	04/01/95	3806.96	24.23	0	3782.73
MW-11	07/01/95	3806.96	23.80	0	3783.16
MW-11	10/01/95	3806.96	22.01	0	3784.95
MW-11	01/16/96	3806.96	23.91	0	3783.05
MW-11	04/19/96	3806.96	23.97	0	3782.99
MW-11	07/15/96	3806.96	20.05	0	3786.91
MW-11	10/13/96	3806.96	20.46	0	3786.50
MW-11	02/04/97	3806.96	23.22	0	3783.74
MW-11	04/28/97	3806.96	23.40	0	3783.56
MW-11	06/17/98	3806.96	24.20	0	3782.76
MW-11	04/19/99	3806.96	D	--	--
MW-11	01/05/00	3806.96	24.30	0	3782.66
MW-11	04/26/00	3806.96	24.31	0	3782.65
MW-11	09/27/00	3806.96	24.28	0	3782.68
MW-11	04/16/01	3806.96	23.95	0	3783.01
MW-11	10/29/01	3806.96	23.45	0	3783.51
MW-12	01/27/98	3809.96	D	--	--
MW-12	06/16/98	3809.96	D	--	--
MW-12	04/26/00	3809.96	25.00	0	3784.96
MW-12	09/27/00	3809.96	D	--	--
MW-12	04/16/01	3809.96	25.00	0	3784.96
MW-12	10/29/01	3809.96	25.01	0	3784.95
MW-13	12/01/91	3801.58	18.14	0	3783.44
MW-13	04/15/92	3801.58	18.92	0	3782.66
MW-13	01/01/95	3801.58	19.76	0	3781.82
MW-13	04/01/95	3801.58	20.34	0	3781.24
MW-13	07/01/95	3801.58	20.36	0	3781.22
MW-13	10/01/95	3801.58	18.41	0	3783.17
MW-13	01/16/96	3801.58	19.83	0.08	3781.80
MW-13	04/19/96	3801.58	19.89	0.09	3781.75
MW-13	07/15/96	3801.58	17.15	0.08	3784.48
MW-13	10/13/96	3801.58	17.39	0	3784.19
MW-13	02/04/97	3801.58	19.15	0	3782.43
MW-13	03/18/97	3801.58	19.31	0	3782.27
MW-13	04/28/97	3801.58	19.34	0	3782.24
MW-13	06/17/98	3801.58	20.74	0	3780.84
MW-13	04/19/99	3801.58	21.52	0.27	3780.26
MW-13	01/05/00	3801.58	20.07	0	3781.51
MW-13	04/26/00	3801.58	20.64	0	3780.94
MW-13	09/27/00	3801.58	21.16	0	3780.42
MW-13	04/16/01	3801.58	19.96	0	3781.62
MW-13	10/29/01	3801.58	19.69	0	3781.89

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-14	12/01/91	3803.61	9.68	0	3793.93
MW-14	10/01/93	3803.61	22.55	0	3781.06
MW-14	01/01/94	3803.61	22.78	0	3780.83
MW-14	01/27/98	3803.61	22.36	0	3781.25
MW-14	06/16/98	3803.61	22.88	0	3780.73
MW-14	04/19/99	3803.61	23.74	0.24	3780.05
MW-14	01/05/00	3803.61	22.22	0	3781.39
MW-14	04/26/00	3803.61	22.74	0.03	3780.89
MW-14	09/27/00	3803.61	23.40	0.09	3780.28
MW-14	04/16/01	3803.61	22.15	0.01	3781.47
MW-14	10/29/01	3803.61	21.98	0.08	3781.69
MW-15	12/01/91	3803.59	9.68	0	3793.91
MW-15	01/27/98	3803.59	19.28	0	3784.31
MW-15	06/16/98	3803.59	D	--	--
MW-15	01/05/00	3803.59	19.37	0	3784.22
MW-15	04/26/00	3803.59	19.30	0	3784.29
MW-15	09/27/00	3803.59	D	--	--
MW-15	04/16/01	3803.59	19.32	--	3784.27
MW-15	10/29/01	3803.59	19.36	--	3784.23
MW-16	12/01/91	3801.04	9.68	0	3791.36
MW-16	04/01/93	3801.04	22.32	0	3778.72
MW-16	07/01/93	3801.04	22.25	0	3778.79
MW-16	01/27/98	3801.04	22.37	0	3778.67
MW-16	06/16/98	3801.04	D	--	--
MW-16	01/05/00	3801.04	22.38	0	3778.66
MW-16	04/26/00	3801.04	22.37	0	3778.67
MW-16	09/27/00	3801.04	22.42	0	3778.62
MW-16	04/16/01	3801.04	22.41	0	3778.63
MW-16	10/29/01	3801.04	22.33	0	3778.71
MW-17	12/01/91	3799.55	9.68	0	3789.87
MW-17	04/01/93	3799.55	18.68	0	3780.87
MW-17	07/01/93	3799.55	19.13	0	3780.42
MW-17	10/01/93	3799.55	19.11	0	3780.44
MW-17	01/01/94	3799.55	19.27	0	3780.28
MW-17	01/27/98	3799.55	19.20	0	3780.35
MW-17	06/17/98	3799.55	D	--	--
MW-17	01/05/00	3799.55	19.10	0	3780.45
MW-17	04/26/00	3799.55	19.54	0	3780.01
MW-17	09/27/00	3799.55	D	--	--
MW-17	04/16/01	3799.55	18.14	0	3781.41
MW-17	10/29/01	3799.55	18.61	0	3780.94
MW-18	12/01/91	3795.82	9.68	0	3786.14
MW-18	04/15/92	3795.82	15.25	0	3780.57
MW-18	07/01/92	3795.82	11.08	0	3784.74
MW-18	10/01/92	3795.82	15.89	0	3779.93
MW-18	01/01/93	3795.82	17.05	0	3778.77
MW-18	04/01/93	3795.82	17.13	0	3778.69
MW-18	01/27/98	3795.82	17.30	0	3778.52
MW-18	06/16/98	3795.82	D	--	--
MW-18	01/05/00	3795.82	D	--	--
MW-18	04/26/00	3795.82	D	--	--
MW-18	09/27/00	3795.82	D	--	--
MW-18	04/16/01	3795.82	D	--	--
MW-18	10/29/01	3795.82	D	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-19	04/15/92	3797.21	16.50	0	3780.71
MW-19	07/01/92	3797.21	12.15	0	3785.06
MW-19	10/01/92	3797.21	17.16	0	3780.05
MW-19	01/01/93	3797.21	18.85	0	3778.36
MW-19	04/01/93	3797.21	18.93	0	3778.28
MW-19	01/16/96	3797.21	19.04	0	3778.17
MW-19	04/19/96	3797.21	19.06	0	3778.15
MW-19	07/16/96	3797.21	19.04	0	3778.17
MW-19	10/13/96	3797.21	16.09	0	3781.12
MW-19	02/04/97	3797.21	18.34	0	3778.87
MW-19	03/18/97	3797.21	18.50	0	3778.71
MW-19	04/28/97	3797.21	18.84	0	3778.37
MW-19	06/17/98	3797.21	18.88	0	3778.33
MW-19	04/19/99	3797.21	18.80	0	3778.41
MW-19	01/05/00	3797.21	18.75	0	3778.46
MW-19	04/26/00	3797.21	18.81	0	3778.40
MW-19	09/27/00	3797.21	18.74	0	3778.47
MW-19	04/16/01	3797.21	18.60	0	3778.61
MW-19	10/29/01	3797.21	18.76	0	3778.45
MW-20	12/01/91	3797.59	9.68	0	3787.91
MW-20	01/27/98	3797.59	D	--	--
MW-20	06/17/98	3797.59	D	--	--
MW-20	01/05/00	3797.59	16.08	0	3781.51
MW-20	04/26/00	3797.59	D	--	--
MW-20	09/27/00	3797.59	D	--	--
MW-20	04/16/01	3797.59	D	--	--
MW-20	10/29/01	3797.59	D	--	--
MW-21	12/01/91	3798.21	9.68	0	3788.53
MW-21	04/01/93	3798.21	22.63	0	3775.58
MW-21	07/01/93	3798.21	22.88	0	3775.33
MW-21	10/01/93	3798.21	23.13	0	3775.08
MW-21	01/27/98	3798.21	23.03	0	3775.18
MW-21	06/16/98	3798.21	D	--	--
MW-21	01/05/00	3798.21	22.89	0	3775.32
MW-21	04/26/00	3798.21	23.03	0	3775.18
MW-21	09/27/00	3798.21	23.04	0	3775.17
MW-21	04/16/01	3798.21	22.80	0	3775.41
MW-21	10/29/01	3798.21	22.31	0	3775.90
MW-22	12/01/91	3799.20	9.68	0	3789.52
MW-22	04/15/92	3799.20	17.16	0	3782.04
MW-22	07/01/92	3799.20	17.07	0	3782.13
MW-22	10/01/92	3799.20	17.29	0	3781.91
MW-22	01/01/93	3799.20	17.29	0	3781.91
MW-22	04/01/93	3799.20	17.29	0	3781.91
MW-22	01/27/98	3799.20	17.20	0	3782.00
MW-22	06/16/98	3799.20	D	--	--
MW-22	01/05/00	3799.20	17.19	0	3782.01
MW-22	04/26/00	3799.20	17.32	0	3781.88
MW-22	09/27/00	3799.20	17.37	0	3781.83
MW-22	04/16/01	3799.20	17.40	0	3781.80
MW-22	10/29/01	3799.20	D	0	--
MW-23	01/28/98	3794.48	D	--	--
MW-23	06/16/98	3794.48	D	--	--
MW-23	04/26/00	3794.48	D	--	--
MW-23	09/27/00	3794.48	D	--	--
MW-23	04/16/01	3794.48	D	--	--
MW-23	10/29/01	3794.48	D	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-24	12/01/91	3794.09	9.66	0	3784.41
MW-24	04/15/92	3794.09	12.90	0	3781.19
MW-24	07/01/92	3794.09	14.09	0	3780.00
MW-24	10/01/92	3794.09	12.92	0	3781.17
MW-24	01/16/96	3794.09	D	--	--
MW-24	04/19/96	3794.09	D	--	--
MW-24	07/16/96	3794.09	D	--	--
MW-24	10/13/96	3794.09	D	--	--
MW-24	01/27/98	3794.09	12.92	0	3781.17
MW-24	06/16/98	3794.09	D	--	--
MW-24	04/26/00	3794.09	12.95	0	3781.14
MW-24	09/27/00	3794.09	12.93	0	3781.16
MW-24	04/16/01	3794.09	12.97	0	3781.12
MW-24	10/29/01	3794.09	12.94	0	3781.15
MW-25	01/28/98	3786.97	D	--	--
MW-25	06/16/98	3786.97	D	--	--
MW-25	04/26/00	3786.97	D	--	--
MW-25	09/27/00	3786.97	D	--	--
MW-25	04/16/01	3786.97	D	--	--
MW-25	10/29/01	3786.97	D	--	--
MW-26	12/01/91	3793.01	9.66	0	3783.33
MW-26	07/01/92	3793.01	16.37	0	3776.64
MW-26	10/01/92	3793.01	19.66	0	3773.35
MW-26	01/01/93	3793.01	20.41	0	3772.60
MW-26	04/01/93	3793.01	20.72	0	3772.29
MW-26	07/01/93	3793.01	20.77	0	3772.24
MW-26	10/01/93	3793.01	20.78	0	3772.23
MW-26	01/01/94	3793.01	20.77	0	3772.24
MW-26	06/17/98	3793.01	D	--	--
MW-26	01/05/00	3793.01	20.77	0	3772.24
MW-26	04/26/00	3793.01	20.77	0	3772.24
MW-26	09/27/00	3793.01	20.80	0	3772.21
MW-26	04/16/01	3793.01	20.00	0	3773.01
MW-26	10/29/01	3793.01	21.06	0	3771.95
MW-27	01/28/98	3790.93	D	--	--
MW-27	06/16/98	3790.93	D	--	--
MW-27	04/26/00	3790.93	D	--	--
MW-27	09/27/00	3790.93	D	--	--
MW-27	04/16/01	3790.93	D	--	--
MW-27	10/29/01	3790.93	D	--	--
MW-28	12/01/91	3797.03	19.23	0	3777.80
MW-28	01/27/98	3797.03	18.48	0	3778.55
MW-28	06/16/98	3797.03	D	--	--
MW-28	01/05/00	3797.03	19.11	0	3777.92
MW-28	04/26/00	3797.03	19.09	0	3777.94
MW-28	09/27/00	3797.03	D	--	--
MW-28	04/16/01	3797.03	19.11	--	3777.92
MW-28	10/29/01	3797.03	D	--	--
MW-29	01/16/96	3794.06	D	--	--
MW-29	04/19/96	3794.06	D	--	--
MW-29	07/16/96	3794.06	D	--	--
MW-29	10/13/96	3794.06	D	--	--
MW-29	01/28/98	3794.06	D	--	--
MW-29	06/16/98	3794.06	D	--	--
MW-29	04/26/00	3794.06	D	--	--
MW-29	09/27/00	3794.06	D	--	--
MW-29	04/16/01	3794.06	D	--	--
MW-29	10/29/01	3794.06	D	--	--
MW-30	12/01/91	3788.30	14.75	0	3773.55
MW-30	01/28/98	3788.30	D	--	--
MW-30	06/16/98	3788.30	D	--	--
MW-30	04/26/00	3788.30	D	--	--
MW-30	09/27/00	3788.30	D	--	--
MW-30	04/16/01	3788.30	D	--	--
MW-30	10/29/01	3788.30	D	--	--

Appendix A
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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-31	12/01/91	3791.15	18.85	0	3772.30
MW-31	04/15/92	3791.15	19.00	0	3772.15
MW-31	07/01/92	3791.15	18.50	0	3772.65
MW-31	10/01/92	3791.15	19.00	0	3772.15
MW-31	01/01/93	3791.15	19.44	0	3771.71
MW-31	04/01/93	3791.15	19.64	0	3771.51
MW-31	01/28/98	3791.15	19.03	0	3772.12
MW-31	06/16/98	3791.15	D	--	--
MW-31	01/05/00	3791.15	19.06	0	3772.09
MW-31	04/26/00	3791.15	19.03	0	3772.12
MW-31	09/27/00	3791.15	19.04	0	3772.11
MW-31	04/16/01	3791.15	19.04	0	3772.11
MW-31	10/29/01	3791.15	19.05	0	3772.10
MW-32	07/01/92	3797.47	15.35	0	3782.12
MW-32	01/16/96	3797.47	D	--	--
MW-32	04/19/96	3797.47	D	--	--
MW-32	07/15/96	3797.47	D	--	--
MW-32	10/13/96	3797.47	D	--	--
MW-32	01/27/98	3797.47	15.70	0	3781.77
MW-32	06/16/98	3797.47	D	--	--
MW-32	04/26/00	3797.47	15.65	0	3781.82
MW-32	09/27/00	3797.47	D	--	--
MW-32	04/16/01	3797.47	15.69	0	3781.78
MW-32	10/29/01	3797.47	D	--	--
MW-33	12/01/91	3802.48	19.02	0	3783.46
MW-33	01/01/93	3802.48	19.91	0	3782.57
MW-33	07/01/93	3802.48	19.91	0	3782.57
MW-33	01/27/98	3802.48	19.91	0	3782.57
MW-33	06/16/98	3802.48	19.97	0	3782.51
MW-33	01/05/00	3802.48	19.94	0	3782.54
MW-33	04/26/00	3802.48	19.92	0	3782.56
MW-33	09/27/00	3802.48	19.92	0	3782.56
MW-33	04/16/01	3802.48	19.92	0	3782.56
MW-33	10/29/01	3802.48	19.94	0	3782.54
MW-34	12/01/91	3806.00	19.72	0	3786.28
MW-34	01/27/98	3806.00	D	--	--
MW-34	06/16/98	3806.00	D	--	--
MW-34	01/05/00	3806.00	19.81	0	3786.19
MW-34	04/26/00	3806.00	19.77	0	3786.23
MW-34	09/27/00	3806.00	D	--	--
MW-34	04/16/01	3806.00	19.80	0	3786.20
MW-34	10/29/01	3806.00	19.85	0	3786.15
MW-35	12/01/91	3800.81	18.24	0	3782.57
MW-35	07/01/93	3800.81	19.77	0	3781.04
MW-35	10/01/93	3800.81	19.81	0	3781.00
MW-35	01/01/94	3800.81	20.09	0	3780.72
MW-35	01/27/98	3800.81	20.10	0	3780.71
MW-35	06/16/98	3800.81	20.57	0	3780.24
MW-35	01/05/00	3800.81	19.78	0	3781.03
MW-35	04/26/00	3800.81	20.23	0	3780.58
MW-35	09/27/00	3800.81	20.58	0	3780.23
MW-35	04/16/01	3800.81	19.75	0	3781.06
MW-35	10/29/01	3800.81	19.35	0	3781.46
MW-36	01/27/98	3792.94	D	--	--
MW-36	06/16/98	3792.94	D	--	--
MW-36	01/05/00	3792.94	D	--	--
MW-36	04/26/00	3792.94	D	--	--
MW-36	09/27/00	3792.94	D	--	--
MW-36	04/16/01	3792.94	D	--	--
MW-36	10/29/01	3792.94	D	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-37	12/01/91	3795.03	11.72	0	3783.31
MW-37	04/01/93	3795.03	19.96	0	3775.07
MW-37	07/01/93	3795.03	20.11	0	3774.92
MW-37	10/01/93	3795.03	20.19	0	3774.84
MW-37	01/01/94	3795.03	20.21	0	3774.82
MW-37	01/27/98	3795.03	19.37	0	3775.66
MW-37	06/16/98	3795.03	19.82	0	3775.21
MW-37	01/05/00	3795.03	17.58	0	3777.45
MW-37	04/26/00	3795.03	18.29	0	3776.74
MW-37	09/27/00	3795.03	19.25	0	3775.78
MW-37	04/16/01	3795.03	17.30	0	3777.73
MW-37	10/29/01	3795.03	18.72	0	3776.31
MW-38	12/01/91	3797.32	13.48	0	3783.84
MW-38	04/15/92	3797.32	16.54	0	3780.78
MW-38	07/01/92	3797.32	12.42	0	3784.90
MW-38	10/01/92	3797.32	17.66	0	3779.66
MW-38	01/01/93	3797.32	20.24	0	3777.08
MW-38	04/01/93	3797.32	20.42	0	3776.90
MW-38	07/01/93	3797.32	20.23	0	3777.09
MW-38	10/01/93	3797.32	20.30	0	3777.02
MW-38	01/16/96	3797.32	D	--	--
MW-38	04/19/96	3797.32	D	--	--
MW-38	07/15/96	3797.32	D	--	--
MW-38	10/13/96	3797.32	16.54	0	3780.78
MW-38	02/03/97	3797.32	19.96	0	3777.36
MW-38	04/28/97	3797.32	20.30	0	3777.02
MW-38	07/15/97	3797.32	20.38	0	3776.94
MW-38	10/13/97	3797.32	20.22	0	3777.10
MW-38	01/27/98	3797.32	20.18	0	3777.14
MW-38	04/27/98	3797.32	20.32	0	3777.00
MW-38	06/16/98	3797.32	D	--	--
MW-38	10/09/98	3797.32	20.41	0	3776.91
MW-38	01/27/99	3797.32	19.78	0	3777.54
MW-38	04/19/99	3797.32	20.01	0	3777.31
MW-38	01/05/00	3797.32	19.41	0	3777.91
MW-38	04/26/00	3797.32	19.29	0	3778.03
MW-38	09/27/00	3797.32	20.31	0	3777.01
MW-38	04/16/01	3797.32	19.33	0	3777.99
MW-38	10/29/01	3797.32	20.26	0	3777.06
MW-39	12/01/91	3796.20	13.05	0	3783.15
MW-39	01/01/93	3796.20	17.15	0	3779.05
MW-39	04/01/93	3796.20	22.32	0	3773.88
MW-39	07/01/93	3796.20	17.78	0	3778.42
MW-39	10/01/93	3796.20	18.10	0	3778.10
MW-39	01/01/94	3796.20	18.72	0	3777.48
MW-39	04/01/94	3796.20	19.07	0	3777.13
MW-39	07/01/94	3796.20	19.29	0	3776.91
MW-39	10/01/94	3796.20	19.23	0	3776.97
MW-39	01/01/95	3796.20	19.57	0	3776.63
MW-39	04/01/95	3796.20	19.84	0	3776.36
MW-39	07/01/95	3796.20	19.84	0	3776.36
MW-39	10/01/95	3796.20	20.03	0	3776.17
MW-39	01/16/96	3796.20	20.29	0	3775.91
MW-39	04/19/96	3796.20	20.32	0	3775.88
MW-39	07/15/96	3796.20	20.30	0	3775.90
MW-39	10/13/96	3796.20	15.70	0	3780.50
MW-39	02/03/97	3796.20	17.11	0	3779.09
MW-39	04/28/97	3796.20	17.44	0	3778.76
MW-39	07/14/97	3796.20	17.41	0	3778.79

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-39	10/13/97	3796.20	18.60	0	3777.60
MW-39	01/27/98	3796.20	19.20	0	3777.00
MW-39	04/27/98	3796.20	19.25	0	3776.95
MW-39	06/16/98	3796.20	19.41	0	3776.79
MW-39	10/09/98	3796.20	20.04	0	3776.16
MW-39	01/27/99	3796.20	20.04	0	3776.16
MW-39	04/19/99	3796.20	20.03	0	3776.17
MW-39	01/05/00	3796.20	D	--	--
MW-39	04/26/00	3796.20	D	--	--
MW-39	09/27/00	3796.20	D	--	--
MW-39	04/16/01	3796.20	D	--	--
MW-39	10/29/01	3796.20	D	--	--
MW-40	04/01/93	3803.12	18.68	0	3784.44
MW-40	01/27/98	3803.12	D	--	--
MW-40	06/16/98	3803.12	D	--	--
MW-40	04/26/00	3803.12	D	--	--
MW-40	09/27/00	3803.12	D	--	--
MW-40	04/16/01	3803.12	D	--	--
MW-40	10/29/01	3803.12	D	--	--
MW-41	12/01/91	3799.04	14.61	0	3784.43
MW-41	01/01/93	3799.04	19.18	0	3779.86
MW-41	07/01/93	3799.04	19.28	0	3779.76
MW-41	10/01/93	3799.04	19.74	0	3779.30
MW-41	01/01/94	3799.04	19.82	0	3779.22
MW-41	04/01/94	3799.04	21.19	0	3777.85
MW-41	07/01/94	3799.04	20.52	0	3778.52
MW-41	10/01/94	3799.04	19.60	0	3779.44
MW-41	01/01/95	3799.04	19.87	0	3779.17
MW-41	04/01/95	3799.04	19.82	0	3779.22
MW-41	07/01/95	3799.04	19.82	0	3779.22
MW-41	10/01/95	3799.04	20.58	0	3778.46
MW-41	01/16/96	3799.04	20.06	0	3778.98
MW-41	04/19/96	3799.04	20.10	0	3778.94
MW-41	07/15/96	3799.04	20.06	0	3778.98
MW-41	10/13/96	3799.04	19.02	0	3780.02
MW-41	02/03/97	3799.04	18.98	0	3780.06
MW-41	03/18/97	3799.04	19.09	0	3779.95
MW-41	04/28/97	3799.04	18.98	0	3780.06
MW-41	07/14/97	3799.04	18.85	0	3780.19
MW-41	04/27/98	3799.04	19.26	0	3779.78
MW-41	06/17/98	3799.04	19.37	0	3779.67
MW-41	10/09/98	3799.04	19.18	0	3779.86
MW-41	01/27/99	3799.04	18.72	0	3780.32
MW-41	04/19/99	3799.04	18.81	0	3780.23
MW-41	01/05/00	3799.04	18.61	0	3780.43
MW-41	04/26/00	3799.04	18.72	0	3780.32
MW-41	09/27/00	3799.04	18.84	0	3780.20
MW-41	04/16/01	3799.04	18.55	0	3780.49
MW-41	10/29/01	3799.04	18.60	0	3780.44
MW-42	12/01/91	3804.73	19.98	0	3784.75
MW-42	07/01/93	3804.73	22.63	0	3782.10
MW-42	10/01/93	3804.73	22.89	0	3781.84
MW-42	01/01/94	3804.73	23.13	0	3781.60
MW-42	01/27/98	3804.73	21.94	0	3782.79
MW-42	06/16/98	3804.73	D	--	--
MW-42	01/05/00	3804.73	23.50	0	3781.23
MW-42	04/26/00	3804.73	D	--	--
MW-42	09/27/00	3804.73	D	--	--
MW-42	04/16/01	3804.73	D	--	--
MW-42	10/29/01	3804.73	D	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-43	12/01/91	3802.05	17.38	0	3784.67
MW-43	07/01/93	3802.05	21.33	0	3780.72
MW-43	10/01/93	3802.05	21.18	0	3780.87
MW-43	01/01/94	3802.05	21.27	0	3780.78
MW-43	04/01/94	3802.05	22.38	0	3779.67
MW-43	07/01/94	3802.05	21.41	0	3780.64
MW-43	10/01/94	3802.05	21.41	0	3780.64
MW-43	01/01/95	3802.05	21.44	0	3780.61
MW-43	04/01/95	3802.05	21.53	0	3780.52
MW-43	07/01/95	3802.05	21.53	0	3780.52
MW-43	10/01/95	3802.05	21.80	0	3780.25
MW-43	01/16/96	3802.05	21.75	0	3780.30
MW-43	04/19/96	3802.05	21.70	0	3780.35
MW-43	07/15/96	3802.05	21.44	0	3780.61
MW-43	10/13/96	3802.05	20.13	0	3781.92
MW-43	02/03/97	3802.05	20.71	0	3781.34
MW-43	04/28/97	3802.05	20.49	0	3781.56
MW-43	07/14/97	3802.05	20.39	0	3781.66
MW-43	10/13/97	3802.05	20.78	0	3781.27
MW-43	01/27/98	3802.05	20.55	0	3781.50
MW-43	04/27/98	3802.05	20.72	0	3781.33
MW-43	06/16/98	3802.05	20.89	0	3781.16
MW-43	10/09/98	3802.05	21.16	0	3780.89
MW-43	01/27/99	3802.05	20.40	0	3781.65
MW-43	04/19/99	3802.05	20.55	0	3781.50
MW-43	01/05/00	3802.05	20.58	0	3781.47
MW-43	04/26/00	3802.05	20.65	0	3781.40
MW-43	09/27/00	3802.05	20.83	0	3781.22
MW-43	04/16/01	3802.05	20.55	0	3781.50
MW-43	10/29/01	3802.05	20.43	0	3781.62
MW-44	12/01/91	3804.14	17.85	0	3786.29
MW-44	04/15/92	3804.14	19.40	0	3784.74
MW-44	07/01/92	3804.14	17.27	0	3786.87
MW-44	10/01/92	3804.14	20.28	0	3783.86
MW-44	01/01/93	3804.14	21.20	0	3782.94
MW-44	04/01/93	3804.14	21.48	0	3782.66
MW-44	07/01/93	3804.14	21.63	0	3782.51
MW-44	10/01/93	3804.14	21.58	0	3782.56
MW-44	01/01/94	3804.14	21.68	0	3782.46
MW-44	04/01/94	3804.14	22.02	0	3782.12
MW-44	07/01/94	3804.14	22.13	0	3782.01
MW-44	10/01/94	3804.14	21.58	0	3782.56
MW-44	01/01/95	3804.14	21.88	0	3782.26
MW-44	04/01/95	3804.14	22.26	0	3781.88
MW-44	07/01/95	3804.14	22.26	0	3781.88
MW-44	10/01/95	3804.14	21.84	0	3782.30
MW-44	01/16/96	3804.14	21.86	0	3782.28
MW-44	04/19/96	3804.14	21.88	0	3782.26
MW-44	07/15/96	3804.14	21.75	0	3782.39
MW-44	10/13/96	3804.14	19.32	0	3784.82
MW-44	02/03/97	3804.14	20.79	0	3783.35
MW-44	04/28/97	3804.14	20.43	0	3783.71
MW-44	07/14/97	3804.14	20.31	0	3783.83
MW-44	10/13/97	3804.14	20.73	0	3783.41
MW-44	01/27/98	3804.14	20.66	0	3783.48
MW-44	04/27/98	3804.14	20.84	0	3783.30
MW-44	06/16/98	3804.14	21.04	0	3783.10
MW-44	10/09/98	3804.14	20.71	0	3783.43
MW-44	01/27/99	3804.14	20.01	0	3784.13
MW-44	04/19/99	3804.14	20.41	0	3783.73
MW-44	01/05/00	3804.14	19.96	0	3784.18
MW-44	04/26/00	3804.14	20.27	0	3783.87
MW-44	09/27/00	3804.14	20.39	0	3783.75
MW-44	04/16/01	3804.14	19.85	0	3784.29
MW-44	10/29/01	3804.14	19.78	0	3784.36

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-45	12/01/91	3808.68	13.91	0	3794.77
MW-45	07/01/93	3808.68	21.49	0	3787.19
MW-45	10/01/93	3808.68	21.47	0	3787.21
MW-45	01/01/94	3808.68	21.54	0	3787.14
MW-45	04/01/94	3808.68	22.64	0	3786.04
MW-45	07/01/94	3808.68	21.85	0	3786.83
MW-45	10/01/94	3808.68	21.52	0	3787.16
MW-45	01/01/95	3808.68	21.78	0	3786.90
MW-45	04/01/95	3808.68	22.13	0	3786.55
MW-45	07/01/95	3808.68	22.13	0	3786.55
MW-45	01/05/00	3808.68	18.88	0	3789.80
MW-45	04/26/00	3808.68	19.19	0	3789.49
MW-45	09/27/00	3808.68	19.19	0	3789.49
MW-45	04/16/01	3808.68	18.39	0	3790.29
MW-45	10/29/01	3808.68	18.53	0	3790.15
MW-46	10/01/93	3805.54	19.87	0	3785.67
MW-46	01/01/94	3805.54	19.42	0	3786.12
MW-46	04/01/94	3805.54	19.59	0	3785.95
MW-46	10/01/94	3805.54	19.20	0	3786.34
MW-46	04/01/95	3805.54	19.55	0	3785.99
MW-46	07/01/95	3805.54	19.55	0	3785.99
MW-46	01/16/96	3805.54	19.48	0	3786.06
MW-46	04/19/96	3805.54	19.52	0	3786.02
MW-46	07/15/96	3805.54	19.41	0	3786.13
MW-46	10/13/96	3805.54	15.73	0	3789.81
MW-46	02/04/97	3805.54	18.22	0	3787.32
MW-46	04/28/97	3805.54	16.93	0	3788.61
MW-46	07/14/97	3805.54	17.15	0	3788.39
MW-46	10/13/97	3805.54	18.01	0	3787.53
MW-46	01/27/98	3805.54	17.54	0	3788.00
MW-46	04/27/98	3805.54	18.34	0	3787.20
MW-46	06/16/98	3805.54	18.69	0	3786.85
MW-46	10/10/98	3805.54	17.82	0	3787.72
MW-46	01/27/99	3805.54	16.91	0	3788.63
MW-46	04/19/99	3805.54	17.44	0	3788.10
MW-46	01/05/00	3805.54	16.76	0	3788.78
MW-46	04/26/00	3805.54	17.17	0	3788.37
MW-46	09/27/00	3805.54	17.42	0	3788.12
MW-46	04/16/01	3805.54	16.68	0	3788.86
MW-46	10/29/01	3805.54	16.79	0	3788.75
MW-47	12/01/91	3805.09	18.49	0	3786.60
MW-47	07/01/93	3805.09	21.37	0	3783.72
MW-47	01/16/96	3805.09	D	--	--
MW-47	04/19/96	3805.09	D	--	--
MW-47	07/15/96	3805.09	D	--	--
MW-47	10/13/96	3805.09	19.66	0	3785.43
MW-47	02/04/97	3805.09	21.51	0	3783.58
MW-47	04/28/97	3805.09	21.46	0	3783.63
MW-47	07/14/97	3805.09	21.54	0	3783.55
MW-47	10/13/97	3805.09	21.48	0	3783.61
MW-47	01/27/98	3805.09	21.80	0	3783.29
MW-47	04/27/98	3805.09	21.50	0	3783.59
MW-47	06/16/98	3805.09	21.62	0	3783.47
MW-47	10/10/98	3805.09	21.54	0	3783.55
MW-47	01/27/99	3805.09	21.52	0	3783.57
MW-47	04/19/99	3805.09	21.49	0	3783.60
MW-47	01/05/00	3805.09	21.62	0	3783.47
MW-47	04/26/00	3805.09	21.59	0	3783.50
MW-47	09/27/00	3805.09	21.62	0	3783.47
MW-47	04/16/01	3805.09	21.63	0	3783.46
MW-47	10/29/01	3805.09	D	0	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-48	12/01/91	3806.18	18.05	0	3788.13
MW-48	04/15/92	3806.18	19.44	0	3786.74
MW-48	07/01/92	3806.18	17.25	0	3788.93
MW-48	10/01/92	3806.18	18.87	0	3787.31
MW-48	01/01/93	3806.18	19.58	0	3786.60
MW-48	01/16/96	3806.18	D	--	--
MW-48	04/19/96	3806.18	D	--	--
MW-48	07/15/96	3806.18	D	--	--
MW-48	10/13/96	3806.18	17.88	0	3788.30
MW-48	02/04/97	3806.18	19.60	0	3786.58
MW-48	04/28/97	3806.18	19.66	0	3786.52
MW-48	07/14/97	3806.18	19.66	0	3786.52
MW-48	10/13/97	3806.18	19.68	0	3786.50
MW-48	01/27/98	3806.18	19.71	0	3786.47
MW-48	04/27/98	3806.18	19.72	0	3786.46
MW-48	06/16/98	3806.18	19.75	0	3786.43
MW-48	10/09/98	3806.18	19.71	0	3786.47
MW-48	01/27/99	3806.18	19.74	0	3786.44
MW-48	04/19/99	3806.18	19.71	0	3786.47
MW-48	01/05/00	3806.18	19.77	0	3786.41
MW-48	04/26/00	3806.18	19.72	0	3786.46
MW-48	09/27/00	3806.18	D	--	--
MW-48	04/16/01	3806.18	19.78	0	3786.40
MW-48	10/29/01	3806.18	D	--	--
MW-49	12/01/91	3805.61	16.60	0	3789.01
MW-49	07/01/93	3805.61	21.98	0	3783.63
MW-49	10/01/93	3805.61	21.93	0	3783.68
MW-49	01/01/94	3805.61	22.27	0	3783.34
MW-49	04/01/94	3805.61	22.64	0	3782.97
MW-49	07/01/94	3805.61	22.73	0	3782.88
MW-49	10/01/94	3805.61	22.30	0	3783.31
MW-49	01/01/95	3805.61	22.56	0	3783.05
MW-49	04/01/95	3805.61	22.94	0	3782.67
MW-49	07/01/95	3805.61	22.94	0	3782.67
MW-49	10/01/95	3805.61	22.68	0	3782.93
MW-49	01/16/96	3805.61	22.55	0	3783.06
MW-49	04/19/96	3805.61	22.59	0	3783.02
MW-49	07/15/96	3805.61	22.76	0	3782.85
MW-49	10/13/96	3805.61	19.54	0	3786.07
MW-49	02/03/97	3805.61	20.66	0	3784.95
MW-49	03/18/97	3805.61	20.99	0	3784.62
MW-49	04/28/97	3805.61	20.70	0	3784.91
MW-49	07/14/97	3805.61	20.31	0	3785.30
MW-49	10/13/97	3805.61	21.01	0	3784.60
MW-49	01/27/98	3805.61	21.08	0	3784.53
MW-49	04/27/98	3805.61	21.34	0	3784.27
MW-49	06/16/98	3805.61	21.35	0	3784.26
MW-49	10/09/98	3805.61	22.52	0	3783.09
MW-49	01/27/99	3805.61	20.50	0	3785.11
MW-49	04/19/99	3805.61	20.81	0	3784.80
MW-49	01/05/00	3805.61	20.07	0	3785.54
MW-49	04/26/00	3805.61	20.30	0	3785.31
MW-49	09/27/00	3805.61	20.52	0	3785.09
MW-49	04/16/01	3805.61	20.03	0	3785.58
MW-49	10/29/01	3805.61	19.96	0	3785.65

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-50	12/01/91	3813.35	20.74	0	3792.61
MW-50	04/15/92	3813.35	22.83	0	3790.52
MW-50	07/01/92	3813.35	15.91	0	3797.44
MW-50	10/01/92	3813.35	23.77	0	3789.58
MW-50	01/01/93	3813.35	25.52	0	3787.83
MW-50	04/01/93	3813.35	26.16	0	3787.19
MW-50	07/01/93	3813.35	26.43	0	3786.92
MW-50	10/01/93	3813.35	26.43	0	3786.92
MW-50	01/01/94	3813.35	26.83	0	3786.52
MW-50	04/01/94	3813.35	27.04	0	3786.31
MW-50	07/01/94	3813.35	27.16	0	3786.19
MW-50	10/01/94	3813.35	26.87	0	3786.48
MW-50	01/01/95	3813.35	27.03	0	3786.32
MW-50	04/01/95	3813.35	27.37	0	3785.98
MW-50	07/01/95	3813.35	27.37	0	3785.98
MW-50	10/01/95	3813.35	26.85	0	3786.50
MW-50	01/16/96	3813.35	27.20	0	3786.15
MW-50	04/19/96	3813.35	27.22	0	3786.13
MW-50	07/15/96	3813.35	27.04	0	3786.31
MW-50	10/13/96	3813.35	25.89	0	3787.46
MW-50	02/03/97	3813.35	25.15	0	3788.20
MW-50	03/18/97	3813.35	25.18	0	3788.17
MW-50	04/28/97	3813.35	24.81	0	3788.54
MW-50	07/14/97	3813.35	24.56	0	3788.79
MW-50	10/13/97	3813.35	25.45	0	3787.90
MW-50	01/27/98	3813.35	25.39	0	3787.96
MW-50	04/27/98	3813.35	25.84	0	3787.51
MW-50	06/16/98	3813.35	26.05	0	3787.30
MW-50	10/09/98	3813.35	25.80	0	3787.55
MW-50	01/27/99	3813.35	24.78	0	3788.57
MW-50	04/19/99	3813.35	25.21	0	3788.14
MW-50	01/05/00	3813.35	24.39	0	3788.96
MW-50	04/26/00	3813.35	25.00	0	3788.35
MW-50	09/27/00	3813.35	25.06	0	3788.29
MW-50	04/16/01	3813.35	24.30	0	3789.05
MW-50	10/29/01	3813.35	24.42	0	3788.93
MW-51	12/01/91	3810.86	17.77	0	3793.09
MW-51	04/26/00	3810.86	NR	--	--
MW-51	09/27/00	3810.86	D	--	--
MW-51	04/16/01	3810.86	D	--	--
MW-51	10/29/01	3810.86	D	--	--
MW-52	07/01/92	3817.49	19.00	0	3798.49
MW-52	01/16/96	3817.49	D	--	--
MW-52	04/19/96	3817.49	D	--	--
MW-52	07/15/96	3817.49	D	--	--
MW-52	10/13/96	3817.49	20.97	0	3796.52
MW-52	02/04/97	3817.49	21.31	0	3796.18
MW-52	04/28/97	3817.49	D	--	--
MW-52	07/14/97	3817.49	D	--	--
MW-52	10/13/97	3817.49	D	--	--
MW-52	01/27/98	3817.49	D	--	--
MW-52	04/27/98	3817.49	D	--	--
MW-52	06/16/98	3817.49	D	--	--
MW-52	10/09/98	3817.49	21.37	0	3796.12
MW-52	01/27/99	3817.49	D	--	--
MW-52	04/19/99	3817.49	D	--	--
MW-52	04/26/00	3817.49	D	--	--
MW-52	09/27/00	3817.49	D	--	--
MW-52	04/16/01	3817.49	D	--	--
MW-52	10/29/01	3817.49	D	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-53	01/16/96	3809.92	D	--	--
MW-53	04/19/96	3809.92	D	--	--
MW-53	07/15/96	3809.92	D	--	--
MW-53	10/13/96	3809.92	D	--	--
MW-53	01/27/98	3809.92	D	--	--
MW-53	06/16/98	3809.92	D	--	--
MW-53	04/26/00	3809.92	D	--	--
MW-53	09/27/00	3809.92	D	--	--
MW-53	04/16/01	3809.92	D	--	--
MW-53	10/29/01	3809.92	D	--	--
MW-54	12/01/91	3823.86	43.80	0	3780.06
MW-54	04/15/92	3823.86	44.77	0	3779.09
MW-54	07/01/92	3823.86	44.16	0	3779.70
MW-54	10/01/92	3823.86	44.66	0	3779.20
MW-54	01/01/93	3823.86	45.54	0	3778.32
MW-54	04/01/93	3823.86	46.11	0	3777.75
MW-54	07/01/93	3823.86	46.61	0	3777.25
MW-54	10/01/93	3823.86	46.73	0	3777.13
MW-54	01/01/94	3823.86	46.34	0	3777.52
MW-54	04/01/94	3823.86	47.45	0	3776.41
MW-54	07/01/94	3823.86	47.12	0	3776.74
MW-54	10/01/94	3823.86	46.65	0	3777.21
MW-54	01/01/95	3823.86	46.59	0	3777.27
MW-54	04/01/95	3823.86	46.96	0	3776.90
MW-54	07/01/95	3823.86	46.96	0	3776.90
MW-54	10/01/95	3823.86	47.40	0	3776.46
MW-54	01/16/96	3823.86	46.79	0	3777.07
MW-54	04/17/96	3823.86	48.97	0	3774.89
MW-54	07/15/96	3823.86	48.74	0	3775.12
MW-54	10/13/96	3823.86	46.14	0	3777.72
MW-54	02/04/97	3823.86	46.06	0	3777.80
MW-54	04/28/97	3823.86	46.27	0	3777.59
MW-54	07/14/97	3823.86	46.42	0	3777.44
MW-54	10/14/97	3823.86	47.16	0	3776.70
MW-54	01/27/98	3823.86	47.27	0	3776.59
MW-54	04/27/98	3823.86	46.86	0	3777.00
MW-54	06/16/98	3823.86	47.31	0	3776.55
MW-54	10/10/98	3823.86	46.79	0	3777.07
MW-54	01/27/99	3823.86	46.19	0	3777.67
MW-54	04/19/99	3823.86	46.32	0	3777.54
MW-54	01/05/00	3823.86	45.55	0	3778.31
MW-54	04/26/00	3823.86	46.46	0	3777.40
MW-54	09/27/00	3823.86	46.31	0	3777.55
MW-54	04/16/01	3823.86	45.72	0	3778.14
MW-54	10/29/01	3823.86	45.87	0	3777.99

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-55	12/01/91	3794.40	24.43	0	3769.97
MW-55	04/15/92	3794.40	24.77	0	3769.63
MW-55	07/01/92	3794.40	21.89	0	3772.51
MW-55	10/01/92	3794.40	24.47	0	3769.93
MW-55	01/01/93	3794.40	26.57	0	3767.83
MW-55	04/01/93	3794.40	28.70	0	3765.70
MW-55	07/01/93	3794.40	30.02	0	3764.38
MW-55	10/01/93	3794.40	30.76	0	3763.64
MW-55	01/01/94	3794.40	31.15	0	3763.25
MW-55	04/01/94	3794.40	32.30	0	3762.10
MW-55	07/01/94	3794.40	31.90	0	3762.50
MW-55	10/01/94	3794.40	28.61	0	3765.79
MW-55	01/01/95	3794.40	29.50	0	3764.90
MW-55	04/01/95	3794.40	30.65	0	3763.75
MW-55	07/01/95	3794.40	30.65	0	3763.75
MW-55	10/01/95	3794.40	32.20	0	3762.20
MW-55	01/16/96	3794.40	30.74	0	3763.66
MW-55	04/17/96	3794.40	33.03	0	3761.37
MW-55	07/16/96	3794.40	28.85	0	3765.55
MW-55	10/13/96	3794.40	28.02	0	3766.38
MW-55	02/04/97	3794.40	26.43	0	3767.97
MW-55	04/29/97	3794.40	26.91	0	3767.49
MW-55	07/15/97	3794.40	26.81	0	3767.59
MW-55	10/14/97	3794.40	27.21	0	3767.19
MW-55	01/28/98	3794.40	27.38	0	3767.02
MW-55	04/27/98	3794.40	27.57	0	3766.83
MW-55	06/16/98	3794.40	28.00	0	3766.40
MW-55	10/10/98	3794.40	28.36	0	3766.04
MW-55	01/27/99	3794.40	27.68	0	3766.72
MW-55	04/19/99	3794.40	27.89	0	3766.51
MW-55	01/05/00	3794.40	27.92	0	3766.48
MW-55	04/26/00	3794.40	27.96	0	3766.44
MW-55	09/27/00	3794.40	28.41	0	3765.99
MW-55	04/16/01	3794.40	27.92	0	3766.48
MW-55	10/29/01	3794.40	28.05	0	3766.35
MW-56	12/01/91	3782.45	32.58	0	3749.87
MW-56	04/15/92	3782.45	9.26	0	3773.19
MW-56	07/01/92	3782.45	31.37	0	3751.08
MW-56	10/01/92	3782.45	34.68	0	3747.77
MW-56	01/01/93	3782.45	40.40	0	3742.05
MW-56	01/16/96	3782.45	D	--	--
MW-56	04/19/96	3782.45	D	--	--
MW-56	07/16/96	3782.45	D	--	--
MW-56	10/14/96	3782.45	34.34	0	3748.11
MW-56	02/04/97	3782.45	37.47	0	3744.98
MW-56	03/18/97	3782.45	40.26	0	3742.19
MW-56	04/29/97	3782.45	42.34	0	3740.11
MW-56	07/15/97	3782.45	43.73	0	3738.72
MW-56	10/14/97	3782.45	D	--	--
MW-56	01/28/98	3782.45	D	--	--
MW-56	04/27/98	3782.45	D	--	--
MW-56	06/16/98	3782.45	D	--	--
MW-56	10/10/98	3782.45	D	--	--
MW-56	01/27/99	3782.45	D	--	--
MW-56	04/19/99	3782.45	43.56	0	3738.89
MW-56	01/05/00	3782.45	41.79	0	3740.66
MW-56	04/26/00	3782.45	43.49	0	3738.96
MW-56	09/27/00	3782.45	D	--	--
MW-56	04/16/01	3782.45	41.70	0	3740.75
MW-56	10/29/01	3782.45	D	--	--

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MW-61	01/27/99	3816.20	38.06	0	3780.14
MW-61	04/19/99	3816.20	36.88	0	3779.32
MW-61	01/05/00	3816.20	36.55	0	3779.65
MW-61	04/26/00	3816.20	37.15	0	3779.05
MW-61	09/27/00	3816.20	37.49	0	3778.71
MW-61	04/16/01	3816.20	37.26	0	3778.94
MW-61	10/29/01	3816.20	37.55	0	3778.65
MW-65	12/01/91	3763.31	55.90	0	3707.41
MW-65	07/01/93	3763.31	56.34	0	3706.97
MW-65	10/01/93	3763.31	56.81	0	3706.50
MW-65	01/01/94	3763.31	56.67	0	3706.64
MW-65	07/01/94	3763.31	56.70	0	3706.61
MW-65	10/01/94	3763.31	56.20	0	3707.11
MW-65	01/01/95	3763.31	56.58	0	3706.73
MW-65	04/01/95	3763.31	57.14	0	3706.17
MW-65	07/01/95	3763.31	57.14	0	3706.17
MW-65	10/01/95	3763.31	57.07	0	3706.24
MW-65	01/16/96	3763.31	57.25	0	3706.06
MW-65	04/17/96	3763.31	57.35	0	3705.96
MW-65	07/16/96	3763.31	56.01	0	3707.30
MW-65	10/14/96	3763.31	56.92	0	3706.39
MW-65	02/04/97	3763.31	56.12	0	3707.19
MW-65	04/28/97	3763.31	56.18	0	3707.13
MW-65	07/15/97	3763.31	56.44	0	3706.87
MW-65	10/14/97	3763.31	56.22	0	3707.09
MW-65	01/28/98	3763.31	56.29	0	3707.02
MW-65	04/27/98	3763.31	56.39	0	3706.92
MW-65	06/15/98	3763.31	57.22	0	3706.09
MW-65	01/27/99	3763.31	35.01	0	3728.30
MW-65	04/19/99	3763.31	56.69	0	3706.62
MW-65	01/05/99	3763.31	56.71	0	3706.60
MW-65	04/26/00	3763.31	56.55	0	3706.76
MW-65	09/27/00	3763.31	57.81	0	3705.50
MW-65	04/16/01	3763.31	56.22		3707.09
MW-65	10/29/01	3763.31	56.17		3707.14
MW-69	12/01/91	3805.11	29.38	0	3775.73
MW-69	04/15/92	3805.11	31.63	0	3773.48
MW-69	07/01/92	3805.11	24.71	0	3780.40
MW-69	10/01/92	3805.11	31.37	0	3773.74
MW-69	01/01/93	3805.11	33.61	0	3771.50
MW-69	04/01/93	3805.11	39.58	0	3765.53
MW-69	07/01/93	3805.11	41.96	0	3763.15
MW-69	10/01/93	3805.11	41.26	0	3763.85
MW-69	10/01/95	3805.11	32.51	0	3772.60
MW-69	01/20/96	3805.11	37.54	4.19	3770.62
MW-69	04/17/96	3805.11	36.60	0.26	3768.69
MW-69	07/15/96	3805.11	31.26	0.36	3774.11
MW-69	02/03/97	3805.11	34.33	3.24	3773.14
MW-69	04/28/97	3805.11	32.74	0.02	3772.38
MW-69	07/14/97	3805.11	34.34	0.02	3770.78
MW-69	10/13/97	3805.11	35.55	0	3769.56
MW-69	01/27/98	3805.11	39.44	2.45	3767.45
MW-69	04/27/98	3805.11	39.08	0	3766.03
MW-69	06/15/98	3805.11	40.77	0.79	3764.91
MW-69	01/05/00	3805.11	35.75	0.02	3769.37
MW-69	04/26/00	3805.11	37.62	0.05	3767.53
MW-69	09/27/00	3805.11	41.99	2.71	3765.10
MW-69	04/16/01	3805.11	38.81	4.01	3769.23
MW-69	10/29/01	3805.11	38.42	5.45	3770.67

Appendix A
Historic Fluid Level Data, May 1991 - October 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-77	01/01/95	3775.48	80.03	0	3695.45
MW-77	04/01/95	3775.48	80.04	0	3695.44
MW-77	07/01/95	3775.48	80.04	0	3695.44
MW-77	10/01/95	3775.48	79.70	0	3695.78
MW-77	01/16/96	3775.48	79.84	0	3695.64
MW-77	04/17/96	3775.48	78.95	0	3696.53
MW-77	07/16/96	3775.48	79.42	0	3696.06
MW-77	10/14/96	3775.48	80.02	0	3695.46
MW-77	02/04/97	3775.48	D	--	--
MW-77	04/29/97	3775.48	80.35	0	3695.13
MW-77	07/15/97	3775.48	80.31	0	3695.17
MW-77	10/14/97	3775.48	78.92	0	3696.56
MW-77	01/28/98	3775.48	77.00	0	3698.48
MW-77	04/27/98	3775.48	78.48	0	3697.00
MW-77	06/16/98	3775.48	75.30	0	3700.18
MW-77	10/10/98	3775.48	79.84	0	3695.64
MW-77	01/27/99	3775.48	76.41	0	3699.07
MW-77	04/19/99	3775.48	77.50	0	3697.98
MW-77	01/05/00	3775.48	79.36	0	3696.12
MW-77	04/26/00	3775.48	78.57	0	3696.91
MW-77	09/27/00	3775.48	78.86	0	3696.62
MW-77	04/16/01	3775.48	79.91	0	3695.57
MW-77	10/29/01	3775.48	79.72	0	3695.76
MW-78	01/01/95	3785.82	86.51	0	3699.31
MW-78	04/01/95	3785.82	86.32	0	3699.50
MW-78	07/01/95	3785.82	86.32	0	3699.50
MW-78	10/01/95	3785.82	86.19	0	3699.63
MW-78	01/16/96	3785.82	86.22	0	3699.60
MW-78	04/17/96	3785.82	86.29	0	3699.53
MW-78	07/16/96	3785.82	86.41	0	3699.41
MW-78	10/14/96	3785.82	59.39	0	3726.43
MW-78	02/04/97	3785.82	75.78	0	3710.04
MW-78	04/29/97	3785.82	74.53	0	3711.29
MW-78	07/15/97	3785.82	74.47	0	3711.35
MW-78	10/14/97	3785.82	82.08	0	3703.74
MW-78	01/28/98	3785.82	81.61	0	3704.21
MW-78	04/27/98	3785.82	82.33	0	3703.49
MW-78	06/16/98	3785.82	82.27	0	3703.55
MW-78	10/10/98	3785.82	82.85	0	3702.97
MW-78	01/27/99	3785.82	83.30	0.01	3702.53
MW-78	04/19/99	3785.82	83.42	0	3702.40
MW-78	01/05/00	3785.82	82.49	0	3703.33
MW-78	04/26/00	3785.82	83.41	0	3702.41
MW-78	09/27/00	3785.82	83.51	0	3702.31
MW-78	04/16/01	3785.82	81.79	0	3704.03
MW-78	10/29/01	3785.82	82.75	0	3703.07
MW-79	01/01/95	3788.39	76.29	0	3712.10
MW-79	04/01/95	3788.39	77.32	0	3711.07
MW-79	07/01/95	3788.39	77.32	0	3711.07
MW-79	10/01/95	3788.39	79.57	0	3708.82
MW-79	01/16/96	3788.39	78.31	0	3710.08
MW-79	04/17/96	3788.39	78.36	0	3710.03
MW-79	07/15/96	3788.39	81.09	0	3707.30
MW-79	10/13/96	3788.39	80.08	0	3708.31
MW-79	02/03/97	3788.39	80.44	0	3707.95
MW-79	04/28/97	3788.39	75.65	0	3712.74
MW-79	07/14/97	3788.39	75.46	0	3712.93
MW-79	10/13/97	3788.39	78.70	0	3709.69
MW-79	01/27/98	3788.39	80.52	0	3707.87
MW-79	04/27/98	3788.39	81.14	0	3707.25
MW-79	06/15/98	3788.39	80.84	0	3707.55
MW-79	10/09/98	3788.39	81.13	0	3707.26
MW-79	01/27/99	3788.39	79.95	0	3708.44
MW-79	04/19/99	3788.39	73.09	0	3715.30
MW-79	01/05/00	3788.39	76.99	0	3711.40
MW-79	04/26/00	3788.39	75.95	0	3712.44
MW-79	09/27/00	3788.39	81.57	0	3706.82
MW-79	04/16/01	3788.39	81.58	0	3706.81
MW-79	10/29/01	3788.39	81.18	0	3707.21

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-80	01/16/96	3821.64	D	--	--
MW-80	04/19/96	3821.64	D	--	--
MW-80	07/15/96	3821.64	D	--	--
MW-80	10/13/96	3821.64	D	--	--
MW-80	02/03/97	3821.64	D	--	--
MW-80	04/28/97	3821.64	D	--	--
MW-80	07/14/97	3821.64	D	--	--
MW-80	10/13/97	3821.64	D	--	--
MW-80	01/27/98	3821.64	D	--	--
MW-80	04/27/98	3821.64	D	--	--
MW-80	06/15/98	3821.64	D	--	--
MW-80	10/09/98	3821.64	D	--	--
MW-80	01/27/99	3821.64	D	--	--
MW-80	04/19/99	3821.64	D	--	--
MW-80	04/26/00	3821.64	D	--	--
MW-80	09/27/00	3821.64	D	--	--
MW-80	04/16/01	3821.64	D	--	--
MW-80	10/29/01	3821.64	D	--	--
MW-90	02/04/97	3781.73	43.24	0	3738.49
MW-90	04/28/97	3781.73	43.54	0	3738.19
MW-90	07/14/97	3781.73	43.42	0	3738.31
MW-90	10/13/97	3781.73	44.78	0	3736.95
MW-90	01/27/98	3781.73	43.26	0	3738.47
MW-90	04/27/98	3781.73	43.68	0	3738.05
MW-90	06/15/98	3781.73	44.26	0	3737.47
MW-90	10/09/98	3781.73	96.68	0	3685.05
MW-90	01/27/99	3781.73	46.40	0.01	3735.34
MW-90	04/19/99	3781.73	40.11	0	3741.62
MW-90	01/05/00	3781.73	44.81	0	3736.92
MW-90	04/26/00	3781.73	46.12	0	3735.61
MW-90	09/27/00	3781.73	43.82	0	3737.91
MW-90	04/16/01	3781.73	44.45	0	3737.28
MW-90	10/29/01	3781.73	43.62	0	3738.11
MW-91	02/04/97	3783.07	64.90	0	3718.17
MW-91	04/29/97	3783.07	64.96	0.01	3718.11
MW-91	07/15/97	3783.07	64.96	0.02	3718.12
MW-91	10/14/97	3783.07	68.75	0	3714.32
MW-91	01/28/98	3783.07	70.57	0	3712.50
MW-91	04/27/98	3783.07	69.38	0	3713.69
MW-91	06/16/98	3783.07	72.26	0	3710.81
MW-91	10/10/98	3783.07	72.41	0	3710.66
MW-91	01/27/99	3783.07	72.66	0	3710.41
MW-91	04/19/99	3783.07	65.39	0	3717.68
MW-91	01/05/00	3783.07	70.73	0	3712.34
MW-91	04/26/00	3783.07	70.46	0	3712.61
MW-91	09/27/00	3783.07	71.74	0	3711.33
MW-91	04/16/01	3783.07	65.85	0	3717.22
MW-91	10/29/01	3783.07	63.90	0	3719.17
MW-92	02/04/97	3785.29	D	--	--
MW-92	04/29/97	3785.29	D	--	--
MW-92	07/15/97	3785.29	D	--	--
MW-92	10/14/97	3785.29	D	--	--
MW-92	01/28/98	3785.29	D	--	--
MW-92	04/27/98	3785.29	72.52	0	3712.77
MW-92	06/16/98	3785.29	72.45	0	3712.84
MW-92	10/10/98	3785.29	72.51	0	3712.78
MW-92	01/27/99	3785.29	72.43	0	3712.86
MW-92	04/19/99	3785.29	72.41	0	3712.88
MW-92	04/26/00	3785.29	72.39	0	3712.90
MW-92	09/27/00	3785.29	NR	--	--
MW-92	04/16/01	3785.29	72.40	0	3712.89
MW-92	10/29/01	3785.29	72.29	0	3713.00

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-93	02/03/97	3817.50	D	--	--
MW-93	04/29/97	3817.50	D	--	--
MW-93	07/14/97	3817.50	D	--	--
MW-93	10/13/97	3817.50	D	--	--
MW-93	01/27/98	3817.50	D	--	--
MW-93	04/27/98	3817.50	D	--	--
MW-93	06/15/98	3817.50	D	--	--
MW-93	10/09/98	3817.50	D	--	--
MW-93	01/27/99	3817.50	D	--	--
MW-93	04/19/99	3817.50	D	--	--
MW-93	04/26/00	3817.50	D	--	--
MW-93	09/27/00	3817.50	D	--	--
MW-93	04/16/01	3817.50	D	--	--
MW-93	10/29/01	3817.50	D	--	--
MW-99	02/04/97	3770.05	D	--	--
MW-99	04/29/97	3770.05	D	--	--
MW-99	07/15/97	3770.05	D	--	--
MW-99	10/14/97	3770.05	D	--	--
MW-99	01/28/98	3770.05	D	--	--
MW-99	04/27/98	3770.05	D	--	--
MW-99	06/16/98	3770.05	D	--	--
MW-99	10/10/98	3770.05	D	--	--
MW-99	01/27/99	3770.05	D	--	--
MW-99	04/19/99	3770.05	D	--	--
MW-99	04/26/00	3770.05	D	--	--
MW-99	09/27/00	3770.05	D	--	--
MW-99	04/16/01	3770.05	D	--	--
MW-99	10/29/01	3770.05	D	--	--
MW-100	04/29/97	3773.31	D	--	--
MW-100	07/15/97	3773.31	D	--	--
MW-100	10/14/97	3773.31	D	--	--
MW-100	01/28/98	3773.31	D	--	--
MW-100	04/27/98	3773.31	D	--	--
MW-100	06/16/98	3773.31	D	--	--
MW-100	10/10/98	3773.31	D	--	--
MW-100	01/27/99	3773.31	D	--	--
MW-100	04/19/99	3773.31	D	--	--
MW-100	04/26/00	3773.31	D	--	--
MW-100	09/27/00	3773.31	72.61	0	3700.70
MW-100	04/16/01	3773.31	D	--	--
MW-100	10/29/01	3773.31	D	--	--
MW-101	02/04/97	3762.71	D	--	--
MW-101	04/29/97	3762.71	D	--	--
MW-101	07/15/97	3762.71	D	--	--
MW-101	10/14/97	3762.71	D	--	--
MW-101	01/28/98	3762.71	D	--	--
MW-101	04/27/98	3762.71	D	--	--
MW-101	06/16/98	3762.71	D	--	--
MW-101	10/10/98	3762.71	D	--	--
MW-101	01/27/99	3762.71	D	--	--
MW-101	04/19/99	3762.71	D	--	--
MW-101	04/26/00	3762.71	D	--	--
MW-101	09/27/00	3762.71	NR	--	--
MW-101	04/16/01	3762.71	D	--	--
MW-101	10/29/01	3762.71	D	--	--
MW-102	02/04/97	3753.69	D	--	--
MW-102	04/28/97	3753.69	D	--	--
MW-102	07/15/97	3753.69	D	--	--
MW-102	10/13/97	3753.69	D	--	--
MW-102	01/28/98	3753.69	82.60	0	3671.09
MW-102	04/27/98	3753.69	82.60	0	3671.09
MW-102	06/15/98	3753.69	D	--	--
MW-102	10/10/98	3753.69	D	--	--
MW-102	01/27/99	3753.69	82.62	0	3671.07
MW-102	04/19/99	3753.69	82.57	0	3671.12
MW-102	04/26/00	3753.69	82.56	0	3671.13
MW-102	09/27/00	3753.69	D	--	--
MW-102	04/16/01	3753.69	D	--	--
MW-102	10/29/01	3753.69	D	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-103	02/04/97	3743.14	D	--	--
MW-103	04/29/97	3743.14	D	--	--
MW-103	07/15/97	3743.14	D	--	--
MW-103	10/14/97	3743.14	72.30	0	3670.84
MW-103	01/28/98	3743.14	72.70	0	3670.44
MW-103	04/27/98	3743.14	72.78	0	3670.36
MW-103	06/16/98	3743.14	D	--	--
MW-103	10/10/98	3743.14	D	--	--
MW-103	01/27/99	3743.14	73.15	0	3669.99
MW-103	04/19/99	3743.14	73.16	0	3669.98
MW-103	04/26/00	3743.14	72.74	0	3670.40
MW-103	09/27/00	3743.14	NR	--	--
MW-103	04/16/01	3743.14	72.49	0	3670.65
MW-103	10/29/01	3743.14	72.04	0	3671.10
MW-105	02/04/97	3736.93	D	--	--
MW-105	04/28/97	3736.93	D	--	--
MW-105	07/15/97	3736.93	D	--	--
MW-105	10/13/97	3736.93	D	--	--
MW-105	01/28/98	3736.93	82.93	0	3654.00
MW-105	04/27/98	3736.93	D	--	--
MW-105	06/15/98	3736.93	82.84	0	3654.09
MW-105	10/10/98	3736.93	82.33	0	3654.60
MW-105	01/27/99	3736.93	82.62	0	3654.31
MW-105	04/19/99	3736.93	82.00	0	3654.93
MW-105	01/05/00	3736.93	82.42	0	3654.51
MW-105	04/26/00	3736.93	82.22	0	3654.71
MW-105	09/27/00	3736.93	82.89	0	3654.04
MW-105	04/16/01	3736.93	82.33	0	3654.60
MW-105	10/29/01	3736.93	D	--	--
MW-106	02/04/97	3721.97	87.97	0	3634.00
MW-106	04/28/97	3721.97	87.59	0	3634.38
MW-106	07/15/97	3721.97	87.63	0	3634.34
MW-106	10/13/97	3721.97	88.75	0	3633.22
MW-106	01/28/98	3721.97	88.97	0	3633.00
MW-106	04/27/98	3721.97	89.36	0	3632.61
MW-106	06/15/98	3721.97	89.63	0	3632.34
MW-106	10/10/98	3721.97	89.61	0	3632.36
MW-106	01/27/99	3721.97	86.55	0	3635.42
MW-106	04/19/99	3721.97	89.58	0	3632.39
MW-106	01/05/00	3721.97	89.05	0	3632.92
MW-106	04/26/00	3721.97	89.31	0	3632.66
MW-106	09/27/00	3721.97	87.98	0	3633.99
MW-106	04/16/01	3721.97	88.81	0	3633.16
MW-106	10/29/01	3721.97	89.05	0	3632.92
MW-107	02/04/97	3726.27	D	--	--
MW-107	04/29/97	3726.27	D	--	--
MW-107	07/15/97	3726.27	D	--	--
MW-107	10/13/97	3726.27	D	--	--
MW-107	01/28/98	3726.27	D	--	--
MW-107	04/27/98	3726.27	D	--	--
MW-107	06/15/98	3726.27	D	--	--
MW-107	10/10/98	3726.27	D	--	--
MW-107	01/27/99	3726.27	D	--	--
MW-107	04/19/99	3726.27	D	--	--
MW-107	04/26/00	3726.27	D	--	--
MW-107	09/27/00	3726.27	NR	--	--
MW-107	04/16/01	3726.27	D	--	--
MW-107	10/29/01	3726.27	D	--	--
MW-109	06/17/98	3809.53	D	--	--
MW-109	10/10/98	3809.53	17.79	0	3791.74
MW-109	01/05/00	3809.53	17.42	0	3792.11
MW-109	04/26/00	3809.53	17.58	0	3791.95
MW-109	09/27/00	3809.53	17.81	0	3791.72
MW-109	04/16/01	3809.53	17.01	0	3792.52
MW-109	10/29/01	3809.53	17.59	0	3791.94

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-126	01/05/00	3795.58	53.08	0	3742.50
MW-126	04/26/00	3795.58	54.03	0	3741.55
MW-126	09/27/00	3795.58	60.29	0	3735.29
MW-126	04/16/01	3795.58	54.25	0.52	3741.71
MW-126	10/29/01	3795.58	57.82	2.1	3739.29
STOCK WELL	01/01/94	3779.76	19.61	0	3760.15
SUMP-16A	12/01/91	3785.14	11.65	0	3773.49
SUMP-16A	04/15/92	3785.14	12.02	0	3773.12
SUMP-16A	07/01/92	3785.14	4.87	0	3780.27
SUMP-16A	10/01/92	3785.14	12.00	0	3773.14
SUMP-16A	01/01/93	3785.14	13.00	0	3772.14
SUMP-16A	04/01/93	3785.14	14.15	0	3770.99
SUMP-16A	10/01/94	3785.14	11.25	0	3773.89
SUMP-16A	01/01/95	3785.14	16.34	0	3768.80
SUMP-16A	04/01/95	3785.14	17.32	0	3767.82
SUMP-16A	07/01/95	3785.14	17.32	0	3767.82
SUMP-16A	10/01/95	3785.14	14.60	0	3770.54
SUMP-16A	01/16/96	3785.14	16.30	0	3768.84
SUMP-16A	04/19/96	3785.14	17.45	0	3767.69
SUMP-16A	07/15/96	3785.14	16.85	0	3768.29
SUMP-16A	10/13/96	3785.14	15.99	0	3769.15
SUMP-16A	04/26/00	3785.14	D	--	--
SUMP-16A	09/27/00	3785.14	NR	--	--
SUMP-16A	04/16/01	3785.14	13.70	0	3771.44
SUMP-16A	10/29/01	3785.14	13.87	0	3771.27
SUMP-A10	01/16/96	3800.99	D	--	--
SUMP-A10	04/19/96	3800.99	D	--	--
SUMP-A10	07/15/96	3800.99	D	--	--
SUMP-A10	10/13/96	3800.99	11.62	0	3789.37
SUMP-A10	04/26/00	3800.99	D	--	--
SUMP-A10	09/27/00	3800.99	NR	--	--
SUMP-A10	04/16/01	3800.99	D	--	--
SUMP-A10	10/29/01	3800.99	D	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
Lower Queen Wells					
MW-57	05/28/91	3787.70	160.25	0	3627.45
MW-57	06/01/91	3787.70	160.25	0	3627.45
MW-57	07/16/91	3787.70	160.29	0	3627.41
MW-57	08/21/91	3787.70	155.50	0	3632.20
MW-57	09/18/91	3787.70	154.29	0	3633.41
MW-57	10/22/91	3787.70	157.11	0	3630.59
MW-57	11/15/91	3787.70	157.50	0	3630.20
MW-57	03/01/92	3787.70	157.92	0	3629.78
MW-57	04/01/92	3787.70	157.59	0	3630.11
MW-57	05/01/92	3787.70	148.00	0	3639.70
MW-57	06/01/92	3787.70	151.21	0	3636.49
MW-57	07/01/92	3787.70	154.07	0	3633.63
MW-57	08/01/92	3787.70	155.24	0	3632.46
MW-57	09/01/92	3787.70	155.67	0	3632.03
MW-57	10/01/92	3787.70	156.01	0	3631.69
MW-57	11/01/92	3787.70	156.31	0	3631.39
MW-57	12/01/92	3787.70	156.55	0	3631.15
MW-57	01/01/93	3787.70	156.68	0	3631.02
MW-57	02/01/93	3787.70	156.79	0	3630.91
MW-57	03/01/93	3787.70	157.00	0	3630.70
MW-57	04/01/93	3787.70	156.95	0	3630.75
MW-57	05/01/93	3787.70	157.23	0	3630.47
MW-57	06/01/93	3787.70	157.13	0	3630.57
MW-57	07/01/93	3787.70	157.42	0	3630.28
MW-57	08/01/93	3787.70	157.28	0	3630.42
MW-57	09/01/93	3787.70	157.57	0	3630.13
MW-57	10/01/93	3787.70	157.65	0	3630.05
MW-57	11/01/93	3787.70	157.89	0	3629.81
MW-57	12/01/93	3787.70	157.96	0	3629.74
MW-57	01/01/94	3787.70	157.91	0	3629.79
MW-57	02/01/94	3787.70	158.78	0	3628.92
MW-57	03/01/94	3787.70	158.92	0	3628.78
MW-57	04/01/94	3787.70	158.96	0	3628.74
MW-57	05/01/94	3787.70	158.74	0	3628.96
MW-57	07/01/94	3787.70	158.49	0	3629.21
MW-57	08/01/94	3787.70	158.16	0	3629.54
MW-57	09/01/94	3787.70	158.14	0	3629.56
MW-57	10/01/94	3787.70	158.31	0	3629.39
MW-57	12/01/94	3787.70	159.51	0	3628.19
MW-57	01/01/95	3787.70	158.77	0	3628.93
MW-57	04/01/95	3787.70	158.96	0	3628.74
MW-57	07/01/95	3787.70	158.06	0	3629.64
MW-57	10/01/95	3787.70	159.23	0	3628.47
MW-57	01/16/96	3787.70	159.67	0	3628.03
MW-57	04/17/96	3787.70	161.95	0	3625.75
MW-57	07/16/96	3787.70	162.02	0	3625.68
MW-57	10/14/96	3787.70	158.83	0	3628.87
MW-57	02/04/97	3787.70	159.89	0	3627.81
MW-57	04/29/97	3787.70	160.23	0	3627.47
MW-57	07/15/97	3787.70	160.29	0	3627.41
MW-57	09/30/97	3787.70	161.30	0	3626.40
MW-57	10/09/97	3787.70	161.33	0	3626.37
MW-57	10/14/97	3787.70	161.13	0	3626.57
MW-57	10/29/97	3787.70	161.04	0.01	3626.66
MW-57	11/04/97	3787.70	161.23	0.01	3626.47
MW-57	11/12/97	3787.70	161.26	0.01	3626.44
MW-57	11/19/97	3787.70	161.34	0.01	3626.36
MW-57	11/24/97	3787.70	161.33	0	3626.37
MW-57	12/10/97	3787.70	161.30	0	3626.40
MW-57	01/28/98	3787.70	161.11	0	3626.59
MW-57	02/25/98	3787.70	161.44	0	3626.26
MW-57	04/27/98	3787.70	161.29	0	3626.41
MW-57	05/28/98	3787.70	161.67	0	3626.03
MW-57	06/16/98	3787.70	161.62	0	3626.08
MW-57	10/10/98	3787.70	162.11	0	3625.59
MW-57	01/27/99	3787.70	162.16	0	3625.54
MW-57	04/19/99	3787.70	162.33	0	3625.37
MW-57	01/05/00	3787.70	162.62	0	3625.08
MW-57	04/26/00	3787.70	162.70	0	3625.00
MW-57	09/27/00	3787.70	163.02	0	3624.68
MW-57	04/16/01	3787.70	163.15	0	3624.55
MW-57	10/29/01	3787.70	163.44	0	3624.26

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-58	07/16/91	3824.07	197.91	0	3628.16
MW-58	08/21/91	3824.07	193.76	0	3630.31
MW-58	09/18/91	3824.07	193.26	0	3630.81
MW-58	10/22/91	3824.07	194.45	0	3629.62
MW-58	11/15/91	3824.07	194.77	0	3629.30
MW-58	01/16/96	3824.07	D	--	--
MW-58	07/16/96	3824.07	D	--	--
MW-58	10/14/96	3824.07	196.01	0.01	3628.06
MW-58	02/04/97	3824.07	203.00	0	3621.07
MW-58	04/28/97	3824.07	204.14	0	3619.93
MW-58	07/15/97	3824.07	197.66	0	3626.41
MW-58	10/01/97	3824.07	199.20	0.3	3625.08
MW-58	10/09/97	3824.07	199.52	0.67	3625.03
MW-58	10/14/97	3824.07	196.10	0	3627.97
MW-58	01/28/98	3824.07	198.55	0	3625.52
MW-58	05/28/98	3824.07	205.14	0	3618.93
MW-58	10/11/98	3824.07	200.48	0	3623.59
MW-58	01/27/99	3824.07	D	--	--
MW-58	04/19/99	3824.07	217.17	0	3606.90
MW-58	01/05/00	3824.07	210.57	0	3613.50
MW-58	04/26/00	3824.07	223.51	0	3600.56
MW-58	09/27/00	3824.07	220.18	0	3603.89
MW-58	04/16/01	3824.07	114.83	0	3709.24
MW-58	10/29/01	3824.07	177.31	0	3644.41
MW-59	07/16/91	3819.59	193.98	0	3625.61
MW-59	08/21/91	3819.59	189.84	0	3629.75
MW-59	09/18/91	3819.59	189.38	0	3630.21
MW-59	10/22/91	3819.59	190.65	0	3628.94
MW-59	11/15/91	3819.59	190.00	0	3629.59
MW-59	01/16/96	3819.59	192.56	0.07	3627.08
MW-59	04/17/96	3819.59	193.37	1.37	3627.22
MW-59	07/16/96	3819.59	193.40	1.42	3627.22
MW-59	10/14/96	3819.59	192.43	1.22	3628.05
MW-59	02/04/97	3819.59	193.70	1.28	3626.82
MW-59	04/29/97	3819.59	194.09	1.14	3626.33
MW-59	07/15/97	3819.59	194.11	1.17	3626.33
MW-59	09/30/97	3819.59	195.30	1.2	3625.16
MW-59	10/09/97	3819.59	194.05	0	3625.54
MW-59	10/14/97	3819.59	195.81	1.99	3625.23
MW-59	01/28/98	3819.59	193.94	0	3625.65
MW-59	04/27/98	3819.59	194.15	0	3625.44
MW-59	05/28/98	3819.59	195.72	1.16	3624.71
MW-59	06/16/98	3819.59	195.59	1.19	3624.86
MW-59	10/10/98	3819.59	194.84	1.09	3625.54
MW-59	01/27/99	3819.59	195.95	0.89	3624.29
MW-59	04/19/99	3819.59	195.95	0.78	3624.21
MW-59	01/05/00	3819.59	195.39	0	3624.20
MW-59	04/26/00	3819.59	193.72	0	3625.87
MW-59	09/27/00	3819.59	196.28	0	3623.31
MW-59	04/16/01	3819.59	196.48	0	3623.11
MW-59	10/29/01	3819.59	196.58	0	3623.01

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-60	07/16/91	3815.28	188.22	0	3627.06
MW-60	08/21/91	3815.28	184.81	0	3630.47
MW-60	09/18/91	3815.28	184.32	0	3630.96
MW-60	10/22/91	3815.28	185.50	0	3629.78
MW-60	11/15/91	3815.28	185.43	0	3629.85
MW-60	03/01/92	3815.28	186.00	0	3629.28
MW-60	04/01/92	3815.28	185.79	0	3629.49
MW-60	05/01/92	3815.28	180.10	0	3635.18
MW-60	06/01/92	3815.28	181.67	0	3633.61
MW-60	07/01/92	3815.28	183.21	0	3632.07
MW-60	08/01/92	3815.28	183.61	0	3631.67
MW-60	09/01/92	3815.28	183.94	0	3631.34
MW-60	10/01/92	3815.28	184.18	0	3631.10
MW-60	11/01/92	3815.28	184.44	0	3630.84
MW-60	12/01/92	3815.28	184.67	0	3630.61
MW-60	01/01/93	3815.28	184.75	0	3630.53
MW-60	02/01/93	3815.28	184.86	0	3630.42
MW-60	03/01/93	3815.28	185.08	0	3630.20
MW-60	04/01/93	3815.28	185.02	0	3630.26
MW-60	05/01/93	3815.28	185.29	0	3629.99
MW-60	06/01/93	3815.28	185.23	0	3630.05
MW-60	07/01/93	3815.28	185.47	0	3629.81
MW-60	08/01/93	3815.28	185.41	0	3629.87
MW-60	09/01/93	3815.28	185.66	0	3629.62
MW-60	10/01/93	3815.28	185.70	0	3629.58
MW-60	11/01/93	3815.28	185.96	0	3629.32
MW-60	12/01/93	3815.28	185.98	0	3629.30
MW-60	01/01/94	3815.28	185.93	0	3629.35
MW-60	02/01/94	3815.28	186.79	0	3628.49
MW-60	03/01/94	3815.28	184.91	0	3630.37
MW-60	04/01/94	3815.28	186.91	0	3628.37
MW-60	05/01/94	3815.28	186.71	0	3628.57
MW-60	07/01/94	3815.28	186.54	0	3628.74
MW-60	08/01/94	3815.28	185.34	0	3629.94
MW-60	09/01/94	3815.28	186.24	0	3629.04
MW-60	10/01/94	3815.28	186.44	0	3628.84
MW-60	12/01/94	3815.28	187.54	0	3627.74
MW-60	01/01/95	3815.28	186.81	0	3628.47
MW-60	04/01/95	3815.28	187.01	0	3628.27
MW-60	07/01/95	3815.28	187.09	0	3628.19
MW-60	10/01/95	3815.28	187.29	0	3627.99
MW-60	01/19/96	3815.28	187.76	0	3627.52
MW-60	04/17/96	3815.28	187.83	0	3627.45
MW-60	07/16/96	3815.28	188.04	0	3627.24
MW-60	10/13/96	3815.28	187.89	0	3627.39
MW-60	02/04/97	3815.28	188.19	0	3627.09
MW-60	03/18/97	3815.28	188.40	0	3626.88
MW-60	04/28/97	3815.28	188.48	0	3626.80
MW-60	07/14/97	3815.28	188.74	0	3626.54
MW-60	10/01/97	3815.28	189.70	0	3625.58
MW-60	10/09/97	3815.28	189.65	0	3625.63
MW-60	10/13/97	3815.28	189.97	0	3625.31
MW-60	01/27/98	3815.28	189.37	0	3625.91
MW-60	04/27/98	3815.28	189.65	0	3625.63
MW-60	05/28/98	3815.28	190.32	0	3624.96
MW-60	06/15/98	3815.28	189.90	0	3625.38
MW-60	10/10/98	3815.28	190.04	0	3625.24
MW-60	01/27/99	3815.28	190.99	0	3624.29
MW-60	04/19/99	3815.28	190.92	0	3624.36
MW-60	01/05/00	3815.28	190.71	0	3624.57
MW-60	04/26/00	3815.28	190.88	0	3624.40
MW-60	09/27/00	3815.28	192.24	0	3623.04
MW-60	04/16/01	3815.28	191.16	0	3624.12
MW-60	10/29/01	3815.28	191.65	0	3623.63

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-61A	07/16/91	3815.97	189.06	0	3626.91
MW-61A	08/21/91	3815.97	186.85	0	3629.12
MW-61A	09/18/91	3815.97	186.92	0	3629.05
MW-61A	10/22/91	3815.97	187.99	0	3627.98
MW-61A	11/15/91	3815.97	187.00	0	3628.97
MW-61A	10/01/94	3815.97	187.26	0	3628.71
MW-61A	12/01/94	3815.97	188.24	0	3627.73
MW-61A	01/01/95	3815.97	187.57	0	3628.40
MW-61A	02/04/97	3815.97	187.98	0	3627.99
MW-61A	04/28/97	3815.97	188.14	0	3627.83
MW-61A	07/14/97	3815.97	191.60	0	3624.37
MW-61A	09/30/97	3815.97	191.10	0	3624.87
MW-61A	10/09/97	3815.97	192.16	0.01	3623.81
MW-61A	10/13/97	3815.97	190.78	0	3625.19
MW-61A	01/27/98	3815.97	192.27	0	3623.70
MW-61A	04/27/98	3815.97	192.64	0	3623.33
MW-61A	05/28/98	3815.97	192.00	0	3623.97
MW-61A	06/15/98	3815.97	193.73	0	3622.24
MW-61A	10/10/98	3815.97	193.22	0	3622.75
MW-61A	01/27/99	3815.97	193.37	0	3622.60
MW-61A	04/19/99	3815.97	202.48	0	3613.49
MW-61A	01/05/00	3815.97	193.51	0	3622.46
MW-61A	04/26/00	3815.97	192.33	0	3623.64
MW-61A	09/27/00	3815.97	192.75	0	3623.22
MW-61A	04/16/01	3815.97	192.52	0	3623.45
MW-61A	10/29/01	3815.97	192.80	0	3623.17
MW-62	08/21/91	3819.90	189.51	0	3630.39
MW-62	09/18/91	3819.90	189.11	0	3630.79
MW-62	10/22/91	3819.90	190.80	0	3629.10
MW-62	11/15/91	3819.90	189.60	0	3630.30
MW-62	01/16/96	3819.90	192.04	0.01	3627.86
MW-62	04/17/96	3819.90	192.39	0.01	3627.51
MW-62	07/16/96	3819.90	192.34	0	3627.56
MW-62	10/14/96	3819.90	191.45	0.01	3628.45
MW-62	02/04/97	3819.90	192.57	0	3627.33
MW-62	04/28/97	3819.90	192.89	0	3627.01
MW-62	07/15/97	3819.90	193.26	0	3626.64
MW-62	09/30/97	3819.90	194.20	0	3625.70
MW-62	10/09/97	3819.90	194.20	0	3625.70
MW-62	10/14/97	3819.90	193.80	0	3626.10
MW-62	10/29/97	3819.90	194.22	0.01	3625.68
MW-62	11/04/97	3819.90	194.18	0	3625.72
MW-62	11/12/97	3819.90	194.14	0.02	3625.77
MW-62	11/19/97	3819.90	194.30	0.01	3625.60
MW-62	11/24/97	3819.90	194.24	0.01	3625.66
MW-62	12/10/97	3819.90	194.33	0	3625.57
MW-62	01/28/98	3819.90	193.81	0	3626.09
MW-62	02/25/98	3819.90	194.32	0	3625.58
MW-62	04/27/98	3819.90	194.22	0	3625.68
MW-62	05/28/98	3819.90	194.76	0	3625.14
MW-62	06/16/98	3819.90	194.34	0	3625.56
MW-62	10/10/98	3819.90	194.77	0	3625.13
MW-62	01/27/99	3819.90	194.92	0	3624.98
MW-62	04/19/99	3819.90	195.03	0	3624.87
MW-62	01/05/00	3819.90	195.19	0	3624.71
MW-62	04/26/00	3819.90	195.41	0	3624.49
MW-62	09/27/00	3819.90	196.80	0	3623.10
MW-62	04/16/01	3819.90	195.66	0	3624.24
MW-62	10/29/01	3819.90	196.14	0	3623.76

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-63	08/21/91	3826.16	193.73	0	3632.43
MW-63	09/18/91	3826.16	190.65	0	3635.51
MW-63	10/22/91	3826.16	194.29	0	3631.87
MW-63	11/15/91	3826.16	195.34	0	3630.82
MW-63	03/01/92	3826.16	196.82	0	3629.34
MW-63	04/01/92	3826.16	197.02	0	3629.14
MW-63	05/01/92	3826.16	183.25	0	3642.91
MW-63	06/01/92	3826.16	187.21	0	3638.95
MW-63	07/01/92	3826.16	189.00	0	3637.16
MW-63	08/01/92	3826.16	192.73	0	3633.43
MW-63	09/01/92	3826.16	193.65	0	3632.51
MW-63	10/01/92	3826.16	194.24	0	3631.92
MW-63	11/01/92	3826.16	194.90	0	3631.26
MW-63	12/01/92	3826.16	195.32	0	3630.84
MW-63	01/01/93	3826.16	195.55	0	3630.61
MW-63	02/01/93	3826.16	195.84	0	3630.32
MW-63	03/01/93	3826.16	196.14	0	3630.02
MW-63	04/01/93	3826.16	195.99	0	3630.17
MW-63	05/01/93	3826.16	196.34	0	3629.82
MW-63	06/01/93	3826.16	196.43	0	3629.73
MW-63	07/01/93	3826.16	196.62	0	3629.54
MW-63	08/01/93	3826.16	196.69	0	3629.47
MW-63	09/01/93	3826.16	196.93	0	3629.23
MW-63	10/01/93	3826.16	196.89	0	3629.27
MW-63	11/01/93	3826.16	197.32	0	3628.84
MW-63	12/01/93	3826.16	197.43	0	3628.73
MW-63	01/01/94	3826.16	197.33	0	3628.83
MW-63	02/01/94	3826.16	198.42	0	3627.74
MW-63	03/01/94	3826.16	198.37	0	3627.79
MW-63	04/01/94	3826.16	197.47	0	3628.69
MW-63	05/01/94	3826.16	198.28	0	3627.88
MW-63	07/01/94	3826.16	197.98	0	3628.18
MW-63	08/01/94	3826.16	197.12	0	3629.04
MW-63	09/01/94	3826.16	197.33	0	3628.83
MW-63	10/01/94	3826.16	197.74	0	3628.42
MW-63	12/01/94	3826.16	199.00	0	3627.16
MW-63	01/01/95	3826.16	198.20	0	3627.96
MW-63	04/01/95	3826.16	198.46	0	3627.70
MW-63	07/01/95	3826.16	198.49	0	3627.67
MW-63	10/01/95	3826.16	198.57	0	3627.59
MW-63	01/16/96	3826.16	198.90	0	3627.26
MW-63	04/17/96	3826.16	199.23	0	3626.93
MW-63	07/16/96	3826.16	198.91	0	3627.25
MW-63	10/13/96	3826.16	194.89	0	3631.27
MW-63	02/04/97	3826.16	199.01	0	3627.15
MW-63	04/28/97	3826.16	199.46	0	3626.70
MW-63	07/14/97	3826.16	200.01	0	3626.15
MW-63	10/01/97	3826.16	200.80	0	3625.36
MW-63	10/09/97	3826.16	209.05	0	3617.11
MW-63	10/13/97	3826.16	200.88	0	3625.28
MW-63	01/27/98	3826.16	200.96	0	3625.20
MW-63	04/27/98	3826.16	201.28	0	3624.88
MW-63	05/28/98	3826.16	200.72	0	3625.44
MW-63	06/16/98	3826.16	201.56	0	3624.60
MW-63	10/09/98	3826.16	202.01	0	3624.15
MW-63	01/27/99	3826.16	202.44	0	3623.72
MW-63	04/19/99	3826.16	202.39	0	3623.77
MW-63	01/05/00	3826.16	202.45	0	3623.71
MW-63	04/26/00	3826.16	202.80	0	3623.36
MW-63	09/27/00	3826.16	202.88	0	3623.28
MW-63	04/16/01	3826.16	203.06	0	3623.10
MW-63	10/29/01	3826.16	203.03	0	3623.13

Appendix A
 Historic Fluid Level Data, May 1991 - October 2001
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-64	08/21/91	3798.57	167.43	0	3631.14
MW-64	09/18/91	3798.57	167.21	0	3631.36
MW-64	10/22/91	3798.57	168.66	0	3629.91
MW-64	11/15/91	3798.57	168.90	0	3629.67
MW-64	03/01/92	3798.57	169.20	0	3629.37
MW-64	04/01/92	3798.57	169.00	0	3629.57
MW-64	05/01/92	3798.57	161.58	0	3636.99
MW-64	06/01/92	3798.57	164.25	0	3634.32
MW-64	07/01/92	3798.57	166.36	0	3632.21
MW-64	08/01/92	3798.57	166.82	0	3631.75
MW-64	09/01/92	3798.57	167.17	0	3631.40
MW-64	10/01/92	3798.57	167.45	0	3631.12
MW-64	11/01/92	3798.57	167.63	0	3630.94
MW-64	12/01/92	3798.57	167.85	0	3630.72
MW-64	01/01/93	3798.57	167.99	0	3630.58
MW-64	02/01/93	3798.57	168.08	0	3630.49
MW-64	03/01/93	3798.57	168.26	0	3630.31
MW-64	04/01/93	3798.57	168.22	0	3630.35
MW-64	05/01/93	3798.57	168.52	0	3630.05
MW-64	06/01/93	3798.57	168.46	0	3630.11
MW-64	07/01/93	3798.57	168.70	0	3629.87
MW-64	08/01/93	3798.57	168.59	0	3629.98
MW-64	09/01/93	3798.57	168.83	0	3629.74
MW-64	10/01/93	3798.57	168.88	0	3629.69
MW-64	11/01/93	3798.57	169.09	0	3629.48
MW-64	12/01/93	3798.57	169.13	0	3629.44
MW-64	01/01/94	3798.57	169.12	0	3629.45
MW-64	02/01/94	3798.57	169.92	0	3628.65
MW-64	03/01/94	3798.57	170.05	0	3628.52
MW-64	04/01/94	3798.57	170.03	0	3628.54
MW-64	05/01/94	3798.57	169.89	0	3628.68
MW-64	07/01/94	3798.57	169.65	0	3628.92
MW-64	08/01/94	3798.57	168.39	0	3630.18
MW-64	09/01/94	3798.57	169.32	0	3629.25
MW-64	10/01/94	3798.57	169.56	0	3629.01
MW-64	12/01/94	3798.57	170.71	0	3627.86
MW-64	01/01/95	3798.57	169.94	0	3628.63
MW-64	04/01/95	3798.57	170.13	0	3628.44
MW-64	07/01/95	3798.57	170.24	0	3628.33
MW-64	10/01/95	3798.57	170.33	0	3628.24
MW-64	01/19/96	3798.57	170.87	0	3627.70
MW-64	04/17/96	3798.57	170.98	0	3627.59
MW-64	07/16/96	3798.57	171.27	0.33	3627.54
MW-64	10/13/96	3798.57	170.69	0.29	3628.09
MW-64	02/04/97	3798.57	171.53	0.38	3627.31
MW-64	03/18/97	3798.57	171.95	0.55	3627.02
MW-64	04/28/97	3798.57	171.93	0.55	3627.04
MW-64	07/15/97	3798.57	171.41	0.53	3627.54
MW-64	10/01/97	3798.57	173.70	1.4	3625.89
MW-64	10/09/97	3798.57	173.58	1.28	3625.92
MW-64	10/13/97	3798.57	173.33	1.29	3626.18
MW-64	10/21/97	3798.57	173.34	1.17	3626.08
MW-64	11/12/97	3798.57	176.15	0	3622.42
MW-64	11/19/97	3798.57	173.02	0	3625.55
MW-64	11/24/97	3798.57	174.56	0	3624.01
MW-64	12/10/97	3798.57	174.50	0	3624.07
MW-64	01/06/98	3798.57	174.50	0	3624.07
MW-64	01/15/98	3798.57	174.40	0	3624.17
MW-64	01/20/98	3798.57	174.56	0	3624.01
MW-64	01/28/98	3798.57	174.56	0	3624.01
MW-64	02/03/98	3798.57	173.16	0	3625.41
MW-64	02/25/98	3798.57	172.77	0	3625.80
MW-64	04/27/98	3798.57	172.74	0	3625.83
MW-64	05/28/98	3798.57	173.84	0	3624.73
MW-64	06/15/98	3798.57	173.03	0	3625.54
MW-64	10/10/98	3798.57	173.41	0	3625.16
MW-64	01/27/99	3798.57	173.54	0	3625.03
MW-64	04/19/99	3798.57	173.62	0	3624.95
MW-64	01/05/00	3798.57	173.82	0	3624.75
MW-64	04/26/00	3798.57	173.96	0	3624.61
MW-64	09/27/00	3798.57	174.37	0	3624.20
MW-64	04/16/01	3798.57	174.48	0	3624.09
MW-64	10/29/01	3798.57	174.79	0	3623.78

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Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-65A	08/21/91	3763.26	131.36	0	3631.90
MW-65A	09/18/91	3763.26	130.91	0	3632.35
MW-65A	10/22/91	3763.26	133.09	0	3630.17
MW-65A	11/15/91	3763.26	133.70	0	3629.56
MW-65A	01/16/96	3763.26	136.11	1.3	3628.09
MW-65A	06/15/98	3763.26	137.96	0.93	3625.97
MW-65A	01/05/00	3763.26	139.58	0.97	3624.39
MW-65A	04/26/00	3763.26	138.78	0	3624.48
MW-65A	09/27/00	3763.26	139.93	0	3623.33
MW-65A	04/16/01	3763.26	139.61	0	3623.65
MW-65A	10/29/01	3763.26	139.99	0	3623.27
MW-66	08/21/91	3828.98	196.77	0	3632.21
MW-66	09/18/91	3828.98	198.73	0	3630.25
MW-66	10/22/91	3828.98	199.70	0	3629.28
MW-66	11/15/91	3828.98	199.88	0	3629.10
MW-66	03/01/92	3828.98	200.37	0	3628.61
MW-66	04/01/92	3828.98	200.25	0	3628.73
MW-66	05/01/92	3828.98	195.25	0	3633.73
MW-66	06/01/92	3828.98	196.08	0	3632.90
MW-66	07/01/92	3828.98	197.35	0	3631.63
MW-66	08/01/92	3828.98	197.77	0	3631.21
MW-66	09/01/92	3828.98	198.17	0	3630.81
MW-66	10/01/92	3828.98	198.40	0	3630.58
MW-66	11/01/92	3828.98	198.76	0	3630.22
MW-66	12/01/92	3828.98	198.98	0	3630.00
MW-66	01/01/93	3828.98	199.10	0	3629.88
MW-66	02/01/93	3828.98	199.23	0	3629.75
MW-66	03/01/93	3828.98	199.49	0	3629.49
MW-66	04/01/93	3828.98	199.38	0	3629.60
MW-66	05/01/93	3828.98	199.63	0	3629.35
MW-66	06/01/93	3828.98	199.59	0	3629.39
MW-66	07/01/93	3828.98	199.82	0	3629.16
MW-66	08/01/93	3828.98	199.78	0	3629.20
MW-66	09/01/93	3828.98	200.01	0	3628.97
MW-66	10/01/93	3828.98	200.09	0	3628.89
MW-66	11/01/93	3828.98	200.35	0	3628.63
MW-66	12/01/93	3828.98	200.42	0	3628.56
MW-66	01/01/94	3828.98	200.33	0	3628.65
MW-66	02/01/94	3828.98	201.39	0	3627.59
MW-66	03/01/94	3828.98	201.44	0	3627.54
MW-66	04/01/94	3828.98	201.36	0	3627.62
MW-66	05/01/94	3828.98	201.26	0	3627.72
MW-66	07/01/94	3828.98	200.91	0	3628.07
MW-66	08/01/94	3828.98	199.86	0	3629.12
MW-66	09/01/94	3828.98	200.66	0	3628.32
MW-66	10/01/94	3828.98	200.83	0	3628.15
MW-66	12/01/94	3828.98	201.96	0	3627.02
MW-66	01/01/95	3828.98	201.04	0	3627.94
MW-66	04/01/95	3828.98	202.26	0	3626.72
MW-66	07/01/95	3828.98	201.59	0	3627.39
MW-66	10/01/95	3828.98	201.62	0	3627.36
MW-66	01/16/96	3828.98	200.89	0	3628.09
MW-66	04/17/96	3828.98	202.29	0	3626.69
MW-66	07/16/96	3828.98	202.45	0	3626.53
MW-66	10/13/96	3828.98	200.80	0	3628.18
MW-66	02/04/97	3828.98	202.60	0	3626.38
MW-66	04/28/97	3828.98	202.84	0	3626.14
MW-66	07/14/97	3828.98	202.72	0	3626.26
MW-66	09/30/97	3828.98	204.00	0	3624.98
MW-66	10/09/97	3828.98	204.20	0	3624.78
MW-66	10/13/97	3828.98	203.77	0	3625.21
MW-66	01/27/98	3828.98	203.79	0	3625.19
MW-66	04/27/98	3828.98	204.09	0	3624.89
MW-66	05/28/98	3828.98	204.18	0	3624.80
MW-66	06/15/98	3828.98	204.37	0	3624.61
MW-66	10/10/98	3828.98	204.86	0	3624.12
MW-66	01/27/99	3828.98	205.05	0	3623.93
MW-66	04/19/99	3828.98	205.10	0	3623.88
MW-66	01/05/99	3828.98	205.13	0	3623.85
MW-66	04/26/00	3828.98	205.41	0	3623.57
MW-66	09/27/00	3828.98	205.78	0	3623.20
MW-66	04/16/01	3828.98	205.59	0	3623.39
MW-66	10/29/01	3828.98	206.04	0	3622.94

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-67	09/18/91	3765.87	133.99	0	3631.88
MW-67	10/22/91	3765.87	135.74	0	3630.13
MW-67	11/15/91	3765.87	136.00	0	3629.87
MW-67	03/01/92	3765.87	136.35	0	3629.52
MW-67	04/01/92	3765.87	136.25	0	3629.62
MW-67	05/01/92	3765.87	127.66	0	3638.21
MW-67	06/01/92	3765.87	131.08	0	3634.79
MW-67	07/01/92	3765.87	133.24	0	3632.63
MW-67	08/01/92	3765.87	133.89	0	3631.98
MW-67	09/01/92	3765.87	134.24	0	3631.63
MW-67	10/01/92	3765.87	134.33	0	3631.54
MW-67	11/01/92	3765.87	134.76	0	3631.11
MW-67	12/01/92	3765.87	135.00	0	3630.87
MW-67	01/01/93	3765.87	135.10	0	3630.77
MW-67	02/01/93	3765.87	135.19	0	3630.68
MW-67	03/01/93	3765.87	135.39	0	3630.48
MW-67	04/01/93	3765.87	135.37	0	3630.50
MW-67	05/01/93	3765.87	135.63	0	3630.24
MW-67	06/01/93	3765.87	135.58	0	3630.29
MW-67	07/01/93	3765.87	135.81	0	3630.06
MW-67	08/01/93	3765.87	135.69	0	3630.18
MW-67	09/01/93	3765.87	135.99	0	3629.88
MW-67	10/01/93	3765.87	136.04	0	3629.83
MW-67	11/01/93	3765.87	136.26	0	3629.61
MW-67	12/01/93	3765.87	136.31	0	3629.56
MW-67	01/01/94	3765.87	136.25	0	3629.62
MW-67	02/01/94	3765.87	137.16	0	3628.71
MW-67	03/01/94	3765.87	137.22	0	3628.65
MW-67	04/01/94	3765.87	137.31	0	3628.56
MW-67	05/01/94	3765.87	137.14	0	3628.73
MW-67	07/01/94	3765.87	136.82	0	3629.05
MW-67	08/01/94	3765.87	135.55	0	3630.32
MW-67	09/01/94	3765.87	136.58	0	3629.29
MW-67	10/01/94	3765.87	136.71	0	3629.16
MW-67	12/01/94	3765.87	137.89	0	3627.98
MW-67	01/01/95	3765.87	137.09	0	3628.78
MW-67	04/01/95	3765.87	137.29	0	3628.58
MW-67	07/01/95	3765.87	137.40	0	3628.47
MW-67	10/01/95	3765.87	137.54	0	3628.33
MW-67	01/19/96	3765.87	138.02	0	3627.85
MW-67	04/17/96	3765.87	138.13	0	3627.74
MW-67	07/16/96	3765.87	138.14	0	3627.73
MW-67	10/14/96	3765.87	137.53	0	3628.34
MW-67	02/04/97	3765.87	138.37	0	3627.50
MW-67	04/28/97	3765.87	138.64	0	3627.23
MW-67	07/15/97	3765.87	138.95	0	3626.92
MW-67	10/01/97	3765.87	140.50	0.8	3625.95
MW-67	10/09/97	3765.87	144.05	4.35	3624.99
MW-67	10/13/97	3765.87	139.98	0.67	3626.37
MW-67	10/21/97	3765.87	140.55	0.75	3625.86
MW-67	10/29/97	3765.87	140.54	0.83	3625.93
MW-67	11/04/97	3765.87	140.43	0.75	3625.98
MW-67	11/12/97	3765.87	140.52	0.87	3625.98
MW-67	11/19/97	3765.87	140.55	0.77	3625.88
MW-67	11/24/97	3765.87	140.70	0.95	3625.86
MW-67	12/10/97	3765.87	140.57	0.85	3625.92
MW-67	01/06/98	3765.87	139.76	0	3626.11
MW-67	01/15/98	3765.87	139.75	0	3626.12
MW-67	01/20/98	3765.87	141.43	0.9	3625.09
MW-67	01/28/98	3765.87	140.14	0.77	3626.29
MW-67	02/03/98	3765.87	141.33	0.73	3625.07
MW-67	02/10/98	3765.87	141.32	0	3624.55
MW-67	02/17/98	3765.87	141.81	0.44	3624.38
MW-67	02/25/98	3765.87	141.12	0	3624.75
MW-67	04/27/98	3765.87	141.13	0.65	3625.21
MW-67	05/28/98	3765.87	141.43	0	3624.44
MW-67	06/15/98	3765.87	141.49	0	3624.38
MW-67	10/10/98	3765.87	140.50	0.05	3625.40
MW-67	04/19/99	3765.87	140.72	0	3625.15
MW-67	01/05/00	3765.87	140.77	0.47	3625.44
MW-67	04/26/00	3765.87	141.72	0	3624.15
MW-67	09/27/00	3765.87	141.51	0	3624.36
MW-67	04/16/01	3765.87	141.54	0	3624.33
MW-67	10/29/01	3765.87	141.49	0	3624.38

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-68	09/18/91	3797.83	166.68	0	3631.15
MW-68	10/22/91	3797.83	169.37	0	3628.46
MW-68	11/15/91	3797.83	167.30	0	3630.53
MW-68	10/14/97	3797.83	171.76	0	3626.07
MW-68	01/27/98	3797.83	173.22	1.99	3626.06
MW-68	06/17/98	3797.83	172.90	0.85	3625.55
MW-68	01/05/00	3797.83	173.17	0	3624.66
MW-68	04/26/00	3797.83	173.30	0.18	3624.66
MW-68	09/27/00	3797.83	173.72	0	3624.11
MW-68	04/16/01	3797.83	175.00	1.23	3623.73
MW-68	10/29/01	3797.83	174.42	0.56	3623.82
MW-70	09/18/91	3822.57	191.59	0	3630.98
MW-70	10/22/91	3822.57	191.68	0	3630.89
MW-70	11/15/91	3822.57	192.20	0	3630.37
MW-70	03/01/92	3822.57	192.74	0	3629.83
MW-70	04/01/92	3822.57	192.62	0	3629.95
MW-70	05/01/92	3822.57	189.97	0	3632.60
MW-70	06/01/92	3822.57	188.42	0	3634.15
MW-70	07/01/92	3822.57	188.87	0	3633.70
MW-70	08/01/92	3822.57	189.54	0	3633.03
MW-70	09/01/92	3822.57	190.02	0	3632.55
MW-70	10/01/92	3822.57	190.48	0	3632.09
MW-70	11/01/92	3822.57	190.86	0	3631.71
MW-70	12/01/92	3822.57	191.17	0	3631.40
MW-70	01/01/93	3822.57	191.39	0	3631.18
MW-70	02/01/93	3822.57	191.54	0	3631.03
MW-70	03/01/93	3822.57	191.77	0	3630.80
MW-70	04/01/93	3822.57	191.80	0	3630.77
MW-70	05/01/93	3822.57	192.09	0	3630.48
MW-70	06/01/93	3822.57	192.18	0	3630.39
MW-70	07/01/93	3822.57	192.32	0	3630.25
MW-70	08/01/93	3822.57	192.30	0	3630.27
MW-70	09/01/93	3822.57	192.53	0	3630.04
MW-70	10/01/93	3822.57	192.65	0	3629.92
MW-70	11/01/93	3822.57	192.91	0	3629.66
MW-70	12/01/93	3822.57	192.96	0	3629.61
MW-70	01/01/94	3822.57	192.99	0	3629.58
MW-70	02/01/94	3822.57	194.02	0	3628.55
MW-70	03/01/94	3822.57	194.00	0	3628.57
MW-70	04/01/94	3822.57	193.19	0	3629.38
MW-70	05/01/94	3822.57	193.86	0	3628.71
MW-70	07/01/94	3822.57	193.59	0	3628.98
MW-70	08/01/94	3822.57	193.09	0	3629.48
MW-70	09/01/94	3822.57	193.17	0	3629.40
MW-70	10/01/94	3822.57	193.38	0	3629.19
MW-70	12/01/94	3822.57	194.58	0	3627.99
MW-70	01/01/95	3822.57	192.83	0	3629.74
MW-70	04/01/95	3822.57	194.11	0	3628.46
MW-70	07/01/95	3822.57	194.19	0	3628.38
MW-70	10/01/95	3822.57	194.19	0	3628.38
MW-70	01/16/96	3822.57	194.68	0	3627.89
MW-70	04/17/96	3822.57	194.94	0	3627.63
MW-70	07/15/96	3822.57	194.70	0	3627.87
MW-70	10/13/96	3822.57	193.98	0	3628.59
MW-70	02/03/97	3822.57	194.47	0	3628.10
MW-70	04/28/97	3822.57	195.01	0	3627.56
MW-70	07/14/97	3822.57	195.44	0	3627.13
MW-70	10/01/97	3822.57	196.20	0	3626.37
MW-70	10/13/97	3822.57	196.05	0	3626.52
MW-70	10/29/97	3822.57	196.24	0.01	3626.33
MW-70	11/04/97	3822.57	196.35	0	3626.22
MW-70	11/12/97	3822.57	196.34	0	3626.23
MW-70	11/19/97	3822.57	196.36	0.01	3626.21
MW-70	11/24/97	3822.57	196.36	0	3626.21
MW-70	12/10/97	3822.57	196.47	0	3626.10
MW-70	01/27/98	3822.57	196.22	0	3626.35
MW-70	02/25/98	3822.57	196.45	0	3626.12
MW-70	04/27/98	3822.57	196.48	0	3626.09
MW-70	05/28/98	3822.57	196.91	0	3625.66
MW-70	06/15/98	3822.57	196.74	0	3625.83
MW-70	10/09/98	3822.57	197.27	0	3625.30
MW-70	01/27/99	3822.57	199.24	0	3623.33
MW-70	04/19/99	3822.57	197.40	0	3625.17

Appendix A
Historic Fluid Level Data, May 1991 - October 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-70	01/05/00	3822.57	197.73	0	3624.84
MW-70	04/26/00	3822.57	197.71	0	3624.86
MW-70	09/27/00	3822.57	198.02	0	3624.55
MW-70	04/16/01	3822.57	198.34	0	3624.23
MW-70	10/29/01	3822.57	198.30	0	3624.27
MW-71	10/01/93	3778.05	149.68	0	3628.37
MW-71	11/01/93	3778.05	149.90	0	3628.15
MW-71	12/01/93	3778.05	149.93	0	3628.12
MW-71	01/01/94	3778.05	149.92	0	3628.13
MW-71	02/01/94	3778.05	150.94	0	3627.11
MW-71	03/01/94	3778.05	150.90	0	3627.15
MW-71	04/01/94	3778.05	149.98	0	3628.07
MW-71	05/01/94	3778.05	150.64	0	3627.41
MW-71	07/01/94	3778.05	150.37	0	3627.68
MW-71	08/01/94	3778.05	149.35	0	3628.70
MW-71	09/01/94	3778.05	150.19	0	3627.86
MW-71	10/01/94	3778.05	150.41	0	3627.64
MW-71	12/01/94	3778.05	151.41	0	3626.84
MW-71	01/01/95	3778.05	150.65	0	3627.40
MW-71	04/01/95	3778.05	150.88	0	3627.17
MW-71	07/01/95	3778.05	150.84	0	3627.21
MW-71	10/01/95	3778.05	151.15	0	3626.90
MW-71	01/16/96	3778.05	151.36	0	3626.69
MW-71	04/17/96	3778.05	151.74	0	3626.31
MW-71	07/16/96	3778.05	151.69	0	3626.36
MW-71	10/13/96	3778.05	149.72	0	3628.33
MW-71	02/04/97	3778.05	152.39	0	3625.66
MW-71	04/28/97	3778.05	152.52	0	3625.53
MW-71	07/14/97	3778.05	152.86	0	3625.19
MW-71	10/01/97	3778.05	153.40	0	3624.65
MW-71	10/09/97	3778.05	153.41	0.01	3624.64
MW-71	10/13/97	3778.05	153.39	0	3624.66
MW-71	01/28/98	3778.05	153.47	0	3624.58
MW-71	04/27/98	3778.05	153.91	0	3624.14
MW-71	05/28/98	3778.05	153.86	0	3624.19
MW-71	06/15/98	3778.05	153.88	0	3624.17
MW-71	10/10/98	3778.05	154.34	0	3623.71
MW-71	01/27/99	3778.05	154.50	0	3623.55
MW-71	04/19/99	3778.05	154.56	0	3623.49
MW-71	01/05/00	3778.05	154.66	0	3623.39
MW-71	04/26/00	3778.05	155.04	0	3623.01
MW-71	09/27/00	3778.05	155.15	0	3622.90
MW-71	04/16/01	3778.05	155.01	0	3623.04
MW-71	10/29/01	3778.05	155.26	0	3622.79
MW-72	10/01/93	3819.32	190.55	0.5	3629.14
MW-72	11/01/93	3819.32	189.91	0	3629.41
MW-72	12/01/93	3819.32	196.73	3.72	3625.30
MW-72	01/16/96	3819.32	216.76	16.5	3614.60
MW-72	04/17/96	3819.32	214.60	16.35	3616.65
MW-72	07/16/96	3819.32	201.95	11.85	3626.02
MW-72	10/14/96	3819.32	211.05	5.84	3612.53
MW-72	02/04/97	3819.32	213.65	1.22	3606.56
MW-72	04/29/97	3819.32	197.65	2.72	3623.65
MW-72	07/15/97	3819.32	212.06	6.71	3612.15
MW-72	10/09/97	3819.32	228.35	0	3590.97
MW-72	10/14/97	3819.32	229.54	0	3589.78
MW-72	10/29/97	3819.32	229.55	0	3589.77
MW-72	11/04/97	3819.32	227.75	0	3591.57
MW-72	11/12/97	3819.32	227.83	0	3591.49
MW-72	11/19/97	3819.32	206.30	0.26	3613.20
MW-72	11/24/97	3819.32	227.73	0	3591.59
MW-72	12/10/97	3819.32	228.74	0	3590.58

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Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-72	01/06/98	3819.32	228.54	0.02	3590.79
MW-72	01/15/98	3819.32	228.50	0	3590.82
MW-72	01/20/98	3819.32	228.92	0	3590.40
MW-72	02/03/98	3819.32	220.23	0	3599.09
MW-72	02/10/98	3819.32	224.93	0	3594.39
MW-72	02/17/98	3819.32	224.27	0	3595.05
MW-72	02/25/98	3819.32	224.67	0	3594.65
MW-72	04/27/98	3819.32	216.73	0	3602.59
MW-72	05/28/98	3819.32	229.14	0	3590.18
MW-72	06/16/98	3819.32	222.68	0	3596.64
MW-72	10/11/98	3819.32	196.22	0	3623.10
MW-72	01/27/99	3819.32	229.90	0.01	3589.43
MW-72	04/19/99	3819.32	229.80	0	3589.52
MW-72	01/05/00	3819.32	209.27	0	3610.05
MW-72	04/26/00	3819.32	196.20	0	3623.12
MW-72	09/27/00	3819.32	211.13	0	3608.19
MW-72	04/16/01	3819.32	211.42	0	3607.90
MW-72	10/29/01	3819.32	216.42	0	3602.90
MW-73	12/01/94	3820.09	202.90	6.12	3621.65
MW-73	01/01/95	3820.09	195.75	1.68	3625.57
MW-73	04/01/95	3820.09	207.07	8.52	3619.23
MW-73	07/01/95	3820.09	204.48	6.72	3620.51
MW-73	10/01/95	3820.09	192.35	0	3627.74
MW-73	01/16/96	3820.09	192.66	0	3627.43
MW-73	04/17/96	3820.09	204.10	1.86	3617.34
MW-73	07/16/96	3820.09	193.91	1.61	3627.35
MW-73	10/14/96	3820.09	191.42	0.01	3628.67
MW-73	02/04/97	3820.09	193.00	0	3627.09
MW-73	04/29/97	3820.09	194.09	0.68	3626.49
MW-73	07/15/97	3820.09	193.70	0	3626.39
MW-73	09/30/97	3820.09	195.00	0.9	3625.74
MW-73	10/09/97	3820.09	194.92	0.72	3625.69
MW-73	10/14/97	3820.09	195.15	0	3624.94
MW-73	01/28/98	3820.09	194.50	0	3625.59
MW-73	04/27/98	3820.09	194.40	0	3625.69
MW-73	05/28/98	3820.09	194.66	0	3625.43
MW-73	06/16/98	3820.09	194.67	0	3625.42
MW-73	10/10/98	3820.09	194.47	0	3625.62
MW-73	01/27/99	3820.09	195.14	0	3624.95
MW-73	04/19/99	3820.09	195.80	0	3624.29
MW-73	01/05/00	3820.09	195.89	0	3624.20
MW-73	04/26/00	3820.09	195.79	0	3624.30
MW-73	09/27/00	3820.09	196.13	0	3623.96
MW-73	04/16/01	3820.09	196.15	0	3623.94
MW-73	10/29/01	3820.09	196.45	0	3623.64
MW-74	12/01/94	3820.82	192.31	0	3628.51
MW-74	01/01/95	3820.82	193.88	1.44	3627.99
MW-74	04/01/95	3820.82	189.31	0.48	3631.86
MW-74	07/01/95	3820.82	188.07	0	3632.75
MW-74	01/16/96	3820.82	188.65	0	3632.17
MW-74	04/17/96	3820.82	187.30	0	3633.52
MW-74	07/16/96	3820.82	186.52	0	3634.30
MW-74	10/14/96	3820.82	178.77	0	3642.05
MW-74	02/04/97	3820.82	182.50	0	3638.32
MW-74	04/29/97	3820.82	183.92	0	3636.90
MW-74	07/15/97	3820.82	183.74	0	3637.08
MW-74	09/30/97	3820.82	185.30	0	3635.52
MW-74	10/09/97	3820.82	185.25	0	3635.57
MW-74	10/14/97	3820.82	185.77	0	3635.05
MW-74	01/28/98	3820.82	184.15	0	3636.67
MW-74	04/27/98	3820.82	184.44	0	3636.38
MW-74	05/28/98	3820.82	134.12	0	3686.70
MW-74	06/16/98	3820.82	187.47	0	3633.35
MW-74	10/10/98	3820.82	189.19	0	3631.63
MW-74	01/27/99	3820.82	186.50	0	3634.32
MW-74	04/19/99	3820.82	133.90	0	3686.92
MW-74	01/05/00	3820.82	189.39	0	3631.43
MW-74	04/26/00	3820.82	196.45	0	3624.37
MW-74	09/27/00	3820.82	197.29	0	3623.53
MW-74	04/16/01	3820.82	197.57	0	3623.25
MW-74	10/29/01	3820.82	196.91	0	3623.91

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-75	12/01/94	3816.12	228.96	23.04	3603.98
MW-75	01/01/95	3816.12	209.93	12.72	3615.47
MW-75	04/01/95	3816.12	251.13	35.4	3590.83
MW-75	07/01/95	3816.12	295.32	59.52	3564.24
MW-75	01/18/96	3816.12	197.10	3.1	3621.28
MW-75	04/17/96	3816.12	189.17	0.04	3626.97
MW-75	07/16/96	3816.12	190.40	1.76	3627.00
MW-75	10/14/96	3816.12	190.01	1.79	3627.41
MW-75	02/04/97	3816.12	193.45	0	3622.67
MW-75	04/29/97	3816.12	200.64	3.34	3617.91
MW-75	07/15/97	3816.12	200.95	6.17	3619.67
MW-75	10/09/97	3816.12	200.87	4.59	3618.60
MW-75	10/14/97	3816.12	200.86	2.76	3617.27
MW-75	10/29/97	3816.12	200.62	0.54	3615.89
MW-75	11/04/97	3816.12	200.76	3.52	3617.92
MW-75	11/12/97	3816.12	196.10	0	3620.02
MW-75	11/19/97	3816.12	199.10	2.75	3619.02
MW-75	11/24/97	3816.12	200.42	5.57	3619.76
MW-75	12/10/97	3816.12	195.43	0	3620.69
MW-75	01/06/98	3816.12	214.82	0	3601.30
MW-75	01/15/98	3816.12	214.80	0	3601.32
MW-75	01/20/98	3816.12	200.95	0	3615.17
MW-75	02/03/98	3816.12	201.20	1.9	3616.30
MW-75	02/10/98	3816.12	205.10	4.5	3614.30
MW-75	02/17/98	3816.12	200.77	0.95	3616.04
MW-75	02/25/98	3816.12	203.15	2.15	3614.53
MW-75	04/27/98	3816.12	200.72	8.77	3621.80
MW-75	05/28/98	3816.12	201.72	2.7	3616.37
MW-75	06/16/98	3816.12	205.82	0	3610.30
MW-75	10/11/98	3816.12	192.53	3.8	3626.36
MW-75	01/27/99	3816.14	201.89	0.26	3614.44
MW-75	04/19/99	3816.14	207.70	0	3608.44
MW-75	01/05/00	3816.14	200.59	4.47	3618.81
MW-75	04/26/00	3816.12	194.98	0	3621.14
MW-75	09/27/00	3816.12	195.18	0	3620.94
MW-75	04/16/01	3816.12	204.02	0	3612.10
MW-75	10/29/01	3816.12	219.07	0	3597.05
MW-76	12/01/94	3796.01	167.36	0	3628.65
MW-76	01/01/95	3796.01	169.05	2.04	3628.45
MW-76	07/01/95	3796.01	180.14	6.84	3620.86
MW-76	10/01/95	3796.01	168.22	0.41	3628.09
MW-76	01/16/96	3796.01	168.85	0.95	3627.85
MW-76	04/17/96	3796.01	169.59	0.99	3627.14
MW-76	07/16/96	3796.01	167.04	0	3628.97
MW-76	10/14/96	3796.01	171.86	0	3624.15
MW-76	02/04/97	3796.01	169.32	0	3626.69
MW-76	04/29/97	3796.01	174.30	0	3621.71
MW-76	07/15/97	3796.01	175.10	0	3620.91
MW-76	09/30/97	3796.01	176.20	0	3619.81
MW-76	10/14/97	3796.01	173.57	0	3622.44
MW-76	01/28/98	3796.01	173.10	0	3622.91
MW-76	04/27/98	3796.01	175.25	0	3620.76
MW-76	05/28/98	3796.01	173.68	0	3622.33
MW-76	06/16/98	3796.01	175.25	0	3620.76
MW-76	01/27/99	3796.01	177.03	1	3619.71
MW-76	04/26/00	3796.01	NR	--	--
MW-76	09/27/00	3796.01	NR	--	--
MW-76	04/16/01	3796.01	NR	--	--
MW-76	10/29/01	3796.01	NR	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-81	10/01/95	3817.03	195.77	2.74	3623.26
MW-81	01/16/96	3817.03	199.04	4.29	3621.12
MW-81	04/17/96	3817.03	204.35	9.95	3619.94
MW-81	07/16/96	3817.03	204.26	9.37	3619.61
MW-81	10/13/96	3817.03	202.11	8.49	3621.11
MW-81	02/04/97	3817.03	197.25	2.11	3621.32
MW-81	04/28/97	3817.03	204.40	9.15	3619.30
MW-81	07/14/97	3817.03	196.19	1.45	3621.89
MW-81	10/09/97	3817.03	200.02	0.02	3617.02
MW-81	10/14/97	3817.03	200.96	0.06	3616.11
MW-81	10/29/97	3817.03	202.44	1.44	3615.64
MW-81	11/04/97	3817.03	200.92	0	3616.11
MW-81	11/12/97	3817.03	200.95	0.25	3616.26
MW-81	11/19/97	3817.03	200.94	0.01	3616.09
MW-81	11/24/97	3817.03	200.81	0	3616.22
MW-81	12/10/97	3817.03	200.85	0	3616.18
MW-81	01/06/98	3817.03	199.35	0	3617.68
MW-81	01/15/98	3817.03	199.30	0	3617.73
MW-81	01/20/98	3817.03	200.89	0.79	3616.71
MW-81	01/27/98	3817.03	200.14	0.89	3617.53
MW-81	02/03/98	3817.03	200.88	0.58	3616.57
MW-81	02/10/98	3817.03	206.74	1.64	3611.48
MW-81	02/17/98	3817.03	218.70	12.08	3607.14
MW-81	02/25/98	3817.03	217.41	11.41	3607.94
MW-81	04/27/98	3817.03	197.05	0	3619.98
MW-81	05/28/98	3817.03	192.28	0	3624.75
MW-81	06/15/98	3817.03	197.58	0	3619.45
MW-81	10/11/98	3817.03	193.23	0	3623.80
MW-81	01/27/99	3817.03	200.12	0	3616.91
MW-81	04/19/99	3817.03	200.84	0	3616.19
MW-81	01/05/00	3817.03	199.38	0	3617.65
MW-81	04/26/00	3817.03	201.35	0	3615.68
MW-81	09/27/00	3817.03	202.99	0	3614.04
MW-81	04/16/01	3817.03	201.94	0	3615.09
MW-81	10/29/01	3817.03	204.69	0	3609.04
MW-82	10/01/95	3825.07	196.65	0	3628.42
MW-82	01/18/96	3825.07	209.62	0	3615.45
MW-82	04/17/96	3825.07	209.12	0	3615.95
MW-82	07/16/96	3825.07	222.80	0	3602.27
MW-82	10/14/96	3825.07	196.33	0.02	3628.75
MW-82	02/04/97	3825.07	223.66	0	3601.41
MW-82	04/28/97	3825.07	249.21	0	3575.86
MW-82	07/15/97	3825.07	248.90	0	3576.17
MW-82	09/30/97	3825.07	249.20	0	3575.87
MW-82	10/09/97	3825.07	197.07	0	3628.00
MW-82	10/14/97	3825.07	229.01	0	3596.06
MW-82	10/29/97	3825.07	200.15	0	3624.92
MW-82	11/04/97	3825.07	209.26	0	3615.81
MW-82	11/12/97	3825.07	211.36	2.62	3615.62
MW-82	11/19/97	3825.07	213.86	5.28	3615.06
MW-82	11/24/97	3825.07	213.96	0	3611.11
MW-82	12/10/97	3825.07	212.95	0	3612.12
MW-82	02/25/98	3825.07	245.20	0	3579.87
MW-82	04/27/98	3825.07	235.62	0	3589.45
MW-82	05/28/98	3825.07	210.13	0	3614.94
MW-82	06/16/98	3825.07	249.20	0	3575.87
MW-82	10/11/98	3825.07	199.81	0	3625.26
MW-82	01/27/99	3825.07	250.24	0	3574.83
MW-82	04/19/99	3825.07	199.99	0	3625.08
MW-82	01/05/00	3825.07	199.67	0	3625.40
MW-82	04/26/00	3825.07	190.95	0	3634.12
MW-82	09/27/00	3825.07	202.05	1.63	3624.21
MW-82	04/16/01	3825.07	200.40	0	3624.67
MW-82	10/29/01	3825.07	201.71	0	3623.36

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Historic Fluid Level Data, May 1991 - October 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-83	10/01/95	3794.12	169.47	1.67	3625.87
MW-83	01/18/96	3794.12	189.30	16.8	3617.08
MW-83	04/17/96	3794.12	179.40	0.2	3614.86
MW-83	07/16/96	3794.12	176.36	0.56	3618.16
MW-83	10/14/96	3794.12	176.25	0.18	3618.00
MW-83	02/04/97	3794.12	178.77	0	3615.35
MW-83	04/28/97	3794.12	179.41	0	3614.71
MW-83	07/15/97	3794.12	168.18	1.62	3627.12
MW-83	09/30/97	3794.12	202.70	0	3591.42
MW-83	10/09/97	3794.12	202.70	0	3591.42
MW-83	10/14/97	3794.12	200.25	0	3593.87
MW-83	10/21/97	3794.12	202.55	0	3591.57
MW-83	10/29/97	3794.12	200.20	0	3593.92
MW-83	11/04/97	3794.12	200.17	0	3593.95
MW-83	11/12/97	3794.12	200.20	0	3593.92
MW-83	11/19/97	3794.12	194.44	0.58	3600.10
MW-83	11/24/97	3794.12	193.52	0	3600.60
MW-83	12/10/97	3794.12	187.51	0	3606.61
MW-83	01/28/98	3794.12	170.53	0	3623.59
MW-83	02/25/98	3794.12	182.22	4.87	3615.45
MW-83	04/27/98	3794.12	188.78	0	3605.34
MW-83	05/28/98	3794.12	170.14	0	3623.98
MW-83	06/16/98	3794.12	184.32	9.51	3616.74
MW-83	10/11/98	3794.12	169.96	0	3624.16
MW-83	01/27/99	3794.12	189.10	0	3605.02
MW-83	04/19/99	3794.12	124.09	0	3670.03
MW-83	01/05/00	3794.12	191.08	0	3603.04
MW-83	04/26/00	3794.12	170.53	0	3623.59
MW-83	09/27/00	3794.12	196.19	0	3597.93
MW-83	04/16/01	3794.12	195.97	0	3598.15
MW-83	10/29/01	3794.12	179.35	0	3614.77
MW-84	07/16/96	3759.60	131.50	0.39	3628.38
MW-84	10/14/96	3759.60	131.79	1.05	3628.57
MW-84	02/04/97	3759.60	132.84	1.29	3627.70
MW-84	04/29/97	3759.60	133.64	1.79	3627.26
MW-84	07/15/97	3759.60	133.89	1.9	3627.09
MW-84	09/30/97	3759.60	134.90	2.3	3626.37
MW-84	10/14/97	3759.60	136.64	3.94	3625.83
MW-84	10/21/97	3759.60	137.06	4.32	3625.69
MW-84	10/29/97	3759.60	133.35	0.72	3626.77
MW-84	11/04/97	3759.60	133.72	0	3625.88
MW-84	11/12/97	3759.60	132.70	0.05	3626.93
MW-84	11/19/97	3759.60	136.38	3.66	3625.89
MW-84	11/24/97	3759.60	136.00	3.23	3625.95
MW-84	12/10/97	3759.60	134.60	1.65	3626.20
MW-84	01/06/98	3759.60	133.48	0.08	3626.17
MW-84	01/15/98	3759.60	133.30	0	3626.30
MW-84	01/20/98	3759.60	147.14	6.91	3617.50
MW-84	01/28/98	3759.60	133.96	0.46	3625.97
MW-84	02/03/98	3759.60	133.89	0.13	3625.80
MW-84	02/10/98	3759.60	133.70	0.01	3625.90
MW-84	02/17/98	3759.60	139.13	2.86	3622.55
MW-84	02/25/98	3759.60	134.69	0.23	3625.07
MW-84	04/27/98	3759.60	135.34	0.89	3624.90
MW-84	05/28/98	3759.60	134.40	0	3625.20
MW-84	06/16/98	3759.60	134.94	0.4	3624.95
MW-84	10/11/98	3759.60	134.10	0	3625.50
MW-84	01/27/99	3759.60	135.21	0	3624.39
MW-84	04/19/99	3759.60	136.05	0.15	3623.66
MW-84	01/05/00	3759.60	137.31	0	3622.29
MW-84	04/26/00	3759.60	137.18	0	3622.42
MW-84	09/27/00	3759.60	137.24	0	3622.36
MW-84	04/16/01	3759.60	139.05	2.04	3622.04
MW-84	10/29/01	3759.60	137.91	0	3621.69

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-85	07/16/96	3824.93	200.62	3.64	3626.96
MW-85	10/13/96	3824.93	201.10	4.86	3627.37
MW-85	02/04/97	3824.93	200.85	3.34	3626.51
MW-85	04/29/97	3824.93	199.89	1.19	3625.90
MW-85	07/14/97	3824.93	199.39	0	3625.54
MW-85	10/09/97	3824.93	200.15	0.15	3624.88
MW-85	10/14/97	3824.93	200.35	0	3624.58
MW-85	10/29/97	3824.93	199.31	0	3625.62
MW-85	11/04/97	3824.93	200.16	0.1	3624.84
MW-85	11/12/97	3824.93	200.00	0	3624.93
MW-85	11/19/97	3824.93	199.28	0.01	3625.65
MW-85	11/24/97	3824.93	200.07	0	3624.86
MW-85	12/10/97	3824.93	200.12	0	3624.81
MW-85	01/06/98	3824.93	201.37	0.6	3623.99
MW-85	01/15/98	3824.93	201.30	0.55	3624.03
MW-85	01/20/98	3824.93	207.80	4.23	3620.21
MW-85	01/27/98	3824.93	201.62	1.82	3624.63
MW-85	02/03/98	3824.93	201.68	0.79	3623.82
MW-85	02/10/98	3824.93	201.36	0.42	3623.87
MW-85	02/17/98	3824.93	201.78	0.73	3623.68
MW-85	02/25/98	3824.93	200.95	0.2	3624.12
MW-85	04/27/98	3824.93	200.91	0.57	3624.43
MW-85	05/28/98	3824.93	203.78	1.02	3621.89
MW-85	06/16/98	3824.93	201.29	0.55	3624.04
MW-85	10/11/98	3824.93	201.32	1.27	3624.53
MW-85	01/27/99	3824.93	203.01	0.49	3622.28
MW-85	04/19/99	3824.93	202.58	0	3622.35
MW-85	01/05/00	3824.93	200.79	0	3624.14
MW-85	04/26/00	3824.93	213.40	10.73	3619.36
MW-85	09/27/00	3824.93	208.62	5.31	3620.19
MW-85	04/16/01	3824.93	202.99	0	3621.94
MW-85	10/29/01	3824.93	205.15	0	3623.23
MW-86	10/14/96	3823.99	193.32	0	3630.67
MW-86	02/04/97	3823.99	190.99	0	3633.00
MW-86	04/28/97	3823.99	197.37	0	3626.62
MW-86	07/14/97	3823.99	199.78	0	3624.21
MW-86	09/30/97	3823.99	188.10	0	3635.89
MW-86	10/09/97	3823.99	198.76	0	3625.23
MW-86	10/14/97	3823.99	196.27	0	3627.72
MW-86	01/27/98	3823.99	205.50	0	3618.49
MW-86	04/27/98	3823.99	203.08	0	3620.91
MW-86	05/28/98	3823.99	199.71	0	3624.28
MW-86	06/16/98	3823.99	203.43	0	3620.56
MW-86	10/11/98	3823.99	198.11	0	3625.88
MW-86	01/27/99	3823.99	222.50	0	3601.49
MW-86	04/19/99	3823.99	201.13	0	3622.86
MW-86	01/05/00	3823.99	211.12	0	3612.87
MW-86	04/26/00	3823.99	212.45	0	3611.54
MW-86	09/27/00	3823.99	202.63	0	3621.36
MW-86	04/16/01	3823.99	222.65	0	3601.34
MW-86	10/29/01	3823.99	216.58	0	3607.41

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-87	08/01/96	3740.50	113.11	0	3627.39
MW-87	10/14/96	3740.50	112.19	0	3628.31
MW-87	02/04/97	3740.50	112.94	0	3627.56
MW-87	04/28/97	3740.50	113.21	0	3627.29
MW-87	07/14/97	3740.50	113.83	0	3626.67
MW-87	10/09/97	3740.50	114.20	0	3626.30
MW-87	10/13/97	3740.50	114.43	0	3626.07
MW-87	10/29/97	3740.50	113.95	0	3626.55
MW-87	11/04/97	3740.50	114.30	0	3626.20
MW-87	11/12/97	3740.50	114.22	0	3626.28
MW-87	11/19/97	3740.50	114.35	0	3626.15
MW-87	11/24/97	3740.50	114.25	0	3626.25
MW-87	12/10/97	3740.50	114.32	0	3626.18
MW-87	01/28/98	3740.50	114.07	0	3626.43
MW-87	02/25/98	3740.50	114.35	0	3626.15
MW-87	04/27/98	3740.50	114.52	0	3625.98
MW-87	05/28/98	3740.50	105.30	0	3635.20
MW-87	06/15/98	3740.50	114.52	0	3625.98
MW-87	10/10/98	3740.50	114.96	0	3625.54
MW-87	01/27/99	3740.50	115.08	0	3625.42
MW-87	04/19/99	3740.50	115.15	0	3625.35
MW-87	01/05/00	3740.50	115.32	0	3625.18
MW-87	04/26/00	3740.50	115.50	0	3625.00
MW-87	09/27/00	3740.50	115.82	0	3624.68
MW-87	04/16/01	3740.50	115.77	0	3624.73
MW-87	10/29/01	3740.50	116.25	0	3624.25
MW-87A	08/01/96	3739.53	124.91	0	3614.62
MW-87A	10/14/96	3739.53	104.75	0	3634.78
MW-87A	02/04/97	3739.53	103.69	0	3635.84
MW-87A	04/28/97	3739.53	104.43	0	3635.10
MW-87A	07/14/97	3739.53	104.92	0	3634.61
MW-87A	10/13/97	3739.53	104.44	0	3635.09
MW-87A	01/28/98	3739.53	104.79	0	3634.74
MW-87A	04/27/98	3739.53	105.21	0	3634.32
MW-87A	05/28/98	3739.53	114.02	0	3625.51
MW-87A	06/15/98	3739.53	105.47	0	3634.06
MW-87A	10/10/98	3739.53	105.99	0	3633.54
MW-87A	01/27/99	3739.53	105.98	0	3633.55
MW-87A	04/19/99	3739.53	107.30	0	3632.23
MW-87A	01/05/00	3739.53	106.05	0	3633.48
MW-87A	04/26/00	3739.53	105.26	0	3634.27
MW-87A	09/27/00	3739.53	107.61	0	3631.92
MW-87A	04/16/01	3739.53	107.62	0	3631.91
MW-87A	10/29/01	3739.53	108.81	0	3630.72
MW-88	08/01/96	3789.70	163.59	0	3626.11
MW-88	10/13/96	3789.70	162.22	0	3627.48
MW-88	02/04/97	3789.70	163.38	0	3626.32
MW-88	04/28/97	3789.70	163.54	0	3626.16
MW-88	07/14/97	3789.70	163.84	0	3625.86
MW-88	10/01/97	3789.70	164.40	0	3625.30
MW-88	10/09/97	3789.70	164.38	0	3625.32
MW-88	10/13/97	3789.70	164.34	0	3625.36
MW-88	01/27/98	3789.70	164.41	0	3625.29
MW-88	04/27/98	3789.70	164.84	0	3624.86
MW-88	05/28/98	3789.70	164.00	0	3625.70
MW-88	06/15/98	3789.70	164.87	0	3624.83
MW-88	10/10/98	3789.70	165.38	0	3624.32
MW-88	01/27/99	3789.70	165.49	0	3624.21
MW-88	04/19/99	3789.70	165.54	0	3624.16
MW-88	01/05/00	3789.70	165.62	0	3624.08
MW-88	04/26/00	3789.70	165.87	0	3623.83
MW-88	09/27/00	3789.70	166.25	0	3623.45
MW-88	04/16/01	3789.70	166.21	0	3623.49
MW-88	10/29/01	3789.70	166.49	0	3623.21

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-89	08/01/96	3827.68	201.41	0	3626.27
MW-89	10/14/96	3827.68	199.95	0	3627.73
MW-89	02/04/97	3827.68	201.39	0	3626.29
MW-89	04/28/97	3827.68	201.67	0	3626.01
MW-89	07/14/97	3827.68	201.94	0	3625.74
MW-89	10/01/97	3827.68	202.80	0	3624.88
MW-89	10/09/97	3827.68	202.70	0	3624.98
MW-89	10/13/97	3827.68	202.70	0	3624.98
MW-89	01/27/98	3827.68	202.82	0	3624.86
MW-89	04/27/98	3827.68	203.04	0	3624.64
MW-89	05/28/98	3827.68	203.19	0	3624.49
MW-89	06/15/98	3827.68	203.27	0	3624.41
MW-89	10/10/98	3827.68	203.83	0	3623.85
MW-89	01/27/99	3827.68	204.12	0	3623.56
MW-89	04/19/99	3827.68	204.12	0	3623.56
MW-89	01/05/00	3827.68	204.47	0	3623.21
MW-89	04/26/00	3827.68	204.43	0	3623.25
MW-89	09/27/00	3827.68	204.70	0	3622.98
MW-89	04/16/01	3827.68	204.55	0	3623.13
MW-89	10/29/01	3827.68	204.88	0	3622.80
MW-94	07/15/96	3821.48	194.15	0	3627.33
MW-94	10/13/96	3821.48	196.21	0	3625.27
MW-94	02/04/97	3821.48	197.60	0	3623.88
MW-94	07/14/97	3821.48	198.65	0	3622.83
MW-94	09/30/97	3821.48	199.70	0	3621.78
MW-94	10/09/97	3821.48	196.04	0	3625.44
MW-94	10/14/97	3821.48	195.95	0	3625.53
MW-94	01/27/98	3821.48	195.89	0	3625.59
MW-94	04/27/98	3821.48	196.20	0	3625.28
MW-94	05/28/98	3821.48	196.35	0	3625.13
MW-94	06/16/98	3821.48	196.42	0	3625.06
MW-94	10/10/98	3821.48	196.91	0	3624.57
MW-94	01/27/99	3821.48	197.28	0	3624.20
MW-94	04/19/99	3821.48	197.18	0	3624.30
MW-94	01/05/00	3821.48	197.37	0	3624.11
MW-94	04/26/00	3821.48	197.46	0	3624.02
MW-94	09/27/00	3821.48	197.85	0	3623.63
MW-94	04/16/01	3821.48	197.75	0	3623.73
MW-94	10/29/01	3821.48	198.02	0	3623.46
MW-95	04/29/97	3746.26	118.48	0	3627.78
MW-95	07/15/97	3746.26	118.59	0	3627.67
MW-95	10/14/97	3746.26	119.30	0	3626.96
MW-95	10/29/97	3746.26	119.31	0	3626.95
MW-95	11/04/97	3746.26	119.35	0	3626.91
MW-95	11/12/97	3746.26	119.30	0	3626.96
MW-95	11/19/97	3746.26	119.41	0	3626.85
MW-95	11/24/97	3746.26	119.45	0	3626.81
MW-95	12/10/97	3746.26	119.42	0	3626.84
MW-95	01/28/98	3746.26	119.49	0	3626.77
MW-95	02/25/98	3746.26	119.62	0	3626.64
MW-95	04/27/98	3746.26	119.78	0	3626.48
MW-95	05/28/98	3746.26	119.90	0	3626.36
MW-95	06/16/98	3746.26	119.97	0	3626.29
MW-95	10/10/98	3746.26	120.46	0	3625.80
MW-95	01/27/99	3746.26	120.59	0	3625.67
MW-95	04/19/99	3746.26	120.72	0	3625.54
MW-95	01/05/00	3746.26	120.81	0	3625.45
MW-95	04/26/00	3746.26	120.93	0	3625.33
MW-95	09/27/00	3746.26	NR	--	--
MW-95	04/16/01	3746.26	121.38	0	3624.88
MW-95	10/29/01	3746.26	121.66	0	3624.60

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-96	04/29/97	3739.80	112.60	0	3627.20
MW-96	07/15/97	3739.80	112.57	0	3627.23
MW-96	10/01/97	3739.80	113.40	0	3626.40
MW-96	10/09/97	3739.80	113.34	0	3626.46
MW-96	10/13/97	3739.80	113.38	0	3626.42
MW-96	10/29/97	3739.80	113.38	0	3626.42
MW-96	11/04/97	3739.80	113.35	0	3626.45
MW-96	11/12/97	3739.80	113.31	0	3626.49
MW-96	11/19/97	3739.80	113.45	0	3626.35
MW-96	11/24/97	3739.80	113.58	0	3626.22
MW-96	12/10/97	3739.80	113.47	0	3626.33
MW-96	01/28/98	3739.80	113.46	0	3626.34
MW-96	02/25/98	3739.80	113.48	0	3626.32
MW-96	04/27/98	3739.80	113.74	0	3626.06
MW-96	05/28/98	3739.80	113.88	0	3625.92
MW-96	06/15/98	3739.80	113.92	0	3625.88
MW-96	10/10/98	3739.80	114.37	0	3625.43
MW-96	01/27/99	3739.80	114.48	0	3625.32
MW-96	04/19/99	3739.80	114.56	0	3625.24
MW-96	01/05/00	3739.80	114.74	0	3625.06
MW-96	04/26/00	3739.80	114.91	0	3624.89
MW-96	09/27/00	3739.80	115.29	0	3624.51
MW-96	04/16/01	3739.80	115.33	0	3624.47
MW-96	10/29/01	3739.80	115.67	0	3624.13
MW-97	04/29/97	3750.16	122.82	0	3627.34
MW-97	07/15/97	3750.16	122.91	0	3627.25
MW-97	10/01/97	3750.16	123.80	0	3626.36
MW-97	10/09/97	3750.16	123.75	0	3626.41
MW-97	10/13/97	3750.16	123.61	0	3626.55
MW-97	10/29/97	3750.16	123.62	0	3626.54
MW-97	11/04/97	3750.16	123.74	0	3626.42
MW-97	11/12/97	3750.16	123.70	0	3626.46
MW-97	11/19/97	3750.16	123.85	0	3626.31
MW-97	11/24/97	3750.16	123.80	0	3626.36
MW-97	12/10/97	3750.16	123.90	0	3626.26
MW-97	01/28/98	3750.16	123.71	0	3626.45
MW-97	02/25/98	3750.16	123.89	0	3626.27
MW-97	04/27/98	3750.16	123.99	0	3626.17
MW-97	05/28/98	3750.16	124.12	0	3626.04
MW-97	06/15/98	3750.16	124.17	0	3625.99
MW-97	10/10/98	3750.16	124.63	0	3625.53
MW-97	01/27/99	3750.16	124.73	0	3625.43
MW-97	04/19/99	3750.16	124.83	0	3625.33
MW-97	01/05/00	3750.16	125.01	0	3625.15
MW-97	04/26/00	3750.16	125.19	0	3624.97
MW-97	09/27/00	3750.16	125.61	0	3624.55
MW-97	04/16/01	3750.16	125.60	0	3624.56
MW-97	10/29/01	3750.16	125.89	0	3624.27
MW-98	04/29/97	3770.15	142.42	0	3627.73
MW-98	07/15/97	3770.15	142.51	0	3627.64
MW-98	10/14/97	3770.15	143.55	0.29	3626.81
MW-98	10/29/97	3770.15	143.43	0.23	3626.88
MW-98	11/04/97	3770.15	143.50	0.25	3626.83
MW-98	11/12/97	3770.15	143.35	0.17	3626.92
MW-98	11/19/97	3770.15	143.48	0.22	3626.83
MW-98	11/24/97	3770.15	143.54	0.26	3626.79
MW-98	12/10/97	3770.15	143.52	0.12	3626.71
MW-98	01/28/98	3770.15	143.53	0.22	3626.78
MW-98	02/25/98	3770.15	143.77	0.19	3626.51
MW-98	04/27/98	3770.15	143.73	0.15	3626.52
MW-98	05/28/98	3770.15	143.80	0	3626.35
MW-98	06/16/98	3770.15	143.87	0.05	3626.31
MW-98	10/10/98	3770.15	144.32	0.08	3625.88
MW-98	01/27/99	3770.15	144.39	0	3625.76
MW-98	04/19/99	3770.15	148.78	0	3621.37
MW-98	01/05/00	3770.15	143.88	0	3626.27
MW-98	04/26/00	3770.15	144.04	0	3626.11
MW-98	09/27/00	3770.15	NR	--	--
MW-98	04/16/01	3770.15	144.55	0	3625.60
MW-98	10/29/01	3770.15	144.79	0	3625.36

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-104	07/15/97	3793.64	168.72	0	3624.92
MW-104	10/13/97	3793.64	167.22	0	3626.42
MW-104	10/29/97	3793.64	167.25	0	3626.39
MW-104	11/04/97	3793.64	167.30	0	3626.34
MW-104	11/12/97	3793.64	167.20	0	3626.44
MW-104	11/19/97	3793.64	167.30	0	3626.34
MW-104	11/24/97	3793.64	167.30	0	3626.34
MW-104	12/10/97	3793.64	167.28	0	3626.36
MW-104	01/28/98	3793.64	167.33	0	3626.31
MW-104	02/25/98	3793.64	167.34	0	3626.30
MW-104	04/27/98	3793.64	167.59	0	3626.05
MW-104	05/28/98	3793.64	167.75	0	3625.89
MW-104	06/15/98	3793.64	167.81	0	3625.83
MW-104	10/10/98	3793.64	168.27	0	3625.37
MW-104	01/27/99	3793.64	168.69	0.29	3625.16
MW-104	04/19/99	3793.64	173.11	0.39	3620.81
MW-104	01/05/00	3793.64	168.57	0.15	3625.18
MW-104	04/26/00	3793.64	168.97	0.26	3624.86
MW-104	09/27/00	3793.64	169.30	0.14	3624.44
MW-104	04/16/01	3793.64	169.28	0	3624.36
MW-104	10/29/01	3793.64	169.52	0	3624.12
MW-108	07/15/97	3747.13	119.97	0	3627.16
MW-108	10/13/97	3747.13	120.47	0	3626.66
MW-108	10/29/97	3747.13	120.45	0	3626.68
MW-108	11/04/97	3747.13	120.42	0	3626.71
MW-108	11/12/97	3747.13	124.40	0	3622.73
MW-108	11/19/97	3747.13	120.55	0	3626.58
MW-108	11/24/97	3747.13	120.54	0	3626.59
MW-108	12/10/97	3747.13	120.55	0	3626.58
MW-108	01/28/98	3747.13	120.58	0	3626.55
MW-108	02/25/98	3747.13	120.57	0	3626.56
MW-108	04/27/98	3747.13	120.85	0	3626.28
MW-108	05/28/98	3747.13	120.72	0	3626.41
MW-108	06/15/98	3747.13	121.03	0	3626.10
MW-108	10/10/98	3747.13	121.50	0	3625.63
MW-108	01/27/99	3747.13	120.59	0	3626.54
MW-108	04/19/99	3747.13	121.72	0	3625.41
MW-108	01/05/00	3747.13	121.89	0	3625.24
MW-108	04/26/00	3747.13	122.08	0	3625.05
MW-108	09/27/00	3747.13	122.49	0	3624.64
MW-108	04/16/01	3747.13	122.52	0	3624.61
MW-108	10/29/01	3747.13	122.84	0	3624.29
MW-110	06/17/98	3812.61	187.42	1.3	3626.13
MW-110	10/09/98	3812.61	188.34	0	3624.27
MW-110	01/27/99	3812.61	192.59	0.02	3620.03
MW-110	04/19/99	3812.61	189.31	0	3623.30
MW-110	01/05/00	3812.61	191.89	0	3620.72
MW-110	04/26/00	3812.61	191.62	0	3620.99
MW-110	09/27/00	3812.61	192.19	0	3620.42
MW-110	04/16/01	3812.61	196.25	0	3616.36
MW-110	10/29/01	3812.61	192.38	0	3620.23
MW-111	06/19/98	3824.44	200.24	0	3624.20
MW-111	10/10/98	3824.44	200.89	0	3623.55
MW-111	01/27/99	3824.44	201.24	0	3623.20
MW-111	04/19/99	3824.44	201.26	0	3623.18
MW-111	01/05/00	3824.44	201.21	0	3623.23
MW-111	04/26/00	3824.44	201.48	0	3622.96
MW-111	09/27/00	3824.44	201.66	0	3622.78
MW-111	04/16/01	3824.44	201.74	0	3622.70
MW-111	10/29/01	3824.44	201.64	0	3622.80

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-112	01/05/00	3780.11	154.98	0	3625.13
MW-112	04/26/00	3780.11	NR	--	--
MW-112	09/27/00	3780.11	155.39	0	3624.72
MW-112	04/16/01	3780.11	156.30	0	3623.81
MW-112	10/29/01	3780.11	156.68	0	3623.43
MW-113	01/05/00	3772.67	147.43	0	3625.24
MW-113	04/26/00	3772.67	148.28	0.88	3625.03
MW-113	09/27/00	3772.67	147.72	0	3624.95
MW-113	04/16/01	3772.67	148.11	0.13	3624.65
MW-113	10/29/01	3772.67	148.95	0.2	3623.87
MW-114	01/05/00	3805.32	181.31	0	3624.01
MW-114	04/26/00	3805.32	81.48	0	3723.84
MW-114	09/27/00	3805.32	181.69	0	3623.63
MW-114	04/16/01	3805.32	181.95	0	3623.37
MW-114	10/29/01	3805.32	182.05	0	3623.27
MW-115	01/05/00	3804.69	181.19	0	3623.50
MW-115	04/26/00	3804.69	181.11	0	3623.58
MW-115	09/27/00	3804.69	181.50	0	3623.19
MW-115	04/16/01	3804.69	181.31	0	3623.38
MW-115	10/29/01	3804.69	181.60	0	3623.09
MW-116	04/26/00	3792.11	167.45	0	3624.66
MW-116	09/27/00	3792.11	168.18	0	3623.93
MW-116	04/16/01	3792.11	168.23	0	3623.88
MW-116	10/29/01	3792.11	168.48	0	3623.63
MW-117A	01/05/00	3808.24	182.80	0	3625.44
MW-117A	04/26/00	3808.24	185.28	0	3622.96
MW-117A	09/27/00	3808.24	165.91	0	3642.33
MW-117A	04/16/01	3808.24	185.90	0	3622.34
MW-117A	10/29/01	3808.24	185.88	0	3622.36
MW-118	01/05/00	3762.88	138.21	0	3624.67
MW-118	04/26/00	3762.88	138.50	0	3624.38
MW-118	09/27/00	3762.88	138.85	0	3624.03
MW-118	04/16/01	3762.88	138.98	0	3623.90
MW-118	10/29/01	3762.88	129.35	0	3633.53
MW-119	01/05/00	3824.74	201.21	0	3623.53
MW-119	04/26/00	3824.74	201.30	0	3623.44
MW-119	09/27/00	3824.74	201.35	0	3623.39
MW-119	04/16/01	3824.74	201.45	0	3623.29
MW-119	10/29/01	3824.74	202.67	0	3622.07
MW-120	01/05/00	3820.65	195.61	1.17	3625.89
MW-120	04/26/00	3820.65	196.32	0.01	3624.34
MW-120	09/27/00	3820.65	196.28	0	3624.37
MW-120	04/16/01	3820.65	197.43	0.83	3623.83
MW-120	10/29/01	3820.65	197.32	0.12	3623.42
MW-121	01/05/00	3820.88	195.12	0	3625.76
MW-121	04/26/00	3820.88	195.40	0	3625.48
MW-121	09/27/00	3820.88	197.55	0.79	3623.91
MW-121	04/16/01	3820.88	197.85	0.65	3623.50
MW-121	10/29/01	3820.88	197.60	0.05	3623.32
MW-122	01/05/00	3822.79	197.61	0	3625.18
MW-122	04/26/00	3822.79	199.17	0	3623.62
MW-122	09/27/00	3822.79	199.50	0	3623.29
MW-122	04/16/01	3822.79	199.64	0	3623.15
MW-122	10/29/01	3822.79	199.87	0	3622.92
MW-123	01/05/00	3768.77	142.88	0.61	3626.34
MW-123	04/26/00	3768.77	143.98	0.13	3624.88
MW-123	09/27/00	3768.77	144.15	0	3624.62
MW-123	04/16/01	3768.77	144.32	0	3624.45
MW-123	10/29/01	3768.77	144.88	0.23	3624.06

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-124	01/05/00	3777.83	151.95	0	3625.88
MW-124	04/26/00	3777.83	152.92	0	3624.91
MW-124	09/27/00	3777.83	153.71	0	3624.12
MW-124	04/16/01	3777.83	153.95	0.67	3624.37
MW-124	10/29/01	3777.83	153.67	0.06	3624.20
MW-125	01/05/00	3790.61	166.64	1.27	3624.90
MW-125	04/26/00	3790.61	166.07	0	3624.54
MW-125	09/27/00	3790.61	156.53	0.01	3634.09
MW-125	04/16/01	3790.61	166.60	0	3624.01
MW-125	10/29/01	3790.61	166.91	0	3623.70
MW-127	01/05/00	3825.17	202.12	0	3623.05
MW-127	04/26/00	3825.17	202.34	0.46	3623.17
MW-127	09/27/00	3825.17	202.00	0	3623.17
MW-127	04/16/01	3825.17	202.70	0.07	3622.52
MW-127	10/29/01	3825.17	202.51	0.03	3622.68
MW-128	01/05/00	3786.08	160.91	0	3625.17
MW-128	04/26/00	3786.08	161.25	0	3624.83
MW-128	09/27/00	3786.08	162.88	0	3623.20
MW-128	04/16/01	3786.08	161.87	0	3624.21
MW-128	10/29/01	3786.08	162.31	0	3623.77
MW-129	01/05/00	3800.82	175.48	0.84	3625.95
MW-129	04/26/00	3800.82	176.90	0	3623.92
MW-129	09/27/00	3800.82	176.48	0	3624.34
MW-129	04/16/01	3800.82	178.40	0.7	3622.93
MW-129	10/29/01	3800.82	178.65	0.99	3622.89
MW-130	01/05/00	3775.54	149.65	0.60	3626.33
MW-130	04/26/00	3775.54	151.03	0.52	3624.89
MW-130	09/27/00	3775.54	150.93	0.08	3624.67
MW-130	04/16/01	3775.54	151.24	0.14	3624.40
MW-130	10/29/01	3775.54	151.58	0.19	3624.10
MW-131	01/05/00	3784.23	158.32	0	3625.91
MW-131	04/26/00	3784.23	158.71	0	3625.52
MW-131	09/27/00	3784.23	159.71	0	3624.52
MW-131	04/16/01	3784.23	160.20	0	3624.03
MW-131	10/29/01	3784.23	160.38	0	3623.85
IW-1	07/16/96	3808.55	185.32	2.91	3625.35
IW-1	10/13/96	3808.55	181.83	2.81	3628.77
IW-1	02/03/97	3808.55	185.60	5.38	3626.87
IW-1	04/28/97	3808.55	183.12	1.53	3626.54
IW-1	07/14/97	3808.55	182.27	0.38	3626.55
IW-1	10/13/97	3808.55	181.80	0.16	3626.86
IW-1	11/04/97	3808.55	52.65	0	3755.90
IW-1	11/12/97	3808.55	55.85	0	3752.70
IW-1	11/19/97	3808.55	41.80	0	3766.75
IW-1	11/24/97	3808.55	70.90	0	3737.65
IW-1	12/10/97	3808.55	4.00	0	3804.55
IW-1	04/27/98	3808.55	82.27	0	3726.28
IW-1	05/28/98	3808.55	11.26	0	3797.29
IW-1	06/15/98	3808.55	181.05	0	3627.50
IW-1	10/09/98	3808.55	61.46	0	3747.09
IW-1	01/05/00	3808.55	18.15	0	3790.40
IW-1	04/26/00	3808.55	19.22	0	3789.33
IW-1	09/27/00	3808.55	NR	--	--
IW-1	04/16/01	3808.55	NR	--	--
IW-1	10/29/01	3808.55	NR	--	--

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
IW-2	08/01/96	3835.86	207.22	0	3628.64
IW-2	10/13/96	3835.86	205.52	0	3630.34
IW-2	02/03/97	3835.86	52.92	0	3782.94
IW-2	04/28/97	3835.86	28.89	0	3806.97
IW-2	07/14/97	3835.86	133.89	0	3701.97
IW-2	10/13/97	3835.86	29.61	0	3806.25
IW-2	11/04/97	3835.86	208.50	0	3627.36
IW-2	11/12/97	3835.86	208.70	0	3627.16
IW-2	11/19/97	3835.86	208.78	0	3627.08
IW-2	11/24/97	3835.86	208.95	0	3626.91
IW-2	12/10/97	3835.86	175.58	0	3660.28
IW-2	01/27/98	3835.86	121.00	0	3714.86
IW-2	02/25/98	3835.86	24.64	0	3811.22
IW-2	04/26/00	3835.86	NR	--	--
IW-2	09/27/00	3835.86	NR	--	--
IW-2	04/16/01	3835.86	NR	--	--
IW-2	10/29/01	3835.86	NR	--	--
SW-01	02/04/97	3808.19	D	--	--
SW-01	05/28/98	3808.19	198.00	0	3610.19
SW-01	06/17/98	3808.19	198.05	0	3610.14
SW-01	04/26/00	3808.19	NR	--	--
SW-01	09/27/00	3808.19	NR	--	--
SW-01	04/16/01	3808.19	NR	--	--
SW-01	10/29/01	3808.19	NR	--	--
SW-02	08/21/91	3808.79	180.53	0	3628.26
SW-02	09/18/91	3808.79	180.53	0	3628.26
SW-02	10/22/91	3808.79	179.74	0	3629.05
SW-02	11/15/91	3808.79	179.44	0	3629.35
SW-02	03/01/92	3808.79	180.12	0	3628.67
SW-02	04/01/92	3808.79	180.00	0	3628.79
SW-02	05/01/92	3808.79	176.52	0	3632.27
SW-02	06/01/92	3808.79	176.06	0	3632.73
SW-02	07/01/92	3808.79	176.06	0	3632.73
SW-02	08/01/92	3808.79	176.99	0	3631.80
SW-02	09/01/92	3808.79	177.57	0	3631.22
SW-02	10/01/92	3808.79	178.02	0	3630.77
SW-02	11/01/92	3808.79	178.31	0	3630.48
SW-02	12/01/92	3808.79	179.06	0	3629.73
SW-02	01/01/93	3808.79	178.88	0	3629.91
SW-02	02/01/93	3808.79	179.08	0	3629.71
SW-02	03/01/93	3808.79	179.31	0	3629.48
SW-02	04/01/93	3808.79	179.04	0	3629.75
SW-02	05/01/93	3808.79	179.22	0	3629.57
SW-02	06/01/93	3808.79	179.39	0	3629.40
SW-02	07/01/93	3808.79	179.76	0	3629.03
SW-02	08/01/93	3808.79	179.76	0	3629.03
SW-02	09/01/93	3808.79	179.86	0	3628.93
SW-02	10/01/93	3808.79	179.63	0	3629.16
SW-02	11/01/93	3808.79	180.39	0	3628.40
SW-02	12/01/93	3808.79	179.62	0	3629.17
SW-02	01/01/94	3808.79	180.41	0	3628.38
SW-02	02/01/94	3808.79	181.55	0	3627.24
SW-02	03/01/94	3808.79	180.10	0	3628.69
SW-02	04/01/94	3808.79	180.58	0	3628.21
SW-02	05/01/94	3808.79	181.13	0	3627.66
SW-02	07/01/94	3808.79	181.00	0	3627.79
SW-02	08/01/94	3808.79	180.61	0	3628.18
SW-02	09/01/94	3808.79	180.52	0	3628.27
SW-02	10/01/94	3808.79	181.56	0	3627.23
SW-02	12/01/94	3808.79	184.89	0	3623.90

Appendix A
Historic Fluid Level Data, May 1991 - October 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
SW-02	01/01/95	3808.79	181.26	0	3627.53
SW-02	04/01/95	3808.79	181.50	0	3627.29
SW-02	07/01/95	3808.79	181.62	0	3627.17
SW-02	10/01/95	3808.79	181.70	0	3627.09
SW-02	01/16/96	3808.79	182.21	0	3626.58
SW-02	04/17/96	3808.79	182.25	0	3626.54
SW-02	07/15/96	3808.79	182.24	0	3626.55
SW-02	10/01/96	3808.79	180.89	0	3627.90
SW-02	01/01/97	3808.79	182.21	0	3626.58
SW-02	02/04/97	3808.79	182.31	0	3626.48
SW-02	04/28/97	3808.79	182.80	0	3625.99
SW-02	07/15/97	3808.79	183.04	0	3625.75
SW-02	10/14/97	3808.79	183.89	0	3624.90
SW-02	01/27/98	3808.79	183.74	0	3625.05
SW-02	04/27/98	3808.79	185.05	0	3623.74
SW-02	05/28/98	3808.79	185.13	0	3623.66
SW-02	06/17/98	3808.79	185.15	0	3623.64
SW-02	10/09/98	3808.79	185.65	0	3623.14
SW-02	01/27/99	3808.79	185.94	0	3622.85
SW-02	04/19/99	3808.79	185.62	0	3623.17
SW-02	04/26/00	3808.79	NR	--	--
SW-02	09/27/00	3808.79	NR	--	--
SW-02	04/16/01	3808.79	186.59	0	3622.20
SW-02	10/29/01	3808.79	186.28	0	3622.51
SW-03	07/15/96	3842.29	215.52	0	3626.77
SW-03	10/01/96	3842.29	213.51	0	3628.78
SW-03	02/03/97	3842.29	215.63	0	3626.66
SW-03	04/28/97	3842.29	216.14	0	3626.15
SW-03	07/14/97	3842.29	216.74	0	3625.55
SW-03	10/14/97	3842.29	217.51	0	3624.78
SW-03	01/27/98	3842.29	217.54	0	3624.75
SW-03	04/27/98	3842.29	217.80	0	3624.49
SW-03	05/28/98	3842.29	217.98	0	3624.31
SW-03	06/15/98	3842.29	218.50	0	3623.79
SW-03	10/09/98	3842.29	218.58	0	3623.71
SW-03	01/27/99	3842.29	D	--	--
SW-03	04/19/99	3842.29	219.03	0	3623.26
SW-03	01/05/00	3842.29	218.96	0	3623.33
SW-03	04/26/00	3842.29	219.20	0	3623.09
SW-03	09/27/00	3842.29	219.45	0	3622.84
SW-03	04/16/01	3842.29	219.73	0	3622.56
SW-03	10/29/01	3842.29	219.97	0	3622.32
VE-01	06/15/98	--	204.78	0	--
VE-01	01/05/00	--	205.54	0	--
VE-01	04/26/00	3829.73	205.80	0	3623.93
VE-01	09/27/00	3829.73	206.05	0	3623.68
VE-01	04/16/01	3829.73	206.05	0	3623.68
VE-01	10/29/01	3829.73	206.43	0	3623.30
VE-02	06/15/98	--	200.67	0	--
VE-02	01/05/00	--	201.48	0	--
VE-02	04/26/00	3825.93	201.71	0	3624.22
VE-02	09/27/00	3825.93	202.10	0	3623.83
VE-02	04/16/01	3825.93	201.87	0	3624.06
VE-02	10/29/01	3825.93	202.43	0	3623.50
VE-03	06/15/98	--	191.32	0	--
VE-03	01/05/00	--	192.13	0	--
VE-03	04/26/00	3816.75	192.32	0	3624.43
VE-03	09/27/00	3816.75	192.78	0	3623.97
VE-03	04/16/01	3816.75	192.63	0	3624.12
VE-03	10/29/01	3816.75	192.94	0	3623.81

Appendix A
Historic Fluid Level Data, May 1991 - October 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
VE-04	06/15/98	--	179.89	0	--
VE-04	01/05/00	--	D	--	--
VE-04	04/26/00	3805.45	D	--	--
VE-04	09/27/00	3805.45	D	--	--
VE-04	04/16/01	3805.45	D	--	--
VE-04	10/29/01	3805.45	D	--	--
VE-05	06/15/98	--	164.48	0	--
VE-05	04/26/00	3790.10	165.51	0	3624.59
VE-05	09/27/00	3790.10	165.98	0	3624.12
VE-05	04/16/01	3790.10	165.83	0	3624.27
VE-05	10/29/01	3790.10	165.91	0	3624.19
VE-16	10/29/97	3750.96	124.27	0	3626.69
VE-16	11/04/97	3750.96	124.35	0	3626.61
VE-16	11/12/97	3750.96	124.22	0	3626.74
VE-16	11/19/97	3750.96	124.33	0	3626.63
VE-16	11/24/97	3750.96	124.33	0	3626.63
VE-16	12/10/97	3750.96	124.30	0	3626.66
VE-16	02/25/98	3750.96	124.38	0	3626.58
VE-16	06/15/98	3750.96	124.81	0	3626.15
VE-16	01/05/00	3750.96	125.69	0	3625.27
VE-16	04/26/00	3750.96	125.92	0	3625.04
VE-16	09/27/00	3750.96	126.19	0	3624.77
VE-16	04/16/01	3750.96	126.37	0	3624.59
VE-16	10/29/01	3750.96	126.59	0	3624.37
VE-17	10/29/97	3756.73	118.48	0	3638.25
VE-17	11/04/97	3756.73	117.00	0	3639.73
VE-17	11/12/97	3756.73	117.93	0	3638.80
VE-17	11/19/97	3756.73	118.13	0	3638.60
VE-17	11/24/97	3756.73	118.32	0	3638.41
VE-17	12/10/97	3756.73	118.24	0	3638.49
VE-17	02/25/98	3756.73	119.27	0	3637.46
VE-17	06/15/98	3756.73	117.27	0	3639.46
VE-17	01/05/00	3756.73	120.11	0	3636.62
VE-17	04/26/00	3756.73	120.84	0	3635.89
VE-17	09/27/00	3756.73	120.46	0	3636.27
VE-17	04/16/01	3756.73	119.54	0	3637.19
VE-17	10/29/01	3756.73	119.54	0	3637.19
VE-18	06/15/98	3756.82	131.71	0	3625.11
VE-18	01/05/00	3756.82	131.56	0	3625.26
VE-18	04/26/00	3756.82	131.77	0	3625.05
VE-18	09/27/00	3756.82	132.09	0	3624.73
VE-18	04/16/01	3756.82	132.25	0	3624.57
VE-18	10/29/01	3756.82	132.51	0	3624.31
VE-19	10/29/97	3761.18	136.05	2.05	3626.62
VE-19	11/04/97	3761.18	136.41	2.45	3626.55
VE-19	11/19/97	3761.18	140.88	2.88	3622.40
VE-19	11/24/97	3761.18	140.33	1.39	3621.86
VE-19	12/10/97	3761.18	138.56	0	3622.62
VE-19	01/06/98	3761.18	139.67	2.56	3623.37
VE-19	01/15/98	3761.18	140.90	3.4	3622.76
VE-19	01/20/98	3761.18	140.16	0.48	3621.37
VE-19	02/03/98	3761.18	136.63	0.01	3624.55
VE-19	02/10/98	3761.18	138.66	1.11	3623.33
VE-19	02/17/98	3761.18	139.83	1.89	3622.72
VE-19	02/25/98	3761.18	139.80	1.95	3622.80
VE-19	05/28/98	3761.18	133.78	0	3627.40
VE-19	06/16/98	3761.18	136.97	0	3624.21
VE-19	01/05/00	3761.18	136.37	0.46	3625.15
VE-19	04/26/00	3761.18	NR	--	--
VE-19	09/27/00	3761.18	136.93	0	3624.25
VE-19	04/16/01	3761.18	137.02	0	3624.16
VE-19	10/29/01	3761.18	137.30	0	3623.88
VE-20	06/15/98	3768.41	142.26	0	3626.15
VE-20	01/05/00	3768.41	143.31	0	3625.10
VE-20	04/26/00	3768.41	143.33	0	3625.08
VE-20	09/27/00	3768.41	143.68	0	3624.73
VE-20	04/16/01	3768.41	143.64	0	3624.77
VE-20	10/29/01	3768.41	144.15	0	3624.26

ARCADIS

Appendix B

Historical Analytical Data

ARCADIS

Historical BTEX Analytical Data

Appendix B

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
BIEBBLE	05/28/91	--	--	--	<10
BIEBBLE	07/01/91	<5	--	--	--
BIEBBLE	07/19/91	--	<5	<5	--
BIEBBLE	04/01/92	<1	<1	<1	<1
BIEBBLE	07/01/92	<1	<1	<1	<1
BIEBBLE	10/01/92	<1	<1	<1	<1
BIEBBLE	01/01/93	<1	<1	<1	<1
BIEBBLE	04/15/93	<1	<1	<1	<1
BIEBBLE	07/15/93	<0.5	<0.5	<0.5	<0.5
BIEBBLE	10/14/93	<0.5	<0.5	<0.5	<0.5
BIEBBLE	01/13/94	<0.5	<0.5	<0.5	<0.5
BIEBBLE	04/05/94	<0.5	<0.5	<0.5	<0.5
BIEBBLE	07/21/94	<0.5	<0.5	<0.5	<0.5
BIEBBLE	10/06/94	<0.5	<0.5	<0.5	<0.5
BIEBBLE	01/11/95	<0.5	<0.5	<0.5	<0.5
BIEBBLE	04/07/95	<0.5	<0.5	<0.5	<0.5
BIEBBLE	07/21/95	<0.5	<0.5	<0.5	<0.5
BIEBBLE	10/12/95	<0.5	<0.5	<0.5	<0.5
BIEBBLE	01/19/96	<0.5	<0.5	<0.5	<0.5
BIEBBLE	04/17/96	<0.5	<0.5	<0.5	<0.5
BIEBBLE	07/01/96	<0.5	<0.5	<0.5	<0.5
BIEBBLE	10/01/96	<0.5	<0.5	<0.5	0.5
BIEBBLE	02/10/97	<0.5	<0.5	<0.5	<0.5
IW-2	08/01/96	<0.5	<0.5	<0.5	<0.5
LYMAN	05/28/91	--	--	--	<10
LYMAN	07/01/91	<5	--	--	--
LYMAN	07/19/91	--	<5	<5	--
LYMAN	04/01/92	<1	<1	<1	<1
LYMAN	07/01/92	<1	<1	<1	<1
LYMAN	10/01/92	<1	<1	<1	<1
LYMAN	01/01/93	<1	<1	<1	<1
LYMAN	04/15/93	<1	<1	<1	<1
LYMAN	05/12/93	<1	<1	<1	<1
LYMAN	06/28/93	<0.5	<0.5	<0.5	<0.5
LYMAN	07/15/93	<0.5	<0.5	<0.5	<0.5
LYMAN	08/03/93	<0.5	<0.5	<0.5	<0.5
LYMAN	09/21/93	<0.5	<0.5	<0.5	<0.5
LYMAN	10/14/93	<0.5	<0.5	<0.5	<0.5
LYMAN	11/10/93	<0.5	<0.5	<0.5	<0.5
LYMAN	12/06/93	<0.5	<0.5	<0.5	<0.5
LYMAN	01/12/94	<0.5	<0.5	<0.5	<0.5
LYMAN	02/09/94	<0.5	<0.5	<0.5	<0.5
LYMAN	03/16/94	<0.5	<0.5	<0.5	<0.5
LYMAN	04/05/94	<0.5	<0.5	<0.5	<0.5
LYMAN	05/19/94	<0.5	<0.5	<0.5	<0.5
LYMAN	06/23/94	<0.5	<0.5	<0.5	<0.5
LYMAN	07/21/94	<0.5	<0.5	<0.5	<0.5
LYMAN	08/24/94	<0.5	<0.5	<0.5	<0.5
LYMAN	09/20/94	<0.5	<0.5	<0.5	0.8
LYMAN	10/06/94	<0.5	<0.5	<0.5	<0.5
LYMAN	11/30/94	<0.5	<0.5	<0.5	<0.5

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

Appendix B

Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
LYMAN	12/16/94	<0.5	<0.5	<0.5	<0.5
LYMAN	01/11/95	<0.5	<0.5	<0.5	<0.5
LYMAN	03/09/95	<0.5	<0.5	<0.5	<0.5
LYMAN	04/07/95	<0.5	<0.5	<0.5	<0.5
LYMAN	05/18/95	<0.5	<0.5	<0.5	<0.5
LYMAN	07/21/95	<0.5	<0.5	<0.5	<0.5
LYMAN	10/12/95	<0.5	<0.5	<0.5	1.6
LYMAN	12/27/95	<0.5	<0.5	<0.5	<0.5
LYMAN	01/19/96	<0.5	<0.5	<0.5	<0.5
LYMAN	03/18/96	<0.5	<0.5	<0.5	<0.5
LYMAN	04/18/96	<0.5	<0.5	<0.5	<0.5
LYMAN	07/01/96	<0.5	<0.5	<0.5	<0.5
LYMAN	10/01/96	<0.5	<0.5	<0.5	<0.5
LYMAN	02/10/97	<0.5	<0.5	<0.5	<0.5
LYMAN	01/14/98	<0.5	<0.5	<0.5	<0.5
LYMAN	04/30/98	<0.5	<0.5	<0.5	<0.5
LYMAN	06/29/98	<1	<1	<1	<1
LYMAN	12/18/00	<5	<5	<5	<10
MW-1	05/01/91	500	--	--	--
MW-1	05/28/91	--	<500	1000	<500
MW-1	09/01/91	250	--	--	--
MW-1	12/01/91	200	200	300	100
MW-10	05/01/91	5500	--	--	--
MW-10	05/28/91	--	7000	500	4500
MW-10	09/01/91	2300	--	--	--
MW-10	12/01/91	2300	<100	200	2500
MW-10	04/01/92	1840	106	<3	2415
MW-10	07/01/92	1842	101	482	2183
MW-10	10/01/92	2100	144	436	759
MW-10	01/01/94	ND	--	ND	ND
MW-10	02/11/97	<0.5	<0.5	<0.5	<0.5
MW-11	09/01/91	3000	--	--	--
MW-11	12/01/91	3800	5800	500	5200
MW-11	04/01/92	3573	2979	484	6714
MW-11	07/01/92	2199	2440	463	3693
MW-11	10/01/92	2755	1896	<3	5196
MW-11	01/01/93	2746	1821	475	4280
MW-11	10/05/94	1800	<50	450	3500
MW-11	07/21/95	95	<0.5	4.4	250
MW-11	01/20/96	1000	32	190	2800
MW-11	04/19/96	650	38	84	2800
MW-11	07/01/96	500	46	370	2300
MW-11	10/01/96	270	15	230	1600
MW-11	02/07/97	270	20	81	1400
MW-12	09/01/91	3800	--	--	--
MW-13	09/01/91	3100	--	--	--
MW-13	12/01/91	3000	750	500	3300
MW-13	04/01/92	3501	142	<3	7137
MW-13	07/01/92	2708	136	597	2247
MW-13	10/01/96	1100	520	1200	2800
MW-13	02/07/97	1300	130	690	1000

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-13	07/01/98	800	<10	640	170
MW-14	09/01/91	5100	--	--	--
MW-14	06/22/98	820	<10	840	<10
MW-15	09/01/91	5100	--	--	--
MW-16	09/01/91	1700	--	--	--
MW-16	04/15/93	514	53	39	2134
MW-17	09/01/91	2000	--	--	--
MW-17	04/15/93	1500	58	230	2900
MW-18	09/01/91	4300	--	--	--
MW-18	04/01/92	2900	82	750	1200
MW-18	07/01/92	2700	22	600	55
MW-18	10/01/92	3300	115	870	187
MW-19	07/01/91	4900	--	--	--
MW-19	07/19/91	--	1000	1300	--
MW-19	07/30/91	--	--	--	2500
MW-19	09/01/91	4700	--	--	--
MW-19	04/01/92	3240	347	807	326
MW-19	07/01/92	3000	40	800	41
MW-19	10/01/92	2756	73	758	166
MW-19	04/15/93	3926	130	16	82
MW-19	10/01/96	140	5.9	5.2	17
MW-19	02/07/97	360	980	1100	5600
MW-20	09/01/91	110	--	--	--
MW-21	05/01/91	9	--	--	--
MW-21	05/28/91	--	9	<1	3
MW-21	09/01/91	1000	--	--	--
MW-21	12/01/91	1100	<50	<50	1000
MW-21	04/15/93	114	19	38	38
MW-22	09/01/91	4	--	--	--
MW-24	09/01/91	3400	--	--	--
MW-24	07/01/92	4353	27	55	708
MW-26	09/01/91	3100	--	--	--
MW-26	12/01/91	3000	<100	400	3700
MW-26	07/01/92	2000	48	390	1400
MW-26	10/01/92	1860	59	567	1774
MW-26	01/01/93	1708	82	399	1083
MW-26	04/15/93	861	62	600	2014
MW-28	09/01/91	2200	--	--	--
MW-31	09/01/91	<1	--	--	--
MW-31	07/01/92	332	36	11	54
MW-31	10/01/92	9	32	10	18
MW-32	09/01/91	200	--	--	--
MW-33	09/01/91	6300	--	--	--
MW-34	09/01/91	2500	--	--	--
MW-35	09/01/91	5700	--	--	--
MW-37	06/01/91	<25	--	--	--
MW-37	06/22/91	--	<25	<25	<25
MW-37	09/01/91	150	--	--	--
MW-37	07/14/93	27	7	<3	<3
MW-38	05/01/91	500	--	--	--
MW-38	05/28/91	--	<250	250	<250

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-38	06/01/91	<10	--	--	--
MW-38	06/22/91	--	<10	<10	<10
MW-38	09/01/91	15	--	--	--
MW-38	12/01/91	15	<1	15	<1
MW-38	04/01/92	67	17	55	7
MW-38	07/01/92	37	34	25	56
MW-38	10/01/92	166	18	242	24
MW-38	10/01/96	0.6	<0.5	<0.5	0.7
MW-38	02/07/97	0.7	<0.5	<0.5	0.7
MW-39	05/01/91	<1	--	--	--
MW-39	05/28/91	--	<1	11	38
MW-39	06/01/91	<1	--	--	--
MW-39	06/22/91	--	<1	<1	<1
MW-39	09/01/91	880	--	--	--
MW-39	01/01/93	14	6	<5	<5
MW-39	04/15/93	28	15	4	11
MW-39	07/15/93	24	3	<3	3
MW-39	10/14/93	19	23	<3	10
MW-39	01/13/94	<2.5	<2.5	8.4	70
MW-39	04/07/94	<0.5	<0.5	4	38
MW-39	07/20/94	<0.5	<0.5	5.9	78
MW-39	01/10/95	<5	7.1	250	80
MW-39	10/01/96	20	<0.5	<0.5	<0.5
MW-39	02/07/97	<0.5	<0.5	<0.5	<0.5
MW-39	07/18/97	<0.5	<0.5	<0.5	<0.5
MW-39	04/30/98	<0.5	<0.5	<0.5	<0.5
MW-39	07/01/98	<1	<1	<1	<1
MW-41	07/01/91	300	--	--	--
MW-41	07/19/91	--	<50	350	--
MW-41	07/30/91	--	--	--	<50
MW-41	09/01/91	200	--	--	--
MW-41	12/01/91	170	30	400	<10
MW-41	07/15/93	12	<5	22	<5
MW-41	10/14/93	8.9	<0.5	17	<0.5
MW-41	01/13/94	5.3	<5	27	140
MW-41	04/06/94	0.6	<0.5	3.8	7.4
MW-41	07/20/94	1.4	31	4.9	<0.5
MW-41	10/06/94	3.2	44	0.7	90
MW-41	01/11/95	13	<5	42	23
MW-41	04/06/95	4.8	<0.5	19	33
MW-41	07/21/95	<0.5	<0.5	1.1	6.3
MW-41	10/12/95	1.8	8	2.6	18
MW-41	01/20/96	<5	10	<5	14
MW-41	04/19/96	1.7	9.8	5.5	6.7
MW-41	07/01/96	<0.5	6.1	3.6	1.7
MW-41	10/01/96	8.1	2.4	5.8	5.5
MW-41	02/07/97	82	6.2	7.2	9.1
MW-41	07/18/97	280	6.9	6.9	23
MW-41	04/30/98	<0.5	7.1	4.5	21
MW-41	06/28/98	41	<1	<1	<1
MW-41	04/20/99	150	<5	<5	<10

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-42	09/01/91	<1	--	--	--
MW-42	12/01/91	<1	<1	<1	<1
MW-43	06/01/91	<10	--	--	--
MW-43	06/22/91	--	<10	15	10
MW-43	09/01/91	320	--	--	--
MW-43	07/15/93	25	17	<3	3
MW-43	10/14/93	10	11	<3	<3
MW-43	01/13/94	<0.5	<0.5	<0.5	<0.5
MW-43	04/06/94	<0.5	<0.5	1.2	14
MW-43	07/20/94	<0.5	<0.5	1.5	7.1
MW-43	10/06/94	0.8	<0.5	2.3	17
MW-43	01/11/95	3	<0.5	5.5	15
MW-43	04/06/95	0.6	<0.5	2.8	14
MW-43	07/21/95	3	4	5.8	5.9
MW-43	10/12/95	1.2	2.4	3.8	5.5
MW-43	01/20/96	1.4	3.1	6.6	5.3
MW-43	04/19/96	4.4	4.3	1.3	5.3
MW-43	07/01/96	8.2	5.7	4.4	7
MW-43	10/01/96	230	2.1	4.3	3.6
MW-43	02/07/97	64	8.1	18	28
MW-43	07/18/97	110	<1	4.1	<1
MW-43	04/30/98	29	5.8	2.8	26
MW-43	06/22/98	7.3	<1	<1	<1
MW-43	04/20/99	12	<5	<5	<10
MW-43	12/08/99	<5	11	6.2	46
MW-43	04/28/00	4.1	<1	3.6	<1
MW-43	10/02/00	<5	7.4	5.1	41
MW-43	04/19/01	<5	<5	<5	<10
MW-43	10/31/01	<5	6	<5	<10
MW-44	06/01/91	75	--	--	--
MW-44	06/22/91	--	<25	220	<25
MW-44	09/01/91	59	--	--	--
MW-44	04/01/92	6	22	24	2
MW-44	07/01/92	97	25	102	96
MW-44	10/01/92	12	34	96	24
MW-44	01/01/93	14	18	65	<1
MW-44	04/15/93	7	15	18	14
MW-44	07/15/93	6	16	<3	18
MW-44	10/14/93	3.6	<0.5	19	5.6
MW-44	01/13/94	12	<5	7.2	14
MW-44	04/06/94	22	<2.5	3.3	11
MW-44	07/20/94	36	<5	12	14
MW-44	10/05/94	130	<25	120	77
MW-44	01/11/95	63	<5	140	26
MW-44	04/06/95	19	2	71	16
MW-44	07/21/95	5.8	<0.5	16	5.6
MW-44	10/12/95	120	<50	240	260
MW-44	01/20/96	51	14	130	15
MW-44	04/19/96	26	11	74	6.3
MW-44	07/01/96	83	99	280	310
MW-44	10/01/96	33	2.7	20	2.6

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-44	02/07/97	270	26	53	48
MW-44	07/18/97	750	<10	45	<10
MW-44	04/30/98	520	22	17	44
MW-44	06/22/98	440	<5	9.2	<5
MW-44	04/20/99	91	<5	16	<10
MW-45	06/01/91	<1	--	--	--
MW-45	06/22/91	--	<1	<1	<1
MW-45	09/01/91	<1	--	--	--
MW-45	12/01/91	<1	<1	<1	<1
MW-45	07/15/93	<3	6	7	4
MW-45	10/14/93	<3	3	<3	3
MW-45	01/13/94	<0.5	<0.5	<0.5	<0.5
MW-45	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-45	07/20/94	<0.5	<0.5	<0.5	<0.5
MW-46	06/01/91	3200	--	--	--
MW-46	06/22/91	--	<50	900	<50
MW-46	07/01/91	300	--	--	--
MW-46	07/19/91	--	<50	250	--
MW-46	07/30/91	--	--	--	250
MW-46	09/01/91	140	--	--	--
MW-46	10/01/96	900	33	440	59
MW-46	02/11/97	3300	550	1000	1400
MW-46	05/29/97	5000	1200	230	<100
MW-46	07/18/97	6100	1900	270	130
MW-46	04/30/98	1600	41	140	290
MW-46	07/01/98	1700	<5	97	120
MW-46	04/20/99	210	<5	11	20
MW-46	12/08/99	50	43	34	129
MW-46	04/28/00	17	<1	<1	<1
MW-46	10/02/00	12	39	19	128
MW-46	04/19/01	<5	<5	<5	<10
MW-46	10/31/01	<100	<100	<100	<200
MW-47	06/01/91	600	--	--	--
MW-47	06/22/91	--	<100	2000	2700
MW-47	09/01/91	2600	--	--	--
MW-47	12/01/91	2200	<50	<50	<50
MW-47	10/01/96	1500	59	200	250
MW-48	09/01/91	<1	--	--	--
MW-48	12/01/91	<1	5	10	<1
MW-48	07/01/92	47	18	6	18
MW-48	10/01/96	<0.5	<0.5	<0.5	1
MW-49	06/01/91	60	--	--	--
MW-49	06/22/91	--	<10	60	40
MW-49	09/01/91	35	--	--	--
MW-49	07/15/93	210	27	42	30
MW-49	10/14/93	68	26	9	20
MW-49	01/13/94	13	<5	15	110
MW-49	04/06/94	82	<0.5	11	10
MW-49	07/20/94	150	<5	32	27
MW-49	10/05/94	78	49	40	300
MW-49	01/11/95	220	<5	46	97

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-49	04/06/95	120	<0.5	24	26
MW-49	07/21/95	17	<0.5	3.5	3.4
MW-49	10/12/95	240	<50	59	130
MW-49	01/20/96	160	130	120	570
MW-49	04/19/96	87	23	18	32
MW-49	07/01/96	370	220	190	630
MW-49	10/01/96	95	16	36	12
MW-49	02/07/97	79	66	45	160
MW-49	07/18/97	130	<1	35	9.8
MW-49	04/30/98	130	39	41	69
MW-49	07/01/98	78	<1	15	<1
MW-49	04/20/99	81	<5	32	<10
MW-49	12/08/99	32	68	58	380
MW-49	04/27/00	24	<1	12	<1
MW-49	10/02/00	35	38	18	107
MW-49	04/17/01	21	36	16	117
MW-49	10/31/01	21	<5	<5	<10
MW-50	06/01/91	<1	--	--	--
MW-50	06/22/91	--	<1	<1	<1
MW-50	09/01/91	<1	--	--	--
MW-50	12/01/91	<1	<1	<1	<1
MW-50	04/01/92	7	18	<3	17
MW-50	07/01/92	4	167	7	11
MW-50	10/01/92	8	10	3	2
MW-50	01/01/93	8	5	<3	5
MW-50	04/15/93	<1	<1	<1	<1
MW-50	07/15/93	<3	12	10	4
MW-50	10/14/93	9	16	<3	<3
MW-50	01/13/94	<0.5	<0.5	<0.5	<0.5
MW-50	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-50	07/20/94	<0.5	<0.5	<0.5	<0.5
MW-50	10/05/94	<0.5	<0.5	<0.5	<0.5
MW-50	01/11/95	<0.5	<0.5	<0.5	<0.5
MW-50	04/06/95	<0.5	<0.5	<0.5	<0.5
MW-50	07/21/95	<0.5	<0.5	<0.5	<0.5
MW-50	10/12/95	<0.5	<0.5	<0.5	<0.5
MW-50	01/20/96	<0.5	<0.5	<0.5	<0.5
MW-50	04/19/96	<0.5	<0.5	<0.5	<0.5
MW-50	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-50	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-50	02/07/97	<0.5	<0.5	<0.5	<0.5
MW-50	07/18/97	<1	<1	<1	<1
MW-50	04/30/98	<0.5	<0.5	<0.5	<0.5
MW-50	06/28/98	<1	<1	<1	<1
MW-50	04/20/99	<5	<5	<5	<10
MW-50	12/08/99	<5	<5	<5	<10
MW-50	05/02/00	<1	<1	<1	<1
MW-50	10/02/00	<5	<5	<5	<10
MW-50	04/17/01	<5	<5	<5	<15
MW-50	10/31/01	<5	<5	<5	<10
MW-51	09/01/91	800	--	--	--

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-51	12/01/91	<1	<1	<1	<1
MW-52	09/01/91	<1	--	--	--
MW-52	07/01/92	5	31	4	5
MW-53	09/01/91	<1	--	--	--
MW-54	09/01/91	<1	--	--	--
MW-54	12/01/91	<1	<1	<1	<1
MW-54	04/01/92	10	10	<3	14
MW-54	07/01/92	8	44	23	195
MW-54	10/01/92	62	7	195	630
MW-54	01/01/93	14	4	15	113
MW-54	04/14/93	10	<3	<3	8
MW-54	07/14/93	<3	<3	<3	3
MW-54	10/14/93	17	35	16	24
MW-54	01/12/94	8.6	<0.5	7.4	<0.5
MW-54	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-54	07/20/94	15	1.2	8.5	8.7
MW-54	10/05/94	19	0.6	29	6.3
MW-54	01/10/95	<0.5	<0.5	<0.5	<0.5
MW-54	04/06/95	<0.5	<0.5	<0.5	<0.5
MW-54	07/21/95	<0.5	<0.5	<0.5	<0.5
MW-54	10/11/95	0.7	<0.5	1.7	3
MW-54	01/20/96	<0.5	<0.5	<0.5	<0.5
MW-54	04/18/96	<0.5	<0.5	<0.5	<0.5
MW-54	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-54	10/01/96	0.9	<0.5	0.6	<0.5
MW-54	02/10/97	<0.5	<0.5	<0.5	<0.5
MW-54	07/16/97	0.9	3.2	2.1	17
MW-54	04/29/98	<0.5	<0.5	<0.5	<0.5
MW-54	06/25/98	<1	<1	<1	<1
MW-54	04/22/99	<5	<5	<5	<10
MW-54	01/06/00	<5	<5	<5	<10
MW-54	05/02/00	<1	<1	<1	<1
MW-54	10/03/00	<5	<5	<5	<10
MW-54	04/23/01	<5	<5	<5	<15
MW-54	11/01/01	<5	<5	<5	<10
MW-55	06/01/91	<50	--	--	--
MW-55	06/22/91	--	<50	<50	100
MW-55	09/01/91	940	--	--	--
MW-55	12/01/91	400	25	<25	25
MW-55	04/01/92	297	24	15	34
MW-55	07/01/92	483	36	64	66
MW-55	10/01/92	215	56	92	26
MW-55	01/01/93	390	68	90	32
MW-55	04/14/93	412	20	89	18
MW-55	07/14/93	625	21	8	50
MW-55	10/14/93	581	27	102	18
MW-55	01/12/94	290	<2.5	89	<2.5
MW-55	04/08/94	370	<2.5	33	<2.5
MW-55	07/20/94	360	5.5	16	120
MW-55	10/05/94	910	<5	480	<5
MW-55	01/11/95	650	<5	400	41

Notes:

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-55	04/11/95	420	<2.5	260	21
MW-55	07/20/95	350	<5	270	22
MW-55	10/11/95	100	6.1	70	15
MW-55	01/19/96	650	15	430	29
MW-55	04/18/96	370	13	310	22
MW-55	07/01/96	800	35	520	99
MW-55	10/01/96	520	32	460	84
MW-55	02/10/97	410	20	230	64
MW-55	07/16/97	140	11	110	9.2
MW-55	04/29/98	110	12	31	7.7
MW-55	06/25/98	180	<1	31	<1
MW-55	04/22/99	100	<5	13	<10
MW-55	12/09/99	90	19	15	<10
MW-55	05/02/00	68	<1	14	5.5
MW-55	10/04/00	43	10	14	<10
MW-55	04/24/01	50	<5	12	<5
MW-55	11/01/01	32	<5	10	<10
MW-56	06/01/91	2100	--	--	--
MW-56	06/22/91	--	<50	2900	<50
MW-56	07/01/91	2000	--	--	--
MW-56	07/19/91	--	500	1000	--
MW-56	07/30/91	--	--	--	1000
MW-56	09/01/91	2200	--	--	--
MW-56	12/01/91	1000	2000	3000	6000
MW-56	07/01/92	1114	64	962	49
MW-56	10/01/92	1026	47	<3	839
MW-56	01/01/93	1128	40	10	804
MW-56	10/01/96	1000	23	94	92
MW-56	02/11/97	370	12	51	51
MW-57	05/28/91	--	--	--	<0.2
MW-57	06/01/91	<1	--	--	--
MW-57	06/22/91	--	1	<1	<1
MW-57	07/01/91	<1	--	--	--
MW-57	07/19/91	--	0.2	0.4	--
MW-57	09/01/91	1600	--	--	--
MW-57	12/01/91	350	<10	<10	<10
MW-57	04/01/92	127	29	<3	16
MW-57	07/01/92	948	422	112	876
MW-57	10/01/92	15	33	<3	78
MW-57	01/01/93	21	40	165	19
MW-57	04/14/93	8	21	15	16
MW-57	07/14/93	6	8	<3	<3
MW-57	10/13/93	<0.5	1.6	<0.5	1.2
MW-57	01/12/94	<0.5	<0.5	<0.5	<0.5
MW-57	04/07/94	<0.5	<0.5	<0.5	<0.5
MW-57	07/19/94	0.7	<0.5	<0.5	1.8
MW-57	10/05/94	1.1	<0.5	<0.5	4
MW-57	01/11/95	4.3	<0.5	<0.5	1.3
MW-57	04/08/95	<0.5	<0.5	<0.5	<0.5
MW-57	07/20/95	<0.5	0.8	<0.5	<0.5
MW-57	10/11/95	64	1.7	0.7	5

Notes:

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-57	01/19/96	16	1.5	1	4.2
MW-57	04/18/96	<0.5	0.9	<0.5	<0.5
MW-57	07/01/96	2.8	1	<0.5	1.4
MW-57	10/01/96	54	2.8	3.4	13
MW-57	02/10/97	<0.5	0.9	<0.5	<0.5
MW-57	07/15/97	<0.5	<0.5	<0.5	<0.5
MW-57	04/29/98	<0.5	<0.5	<0.5	0.9
MW-57	06/24/98	<1	<1	<1	<1
MW-57	04/20/99	<5	<5	<5	<10
MW-57	05/04/00	<1	<1	3.4	8.8
MW-57	10/04/00	10	<5	<5	<10
MW-57	04/24/01	<5	<5	<5	<5
MW-58	09/01/91	40	--	--	--
MW-58	12/01/91	90	40	20	80
MW-58	04/01/92	203	32	56	68
MW-58	07/01/92	178	58	32	44
MW-58	10/01/92	190	49	26	57
MW-58	01/01/93	192	30	23	39
MW-58	04/13/93	55	16	31	9
MW-58	07/13/93	25	42	14	13
MW-58	10/13/93	50	21	212	555
MW-58	04/05/94	<2.5	<2.5	7.4	27
MW-58	07/19/94	2	29	4.5	27
MW-58	10/06/94	6.7	<5	15	39
MW-58	04/08/95	2.2	<0.5	2.1	6.8
MW-58	10/01/96	110	320	940	10000
MW-58	01/30/98	350	23	42	96
MW-58	06/22/98	22	<1	28	35
MW-59	09/01/91	540	--	--	--
MW-59	12/01/91	420	40	240	420
MW-59	04/01/92	42	12	20	20
MW-59	07/01/92	268	45	110	232
MW-59	10/01/92	99	37	44	46
MW-59	01/01/93	26	<3	55	10
MW-59	04/13/93	10	14	12	5
MW-59	10/13/93	10	13	89	433
MW-59	04/05/94	<2.5	<2.5	3.3	25
MW-59	07/19/94	13	69	0.5	73
MW-59	10/06/94	4.1	3.7	23	37
MW-59	06/24/98	<5	<5	79	42
MW-59	05/04/00	29	<1	130	405
MW-59	10/05/00	<100	<100	490	520
MW-59	04/19/01	<5	<5	<5	<10
MW-60	05/28/91	--	--	--	<0.2
MW-60	07/01/91	<0.2	--	--	--
MW-60	07/19/91	--	<0.2	0.4	--
MW-60	09/01/91	33	--	--	--
MW-60	12/01/91	<1	<1	<1	<1
MW-60	04/01/92	5	9	<3	4
MW-60	07/01/92	17	1	<1	1
MW-60	10/01/92	32	109	36	57

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-60	01/01/93	138	4	260	6
MW-60	04/14/93	17	16	<3	12
MW-60	07/14/93	<0.5	<0.5	<0.5	<0.5
MW-60	10/13/93	<0.5	1	0.5	1
MW-60	01/12/94	<0.5	<0.5	<0.5	<0.5
MW-60	04/07/94	<0.5	<0.5	<0.5	<0.5
MW-60	07/19/94	<0.5	1.3	<0.5	3.5
MW-60	10/05/94	<0.5	0.6	0.6	4.9
MW-60	01/10/95	<0.5	<0.5	<0.5	0.6
MW-60	04/07/95	<0.5	<0.5	<0.5	<0.5
MW-60	07/19/95	<0.5	4.9	<0.5	<0.5
MW-60	10/11/95	<0.5	<0.5	<0.5	<0.5
MW-60	01/19/96	<0.5	<0.5	<0.5	<0.5
MW-60	04/18/96	<0.5	<0.5	<0.5	<0.5
MW-60	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-60	10/01/96	2.5	0.9	<0.5	<0.5
MW-60	02/09/97	<0.5	<0.5	0.5	0.8
MW-60	05/06/97	<0.5	<0.5	<0.5	<0.5
MW-60	07/15/97	<0.5	<0.5	<0.5	<0.5
MW-60	10/16/97	<0.5	<0.5	<0.5	<0.5
MW-60	01/30/98	<0.5	<0.5	<0.5	<0.5
MW-60	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-60	07/01/98	<1	<1	<1	<1
MW-60	10/12/98	<0.5	<0.5	<0.5	<0.5
MW-60	02/01/99	<0.5	<0.5	<0.5	<0.5
MW-60	04/20/99	<5	<5	<5	<10
MW-60	12/13/99	<5	<5	<5	<10
MW-60	05/01/00	<1	<1	<1	<1
MW-60	10/04/00	<5	<5	<5	<10
MW-60	04/19/01	<5	<5	<5	<10
MW-60	11/01/01	<5	<5	<5	<10
MW-61	09/01/91	<1	--	--	--
MW-61	12/01/91	--	<1	<1	<1
MW-61	01/13/94	1.4	1	1.7	1.1
MW-61	04/07/94	<0.5	<0.5	0.5	<0.5
MW-61	07/20/94	3.2	<0.5	<0.5	0.8
MW-61	10/04/94	<5	23	14	160
MW-61	01/11/95	<0.5	0.7	2.5	0.8
MW-61	04/11/95	7	<0.5	7.8	35
MW-61	07/21/95	<0.5	<0.5	<0.5	<0.5
MW-61	10/10/95	<0.5	<0.5	<0.5	<0.5
MW-61	01/20/96	<0.5	<0.5	<0.5	<0.5
MW-61	04/18/96	<0.5	<0.5	<0.5	<0.5
MW-61	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-61	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-61	02/10/97	<0.5	<0.5	<0.5	<0.5
MW-61	07/17/97	<0.5	<0.5	<0.5	<0.5
MW-61	04/29/98	<0.5	<0.5	<0.5	<0.5
MW-61	06/28/98	<1	<1	<1	<1
MW-61	04/20/99	100	<5	13	<10
MW-61	04/20/99	100	<5	13	<10

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-61	05/03/00	<1	<1	<1	<1
MW-61	10/02/00	<5	<5	<5	<10
MW-61	04/23/01	<5	<5	<5	<10
MW-61	10/31/01	<5	<5	<5	<10
MW-61A	05/28/91	--	--	--	0.5
MW-61A	07/01/91	2	--	--	--
MW-61A	07/19/91	--	1.5	0.4	--
MW-61A	09/01/91	190	--	--	--
MW-61A	12/01/91	10	10	5	75
MW-61A	04/01/92	6	7	<3	13
MW-61A	07/01/92	60	<10	3	8
MW-61A	10/01/92	470	17	<3	2351
MW-61A	01/01/93	585	82	397	2368
MW-61A	04/13/93	2821	173	817	3993
MW-61A	04/05/94	<0.5	<0.5	0.5	3.8
MW-61A	07/19/94	<0.5	<0.5	<0.5	2.5
MW-61A	10/04/94	4.8	4.5	3.7	37
MW-61A	01/10/95	16	<5	30	220
MW-61A	01/20/96	<0.5	<0.5	<0.5	0.8
MW-61A	04/19/96	<0.5	<0.5	<0.5	<0.5
MW-61A	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-61A	10/01/96	1.7	1.7	1.3	9.4
MW-61A	02/06/97	42	3.4	8.4	46
MW-61A	05/07/97	330	59	<25	850
MW-61A	06/27/97	22	11	-5.4	26
MW-61A	07/15/97	16	<10	10	93
MW-61A	10/15/97	35	13	22	95
MW-61A	01/29/98	15	16	26	130
MW-61A	04/29/98	7.1	9.5	24	93
MW-61A	06/28/98	1.5	<1	7.9	20
MW-61A	10/11/98	4.5	22	15	61
MW-61A	02/01/99	<0.5	<0.5	12	54
MW-61A	04/20/99	<5	<5	15	40
MW-61A	12/16/99	<5	6.3	<5	26.7
MW-61A	05/03/00	<1	<1	<1	1.5
MW-61A	10/02/00	<5	<5	<5	<10
MW-61A	04/18/01	<5	<5	<5	<15
MW-61A	10/31/01	<5	<5	<5	<10
MW-62	09/01/91	2200	--	--	--
MW-62	12/01/91	1400	<200	400	2400
MW-62	04/01/92	263	48	170	298
MW-62	07/01/92	357	13	184	301
MW-62	10/01/92	212	19	416	1692
MW-62	01/01/93	78	18	--	207
MW-62	04/13/93	33	15	16	24
MW-62	07/14/93	98	12	70	204
MW-62	10/13/93	19	20	20	32
MW-62	01/11/94	4.1	<2.5	13	44
MW-62	04/05/94	<2.5	<2.5	4.4	26
MW-62	07/19/94	4.3	32	7.5	26
MW-62	10/06/94	13	13	11	39

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-62	04/08/95	7.5	30	12	30
MW-62	07/18/97	20	19	58	210
MW-62	06/26/98	<10	<10	41	56
MW-62	04/21/99	<5	<5	18	20
MW-62	05/03/00	4.5	1.5	3.3	16.7
MW-62	10/05/00	14	<5	6	35
MW-62	04/20/01	<5	8.3	<5	24
MW-63	09/01/91	<1	--	--	--
MW-63	12/01/91	<1	<1	<1	<1
MW-63	04/01/92	5	6	<3	8
MW-63	07/01/92	12	28	3	20
MW-63	10/01/92	4	7	17	33
MW-63	01/01/93	12	4	<3	13
MW-63	04/13/93	<1	<1	<1	<1
MW-63	07/13/93	4	<3	<3	<3
MW-63	10/12/93	14	48	11	39
MW-63	01/11/94	<0.5	0.7	<0.5	0.7
MW-63	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-63	07/18/94	1	9.6	1.4	13
MW-63	10/04/94	<0.5	2.6	1	8
MW-63	01/09/95	<0.5	<0.5	<0.5	<0.5
MW-63	04/07/95	<0.5	<0.5	<0.5	<0.5
MW-63	07/18/95	<0.5	1	<0.5	<0.5
MW-63	10/10/95	<0.5	<0.5	<0.5	<0.5
MW-63	01/18/96	<0.5	<0.5	<0.5	<0.5
MW-63	04/17/96	<0.5	<0.5	<0.5	<0.5
MW-63	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-63	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-63	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-63	07/15/97	<0.5	<0.5	<0.5	<0.5
MW-63	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-63	06/25/98	<1	<1	<1	<1
MW-63	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-63	04/22/99	<5	<5	<5	<10
MW-63	04/27/00	<1	<1	<1	<1
MW-63	10/03/00	<5	<5	<5	<10
MW-63	04/24/01	<5	<5	<5	<15
MW-64	09/01/91	150	--	--	--
MW-64	12/01/91	130	<10	40	160
MW-64	04/01/92	245	32	82	331
MW-64	07/01/92	115	19	10	40
MW-64	10/01/92	37	61	<3	96
MW-64	01/01/93	6	2	1	4
MW-64	04/13/93	5	11	5	9
MW-64	07/13/93	2	<0.5	<0.5	<0.5
MW-64	10/13/93	18	12	3	71
MW-64	11/10/93	<4	<4	<4	<4
MW-64	01/12/94	1.7	<0.5	<0.5	0.9
MW-64	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-64	07/19/94	<0.5	0.5	<0.5	3.6
MW-64	10/05/94	<0.5	0.5	0.6	5.6

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-64	01/10/95	12	<0.5	5.1	13
MW-64	04/07/95	18	<0.5	18	41
MW-64	07/19/95	17	1.1	9.8	23
MW-64	10/11/95	25	1.7	13	32
MW-64	01/19/96	14	2.2	9.3	23
MW-64	04/18/96	10	2	4.3	7.9
MW-64	07/16/97	84	<25	130	310
MW-64	06/23/98	<1	<1	<1	<1
MW-64	04/21/99	<5	<5	<5	<10
MW-64	12/13/99	<5	<5	<5	<10
MW-64	05/03/00	<1	<1	<1	<1
MW-64	10/04/00	<5	<5	<5	<10
MW-64	04/20/01	<5	<5	<5	<10
MW-64	11/05/01	<5	<5	<5	<10
MW-65	09/01/91	<1	--	--	--
MW-65	12/01/91	--	<1	<1	<1
MW-65	07/15/93	<3	6	<3	3
MW-65	10/05/94	<0.5	<0.5	<0.5	<0.5
MW-65	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-65	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-65	02/11/97	<0.5	<0.5	<0.5	<0.5
MW-65	05/07/97	<0.5	<0.5	<0.5	<0.5
MW-65	04/30/98	<0.5	<0.5	<0.5	<0.5
MW-65	12/09/99	<5	<5	<5	<10
MW-65	10/02/00	<5	<5	<5	<10
MW-65	04/20/01	<5	<5	<5	<10
MW-65	11/01/01	<5	<5	<5	<10
MW-65A	09/01/91	680	--	--	--
MW-65A	12/01/91	150	15	<1	15
MW-65A	04/01/92	26	15	<3	12
MW-65A	07/01/92	413	235	93	551
MW-65A	10/01/92	11	<3	<3	67
MW-65A	01/01/93	3	<3	<3	11
MW-65A	04/13/93	4	9	3	8
MW-65A	07/13/93	<3	3	<3	<3
MW-65A	10/13/93	7	3	<3	<3
MW-65A	01/11/94	<0.5	<0.5	<0.5	<0.5
MW-65A	04/05/94	<0.5	<0.5	<0.5	<0.5
MW-65A	07/19/94	<0.5	<0.5	<0.5	<0.5
MW-65A	10/06/94	1.7	<0.5	<0.5	<0.5
MW-65A	01/11/95	<0.5	<0.5	<0.5	0.7
MW-65A	04/08/95	<0.5	<0.5	<0.5	0.5
MW-65A	01/20/96	<0.5	<0.5	<0.5	<0.5
MW-65A	04/18/96	<0.5	<0.5	<0.5	2
MW-65A	06/25/98	<1	<1	16	415
MW-66	09/01/91	<1	--	--	--
MW-66	12/01/91	<1	<1	<1	<1
MW-66	04/01/92	4	7	<3	4
MW-66	07/01/92	8	25	7	11
MW-66	10/01/92	12	36	<3	34
MW-66	01/01/93	3	6	3	20

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-66	04/13/93	<3	5	5	<3
MW-66	07/13/93	8	4	<3	<3
MW-66	10/12/93	13	60	4	29
MW-66	11/10/93	<4	<4	<4	<4
MW-66	01/11/94	<0.5	<0.5	<0.5	0.6
MW-66	04/07/94	<0.5	<0.5	<0.5	<0.5
MW-66	07/19/94	<0.5	0.6	<0.5	0.8
MW-66	10/04/94	<0.5	3	1.5	17
MW-66	01/09/95	<0.5	<0.5	<0.5	<0.5
MW-66	04/11/95	<0.5	<0.5	<0.5	<0.5
MW-66	07/19/95	<0.5	0.9	<0.5	<0.5
MW-66	10/10/95	<0.5	<0.5	<0.5	3.5
MW-66	01/19/96	<0.5	<0.5	<0.5	<0.5
MW-66	04/17/96	<0.5	0.8	<0.5	1
MW-66	07/01/96	<0.5	<0.5	<0.5	0.5
MW-66	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-66	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-66	05/06/97	<0.5	<0.5	<0.5	<0.5
MW-66	07/16/97	<0.5	<0.5	<0.5	<0.5
MW-66	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-66	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-66	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-66	06/17/98	<1	1.6	<1	<1
MW-66	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-66	02/01/99	<0.5	<0.5	<0.5	<0.5
MW-66	04/21/99	<5	<5	<5	<10
MW-66	12/10/99	<5	<5	<5	<10
MW-66	04/27/00	<1	<1	<1	<1
MW-66	10/05/00	<5	<5	<5	<10
MW-66	04/18/01	<5	<5	<5	<15
MW-66	11/01/01	<5	<5	<5	<10
MW-67	09/01/91	280	--	--	--
MW-67	12/01/91	320	<10	<10	<10
MW-67	04/01/92	5	8	<3	12
MW-67	07/01/92	69	10	20	116
MW-67	10/01/92	3	9	<3	73
MW-67	01/01/93	8	3	<3	12
MW-67	04/13/93	7	18	7	19
MW-67	07/13/93	7	<3	<3	<3
MW-67	10/13/93	<0.5	0.9	<0.5	1.1
MW-67	01/12/94	<0.5	<0.5	<0.5	<0.5
MW-67	04/07/94	<0.5	<0.5	<0.5	<0.5
MW-67	07/19/94	<0.5	0.6	<0.5	3
MW-67	10/05/94	<0.5	<0.5	<0.5	4.3
MW-67	01/11/95	1	<0.5	<0.5	1.1
MW-67	04/07/95	1.8	<0.5	<0.5	1.3
MW-67	07/21/95	<0.5	<0.5	<0.5	0.6
MW-67	10/11/95	6.1	1.8	0.5	4.2
MW-67	01/19/96	4.8	3.6	0.6	4.7
MW-67	04/18/96	3.4	0.9	<0.5	2.5
MW-67	07/01/96	95	110	28	280

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-67	02/10/97	15	4.8	1.9	41
MW-67	07/16/97	160	330	110	1200
MW-67	06/24/98	1.3	2.7	3.5	45.3
MW-67	04/22/99	<5	<5	<5	<10
MW-67	05/02/00	<1	<1	<1	13.4
MW-67	10/04/00	<5	<5	<5	<10
MW-67	04/19/01	<5	<5	<5	<10
MW-67	11/05/01	<5	<5	<5	<10
MW-68	09/01/91	240	--	--	--
MW-68	12/01/91	1900	4500	500	4000
MW-68	04/01/92	2470	3370	550	3866
MW-68	07/01/92	160	267	49	746
MW-68	10/01/92	2205	3327	<3	4721
MW-68	01/01/93	376	944	246	2376
MW-68	04/13/93	650	1900	330	4000
MW-68	07/13/93	150	230	110	1100
MW-68	10/13/93	374	628	286	2398
MW-68	01/11/94	3000	820	1000	7700
MW-68	04/05/94	120	61	170	1300
MW-68	07/19/94	260	170	220	2000
MW-68	10/17/97	740	100	490	3800
MW-68	06/26/98	390	26	140	990
MW-69	09/01/91	2400	--	--	--
MW-69	12/01/91	2100	1100	150	4200
MW-69	07/01/92	568	56	1785	1966
MW-69	10/01/92	1598	71	<3	2879
MW-69	01/01/93	1284	49	309	1931
MW-69	07/18/97	930	23	410	1100
MW-69	04/30/98	970	22	500	530
MW-69	06/29/98	1200	<10	520	510
MW-69	Not Sampled - Condensate Present				
MW-69	Not Sampled - Condensate Present				
MW-70	09/01/91	<1	--	--	--
MW-70	12/01/91	<1	<1	<1	<1
MW-70	04/01/92	3	17	<3	8
MW-70	07/01/92	<1	3	1	13
MW-70	10/01/92	11	40	63	60
MW-70	01/01/93	<3	<3	8	5
MW-70	04/14/93	9	20	<3	4
MW-70	07/13/93	<1	11	3	<3
MW-70	10/12/93	25	19	19	18
MW-70	11/10/93	<4	<4	<4	40
MW-70	01/11/94	<0.5	0.6	<0.5	<0.5
MW-70	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-70	07/18/94	<0.5	<0.5	<0.5	<0.5
MW-70	10/04/94	1.2	4.3	1.3	12
MW-70	01/09/95	<0.5	2.3	<0.5	2.4
MW-70	04/05/95	<0.5	<0.5	<0.5	1.1
MW-70	07/18/95	<0.5	0.8	<0.5	<0.5
MW-70	10/10/95	<0.5	<0.5	<0.5	<0.5
MW-70	01/18/96	<0.5	<0.5	<0.5	<0.5

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Appendix B
Historical BTEX Analytical Data, May 1991 - November 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-70	04/17/96	<0.5	<0.5	<0.5	<0.5
MW-70	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-70	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-70	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-70	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-70	06/16/98	<1	<1	<1	<1
MW-70	04/22/99	<5	<5	<5	<10
MW-70	04/28/00	<1	<1	<1	<1
MW-70	10/03/00	<5	<5	<5	<10
MW-70	04/24/01	<5	<5	<5	<15
MW-71	09/01/93	<4	<4	<4	<4
MW-71	10/12/93	8	5	4	16
MW-71	11/10/93	<4	<4	<4	<4
MW-71	01/11/94	<0.5	1.3	<0.5	0.5
MW-71	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-71	07/18/94	<0.5	3	0.7	6.2
MW-71	10/04/94	1.1	6.8	2.7	31
MW-71	01/10/95	<0.5	<0.5	<0.5	<0.5
MW-71	06/23/95	<0.5	66	<0.5	<0.5
MW-71	07/18/95	<0.5	1.2	<0.5	1.9
MW-71	10/10/95	<0.5	<0.5	<0.5	7.3
MW-71	01/18/96	<0.5	<0.5	<0.5	<0.5
MW-71	04/17/96	<0.5	<0.5	<0.5	<0.5
MW-71	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-71	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-71	02/09/97	5.2	1.3	0.8	1.3
MW-71	05/06/97	<0.5	<0.5	<0.5	<0.5
MW-71	07/17/97	<0.5	<0.5	<0.5	<0.5
MW-71	10/16/97	<0.5	<0.5	<0.5	<0.5
MW-71	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-71	04/29/98	<0.5	<0.5	<0.5	<0.5
MW-71	06/28/98	<1	<1	<1	<1
MW-71	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-71	02/01/99	<0.5	<0.5	<0.5	<0.5
MW-71	04/21/99	<5	<5	<5	<10
MW-71	12/10/99	<5	<5	<5	<10
MW-71	04/28/00	<1	<1	<1	<1
MW-71	10/02/00	<5	<5	<5	<10
MW-71	04/18/01	<5	<5	<5	<15
MW-71	10/31/01	<5	<5	<5	<10
MW-72	04/05/94	<2.5	<2.5	4.7	15
MW-72	07/19/94	18	<0.5	5.1	2.8
MW-72	06/30/98	56	<10	100	<10
MW-73	06/30/98	1.1	<1	<1	<1
MW-73	12/14/99	5.7	<5	<5	8.9
MW-73	05/04/00	<1	<1	<1	<1
MW-73	10/05/00	<5	<5	<5	<10
MW-73	04/23/01	<5	<5	<5	<5
MW-73	11/01/01	<5	<5	<5	<10
MW-74	07/18/97	180	320	180	1900
MW-74	06/24/98	220	<10	10	<10

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Appendix B
Historical BTEX Analytical Data, May 1991 - November 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-74	12/14/99	100	3900	990	6700
MW-74	05/04/00	<1	19	40	110
MW-74	10/05/00	<5	140	66	1320
MW-74	04/24/01	<100	<100	<100	<100
MW-74	11/01/01	<50	<50	<50	<100
MW-75	06/30/98	200	<10	89	270
MW-76	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-76	06/29/98	<1	<1	<1	<1
MW-77	07/21/95	<0.5	<0.5	1.9	2.8
MW-77	01/20/96	<0.5	3.1	<0.5	7.1
MW-77	04/19/96	<0.5	3.8	0.8	2.5
MW-77	07/01/96	8	14	19	35
MW-77	10/01/96	160	320	150	1000
MW-77	05/07/97	8.4	70	8.3	52
MW-77	07/18/97	14	30	11	71
MW-77	12/09/99	<5	<5	<5	<10
MW-77	10/03/00	<5	<5	<5	24
MW-77	Not Sampled - Condensate Present				
MW-77	Not Sampled - Dry				
MW-78	10/01/96	32	15	9.1	35
MW-78	02/10/97	41	7.9	7.4	12
MW-78	05/07/97	20	42	12	23
MW-78	07/17/97	8.2	10	6.6	16
MW-78	04/30/98	1.4	4.9	2	7.7
MW-78	06/28/98	<1	<1	<1	<1
MW-78	04/22/99	<5	<5	<5	<10
MW-78	12/09/99	<5	44	55	420
MW-78	10/05/00	<25	<25	<25	96
MW-78	Not Sampled - Condensate Present				
MW-78	11/02/01	<5	<5	<5	<10
MW-79	01/11/95	110	<5	8.5	61
MW-79	04/06/95	14	<0.5	10	53
MW-79	07/21/95	<5	74	7.7	62
MW-79	10/10/95	16	4	<2.5	3.7
MW-79	01/18/96	10	6.7	1.4	4.9
MW-79	04/19/96	2.4	7.3	1	2.7
MW-79	07/01/96	3.2	6.3	0.9	6.3
MW-79	10/01/96	1.7	5.8	1	4.2
MW-79	02/10/97	<0.5	<0.5	<0.5	<0.5
MW-79	05/07/97	<0.5	<0.5	<0.5	<0.5
MW-79	07/17/97	<0.5	<0.5	<0.5	<0.5
MW-79	04/29/98	<0.5	1.5	<0.5	1.1
MW-79	06/28/98	<1	<1	<1	<1
MW-79	04/22/99	<5	<5	<5	<10
MW-79	12/09/99	<5	<5	<5	<10
MW-79	05/02/00	<1	<1	<1	<1
MW-79	04/19/01	<5	<5	<5	<10
MW-79	11/01/01	<5	<5	<5	<10
MW-81	06/29/98	<1	<1	<1	1.5
MW-82	10/11/95	280	<50	450	910
MW-82	06/25/98	70	<5	75	510

Notes:

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-83	06/25/98	<10	<10	16	31
MW-84	06/23/98	93	13	55	458
MW-85	06/23/98	280	<5	120	6.3
MW-86	10/17/97	510	360	580	1400
MW-86	06/26/98	91	10	28	360
MW-87	08/01/96	<0.5	20	<0.5	0.5
MW-87	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-87	02/09/97	<0.5	<0.5	<0.5	<0.5
MW-87	05/06/97	<0.5	<0.5	<0.5	<0.5
MW-87	10/16/97	<0.5	<0.5	<0.5	<0.5
MW-87	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-87	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-87	06/27/98	<1	<1	<1	<1
MW-87	10/12/98	<0.5	<0.5	<0.5	<0.5
MW-87	02/02/99	<0.5	<0.5	<0.5	<0.5
MW-87	04/20/99	<5	<5	<5	<10
MW-87	12/13/99	<5	<5	<5	<10
MW-87	05/01/00	<1	<1	<1	<1
MW-87	10/04/00	<5	<5	<5	<10
MW-87	04/19/01	<5	<5	<5	<10
MW-87	11/01/01	<5	<5	<5	<10
MW-87A	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-87A	02/09/97	0.9	<0.5	0.7	1.5
MW-87A	05/07/97	<0.5	<0.5	<0.5	<0.5
MW-87A	10/16/97	<0.5	<0.5	<0.5	<0.5
MW-87A	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-87A	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-87A	06/27/98	<1	<1	<1	<1
MW-87A	02/02/99	<0.5	<0.5	<0.5	<0.5
MW-87A	04/20/99	<5	<5	<5	<10
MW-87A	12/13/99	<5	<5	<5	<10
MW-87A	05/01/00	<1	<1	<1	<1
MW-87A	10/03/00	<5	<5	<5	<10
MW-87A	04/19/01	<5	<5	<5	<10
MW-87A	11/01/01	<5	<5	<5	<10
MW-88	08/01/96	<0.5	1.1	0.5	1
MW-88	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-88	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-88	04/30/97	<0.5	<0.5	<0.5	<0.5
MW-88	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-88	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-88	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-88	06/27/98	<1	<1	<1	<1
MW-88	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-88	02/01/99	1.6	1.8	1.6	4.8
MW-88	04/21/99	<5	<5	<5	<10
MW-88	12/10/99	<5	<5	<5	<10
MW-88	04/28/00	<1	<1	<1	<1
MW-88	10/02/00	<5	<5	<5	<5
MW-88	04/17/01	<5	<5	<5	<15
MW-88	10/31/01	<5	<5	<5	<10

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-89	08/01/96	<0.5	1.1	<0.5	<0.5
MW-89	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-89	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-89	04/30/97	<0.5	<0.5	<0.5	<0.5
MW-89	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-89	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-89	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-89	06/17/98	<1	<1	<1	<1
MW-89	02/01/99	11	1.3	<0.5	<0.5
MW-89	04/21/99	<5	<5	<5	<10
MW-89	12/10/99	<5	<5	<5	<10
MW-89	04/27/00	<1	<1	<1	<1
MW-89	10/05/00	<5	<5	<5	<10
MW-89	04/18/01	<5	<5	<5	<10
MW-89	11/02/01	<5	<5	<5	<10
MW-90	02/10/97	17	0.5	15	1.4
MW-90	05/07/97	1.1	0.5	0.5	<0.5
MW-90	07/17/97	<0.5	<0.5	<0.5	<0.5
MW-90	04/29/98	<0.5	<0.5	<0.5	<0.5
MW-90	06/17/98	<1	<1	<1	<1
MW-90	04/23/99	<5	<5	<5	<10
MW-90	12/09/99	<5	<5	<5	<10
MW-90	05/02/00	<1	<1	<1	<1
MW-90	10/03/00	<5	<5	<5	<10
MW-90	04/24/01	82	9.3	65	140
MW-90	11/01/01	<5	<5	<5	<10
MW-91	02/11/97	340	14	50	55
MW-91	04/30/98	17	32	19	200
MW-91	04/23/99	19	<5	8	<10
MW-91	12/09/99	140	15	5.2	19
MW-91	10/03/00	<5	6.7	<5	35
MW-91	04/20/01	40.6	16.4	<5	<10
MW-91	11/01/01	<200	<200	<200	<500
MW-94	10/17/97	<0.5	<0.5	<0.5	<0.5
MW-94	06/26/98	<1	<1	<1	<1
MW-94	04/22/99	<5	<5	<5	<10
MW-94	05/03/00	<1	<1	<1	<1
MW-94	10/05/00	<5	<5	<5	<10
MW-94	04/24/01	<5	<5	<5	<15
MW-95	04/30/97	<0.5	<0.5	<0.5	<0.5
MW-95	01/30/98	<0.5	<0.5	<0.5	<0.5
MW-95	06/22/98	<1	<1	<1	<1
MW-95	04/22/99	<5	<5	<5	<10
MW-95	12/14/99	<5	<5	<5	<10
MW-95	05/02/00	<1	<1	<1	<1
MW-95	04/24/01	<5	<5	<5	<15
MW-95	11/06/01	<5	<5	<5	<10
MW-96	04/30/97	<0.5	<0.5	<0.5	<0.5
MW-96	10/16/97	<0.5	<0.5	<0.5	<0.5
MW-96	01/30/98	<0.5	<0.5	<0.5	<0.5
MW-96	04/28/98	<0.5	<0.5	<0.5	<0.5

Notes:

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Historical BTEX Analytical Data, May 1991 - November 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-96	07/01/98	<1	<1	<1	<1
MW-96	10/12/98	<0.5	<0.5	<0.5	<0.5
MW-96	02/02/99	<0.5	<0.5	<0.5	<0.5
MW-96	04/22/99	<5	<5	<5	<10
MW-96	12/14/99	<5	<5	<5	<10
MW-96	05/01/00	<1	<1	<1	<1
MW-96	10/04/00	<5	<5	<5	<10
MW-96	04/19/01	<5	<5	<5	<10
MW-96	11/01/01	<5	<5	<5	<10
MW-97	04/30/97	<0.5	<0.5	<0.5	<0.5
MW-97	10/17/97	<0.5	<0.5	<0.5	<0.5
MW-97	01/30/98	<0.5	<0.5	<0.5	<0.5
MW-97	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-97	07/01/98	<1	<1	<1	<1
MW-97	10/12/98	<2.5	<2.5	<2.5	<2.5
MW-97	02/02/99	<0.5	<0.5	<0.5	<0.5
MW-97	04/22/99	<5	<5	<5	<10
MW-97	12/14/99	<5	<5	<5	<10
MW-97	05/02/00	<1	<1	<1	<1
MW-97	10/04/00	<5	<5	<5	<10
MW-97	04/19/01	<5	<5	<5	<10
MW-97	11/01/01	<5	<5	<5	<10
MW-98	04/30/97	5.8	3.5	1.5	26
MW-98	06/29/98	<1	7.1	20	1010
MW-98	12/15/99	<5	13.2	<5	63.1
MW-98	05/02/00	<1	<1	<1	3.1
MW-98	04/24/01	32	<5	49	116
MW-98	11/06/01	<5	<5	<5	<10
MW-104	07/17/97	<0.5	0.5	<0.5	0.7
MW-104	07/01/98	<1	<1	<1	<1
MW-104	04/23/01	<5	<5	<5	<15
MW-104	11/05/01	<5	<5	<5	<10
MW-105	06/28/98	<1	<1	<1	<1
MW-105	12/09/99	<5	<5	<5	<10
MW-105	10/02/00	<5	<5	<5	<10
MW-105	04/18/01	<5	<5	<5	<15
MW-105		Not Sampled - Dry			
MW-106	02/11/97	<0.5	<0.5	<0.5	<0.5
MW-106	05/07/97	<0.5	<0.5	<0.5	<0.5
MW-106	07/18/97	<0.5	<0.5	<0.5	<0.5
MW-106	04/30/98	<0.5	<0.5	<0.5	<0.5
MW-106	06/28/98	<1	<1	<1	<1
MW-106	04/29/99	<5	<5	<5	<10
MW-106	12/08/99	<5	<5	<5	<10
MW-106	05/01/00	<1	<1	<1	<1
MW-106	10/02/00	<5	<5	<5	<10
MW-106	04/18/01	<5	9.4	<5	<15
MW-106	10/31/01	<5	<5	<5	<10
MW-108	07/17/97	<0.5	<0.5	0.5	<0.5
MW-108	06/22/98	<1	<1	<1	<1
MW-108	04/22/99	<5	<5	<5	<10

Notes:

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Historical BTEX Analytical Data, May 1991 - November 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-108	12/14/99	<5	<5	<5	<10
MW-108	05/04/00	<1	<1	<1	<1
MW-108	04/19/01	<5	<5	<5	<10
MW-108	11/05/01	<5	<5	<5	<10
MW-110	06/30/98	170	<10	150	160
MW-111	06/29/98	<1	<1	<1	<1
MW-111	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-111	02/01/99	<0.5	0.8	<0.5	<0.5
MW-111	04/21/99	<5	<5	<5	<10
MW-111	12/13/99	<5	<5	<5	<10
MW-111	04/27/00	<1	<1	<1	<1
MW-111	10/05/00	<5	<5	<5	<10
MW-111	04/18/01	<5	<5	<5	<15
MW-111	11/02/01	<5	<5	<5	<10
MW-113	08/11/99	140	<5	59	390
MW-114	07/26/99	<5	<5	<5	<10
MW-115	07/26/99	<5	<5	<5	10
MW-116	07/26/99	<5	<5	<5	<10
MW-117A	12/16/99	<5	<5	<5	<10
MW-118	12/15/99	<5	<5	<5	<10
MW-119	12/28/99	16	<5	<5	<10
MW-121	12/16/99	500	10	370	20
MW-122	12/16/99	11	29	<5	22
MW-124	12/14/99	79	<50	210	1500
MW-127	12/28/99	190	7.1	38	16
MW-128	12/28/99	11	<5	<5	<10
SUMP-16A	07/01/91	560	--	--	--
SUMP-16A	07/19/91	--	850	100	--
SUMP-16A	07/30/91	--	--	--	660
SUMP-16A	09/01/91	240	--	--	--
SUMP-16A	12/01/91	2000	1000	<500	3500
SUMP-16A	04/01/92	1332	203	<3	3679
SUMP-16A	07/01/92	1495	2028	280	3442
SUMP-16A	10/01/92	632	87	<3	1821
SUMP-16A	01/01/93	741	40	96	1355
SUMP-16A	04/14/93	707	881	298	4226
SUMP-16A	10/05/94	170	<2.5	120	680
SUMP-16A	01/11/95	2	5.1	2.4	32
SUMP-16A	10/12/95	130	<13	98	780
SUMP-16A	04/19/96	0.8	1.5	3.8	27
SUMP-16A	07/01/96	5.1	0.9	1.2	7.7
SUMP-A10	10/12/95	<0.5	2.9	<0.5	<0.5
SW-01	05/28/91	--	--	--	<10
SW-01	07/01/91	<5	--	--	--
SW-01	07/19/91	--	<5	<5	--
SW-01	09/01/91	<1	--	--	--
SW-01	12/01/91	<1	--	--	--
SW-01	04/01/92	5	6	<3	14
SW-01	07/01/92	17.5	69	<3	67
SW-01	10/01/92	16	15	<3	10
SW-01	01/01/93	6	<3	<3	<3

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

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Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
SW-01	04/15/93	<1	<1	<1	<1
SW-01	05/12/93	<1	<1	<1	<1
SW-01	06/28/93	<0.5	<0.5	<0.5	<0.5
SW-01	07/15/93	<0.5	<0.5	<0.5	<0.5
SW-01	08/03/93	<0.5	<0.5	<0.5	<0.5
SW-01	09/21/93	<0.5	<0.5	1	0.6
SW-01	10/14/93	<0.5	<0.5	<0.5	<0.5
SW-01	11/10/93	<0.5	<0.5	<0.5	<0.5
SW-01	12/06/93	<0.5	<0.5	<0.5	<0.5
SW-01	01/12/94	<0.5	<0.5	<0.5	<0.5
SW-01	02/09/94	<0.5	<0.5	<0.5	<0.5
SW-01	03/16/94	<0.5	<0.5	<0.5	<0.5
SW-01	04/05/94	<0.5	<0.5	<0.5	<0.5
SW-01	05/19/94	<0.5	<0.5	<0.5	<0.5
SW-01	06/23/94	<0.5	<0.5	<0.5	<0.5
SW-01	07/21/94	<0.5	<0.5	<0.5	<0.5
SW-01	08/24/94	<0.5	<0.5	<0.5	<0.5
SW-01	09/20/94	<0.5	<0.5	0.8	2.2
SW-01	10/06/94	<0.5	<0.5	<0.5	0.6
SW-01	11/30/94	<0.5	<0.5	<0.5	<0.5
SW-01	12/16/94	<0.5	<0.5	0.7	4.8
SW-01	01/11/95	<0.5	<0.5	<0.5	<0.5
SW-01	03/09/95	<0.5	<0.5	<0.5	<0.5
SW-01	04/07/95	<0.5	<0.5	<0.5	<0.5
SW-01	05/18/95	<0.5	<0.5	<0.5	<0.5
SW-01	07/21/95	<0.5	<0.5	<0.5	<0.5
SW-01	10/12/95	<0.5	<0.5	0.6	1.2
SW-01	12/27/95	<0.5	<0.5	<0.5	<0.5
SW-01	01/19/96	0.8	4.5	1.5	8.7
SW-01	03/18/96	<0.5	<0.5	<0.5	<0.5
SW-01	04/24/96	<0.5	<0.5	<0.5	<0.5
SW-01	07/01/96	<0.5	<0.5	<0.5	<0.5
SW-01	10/01/96	<0.5	<0.5	<0.5	<0.5
SW-01	02/10/97	<0.5	<0.5	<0.5	<0.5
SW-01	12/10/97	<0.1	<0.1	<0.1	<0.1
SW-01	06/30/98	<1	<1	<1	<1
SW-01	04/23/99	<5	<5	<5	<10
SW-02	09/01/91	<1	--	--	--
SW-02	12/01/91	<1	--	--	--
SW-02	04/01/92	11	12	<3	5
SW-02	07/01/92	7	38	<1	24
SW-02	10/01/92	69	37	25	61
SW-02	01/01/93	47	6	7	9
SW-02	04/15/93	4	<1	<1	<1
SW-02	05/12/93	3	<1	<1	<1
SW-02	01/11/95	<0.5	<0.5	<0.5	<0.5
SW-02	06/24/98	<1	<1	<1	<1
SW-02	04/23/99	<5	<5	<5	<10
SW-03	07/01/96	<0.5	<0.5	<0.5	<0.5
SW-03	10/01/96	<0.5	<0.5	<0.5	<0.5
SW-03	06/24/98	<1	<1	<1	<1

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

Appendix B

Historical BTEX Analytical Data, May 1991 - November 2001 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
SW-03	04/23/99	<5	<5	<5	<10
TH-21A	07/01/91	1700	--	--	--
TH-21A	07/19/91	--	3400	1200	--
TH-21A	07/30/91	--	--	--	2200
TH-A11	07/01/91	1100	--	--	--
TH-A11	07/19/91	--	1600	1100	--
TH-A11	07/30/91	--	--	--	800
TH-A11	09/01/91	1400	--	--	--
TH-A11	12/01/91	2900	3500	300	4000
TH-A11	04/01/92	3465	3303	306	4158
TH-A11	07/01/92	1258	1710	423	3416
TH-A11	10/01/92	2742	2235	<3	3408
UIHS_ARROYO	05/28/91	--	--	--	<10
UIHS_ARROYO	07/01/91	<5	--	--	--
UIHS_ARROYO	07/19/91	--	<5	<5	--
UIHS_ARROYO	09/01/91	<1	--	--	--
UIHS_ARROYO	12/01/91	<1	--	--	--
UIHS_ARROYO	04/01/92	<1	<1	<1	<1
UIHS_ARROYO	07/01/92	<1	<1	<1	<1
UIHS_ARROYO	10/01/92	<1	<1	<1	<1
UIHS_ARROYO	01/01/93	<1	<1	<1	<1
UIHS_ARROYO	04/15/93	<1	<1	--	<1
UIHS_ARROYO	05/12/93	<1	<1	<1	<1
UIHS_ARROYO	06/28/93	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	07/15/93	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	08/03/93	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	09/21/93	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	10/14/93	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	11/10/93	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	12/06/93	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	01/13/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	02/09/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	03/16/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	04/05/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	05/19/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	06/23/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	07/21/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	08/24/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	09/20/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	10/06/94	<0.5	<0.5	<0.5	0.6
UIHS_ARROYO	11/30/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	12/16/94	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	01/11/95	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	03/09/95	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	04/07/95	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	05/18/95	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	07/21/95	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	10/12/95	<0.5	<0.5	<0.5	1.2
UIHS_ARROYO	12/27/95	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	01/19/96	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	03/18/96	<0.5	<0.5	<0.5	<0.5

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

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Historical BTEX Analytical Data, May 1991 - November 2001
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
UIHS_ARROYO	04/24/96	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	07/01/96	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	10/01/96	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	02/10/97	<0.5	<0.5	<0.5	<0.5
UIHS_ARROYO	06/26/98	<1	<1	<1	<1

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed



ARCADIS

Historical General Chemistry
Analytical Data

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	BIEBBLE 7/1/1991	BIEBBLE 4/1/1992	BIEBBLE 7/1/1992	BIEBBLE 10/1/1992	BIEBBLE 1/1/1993	BIEBBLE 4/15/1993	BIEBBLE 7/15/1993	BIEBBLE 10/14/1993	BIEBBLE 1/13/1994	BIEBBLE 4/5/1994	BIEBBLE 7/21/1994	BIEBBLE 10/6/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	14	13.5	7.8	10.1	10.6	11.4	13.3	10.4	11	10.5	15	13	13
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	1.4	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	250	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	1000	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	BIEBBLE 1/11/1995	BIEBBLE 4/7/1995	BIEBBLE 7/21/1995	BIEBBLE 10/12/1995	BIEBBLE 1/19/1996	BIEBBLE 4/17/1996	BIEBBLE 7/1/1996	BIEBBLE 10/1/1996	BIEBBLE 2/10/1997	IW-02 8/1/1996	IW-02 8/22/1996	LOWER- QUEEN- MAX 4/1/1992
Bicarbonate Alkalinity			--											--
Ammonia (as N)			--											--
Bromide			--											--
Carbonate Alkalinity			--											--
Chloride	8		10.8	10	10	13	9	10.5	11	11	10	--	7	218
Cyanide	--		--											--
Fluoride	--		--											--
Hydroxide	--		--											--
Carbon Dioxide	--		--											--
Nitrate	--		--											--
Nitrogen, Kjeldahl, total (as N)	--		--											--
Orthophosphate	--		--											--
pH*	--		--											--
Phenols, total	--		--											--
Specific conductivity**	--		--											--
Sulfate	--		--											--
Total dissolved solids (TDS)	--		--									370		--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

Measured in Micro-mhos per centimeter (unho/cm)

--- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	LOWER- QUEEN- MAX	10/1/1992	LOWER- QUEEN- MAX	1/1/1993	LOWER- QUEEN- MAX	4/1/1993	LOWER- QUEEN- MAX	7/1/1993	LOWER- QUEEN- MAX	10/1/1993	LOWER- QUEEN- MAX	1/1/1994	LOWER- QUEEN- MAX	4/1/1994	LOWER- QUEEN- MAX	7/1/1994	LOWER- QUEEN- MAX	10/1/1994	LOWER- QUEEN- MAX	1/1/1995	LOWER- QUEEN- MAX	4/1/1995
Bicarbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	236		--	285	--	--	--	--	--	--	--	181	--	160	--	139	--	129	--	130	--	152	--	152
Cyanide	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

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Appendix B

Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	LYMAN 7/1/1991	LYMAN 4/1/1992	LYMAN 7/1/1992	LYMAN 10/1/1992	LYMAN 1/1/1993	LYMAN 4/15/1993	LYMAN 5/12/1993	LYMAN 7/15/1993	LYMAN 8/3/1993	LYMAN 9/21/1993	LYMAN 10/14/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--
Chloride		20	12.6	14.6	15.5	13.2	13	12.5	15	13.1	12.4	14.6
Cyanide		--	--	--	--	--	--	--	--	--	--	--
Fluoride		1.3	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--
Sulfate		450	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		980	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	LYMAN 11/10/1993	LYMAN 12/6/1993	LYMAN 1/12/1994	LYMAN 2/9/1994	LYMAN 3/16/1994	LYMAN 4/5/1994	LYMAN 5/19/1994	LYMAN 6/23/1994	LYMAN 7/21/1994	LYMAN 8/24/1994	LYMAN 9/20/1994	LYMAN 10/6/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	482	14	13	12.6	13	12.5	12.1	12	11.5	11	14		
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	LYMAN 11/30/1994	LYMAN 12/16/1994	LYMAN 1/11/1995	LYMAN 3/9/1995	LYMAN 4/7/1995	LYMAN 5/18/1995	LYMAN 7/21/1995	LYMAN 10/12/1995	LYMAN 1/19/1996	LYMAN 4/18/1996	LYMAN 7/1/1996	LYMAN 10/1/1996
Bicarbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)			--	--	--	--	--	--	--	--	--	--	--	--
Bromide			--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--
Chloride			12.1	11.8	11	12	13	10	11	12	9	11.1	9	10
Cyanide			--	--	--	--	--	--	--	--	--	--	--	--
Fluoride			--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide			--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide			--	--	--	--	--	--	--	--	--	--	--	--
Nitrate			--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)			--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate			--	--	--	--	--	--	--	--	--	--	--	--
pH*			--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total			--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**			--	--	--	--	--	--	--	--	--	--	--	--
Sulfate			--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)			--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	LYMAN 2/10/1997	LYMAN 4/30/1998	LYMAN 6/29/1998	LYMAN 12/18/2000	MW-001 4/1/1991	MW-001 5/1/1991	MW-001 12/1/1991	MW-010 5/1/1991	MW-010 9/1/1991	MW-010 12/1/1991	MW-010 4/1/1992	MW-010 7/1/1992	MW-010 10/1/1992
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride		11	15	13	15	2000	310	152	60	--	323	319	240	312
Cyanide		--	--	<0.005	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	0.6	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	7.4	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	<0.005	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	670	--	--	--	--	--	<10	--	--	--	--
Total dissolved solids (TDS)		--	--	1000	--	--	820	--	1600	1440	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-010 1/1/1994	MW-010 2/11/1997	MW-011 12/1/1991	MW-011 4/1/1992	MW-011 7/1/1992	MW-011 10/1/1992	MW-011 1/1/1993	MW-011 10/5/1994	MW-011 7/21/1995	MW-011 1/20/1996	MW-011 4/19/1996	MW-011 7/1/1996
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		0	120	790	653	270	239	544	130	260	120	120	37
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-011 10/1/1996	MW-011 2/7/1997	MW-013 9/1/1991	MW-013 12/1/1991	MW-013 4/1/1992	MW-013 7/1/1992	MW-013 10/1/1996	MW-013 2/7/1997	MW-013 3/21/1997	MW-013 6/21/1998	MW-014 6/22/1998	MW-016 4/15/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		16	46	--	780	1240	269	45	70	--	230	330	246
Cyanide		--	--	--	--	--	--	--	--	--	<0.005	<0.005	--
Fluoride		--	--	--	--	--	--	--	--	0.4	0.3	0.4	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	7	7	--
Phenols, total		--	--	--	--	--	--	--	--	--	0.023	0.008	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	<10	--	--	--	--	--	<10	<5	<5	--
Total dissolved solids (TDS)		--	--	2790	--	--	--	--	--	770	1000	1400	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-017 4/15/1993	MW-018 5/1/1991	MW-018 4/1/1992	MW-018 7/1/1992	MW-018 10/1/1992	MW-019 5/1/1991	MW-019 5/22/1991	MW-019 7/1/1991	MW-019 9/1/1991	MW-019 4/1/1992	MW-019 7/1/1992	MW-019 10/1/1992
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	306	310	464	109	408	320	466	463	90	420			
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	1580	--	--	--	--	--	--	1460	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-019 10/1/1996	MW-019 2/7/1997	MW-021 5/1/1991	MW-021 12/1/1991	MW-021 4/15/1993	MW-024 7/1/1992	MW-026 5/1/1991	MW-026 12/1/1991	MW-026 7/1/1992	MW-026 10/1/1992	MW-026 1/1/1993	MW-031 7/1/1992
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	96	240	240	230	343	283	455	440	356	164	222	177	337
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	1220	--	--	--	1650	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-031 10/1/1992	MW-037 6/1/1991	MW-037 6/25/1991	MW-037 7/14/1993	MW-038 5/1/1991	MW-038 5/22/1991	MW-038 6/1/1991	MW-038 6/25/1991	MW-038 12/1/1991	MW-038 4/1/1992	MW-038 7/1/1992	MW-038 10/1/1992
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	296	52	--	--	173	60	--	38	--	111	127	147	128
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	<0.1	--	--	--	<0.1	--	<0.1	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	<10	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	790	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-038 10/1/1996	MW-038 2/7/1997	MW-039 5/1/1991	MW-039 6/1/1991	MW-039 6/25/1991	MW-039 1/1/1993	MW-039 4/15/1993	MW-039 7/15/1993	MW-039 #####	MW-039 1/13/1994	MW-039 4/7/1994	MW-039 7/20/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	280	--	310	9.6	244	--	231	83	296	277	260	220	198
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	<0.1	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-039 1/10/1995	MW-039 10/1/1996	MW-039 2/7/1997	MW-039 7/18/1997	MW-041 6/1/1991	MW-041 6/25/1991	MW-041 7/1/1991	MW-041 12/1/1991	MW-041 7/15/1993	MW-041 10/14/1993	MW-041 1/13/1994	MW-041 4/6/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		194	140	160	160	29	--	38	108	242	264	370	290
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	0.1	0.1	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	41	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	758	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-041 7/20/1994	MW-041 10/6/1994	MW-041 1/11/1995	MW-041 4/6/1995	MW-041 7/21/1995	MW-041 #####	MW-041 1/20/1996	MW-041 4/19/1996	MW-041 7/1/1996	MW-041 10/1/1996	MW-041 2/7/1997	MW-041 3/20/1997
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	259	300	326	300	300	270	240	270	260	250	250	180	--
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	1.5
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	98
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	1500

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
May 1991 - December 2000
Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-041 7/18/1997	MW-041 6/19/1998	MW-041 4/20/1999	MW-042 12/1/1991	MW-043 6/1/1991	MW-043 6/25/1991	MW-043 9/1/1991	MW-043 7/15/1993	MW-043 #####	MW-043 1/13/1994	MW-043 4/6/1994	MW-043 7/20/1994
Bicarbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	140	120	56	571	138	--	--	--	232	230	260	250	266
Cyanide	--	<0.005	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	1.5	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	<0.1	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	7.5	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	0.024	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	190	--	--	47	--	--	370	--	--	--	--	--
Total dissolved solids (TDS)	--	1200	810	--	1300	--	--	1600	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-043 10/6/1994	MW-043 1/11/1995	MW-043 4/6/1995	MW-043 7/21/1995	MW-043 #####	MW-043 1/20/1996	MW-043 4/19/1996	MW-043 7/11/1996	MW-043 10/1/1996	MW-043 2/7/1997	MW-043 7/18/1997	MW-043 6/22/1998
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		270	280	280	270	220	280	280	270	380	330	230	210
Cyanide		--	--	--	--	--	--	--	--	--	--	--	<0.005
Fluoride		--	--	--	--	--	--	--	--	--	--	--	0.8
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	7.3
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	0.007
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	53
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	1500

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-043 4/20/1999	MW-043 4/28/2000	MW-043 4/19/2001	MW-044 6/1/1991	MW-044 6/25/1991	MW-044 4/1/1992	MW-044 7/1/1992	MW-044 10/1/1992	MW-044 1/1/1993	MW-044 4/15/1993	MW-044 7/15/1993	MW-044 10/14/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		130	68.9	79	33	--	660	263	356	300	365	445	543
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	<0.1	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	33	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		1100	627	730	641	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-044 1/13/1994	MW-044 4/6/1994	MW-044 7/20/1994	MW-044 10/5/1994	MW-044 1/11/1995	MW-044 4/6/1995	MW-044 7/21/1995	MW-044 10/12/1995	MW-044 1/20/1996	MW-044 4/19/1996	MW-044 7/1/1996	MW-044 10/1/1996
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		490	440	430	360	360	410	400	520	580	530	480	32
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-044 2/7/1997	MW-044 7/18/1997	MW-044 6/22/1998	MW-044 4/20/1999	MW-045 6/1/1991	MW-045 6/25/1991	MW-045 9/1/1991	MW-045 12/1/1991	MW-045 7/15/1993	MW-045 #####	MW-045 1/13/1994	MW-045 4/6/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	180	--	310	260	94	507	--	--	354	434	408	440	430
Cyanide	--	--	--	<0.005	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	0.8	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	3.9	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	7.2	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	0.04	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	66	--	2940	--	2090	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	1000	910	5440	--	3920	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-045 7/20/1994	MW-046 6/11/1991	MW-046 7/11/1991	MW-046 10/11/1996	MW-046 2/11/1997	MW-046 5/29/1997	MW-046 7/18/1997	MW-046 12/10/1997	MW-046 6/21/1998	MW-046 4/20/1999	MW-046 4/28/2000	MW-046 4/19/2001
Bicarbonate Alkalinity		--	--	--	--	--	990	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	3	--	--	--	--	--	--
Chloride		429	152	45	170	220	132	180	--	140	31	25.8	47
Cyanide		--	--	--	--	--	--	--	--	<0.005	--	--	--
Fluoride		--	--	--	--	--	1.3	1.3	1.3	1.1	--	--	--
Hydroxide		--	--	--	--	--	<1	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	62	--	--	--	--	--	--
Nitrate		--	--	0.1	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	7.5	--	--	7.2	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	1200	--	--	--	--	--	--
Sulfate		--	20	--	--	--	106	--	--	22	--	--	--
Total dissolved solids (TDS)		--	1220	NA/R	--	--	1300	--	--	940	580	565	570

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-047 6/1/1991	MW-047 6/25/1991	MW-047 12/1/1991	MW-047 10/1/1996	MW-048 12/1/1991	MW-048 7/1/1992	MW-048 10/1/1996	MW-049 6/1/1991	MW-049 6/25/1991	MW-049 7/15/1993	MW-049 10/14/1993	MW-049 1/13/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	51	--	--	433	700	400	431	200	365	--	399	397	400
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	<0	--	--	--	--	--	--	<0.1	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	23	--	--	--	--	--	--	--	1800	--	--	--	--
Total dissolved solids (TDS)	652	--	--	--	--	--	--	--	3910	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	MW-049 4/6/1994	MW-049 7/20/1994	MW-049 10/5/1994	MW-049 1/11/1995	MW-049 4/6/1995	MW-049 7/21/1995	MW-049 #####	MW-049 1/20/1996	MW-049 4/19/1996	MW-049 7/1/1996	MW-049 10/1/1996	MW-049 2/7/1997
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	380	--	368	--	389	390	380	350	410	400	360	36	410
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-049 3/20/1997	MW-049 7/18/1997	MW-049 6/21/1998	MW-049 4/20/1999	MW-049 4/27/2000	MW-049 4/17/2001	MW-050 6/1/1991	MW-050 6/25/1991	MW-050 12/1/1991	MW-050 4/1/1992	MW-050 7/1/1992	MW-050 10/1/1992
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		--	350	630	410	379	350	388	--	380	397	379	370
Cyanide		--	--	0.05	--	--	--	--	--	--	--	--	--
Fluoride		1.4	--	1.3	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	1.5	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	7	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	0.012	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		1000	--	780	--	--	--	3420	--	--	--	--	--
Total dissolved solids (TDS)		3100	--	2800	3000	3320	3100	6070	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-050 1/1/1993	MW-050 4/15/1993	MW-050 7/15/1993	MW-050 #####	MW-050 1/13/1994	MW-050 4/6/1994	MW-050 7/20/1994	MW-050 10/5/1994	MW-050 1/11/1995	MW-050 4/6/1995	MW-050 7/21/1995	MW-050 10/12/1995
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	337	955	347	292	290	290	290	290	290	314	320	310	240
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-050 1/20/1996	MW-050 4/19/1996	MW-050 7/1/1996	MW-050 10/1/1996	MW-050 2/7/1997	MW-050 3/20/1997	MW-050 7/18/1997	MW-050 6/19/1998	MW-050 4/20/1999	MW-050 5/2/2000	MW-050 4/17/2001	MW-051 12/1/1991
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	290	--	330	310	360	360	--	330	340	360	345	350	38
Cyanide	--	--	--	--	--	--	--	--	<0.005	--	--	--	--
Fluoride	--	--	--	--	--	--	1.2	--	1.2	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	8.2	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	<0.005	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	3600	--	3800	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	5900	--	5900	6200	6510	6200	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-052 7/1/1992	MW-054 12/1/1991	MW-054 4/1/1992	MW-054 7/1/1992	MW-054 10/1/1992	MW-054 1/1/1993	MW-054 4/14/1993	MW-054 7/14/1993	MW-054 #####	MW-054 1/12/1994	MW-054 4/6/1994	MW-054 7/20/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	3	87	151	80	55	134	145	146	122	140	102	135	
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-054 10/5/1994	MW-054 1/10/1995	MW-054 4/6/1995	MW-054 7/21/1995	MW-054 #####	MW-054 1/20/1996	MW-054 4/18/1996	MW-054 7/1/1996	MW-054 10/1/1996	MW-054 2/10/1997	MW-054 7/16/1997	MW-054 6/25/1998	MW-054 4/22/1999
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	130	32	102	--	95	110	120	140	110	110	180	160	110	180
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	<0.005	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	7.1	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	<0.005	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	1300	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	2200	3400

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-054 5/2/2000	MW-054 4/23/2001	MW-055 6/1/1991	MW-055 12/1/1991	MW-055 4/1/1992	MW-055 7/1/1992	MW-055 10/1/1992	MW-055 1/1/1993	MW-055 4/14/1993	MW-055 7/14/1993	MW-055 10/14/1993	MW-055 1/12/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		138	190	200	501	385	273	292	300	301	312	287	320
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		3230	4500	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-055 4/8/1994	MW-055 7/20/1994	MW-055 10/5/1994	MW-055 1/1/1995	MW-055 4/1/1995	MW-055 7/20/1995	MW-055 #####	MW-055 1/19/1996	MW-055 4/18/1996	MW-055 7/1/1996	MW-055 10/1/1996	MW-055 2/10/1997
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	310		299	390	321	320	300	250	370	310	350	210	270
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-055 7/16/1997	MW-055 6/25/1998	MW-055 7/16/1997	MW-055 5/2/2000	MW-055 4/24/2001	MW-056 6/1/1991	MW-056 7/1/1991	MW-056 9/1/1991	MW-056 12/1/1991	MW-056 7/1/1992	MW-056 10/1/1992	MW-056 1/1/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		300	300	160	138	130	100	102	--	197	248	183	269
Cyanide		--	<0.005	--	--	--	--	--	--	--	--	--	--
Fluoride		--	1.5	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	7	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	0.016	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	55	--	--	--	--	--	<10	--	--	--	--
Total dissolved solids (TDS)		--	1500	1000	1020	920	--	--	1220	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-056 10/1/1996	MW-056 2/11/1997	MW-056 3/20/1997	MW-057 6/1/1991	MW-057 7/1/1991	MW-057 12/1/1991	MW-057 4/1/1992	MW-057 7/1/1992	MW-057 10/1/1992	MW-057 1/1/1993	MW-057 4/14/1993	MW-057 7/14/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		270	170	--	15.2	21	32	117	63	67	131	80	72
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	1.5	--	<1	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	2.7	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	<10	--	60	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	1200	--	460	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B Historical General Chemistry Analytical Data May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-057 10/13/1993	MW-057 1/12/1994	MW-057 4/7/1994	MW-057 7/19/1994	MW-057 10/5/1994	MW-057 1/11/1995	MW-057 4/8/1995	MW-057 7/20/1995	MW-057 #####	MW-057 1/19/1996	MW-057 4/18/1996	MW-057 7/1/1996
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		73.6	64	58	48	60	35	31	37	47	44	44	30
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-057 10/1/1996	MW-057 2/10/1997	MW-057 7/15/1997	MW-057 6/25/1998	MW-057 4/20/1999	MW-057 5/4/2000	MW-057 4/24/2001	MW-058 12/1/1991	MW-058 4/1/1992	MW-058 7/1/1992	MW-058 10/1/1992	MW-058 1/1/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		30	32	36	50	44	43.1	48	124	156	149	155	175
Cyanide		--	--	--	<0.005	--	--	--	--	--	--	--	--
Fluoride		--	--	--	0.5	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	7.3	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	0.006	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	110	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	490	500	515	520	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-058 4/13/1993	MW-058 7/13/1993	MW-058 10/13/1993	MW-058 4/5/1994	MW-058 7/19/1994	MW-058 10/6/1994	MW-058 1/1/1995	MW-058 4/8/1995	MW-058 4/18/1996	MW-058 10/1/1996	MW-058 6/22/1998	MW-059 12/1/1991	MW-059 4/1/1992
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride		133	133	59	48	38	36	26	39	29	38	42	149	52
Cyanide		--	--	--	--	--	--	--	--	--	--	<0.005	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	0.9	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	7.4	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	<0.005	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	<5	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	760	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-059 7/1/1992	MW-059 10/1/1992	MW-059 1/1/1993	MW-059 4/13/1993	MW-059 #####	MW-059 4/5/1994	MW-059 7/19/1994	MW-059 10/6/1994	MW-059 1/11/1995	MW-059 2/9/1997	MW-059 6/24/1998	MW-059 5/4/2000
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		55	69	46	29	56	30	<5	25	12	29	560	196
Cyanide		--	--	--	--	--	--	--	--	--	--	<0.005	--
Fluoride		--	--	--	--	--	--	--	--	--	--	0.6	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	7.5	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	0.022	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	2300	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	4100	3300

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	MW-059 4/19/2001	MW-060 7/1/1991	MW-060 12/1/1991	MW-060 4/1/1992	MW-060 7/1/1992	MW-060 10/1/1992	MW-060 1/1/1993	MW-060 4/14/1993	MW-060 7/14/1993	MW-060 10/13/1993	MW-060 1/12/1994	MW-060 4/7/1994
Bicarbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	210	--	13	10	10	10	10	14	6	9	10.7	13.5	9.5	9
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	2	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	0.4	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	383	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	2400	--	860	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-060 7/19/1994	MW-060 10/5/1994	MW-060 1/10/1995	MW-060 4/7/1995	MW-060 7/19/1995	MW-060 9/19/1995	MW-060 #####	MW-060 1/19/1996	MW-060 4/18/1996	MW-060 7/1/1996	MW-060 10/1/1996	MW-060 #####	MW-060 2/9/1997
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride		<5	9.1	20	8.8	9	9	16	12.7	12	12	12	16	9
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	MW-060 3/19/1997	MW-060 5/6/1997	MW-060 7/15/1997	MW-060 #####	MW-060 6/21/1998	MW-060 4/20/1999	MW-060 5/1/2000	MW-060 4/19/2001	MW-061 12/1/1991	MW-061 1/13/1994	MW-061 4/7/1994	MW-061 7/20/1994
Bicarbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)			--	--	--	0.07	--	--	--	--	--	--	--	--
Bromide			--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--
Chloride			--	10	11	--	12	--	8.61	9.4	413	420	450	387
Cyanide			--	--	--	--	<0.005	--	--	--	--	--	--	--
Fluoride			0.8	--	--	--	1.4	--	--	--	--	--	--	--
Hydroxide			--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide			--	--	--	--	--	--	--	--	--	--	--	--
Nitrate			--	--	--	0.28	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)			--	--	--	<0.2	--	--	--	--	--	--	--	--
Orthophosphate			--	--	--	0.06	--	--	--	--	--	--	--	--
pH*			--	--	--	--	7.3	--	--	--	--	--	--	--
Phenols, total			--	--	--	--	<0.005	--	--	--	--	--	--	--
Specific conductivity**			--	--	--	--	--	--	--	--	--	--	--	--
Sulfate			280	--	--	--	390	--	--	--	--	--	--	--
Total dissolved solids (TDS)			760	--	--	--	720	--	790	720	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-061 10/4/1994	MW-061 1/11/1995	MW-061 4/11/1995	MW-061 7/21/1995	MW-061 #####	MW-061 1/20/1996	MW-061 4/18/1996	MW-061 7/1/1996	MW-061 10/1/1996	MW-061 2/10/1997	MW-061 7/17/1997	MW-061 6/18/1998
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	400	439	420	400	300	420	450	370	410	390	480	<0.005	2.2
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	6.9
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	<0.005
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	1600
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	3200

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-061 4/20/1999	MW-061 5/3/2000	MW-061 4/23/2001	MW-061A 7/1/1991	MW-061A 9/1/1991	MW-061A 12/1/1991	MW-061A 4/1/1992	MW-061A 7/1/1992	MW-061A 10/1/1992	MW-061A 1/1/1993	MW-061A 4/13/1993	MW-061A 4/5/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		370	379	430	16	--	12	12	12	13	12	15	10.7
Chloride		--	--	--	--	--	--	--	--	--	--	--	--
Cyanide		--	--	--	1.6	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	0.1	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	347	335	--	--	--	--	--	--	--
Total dissolved solids (TDS)		2900	3290	3100	805	755	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-061A 7/19/1994	MW-061A 10/4/1994	MW-061A 1/10/1995	MW-061A 1/20/1996	MW-061A 4/19/1996	MW-061A 7/1/1996	MW-061A 2/6/1997	MW-061A 5/7/1997	MW-061A 6/26/1997	MW-061A 7/15/1997	MW-061A 10/15/1997	MW-061A 6/18/1998	MW-061A 4/20/1999
Bicarbonate Alkalinity		--	--	--	--	--	--	266	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	0.08	--	--
Bromide		--	--	--	--	--	--	<0.3	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	<1	--	--	--	--	--	--
Chloride		8	11	32	9	10.2	7	13	11	12	10	--	4	11
Cyanide		--	--	--	--	--	--	--	--	--	--	--	0.025	--
Fluoride		--	--	--	--	--	--	0.85	--	--	--	--	0.8	--
Hydroxide		--	--	--	--	--	--	<1	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	<0.06	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	0.4	--	--
pH*		--	--	--	--	--	--	--	--	--	--	<2.5	--	--
Phenols, total		--	--	--	--	--	--	7.5	--	--	--	--	7.3	--
Specific conductivity**		--	--	--	--	--	--	1020	--	--	--	--	<0.005	--
Sulfate		--	--	--	--	--	--	340	--	--	--	--	300	--
Total dissolved solids (TDS)		--	--	--	--	--	--	840	--	--	--	--	690	730

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-061A 5/3/2000	MW-061A 4/18/2001	MW-062 9/1/1991	MW-062 12/1/1991	MW-062 4/1/1992	MW-062 7/1/1992	MW-062 10/1/1992	MW-062 1/1/1993	MW-062 4/13/1993	MW-062 7/14/1993	MW-062 10/13/1993	MW-062 1/1/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		8.61	9.5	--	247	218	236	285	202	207	459	181	160
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	19	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		811	720	1120	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-062 4/5/1994	MW-062 7/19/1994	MW-062 10/6/1994	MW-062 1/1/1995	MW-062 4/8/1995	MW-062 2/11/1997	MW-062 7/18/1997	MW-062 8/26/1998	MW-062 4/21/1999	MW-062 5/3/2000	MW-062 4/20/2001	MW-063 12/1/1991
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		139	129	130	152	128	150	100	91	82	99.9	130	8
Cyanide		--	--	--	--	--	--	--	<0.005	--	--	--	--
Fluoride		--	--	--	--	--	--	--	0.8	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	7.1	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	<0.005	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	140	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	650	550	695	700	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-063 4/1/1992	MW-063 7/1/1992	MW-063 10/1/1992	MW-063 1/1/1993	MW-063 4/13/1993	MW-063 7/13/1993	MW-063 #####	MW-063 1/11/1994	MW-063 4/6/1994	MW-063 7/18/1994	MW-063 10/4/1994	MW-063 1/9/1995
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	14	7	1	3	5.6	3	4	5.7	5.5	6.2	9		
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-063 4/7/1995	MW-063 7/18/1995	MW-063 #####	MW-063 1/18/1996	MW-063 4/17/1996	MW-063 7/1/1996	MW-063 10/1/1996	MW-063 2/5/1997	MW-063 7/15/1997	MW-063 #####	MW-063 6/25/1998	MW-063 10/11/1998
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		6.9	7	12	10	10.2	10	7	7	9	--	10	--
Cyanide		--	--	--	--	--	--	--	--	--	--	<0.005	--
Fluoride		--	--	--	--	--	--	--	--	--	--	0.4	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	6.6	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	<0.2	--	--
pH*		--	--	--	--	--	--	--	--	--	0.25	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	7.4	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	0.005	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	39	28.1
												370	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-063 10/11/1998	MW-063 4/27/2000	MW-063 4/24/2001	MW-064 12/1/1991	MW-064 4/1/1992	MW-064 7/1/1992	MW-064 10/1/1992	MW-064 1/1/1993	MW-064 4/13/1993	MW-064 7/13/1993	MW-064 10/13/1993	MW-064 1/12/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		15	10.3	12	18	13	13	12	10.2	10	12	8	10
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		340	395	370	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-064 4/6/1994	MW-064 7/19/1994	MW-064 10/5/1994	MW-064 11/10/1995	MW-064 4/7/1995	MW-064 7/19/1995	MW-064 #####	MW-064 1/19/1996	MW-064 4/18/1996	MW-064 2/11/1997	MW-064 7/16/1997	MW-064 6/23/1998
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		10	<5	10.2	20	12	11	12	12	11.6	11	12	15
Cyanide		--	--	--	--	--	--	--	--	--	--	--	<0.005
Fluoride		--	--	--	--	--	--	--	--	--	--	--	0.7
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	7.3
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	<0.005
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	<5
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	600

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-064 4/21/1999	MW-064 5/3/2000	MW-064 4/20/2001	MW-065 12/1/1991	MW-065 7/15/1993	MW-065 10/5/1994	MW-065 7/1/1996	MW-065 10/1/1996	MW-065 2/11/1997	MW-065 5/7/1997	MW-065A 12/1/1991	MW-065A 4/1/1992	MW-065A 7/1/1992
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride		11	13.8	13	3	4	5.9	5	3	1.3	2	22	33	18
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	611	540	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		530			--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-065A 10/1/1992	MW-065A 1/1/1993	MW-065A 4/13/1993	MW-065A 7/13/1993	MW-065A #####	MW-065A 1/11/1994	MW-065A 4/5/1994	MW-065A 7/19/1994	MW-065A 10/6/1994	MW-065A 1/11/1995	MW-065A 4/8/1995	MW-065A 1/20/1996
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		35	35	26	19	17	18	15	10	18	12	13	93
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	MW-065A 4/18/1996	MW-065A 6/25/1998	MW-066 12/1/1991	MW-066 4/1/1992	MW-066 7/1/1992	MW-066 10/1/1992	MW-066 1/1/1993	MW-066 4/13/1993	MW-066 7/13/1993	MW-066 10/12/1993	MW-066 1/11/1994	MW-066 4/7/1994
Bicarbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	12.6	--	24	--	9	8	8	8	12	8	15	7	9	8.7
Cyanide	--	--	<0.005	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	0.7	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	7.2	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	0.005	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	250	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	550	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-066 7/19/1994	MW-066 10/4/1994	MW-066 1/9/1995	MW-066 4/11/1995	MW-066 7/19/1995	MW-066 #####	MW-066 1/19/1996	MW-066 4/17/1996	MW-066 7/1/1996	MW-066 10/1/1996	MW-066 2/5/1997	MW-066 5/6/1997
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		<5	8.8	6	8.9	8	9	10	9.6	6	7	9	9
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-066 7/16/1997	MW-066 #####	MW-066 6/17/1998	MW-066 4/21/1999	MW-066 4/27/2000	MW-066 4/18/2001	MW-067 12/1/1991	MW-067 4/1/1992	MW-067 7/1/1992	MW-067 10/1/1992	MW-067 1/1/1993	MW-067 4/13/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	<0.03	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		8	--	13	10	8.61	9.3	7	6	3	9	4	8
Cyanide		--	--	0.761	--	--	--	--	--	--	--	--	--
Fluoride		--	--	0.8	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	0.33	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	<0.2	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	0.22	--	--	--	--	--	--	--	--	--	--
pH*		--	--	7.2	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	<0.005	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	430	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	760	730	848	660	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-067 7/13/1993	MW-067 10/13/1993	MW-067 1/12/1994	MW-067 4/7/1994	MW-067 7/19/1994	MW-067 10/5/1994	MW-067 1/11/1995	MW-067 4/7/1995	MW-067 7/21/1995	MW-067 10/11/1995	MW-067 1/19/1996	MW-067 4/18/1996
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		6	9.5	8.6	7.6	<5	7.9	<5	13	6	6	11	7.4
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-067 7/1/1996	MW-067 2/10/1997	MW-067 7/16/1997	MW-067 6/24/1998	MW-067 4/22/1999	MW-067 5/2/2000	MW-067 4/19/2001	MW-068 12/1/1991	MW-068 4/1/1992	MW-068 7/1/1992	MW-068 10/1/1992	MW-068 1/1/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		7	9	7	11	6.8	8.61	6.5	39	82	15	30	27
Cyanide		--	--	--	<0.005	--	--	--	--	--	--	--	--
Fluoride		--	--	--	0.7	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	7.3	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	0.005	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	140	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	480	460	537	470	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	MW-068 4/13/1993	MW-068 7/13/1993	MW-068 10/13/1993	MW-068 1/11/1994	MW-068 4/5/1994	MW-068 7/19/1994	MW-068 10/6/1994	MW-068 1/11/1995	MW-068 10/17/1997	MW-068 6/26/1998	MW-068 10/12/1998	MW-069 12/1/1991	MW-069 7/1/1992
Bicarbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)			--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide			--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride			27	28	27	31	30	29	32	34	--	29	--	154	15
Cyanide			--	--	--	--	--	--	--	--	--	<0.005	--	--	--
Fluoride			--	--	--	--	--	--	--	--	--	0.6	--	--	--
Hydroxide			--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide			--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate			--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)			--	--	--	--	--	--	--	--	0.08	--	--	--	--
Orthophosphate			--	--	--	--	--	--	--	--	1.8	--	--	--	--
pH*			--	--	--	--	--	--	--	--	0.41	--	--	--	--
Phenols, total			--	--	--	--	--	--	--	--	--	7.3	--	--	--
Specific conductivity**			--	--	--	--	--	--	--	--	--	0.025	--	--	--
Sulfate			--	--	--	--	--	--	--	--	--	--	70	--	--
Total dissolved solids (TDS)			--	--	--	--	--	--	--	--	--	100	--	--	--
			--	--	--	--	--	--	--	--	--	480	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-069 10/1/1992	MW-069 2/7/1997	MW-069 7/18/1997	MW-069 6/29/1998	MW-070 12/1/1991	MW-070 4/1/1992	MW-070 7/1/1992	MW-070 10/1/1992	MW-070 1/1/1993	MW-070 4/14/1993	MW-070 7/13/1993	MW-070 #####
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	43	70	64	120	10	8	9.2	17	8	8	8	11	11
Cyanide	--	--	--	<0.005	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	0.3	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	6.9	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	0.015	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	<5	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	860	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-070 1/11/1994	MW-070 4/6/1994	MW-070 7/18/1994	MW-070 10/4/1994	MW-070 1/9/1995	MW-070 4/5/1995	MW-070 7/18/1995	MW-070 #####	MW-070 1/18/1996	MW-070 4/17/1996	MW-070 7/1/1996	MW-070 10/1/1996
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		10	9.5	8	9.5	9	9.7	9	10	11	9.7	8	10
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-070 2/5/1997	MW-070 #####	MW-070 6/16/1998	MW-070 4/22/1999	MW-070 4/28/2000	MW-070 4/24/2001	MW-071 9/1/1993	MW-071 #####	MW-071 1/11/1994	MW-071 4/6/1994	MW-071 7/18/1994	MW-071 10/4/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	<0.03	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		10	--	12	11	8.61	9.8	9	15	18	17	<5	22
Cyanide		--	--	<0.005	--	--	--	--	--	--	--	--	--
Fluoride		--	--	0.6	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	2.7	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	<0.2	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	0.3	--	--	--	--	--	--	--	--	--	--
pH*		--	--	7.5	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	<0.005	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	80	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	370	310	385	270	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-071 1/10/1995	MW-071 6/23/1995	MW-071 7/18/1995	MW-071 #####	MW-071 1/18/1996	MW-071 4/17/1996	MW-071 7/1/1996	MW-071 10/1/1996	MW-071 2/9/1997	MW-071 5/6/1997	MW-071 7/17/1997	MW-071 10/16/1997
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	0.63
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		<5	16	22	21	18	23	26	30	24	17	16	--
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	0.06
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	0.6
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	0.18
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

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Parameter	Well ID Date Sampled	MW-071 6/19/1998	MW-071 10/11/1998	MW-071 4/21/1999	MW-071 4/28/2000	MW-071 4/18/2001	MW-072 4/5/1994	MW-072 7/19/1994	MW-072 1/11/1995	MW-072 6/30/1998	MW-073 6/30/1998	MW-073 5/4/2000	MW-073 4/23/2001
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		4	--	22	36.2	67	32	32	52	49	320	176	170
Cyanide		<0.005	--	--	--	--	--	--	--	<0.005	<0.005	--	--
Fluoride		2.2	--	--	--	--	--	--	--	0.8	1.3	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		7.2	--	--	--	--	--	--	--	6.9	6.9	--	--
Phenols, total		<0.005	--	--	--	--	--	--	--	0.015	<0.005	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		650	550	--	--	--	--	--	--	530	2800	--	--
Total dissolved solids (TDS)		1100	--	1100	1240	1100	--	--	--	890	3700	1570	1900

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-074 7/18/1997	MW-074 6/24/1998	MW-074 5/4/2000	MW-074 4/24/2001	MW-075 6/30/1998	MW-076 6/29/1998	MW-077 7/21/1995	MW-077 1/20/1996	MW-077 4/19/1996	MW-077 7/1/1996	MW-077 10/1/1996	MW-077 5/7/1997
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		260	340	146	130	54	23	110	120	120	100	140	150
Cyanide		--	<0.005	--	--	<0.005	<0.005	--	--	--	--	--	--
Fluoride		--	1.1	--	--	1.2	0.5	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	7	--	--	7.3	7.3	--	--	--	--	--	--
Phenols, total		--	0.025	--	--	0.077	0.008	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	13	--	--	390	51	--	--	--	--	--	--
Total dissolved solids (TDS)		--	1500	466	850	870	400	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-077 7/18/1997	MW-078 10/1/1996	MW-078 2/10/1997	MW-078 5/7/1997	MW-078 7/17/1997	MW-078 6/19/1998	MW-078 4/22/1999	MW-079 1/11/1995	MW-079 4/6/1995	MW-079 7/21/1995	MW-079 10/10/1995	MW-079 1/18/1996	MW-079 4/19/1996
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride		150	31	75	59	48	47	42	36	33	31	30	23	30
Cyanide		--	--	--	--	--	<0.005	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	<0.2	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	7.1	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	<0.005	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	<5	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	490	470	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-079 7/1/1996	MW-079 10/1/1996	MW-079 2/10/1997	MW-079 5/7/1997	MW-079 7/17/1997	MW-079 5/2/2000	MW-081 6/29/1998	MW-082 10/11/1995	MW-082 6/25/1998	MW-082 10/12/1998	MW-083 6/25/1998	MW-084 6/23/1998
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		17	20	24	24	24	39.6	16	76	72	--	49	7
Cyanide		--	--	--	--	--	--	<0.005	--	<0.005	--	<0.005	<0.005
Fluoride		--	--	--	--	--	--	0.7	--	0.7	--	0.7	0.5
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	7.4	--	7.1	--	7.2	7.5
Phenols, total		--	--	--	--	--	--	<0.005	--	0.006	--	<0.005	0.008
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	450	--	390	190	270	<5
Total dissolved solids (TDS)		--	--	--	--	--	563	800	--	730	--	640	370

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	MW-085	MW-086	MW-086	MW-087	MW-087	MW-087	MW-087	MW-087	MW-087	MW-087	MW-087	MW-087	MW-087
			6/23/1998	#####	6/26/1998	8/1/1996	8/22/1996	10/1/1996	2/9/1997	5/6/1997	#####	6/19/1998	10/12/1998	MW-087	MW-087
															4/20/1999
Bicarbonate Alkalinity	--	--	--	--	--	--	--	--	222	--	--	--	--	--	--
Ammonia (as N)	--	--	2.77	--	--	--	--	--	<0.3	--	<0.03	--	--	--	--
Bromide	--	--	--	--	--	--	--	--	<1	--	--	--	--	--	--
Carbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	120	--	--	330	--	--	11	12	11	13	--	13	--	--	10
Cyanide	<0.005	--	--	<0.005	--	--	--	--	--	--	--	<0.005	--	--	--
Fluoride	1.3	--	--	1.1	--	--	--	--	0.63	--	--	0.9	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	<1	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	1.91	--	--	--	--	--	--	--	0.52	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	14	--	--	--	--	--	--	--	<0.2	--	--	--	--
Orthophosphate	--	--	0.5	--	--	--	--	--	--	--	0.06	--	--	--	--
pH*	7.5	--	--	7	--	--	--	--	7.8	--	--	7.4	--	--	--
Phenols, total	0.034	--	--	0.068	--	--	--	--	--	--	--	<0.005	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	814	--	--	--	--	--	--
Sulfate	<5	--	--	29	--	--	--	--	230	--	--	360	260	--	--
Total dissolved solids (TDS)	1100	--	--	1500	810	--	--	--	580	--	--	710	--	--	680

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-087 5/1/2000	MW-087 4/19/2001	MW-087A 10/11/1996	MW-087A 2/9/1997	MW-087A 5/7/1997	MW-087A #####	MW-087A 5/1/2000	MW-087A 4/19/2001	MW-088 2/5/1997	MW-088 4/30/1997	MW-088 #####	MW-088 6/18/1998
Bicarbonate Alkalinity		--	--	--	352	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	0.17	--	--	--	--	1.2	--
Bromide		--	--	--	1.2	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	<1	--	--	--	--	--	--	--	--
Chloride	10.3	--	1.2	110	150	140	--	127	130	30	26	--	22
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	<0.005
Fluoride	--	--	--	--	1.9	--	--	--	--	1.13	--	--	1.1
Hydroxide	--	--	--	--	<1	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	<0.06	--	--	--	--	<0.06	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	0.9	--	--	--	--	1.1	--
Orthophosphate	--	--	--	--	--	--	0.09	--	--	--	--	<0.5	--
pH*	--	--	--	--	7.2	--	--	--	--	--	--	--	7.2
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	<0.005
Specific conductivity**	--	--	--	--	3350	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	1900	--	--	--	--	--	--	--	450
Total dissolved solids (TDS)	690	680	--	--	3200	--	--	3290	2900	390	970	--	840

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-088 4/21/1999	MW-088 4/28/2000	MW-088 4/17/2001	MW-089 8/1/1996	MW-089 8/22/1996	MW-089 10/1/1996	MW-089 2/5/1997	MW-089 4/30/1997	MW-089 ######	MW-089 6/17/1998	MW-089 4/21/1999	MW-089 4/27/2000
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		24	43.1	23	--	63	63	60	58	--	61	55	50
Cyanide		--	--	--	--	--	--	--	--	--	0.247	--	--
Fluoride		--	--	--	--	--	--	0.8	--	--	0.7	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	7.1	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	<0.005	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	250	--	--	340	--	--
Total dissolved solids (TDS)		800	876	770	900	--	--	840	--	--	780	710	850

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-089 4/18/2001	MW-090 2/10/1997	MW-090 5/7/1997	MW-090 7/17/1997	MW-090 6/17/1998	MW-090 4/23/1999	MW-090 5/2/2000	MW-090 4/24/2001	MW-091 2/11/1997	MW-091 4/23/1999	MW-094 10/17/1997	MW-094 6/26/1998
Bicarbonate Alkalinity		--	370	--	--	--	--	--	--	510	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	<0.03	--
Bromide		--	--	--	--	--	--	--	--	0.5	--	--	--
Carbonate Alkalinity		--	<1	--	--	--	--	--	--	<1	--	--	--
Chloride		52	26	25	19	35	51	17.2	21	80	58	--	24
Cyanide		--	--	--	--	<0.005	--	--	--	--	--	--	<0.005
Fluoride		--	0.36	--	--	0.5	--	--	--	0.19	--	--	0.7
Hydroxide		--	<1	--	--	--	--	--	--	<1	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	2.4	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	<0.2	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	<0.05	--
pH*		--	7.4	--	--	7.5	--	--	--	7.5	--	--	7.3
Phenols, total		--	--	--	--	<0.005	--	--	--	--	--	--	0.008
Specific conductivity**		--	749	--	--	--	--	--	--	1010	--	--	--
Sulfate		--	25	--	--	130	--	--	--	<5	--	--	240
Total dissolved solids (TDS)		760	460	--	--	530	740	422	360	590	640	--	600

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-094 6/26/1998	MW-094 5/3/2000	MW-094 4/24/2001	MW-095 4/30/1997	MW-095 6/22/1998	MW-095 4/22/1999	MW-095 5/2/2000	MW-095 4/24/2001	MW-096 4/30/1997	MW-096 #####	MW-096 6/21/1998
Bicarbonate Alkalinity		--	--	--	310	--	--	--	--	300	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	<0.03	--
Bromide		--	--	--	<0.3	--	--	--	--	<0.3	--	--
Carbonate Alkalinity		--	--	--	1	--	--	--	--	<1	--	--
Chloride		20	<10	21	--	5	5.6	3.45	3	--	--	14
Cyanide		--	--	--	--	<0.005	--	--	--	--	--	<0.005
Fluoride		--	--	--	0.4	0.4	--	--	--	0.8	--	0.4
Hydroxide		--	--	--	<1	--	--	--	--	<1	--	--
Carbon Dioxide		--	--	--	31	--	--	--	--	48	--	--
Nitrate		--	--	--	--	--	--	--	--	--	0.38	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	<0.2	--
Orthophosphate		--	--	--	--	--	--	--	--	--	0.08	--
pH*		--	--	--	7.3	7.5	--	--	--	7.1	--	7.2
Phenols, total		--	--	--	--	<0.005	--	--	--	--	--	<0.005
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	19	21	--	--	--	--	--	210
Total dissolved solids (TDS)		530	<1	560	370	360	340	349	320	560	--	560

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	MW-096 4/22/1999	MW-096 5/1/2000	MW-096 4/19/2001	MW-097 4/30/1997	MW-097 #####	MW-097 6/21/1998	MW-097 #####	MW-097 10/12/1998	MW-097 #####	MW-097 5/2/2000	MW-097 4/19/2001	MW-098 4/30/1997	MW-098 6/29/1998	MW-098 5/2/2000
Bicarbonate Alkalinity			--	--	--	270	--	--	--	--	--	--	--	240	--	--
Ammonia (as N)			--	--	--	--	<0.03	--	--	--	--	--	--	--	--	--
Bromide			--	--	--	<0.3	--	--	--	--	--	--	--	<0.3	--	--
Carbonate Alkalinity			--	--	--	1	--	--	--	--	--	--	--	1	--	--
Chloride	13	12.1	--	12	--	--	--	8	--	--	6.7	5.17	4.6	--	14	12.1
Cyanide	--	--	--	--	--	--	--	<0.005	--	--	--	--	--	--	<0.005	--
Fluoride	--	--	--	--	--	0.5	--	0.7	--	--	--	--	--	0.4	0.3	--
Hydroxide	--	--	--	--	--	<1	--	--	--	--	--	--	--	<1	--	--
Carbon Dioxide	--	--	--	--	--	27	--	--	--	--	--	--	--	19	--	--
Nitrate	--	--	--	--	--	--	1.71	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	<0.2	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	7.3	--	7.2	--	--	--	--	--	7.4	7.6	--
Phenols, total	--	--	--	--	--	--	--	<0.005	--	--	--	--	--	--	0.01	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	150	--	190	--	200	--	--	--	25	32	--
Total dissolved solids (TDS)	520	600	--	570	--	550	--	520	--	--	530	--	440	330	310	324

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-098 4/24/2001	MW-104 7/17/1997	MW-104 6/21/1998	MW-104 4/23/2001	MW-106 2/11/1997	MW-106 5/7/1997	MW-106 7/18/1997	MW-106 6/18/1998	MW-106 4/29/1999	MW-106 5/1/2000	MW-106 4/18/2001	MW-108 7/17/1997
Bicarbonate Alkalinity		--	268	--	--	315	--	--	--	--	--	--	297
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	<0.3	--	--	<0.3	--	--	--	--	--	--	<0.3
Carbonate Alkalinity		--	<1	--	--	<1	--	--	--	--	--	--	<1
Chloride		16	11.6	14	15	10	4	5	4	12	3.45	5.6	3.2
Cyanide		--	--	<0.005	--	--	--	--	<0.005	--	--	--	--
Fluoride		--	0.8	1.4	--	0.24	--	--	0.3	--	--	--	0.4
Hydroxide		--	<1	--	--	<1	--	--	--	--	--	--	<1
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	0.72	--	--	--	--	--	--	--	--	--	2.6
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	7.6	7.3	--	7.4	--	--	7.3	--	--	--	--
Phenols, total		--	--	<0.005	--	--	--	--	<0.005	--	--	--	7.6
Specific conductivity**		--	815	--	--	636	--	--	--	--	--	--	585
Sulfate		--	200	230	--	37	--	--	33	--	--	--	33
Total dissolved solids (TDS)		300	580	560	520	430	--	--	380	--	350	340	360

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	MW-108 6/22/1998	MW-108 4/22/1999	MW-108 5/4/2000	MW-108 4/19/2001	MW-110 6/30/1998	MW-111 6/29/1998	MW-111 4/21/1999	MW-111 4/27/2000	MW-111 4/18/2001	PIPELINE_4 5/1/1991	SUMP-16A 5/1/1991	SUMP-16A 7/1/1991
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride	5	5	4.3	3.45	3.4	54	100	120	103	100	9000	190	49
Cyanide	<0.005	<0.005	--	--	--	<0.005	<0.005	--	--	--	--	--	--
Fluoride	0.4	0.4	--	--	--	0.7	0.7	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	7.4	7.4	--	--	--	7.2	7.2	--	--	--	--	--	--
Phenols, total	<0.005	<0.005	--	--	--	0.01	<0.005	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	35	35	--	--	--	130	310	--	--	--	1860	--	--
Total dissolved solids (TDS)	340	340	340	370	360	600	900	760	994	800	18500	876	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in Micro-mhos per centimeter (unho/cm)

-- Not analyzed or not reported

< Constituent not detected above noted laboratory detection limit

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Historical General Chemistry Analytical Data
May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Well ID Date Sampled Parameter	SUMP-16A 9/1/1991	SUMP-16A 12/1/1991	SUMP-16A 4/1/1992	SUMP-16A 7/1/1992	SUMP-16A 10/1/1992	SUMP-16A 1/1/1993	SUMP-16A 4/14/1993	SUMP-16A 10/5/1994	SUMP-16A 1/1/1995	SUMP-16A #####	SUMP-16A 7/1/1996	SHAL- ZONE- 4/1/1992
Bicarbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)	--	--	--	--	--	--	--	--	--	--	--	--
Bromide	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	--	683	522	82	225	229	218	128	90	63	14	1240
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	<10	--	--	--	--	--	--	--	--	--	--	--
	263	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	SHAL- ZONE- 7/1/1992	SHAL- ZONE- 10/1/1992	SHAL- ZONE- 1/1/1993	SHAL- ZONE- 4/1/1993	SHAL- ZONE- 7/1/1993	SHAL- ZONE- 10/1/1993	SHAL- ZONE- 1/1/1994	SHAL- ZONE-MAX 4/1/1994	SHAL- ZONE- 7/1/1994	SHAL- ZONE- 10/1/1994	SHAL- ZONE- 1/1/1995	SHAL- ZONE-MAX 4/1/1995
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		455	420	544	955	445	543	490	450	430	400	439	439
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	SUMP-A10 4/1/1991	SUMP-A10 5/1/1991	SUMP-A10 10/5/1994	SUMP-A10 #####	SW-01 7/1/1991	SW-01 4/1/1992	SW-01 7/1/1992	SW-01 10/1/1992	SW-01 4/15/1993	SW-01 5/12/1993	SW-02 5/12/1993
Bicarbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)	--	--	--	--	--	--	--	--	--	--	--	--
Bromide	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	17000	3750	4.2	3	19	16	19	25	20	19.5	22	522
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	1.3	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	3	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	164	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	583	--	--	--	--	--	530	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	SW-02 1/1/1995	SW-02 6/24/1998	SW-02 4/23/1999	SW-03 7/1/1996	SW-03 10/1/1996	SW-03 6/24/1998	SW-03 4/23/1999	TH-21A 5/1/1991	TH-21A 7/1/1991	TH-A11 4/1/1991	TH-A11 7/1/1991	TH-A11 9/1/1991
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		81	150	44	24	11	9	24	8250	636	12800	1470	--
Cyanide		--	<0.005	--	--	--	<0.005	--	--	--	--	--	--
Fluoride		--	0.5	--	--	--	0.7	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	7.2	--	--	--	7.5	--	--	--	--	--	--
Phenols, total		--	<0.005	--	--	--	<0.005	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	120	--	--	--	110	--	--	--	613	--	<10
Total dissolved solids (TDS)		--	730	670	--	380	410	--	16000	--	26200	--	1050

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	TH-A11 12/1/1991	TH-A11 4/1/1992	TH-A11 7/1/1992	TH-A11 10/1/1992	UIHS_ ARROYO 4/1/1992	UIHS_ ARROYO 7/1/1992	UIHS_ ARROYO 10/1/1992	UIHS_ ARROYO 1/1/1993	UIHS_ ARROYO 4/15/1993	UIHS_ ARROYO 5/12/1993	UIHS_ ARROYO 6/28/1993	UIHS_ ARROYO 7/15/1993	UIHS_ ARROYO 8/3/1993
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	670	433	--	60	124	16.2	8.5	13.5	11.4	13.5	11	11.4	12.9	11.8
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	UIHS_ 9/21/1993	UIHS_ #####	UIHS_ 12/6/1993	UIHS_ #####	UIHS_ 1/13/1994	UIHS_ 2/9/1994	UIHS_AR 3/16/1994	UIHS_ 4/5/1994	UIHS_ 5/19/1994	UIHS_ 6/23/1994	UIHS_ 7/21/1994	UIHS_ 8/24/1994
Bicarbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Bromide		--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity		--	--	--	--	--	--	--	--	--	--	--	--
Chloride		11.5	10.3	493	10.7	11	11.6	13	14	12.2	13	8	12.7
Cyanide		--	--	--	--	--	--	--	--	--	--	--	--
Fluoride		--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide		--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide		--	--	--	--	--	--	--	--	--	--	--	--
Nitrate		--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate		--	--	--	--	--	--	--	--	--	--	--	--
pH*		--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total		--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**		--	--	--	--	--	--	--	--	--	--	--	--
Sulfate		--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)		--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data

May 1991 - December 2000

Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID	Date Sampled	UIHS_9/20/1994	UIHS_10/6/1994	UIHS_####	UIHS_12/16/1994	UIHS_1/11/1995	UIHS_3/9/1995	UIHS_4/7/1995	UIHS_5/18/1995	UIHS_7/21/1995	UIHS_10/12/1995	UIHS_1/19/1996	UIHS_4/24/1996
Bicarbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--
Ammonia (as N)			--	--	--	--	--	--	--	--	--	--	--	--
Bromide			--	--	--	--	--	--	--	--	--	--	--	--
Carbonate Alkalinity			--	--	--	--	--	--	--	--	--	--	--	--
Chloride			11	13	11.1	12.2	10	11.5	13	9	12	14	10	10.9
Cyanide			--	--	--	--	--	--	--	--	--	--	--	--
Fluoride			--	--	--	--	--	--	--	--	--	--	--	--
Hydroxide			--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide			--	--	--	--	--	--	--	--	--	--	--	--
Nitrate			--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl, total (as N)			--	--	--	--	--	--	--	--	--	--	--	--
Orthophosphate			--	--	--	--	--	--	--	--	--	--	--	--
pH*			--	--	--	--	--	--	--	--	--	--	--	--
Phenols, total			--	--	--	--	--	--	--	--	--	--	--	--
Specific conductivity**			--	--	--	--	--	--	--	--	--	--	--	--
Sulfate			--	--	--	--	--	--	--	--	--	--	--	--
Total dissolved solids (TDS)			--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

Appendix B

Historical General Chemistry Analytical Data
 May 1991 - December 2000
 Marathon Oil Company, Indian Basin Remediation Project, Eddy County, New Mexico

Parameter	Well ID Date Sampled	UIHS_ 7/1/1996	UIHS_ 10/1/1996	UIHS_ 2/10/1997	UIHS_ 6/26/1998
Bicarbonate Alkalinity		--	--	--	--
Ammonia (as N)		--	--	--	--
Bromide		--	--	--	--
Carbonate Alkalinity		--	--	--	--
Chloride		10	8	11	13
Cyanide		--	--	--	<0.005
Fluoride		--	--	--	0.7
Hydroxide		--	--	--	--
Carbon Dioxide		--	--	--	--
Nitrate		--	--	--	--
Nitrogen, Kjeldahl, total (as N)		--	--	--	--
Orthophosphate		--	--	--	--
pH*		--	--	--	7.2
Phenols, total		--	--	--	0.006
Specific conductivity**		--	--	--	--
Sulfate		--	--	--	590
Total dissolved solids (TDS)		--	--	--	940

Notes:

Concentrations listed in milligrams per liter (mg/L), except where noted otherwise.

* Measured in standard units (su)

** Measured in micro-mhos per centimeter (umho/cm)

-- Not analyzed or not reported.

< Constituent not detected above noted laboratory detection limit.

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Appendix C

Laboratory Analytical Reports
(CD-ROM)

- Monthly Air Stripper Sampling, 2001
- April 2001 Groundwater Sampling Event
- October 2001 Groundwater Sampling Event