AP - 069

ANNUAL MONITORING REPORT

03/30/2007

AP069

elpaso

Via Federal Express

March 30, 2007

Mr. Glenn von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: 2006 ANNUAL REPORT FOR THE SAN JUAN RIVER PLANT

Dear Mr. von Gonten:

El Paso Natural Gas Company (EPNG) hereby submits the 2006 Annual Report for the San Juan River Plant located near Kirtland, New Mexico. The enclosed report details the remediation and sampling activities for the year 2006.

Should you have any questions or require additional information, please contact me at (719) 520-4554.

Sincerely,

Bart T. Wilking

Bart Wilking
Project Manager
2 N. Nevada Ave.
#433
Colorado Springs, CO 80903

2007 APR 2 AM 10 37

CC: Brandon Powell, NMOCD, Aztec, w / enclosures
Jed Smith, MWH, w / enclosures

EL PASO NATURAL GAS COMPANY

2 North Nevada
Colorado Springs, Colorado 80903

2006 ANNUAL REPORT
SAN JUAN RIVER PLANT

MARCH 2007

1801 California Street
Suite 2900
Denver, Colorado 80202
303 291 2222

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS

BTEX	Benzene, toluene, ethylbenzene, and total xylenes
EPNG	El Paso Natural Gas Company
mg/L	Milligrams per liter
µg/L	Micrograms per liter
NMOCD	New Mexico Oil Conservation Division
NMWQCC	New Mexico Water Quality Control Commission
ORC	Oxygen-releasing compound
SJRP	San Juan River Plant
TDS	Total dissolved solids
WGR	Western Gas Resources, Inc

EXECUTIVE SUMMARY

The San Juan River Plant (SJRP) is located in San Juan County, near Kirtland, New Mexico. The SJRP processes natural gas collected from production wells located in the San Juan Basin of New Mexico and southern Utah. The SJRP was sold to Western Gas Resources, Inc. (WGR) in June 1992. Closure of evaporation ponds, pits, and other potential source areas within the SJRP occurred in 1992 through 1995. Based on past soil and soil gas investigations, the dissolved phase hydrocarbons are associated with relatively limited soil contamination. Groundwater monitoring has been performed at the SJRP since 1995.

Hydrocarbon impacts to groundwater have been observed primarily in the vicinity of monitoring wells MW-8 and MW-9. Samples from these two wells have consistently indicated that benzene is the only hydrocarbon constituent exceeding the New Mexico Oil Conservation Division (NMOCD) groundwater standards. El Paso Natural Gas (EPNG) has accordingly pursued active groundwater remediation, consisting of chemical oxygen enhancement and air sparging, to reduce the dissolved-phase benzene concentrations in this area.

Groundwater monitoring suggests that concentrations in monitoring well MW-8 have generally declined through the use of in-well oxygen-releasing compound socks, though the data show significant seasonal fluctuations, and the trend isn't clear. MW-8 benzene concentrations during 2006 ranged from 0.57 ug/L to 85.2 ug/L. The air sparging system at MW-9 was shut down in February 2004 and has remained off throughout 2006 in order to assess groundwater conditions. During this shut-down period, benzene concentrations in MW-9 have slowly increased. In 2006, concentrations of benzene were remarkably stable, ranging from 73.4 ug/L to 88.7 ug/L. The remediation efforts at monitoring wells MW-8 and MW-9 will continue, as needed, until quarterly sampling results indicate compliance with standards. The remedial efforts will then be suspended and closure monitoring will begin.

The NMOCD has requested annual monitoring of metals and inorganic parameters in all site monitoring wells as part of the current groundwater monitoring program. Elevated concentrations of some inorganic constituents, including total dissolved solids and sulfate, have historically been detected in various wells. It is possible that these elevated concentrations may be associated with past practices; however, past closure activities have addressed any site-related sources and this region is known to contain elevated total dissolved solids concentrations. There are no known affected downgradient users of the groundwater.

EPNG has initiated a Stage I Abatement Plan to investigate hydrocarbon impacts encountered in groundwater near the Praxair .lined pond. The results of the initial investigation were discussed in the Stage I Interim Report, submitted to the NMOCD on March 28, 2006. This report included a work plan for additional investigation activities. In September 2006, EPNG made slight revisions to the work plan and re-submitted it. EPNG is currently awaiting work plan approval from the NMOCD.

1.0 INTRODUCTION

This annual report has been prepared on behalf of El Paso Natural Gas Company (EPNG) to present a summary of physical activities performed and analytical data collected at the San Juan River Plant (SJRP) during 2006. This site is located in San Juan County, Township 29N, Range 15W, Section 1, near Kirtland, New Mexico, as shown on **Figure 1.**

Current remedial action at the SJRP is limited to in-situ oxygen enhancement of groundwater through use of oxygen-releasing compound (ORC) in monitoring well MW-8. Dissolved phase groundwater impacts are monitored annually for the entire site and quarterly in the MW-8/MW-9 area.

Site Description. The SJRP was previously owned by EPNG, but has been owned and operated by Western Gas Resources, Inc. (WGR) since June 1992. The plant processes natural gas collected from production wells located in the San Juan Basin of New Mexico and southern Utah. The SJRP is a 630-acre facility that has contained gas processing facilities, two raw water ponds (now closed), three wastewater evaporation ponds (now closed), a sulfur recovery plant, water and hydrocarbon tanks, a pigging station, flare pits, and several 16- to 24-inch-diameter natural gas pipelines that cross the facility. In 2002-2003, the Praxair Nitrogen Plant was built in the area north of the SJRP, to the south of monitoring wells MW-8 and MW-9. **Figure 2** presents a detailed site map of the SJRP. Closure of the evaporation ponds, flare pits, and other potential contaminant source areas was completed during 1992 through 1995. Groundwater has been monitored at this site since 1995.

Report Organization. This report is organized into six sections and supporting appendices. Section 2.0 provides a discussion of the SJRP project history. Section 3.0 includes a summary of field activities conducted at the SJRP during 2006, and Section 4.0 provides a discussion of results. Conclusions and recommendations are provided in Section 5.0, and references are listed in Section 6.0.

2.0 PROJECT HISTORY

The SJRP was previously owned by EPNG, but was sold to the current operator, WGR, on June 19, 1992. Investigation and remediation activities conducted at the SJRP have included the following components:

- Several investigations were conducted at the SJRP between 1985 and 1995. As a result, 24 monitoring wells have been installed at various locations at the plant.

- The north and south flare pits were closed in 1992 after removing 18,200 cubic yards (cy) and 3,520 cy of contaminated material from the north and south pits, respectively.

- The former wastewater evaporation ponds were closed during 1995 and early 1996. The pit and pond closure activities included capping the ponds with compacted, low-permeability soils.

- EPNG abandoned 17 monitoring wells, upgraded two wells, installed five new monitoring wells, and conducted a soil gas investigation during the summer of 1995. Results of the soil gas investigation indicated shallow hydrocarbon contamination near monitoring wells MW-8 and MW-9.

- EPNG submitted a groundwater remediation work plan to the New Mexico Oil Conservation Division (NMOCD) in January 2001 to address elevated benzene in monitoring wells MW-8 and MW-9, and received approval to begin remedial actions on June 4, 2001. The work plan included provisions to install an air sparging system with two air sparging wells; one injection point located within 10 feet of each monitoring well.

- The air sparging system air injection wells (SW-8 and SW-9) were installed on October 30, 2001. Both wells were developed on November 12, 2001.

- A pre-pilot air sparging test was conducted at both wells on November 13, 2001. Results from this test indicated good communication between SW-9 and MW-9 but poor communication between SW-8 and MW-8.

- Because of poor communication between SW-8 and MW-8, an ORC sock consisting of magnesium peroxide and manufactured by Regenesis, Inc., was recommended for remediation in this area. The ORC sock was installed in MW-8 on November 14, 2001.

- The air sparging pilot test was initiated on November 14, 2001. With the exception of a 48-hour shutdown prior to the four-week sampling event on December 26, 2001, the air sparging system operated continuously from November 14, 2001 to January 18, 2002. The air sparging pilot test culminated with a sampling event on January 25, 2002. An additional sampling event was performed on February 21, 2002, to evaluate the potential for contaminant concentration rebound following a four-week shutdown.

- From February 2002 through December 2002, site activities included continued operation and maintenance (O&M) of the air sparging system, which was placed into continuous operation following the pilot test, and site-wide annual groundwater monitoring.

- During 2003, site activities included periodic O&M of the air sparging system, replacement of ORC socks into MW-8, quarterly sampling of MW-8 and MW-9, and site-wide annual groundwater monitoring.

- Based on benzene, toluene, ethylbenzene and total xylenes (BTEX) concentrations below New Mexico Water Quality Control Commission (NMWQCC) standards, the air sparging system was shut-down in February 2004 through the end of the year to assess static groundwater conditions at the site.

- During 2004, site activities included replacement of ORC socks into MW-8, quarterly sampling of MW-8 and MW-9, and site-wide annual groundwater monitoring.

- The sparge system remained off during 2005. Site activities included replacement of ORC socks into MW-8, quarterly sampling of MW-8 and MW-9, and site-wide annual groundwater monitoring.

- EPNG submitted a Stage I Abatement Plan to NMOCD in November 2005 to investigate hydrocarbon impacts encountered in groundwater near the Praxair evaporation pond at the SJRP. Approval was received on January 23, 2006 to begin investigative actions. Results of this investigation are detailed in the Stage I Interim Report, submitted March 28, 2006, which recommended that further investigation be conducted via hollow-stem auger, as the effectiveness of direct push technology at the site was found to be limited.

- Site activities for 2006 included replacement of ORC socks in MW-8, quarterly sampling of MW-8 and MW-9, and site-wide annual groundwater monitoring.

3.0 SUMMARY OF 2006 ACTIVITIES

The current environmental program at the SJRP consists of dissolved-phase hydrocarbon remediation (chemical oxygen enhancement) and site-wide groundwater monitoring. In February 2004, the air sparging system was shut down in anticipation of groundwater sampling. The system has remained off since that time in order to monitor static groundwater conditions at the site and pending additional investigation in the area. The following section details site activities conducted at the SJRP during 2006.

3.1 GROUNDWATER MONITORING PROGRAM

The groundwater monitoring program included the following components during 2006:

- On August 10, 2006, the seven site monitoring wells (W-2, MW-4 through MW-9) were sampled for BTEX compounds, NMWQCC trace metals, total dissolved solids (TDS), alkalinity, chloride, and sulfate.

- Remediation monitoring wells MW-8 and MW-9 were sampled quarterly in February, May, August, and December 2006 and analyzed for BTEX compounds to evaluate the effectiveness of hydrocarbon remediation activities.

- Site-wide groundwater elevation measurements were collected at each well quarterly.

All groundwater monitoring activities during 2006 were conducted by Lodestar, Inc. Laboratory analyses were performed by Accutest Laboratories in Houston, Texas.

3.2 HYDROCARBON REMEDIATION

Since 2002, dissolved phase hydrocarbon remediation activities at the SJRP have included oxygen enhancement using ORC socks in MW-8 and air sparging in the vicinity of MW-9. The following paragraphs describe 2006 remediation activities.

ORC Enhancement. In December 2006, the ORC socks in MW-8 were replaced. The socks had been out of the well for almost two months and the dissolved oxygen concentration was measured at 2.58 mg/L, indicating that sufficient oxygen was still available for biodegradation; however, the level was low enough to justify replacement. ORC socks will generally be replaced annually, or as-needed, based on quarterly monitoring of dissolved oxygen concentrations in this well.

Air Sparging System. As described in Section 2.0, air sparging has not been conducted at the site since January 2004. Pending additional source material investigation in the vicinity of MW-8 and MW-9, the system will likely remain off.

4.0 DISCUSSION OF 2006 RESULTS

This section describes the results of activities conducted at the SJRP during 2006.

4.1 SITE-WIDE GROUNDWATER MONITORING RESULTS

Groundwater Elevation Monitoring. Groundwater elevation maps for each quarter are presented in **Figures 3** through **6**. In general, groundwater flows radially outward from the topographic rise on which the SJRP is located. In the north plant area, groundwater flows towards the northwest. Groundwater beneath the southern portion of the plant generally flows to the southwest. Field documentation for water level monitoring activities is presented in **Appendix A**.

BTEX Sampling Results. **Figures 9, 10,** and **11** depict long-term trends in the three wells with detectable concentrations (i.e., MW-5, MW-8, and MW-9). BTEX results from annual samples collected during August 2006 are presented in **Table 1 and on Figure 5**. During the annual sampling event, BTEX concentrations in W-2, MW-4, MW-6, and MW-7 were below analytical detection limits. MW-5 had a benzene concentration of 2.3 µg/L, below the NMWQCC standard of 10 µg/L. These results are consistent with the results from 2002 through 2005. Results from MW-8 and MW-9 are discussed in the next section, along with the other quarterly sampling results. Documentation of 2006 field activities is included in **Appendix A**, and the analytical laboratory reports are included in **Appendix B**.

Inorganic Sampling Results. Results for inorganic samples collected during 2006 are presented in **Table 2.** Elevated concentrations of some inorganic constituents, including TDS and sulfate, were detected in various wells. This finding is consistent with previous annual sampling events. Isoconcentration maps presenting TDS and sulfate concentrations for samples collected during August 2006 are shown on **Figures 7** and **8**, respectively. It is possible that these elevated concentrations may be associated with past practices; however, past closure activities have addressed any site-related sources of these constituents, and this region is known to contain elevated inorganic concentrations. There are no downgradient users of the groundwater. Documentation of field activities and laboratory reports are presented in **Appendix A** and **Appendix B**, respectively.

4.2 QUARTERLY SAMPLING RESULTS

The quarterly groundwater sampling results are shown on **Table 1** and on **Figures 3** through **6**. During the 2006 quarterly sampling, MW-8 benzene concentrations were above NMWQCC standards at 85.2 µg/L and 36.3 µg/L in the first and second quarters, respectively, then fell below detection limits in the third quarter of 2006. The concentration rebounded during the fourth quarter to 25.6 µg/L. Concentrations in this well show significant fluctuations historically.

Benzene concentrations in MW-9 have remained above standards (77.9 µg/L, 73.4 µg/L, 88.7 µg/L, and 76.9 µg/L), during each respective quarter. These results indicate that air sparging in the area was effective when operational and that continued remediation would

help to further reduce BTEX concentrations. However, it is unclear whether or not sparging would be able to remediate the area sufficiently to prevent rebounding concentrations in MW-9. Air sparging will be re-evaluated following the pending additional investigation activities.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are provided based on the information presented in this report.

5.1 SITE-WIDE GROUNDWATER MONITORING PROGRAM

Groundwater sampling performed as part of the site-wide groundwater monitoring at SJRP resulted in the following conclusions and recommendations:

- Groundwater flows radially away from the topographic rise on which SJRP is located. In the north plant area, groundwater flow is towards the northwest; in the south plant area, groundwater flow is primarily towards the southwest.

- The remaining groundwater impacts in excess of standards appear to be in the region of MW-8 and MW-9.

- Consistent with historic monitoring, inorganic constituents were measured above NMWQCC standards during the August 2006 sampling event. The elevated concentrations of TDS and sulfate may result from past site practices; however, it is likely that some elevated concentrations are naturally occurring in the region.

- EPNG recommends continuation of the annual site-wide groundwater monitoring program.

5.2 HYDROCARBON REMEDIATION PROGRAM

The following conclusions and recommendations are provided regarding the hydrocarbon remediation performed near wells MW-8 and MW-9:

- Benzene concentrations in MW-9 have remained above standards. During the fourth quarter, the benzene concentration in MW-8 also rebounded to above closure standards. In December, the ORC socks were replaced in MW-8.

- EPNG recommends continuation of quarterly monitoring at MW-8 and MW-9 for BTEX concentrations and dissolved oxygen content.

- ORC socks will be replaced in MW-8, as needed, based on quarterly monitoring of dissolved oxygen concentrations.

- In November 2005, EPNG submitted a Stage I Abatement Plan to NMOCD to investigate hydrocarbon impacts encountered in groundwater near the Praxair evaporation pond at the SJRP. Approval of this abatement plan was received from NMOCD on January 23, 2006, and the investigation was performed in February 2006. Results of the initial investigation were detailed in the Stage I Interim Report submitted by March 28, 2006. Revisions to the work plan for additional investigation

included in the Stage I Interim Report were submitted on September 28, 2006. The MW-9 area will be evaluated following the additional investigation activities.

6.0 REFERENCES

AE Schmidt Environmental, 2002, *Air Sparge Pilot Test Data, San Juan River Plant, Kirtland, NM,* prepared for Montgomery Watson Harza, Inc., Albuquerque, New Mexico, February 2002.

El Paso Energy Corporation, November 27, 2001, Electronic communication from Mr. Scott Pope (EPNG) to Mr. William Olson, New Mexico Oil Conservation Division, *Proposal to install an Oxygen Release Compound (ORC) sock for oxygenation of MW-8 in lieu of sparging,* documenting conversation between the parties on November 26, 2001.

El Paso Energy Corporation, September 19, 2001, Letter to Mr. William Olson, New Mexico Oil Conservation Division, *Revised Work Plan for Groundwater Remediation for the San Juan River Plant.*

El Paso Energy Corporation, January 24, 2001, Letter to Mr. William Olson, New Mexico Oil Conservation Division, RE: *Work Plan for Groundwater Remediation and 2000 Groundwater Sample Results for the San Juan River Plant.*

El Paso Energy, November 19, 1992, *Summary of Analytical Data from the San Juan River Plant:* Memorandum from N.K. Prince, Environmental Affairs, to S. D. Miller.

MWH, 2002, 2001 *Annual Report San Juan River Plant.* March 2002.

MWH, 2003, 2002 *Annual Report San Juan River Plant.* April 2003.

MWH, 2004, 2003 *Annual Report San Juan River Plant.* March 2004.

MWH, 2005, *2004 Annual Report San Juan River Plant.* March 2005.

MWH, 2006, *2005 Annual Report San Juan River Plant.* March 2006.

MWH, 2006, *Stage I Abatement Plan Interim Report – Investigation Update.* March 2006.

MWH, 2006, *Proposed Workplan for Additional Phase I Investigation of Potential Hydrocarbon Impacts as Part of a Stage I Abatement Plan at the San Juan River Plant, San Juan Basin, New Mexico.* Revised September 2006.

New Mexico Oil Conservation Division, October 13, 1999. Letter from NMOCD requiring annual groundwater sampling.

New Mexico Oil Conservation Division, June 4, 2001, Letter to Mr. Scott Pope, El Paso Energy Corporation, Case #GW039R, *Groundwater Monitoring Results and Remediation Work Plan,* San Juan River Plant, Kirtland, New Mexico.

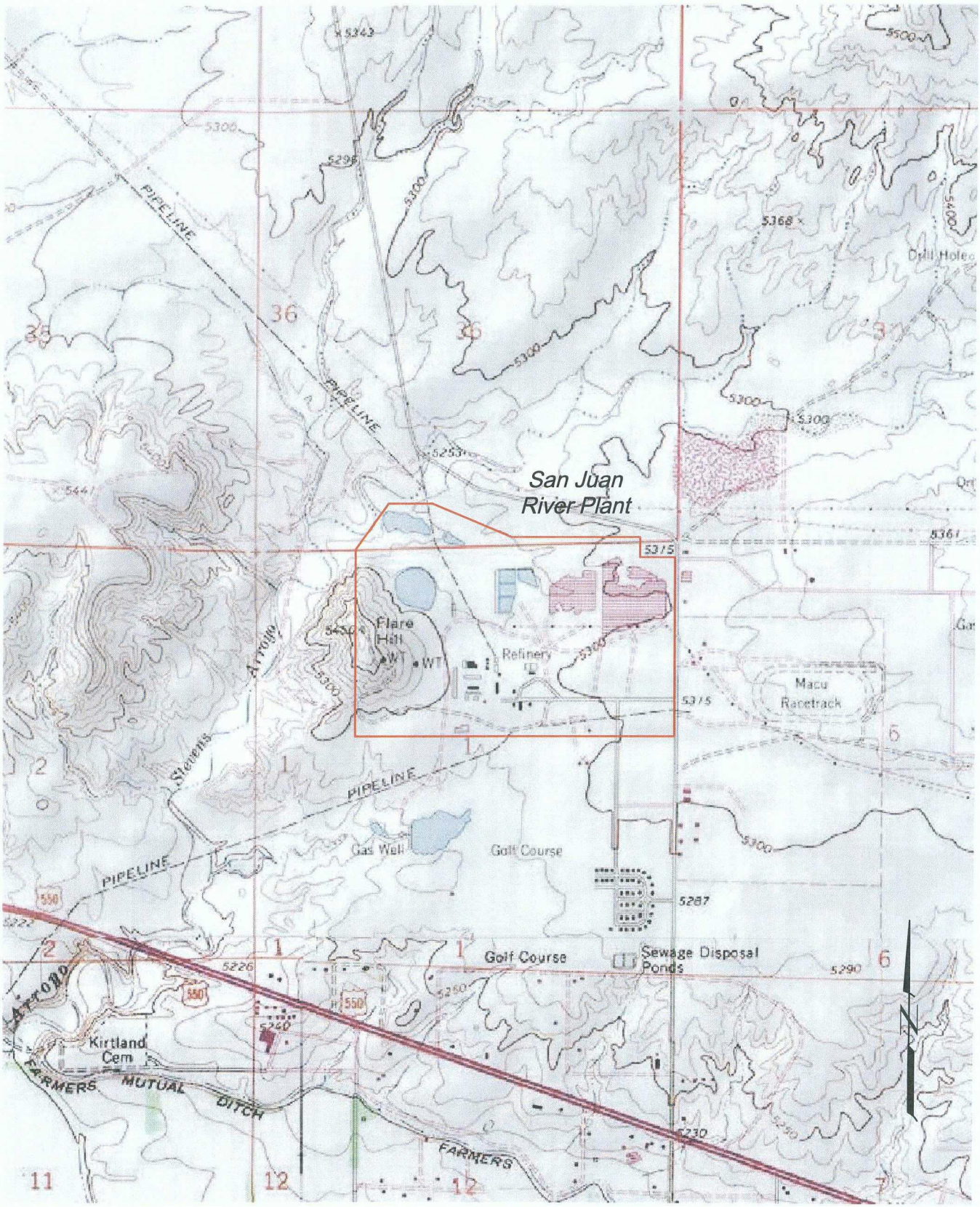
New Mexico Oil Conservation Division, January 23, 2006, Letter to Mr. Scott Pope, El Paso Energy Corporation, Case #GW039R, *Stage 1 Abatement Plan Proposal El Paso Natural Gas – San Juan River Plant/ Praxair Nitrogen Plant,* San Juan River Plant, Kirtland, New Mexico.

Philip Services Corporation, 2000, San Juan River Plant: *Groundwater Remediation Work Plan, Prepared for El Paso Natural Gas,* Farmington, New Mexico, December 2000.

Philip Environmental, 1998, *Summary of Investigations at the San Juan River Plant, Kirtland, New Mexico,* prepared for El Paso Natural Gas Company, Farmington, New Mexico, June 1998.

Philip Environmental, 1995, *Soil-Gas and Soil Survey, San Juan River Plant, Kirtland, New Mexico,* prepared for El Paso Natural Gas Company, Farmington, New Mexico, August 1995.

FIGURES



REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
A	Issued for Report	11/06	J.Hurley	J.Bever	J.Smith

MWH

PROJECT No.:

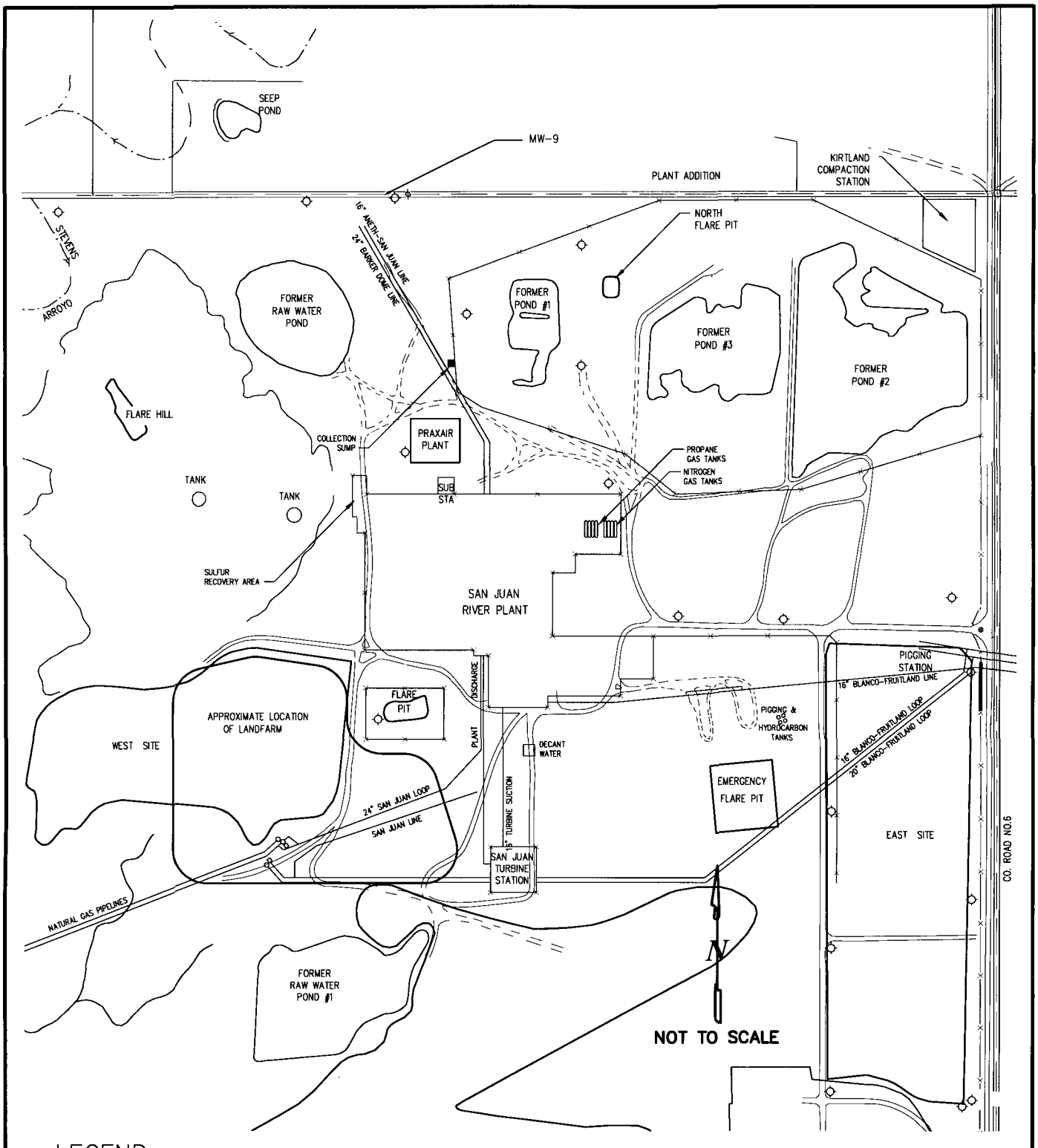
AutoCAD FILE: SJRiver Site Loc

SCALE: N.T.S.

FIGURE No: 1

elpaso EL PASO NATURAL GAS

SAN JUAN RIVER PLANT
SITE LOCATION MAP



LEGEND

MW-4 Approximate Monitoring Well Location

E-3
MW-1 P-2 Approximate Abandoned Well Location

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued to Report	1-07	J.Hurley	N.Day	J.Smith

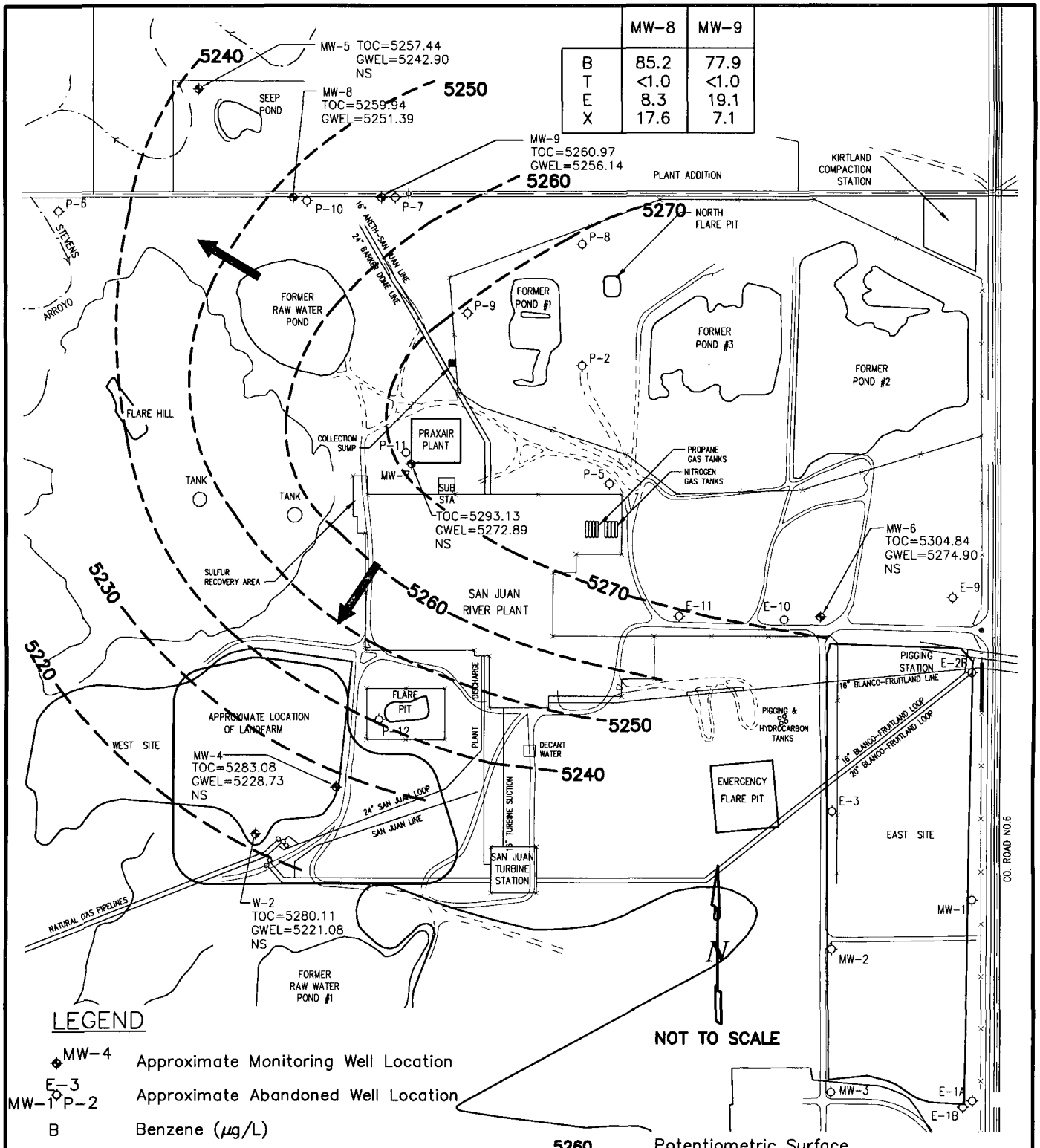
MWH

PROJECT No.: 1004919.CC06
AutoCAD FILE: SJRP_fig.2.dwg
SCALE: As Shown
FIGURE No: 2

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

SITE LAYOUT MAP



REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued to Report	1-07	J.Hurley	N.Day	J.Smith

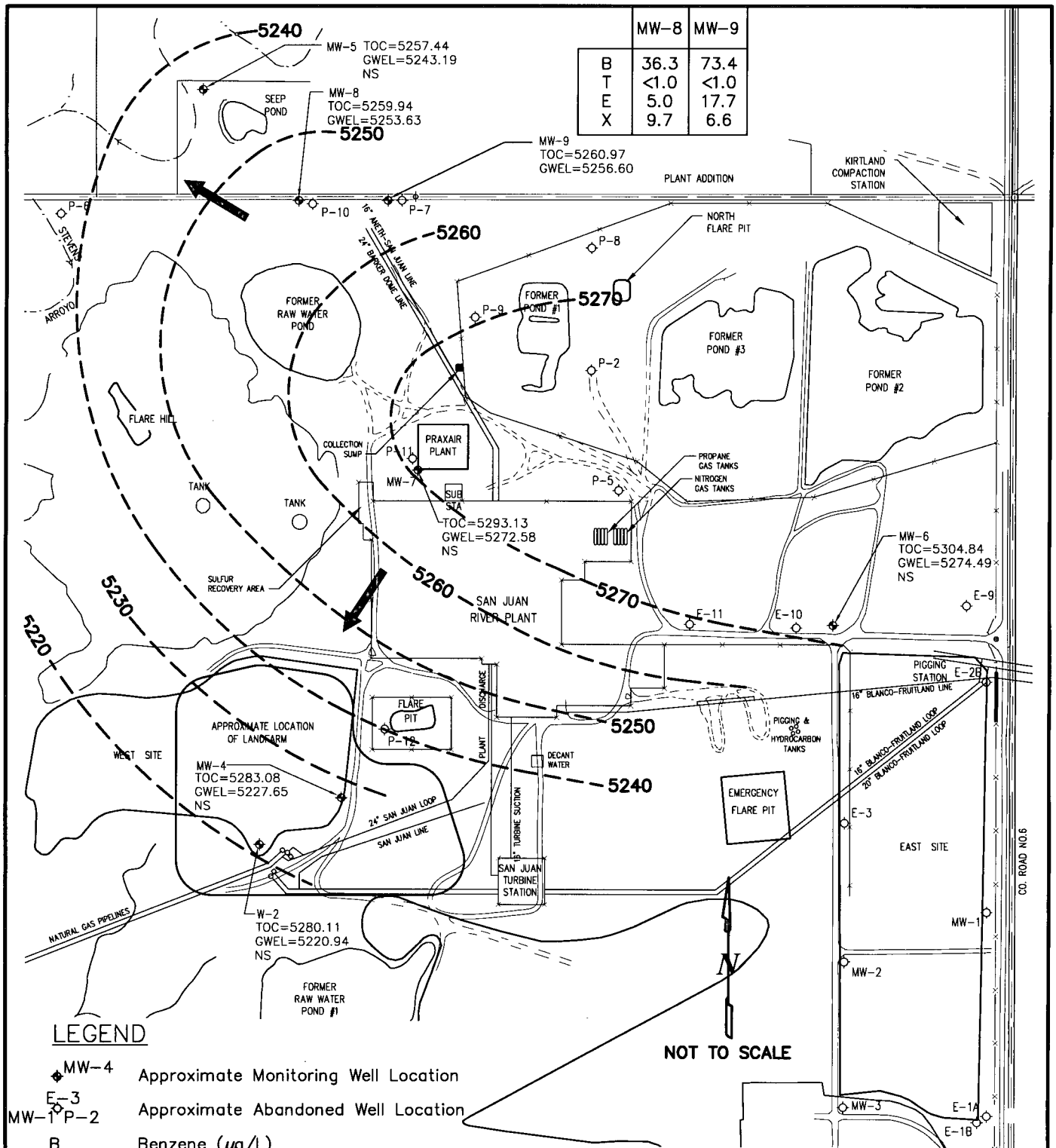
MWH

PROJECT No.: 1004919.CC06
AutoCAD FILE: SJRP_fig.5-06ELEV.dwg
SCALE: As Shown
FIGURE No: 3

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS FEBRUARY, 2006



LEGEND

MW-4	Approximate Monitoring Well Location
E-3	Approximate Abandoned Well Location
MW-1 P-2	
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)
→	Direction of Groundwater Flow (Estimated)
5260	Potentiometric Surface (Approximate & Assumed Where Dashed)
GWEL	Groundwater Elevation (Feet Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued to Report	1-07	J.Hurley	N.Day	J.Smith

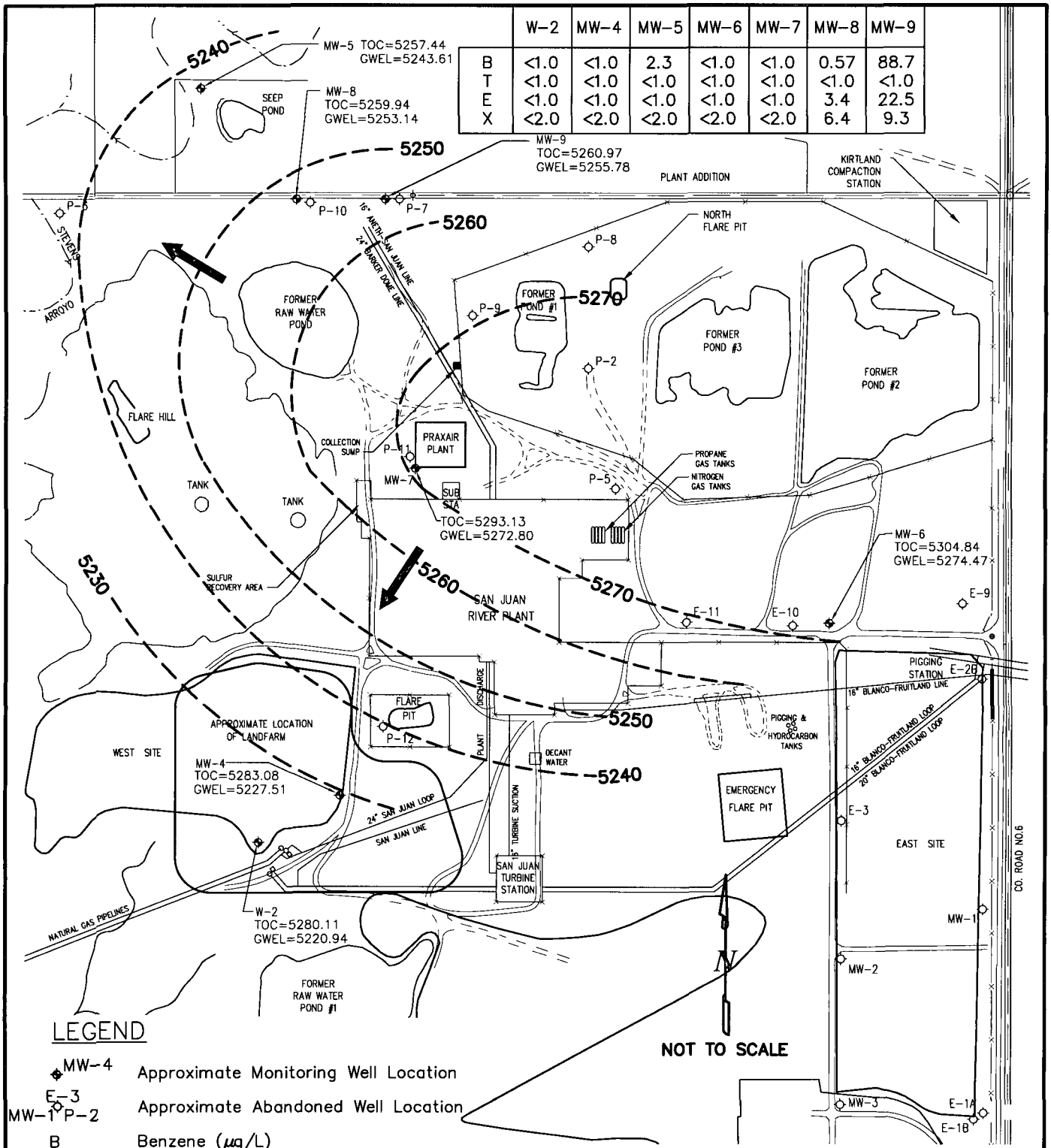
MWH

PROJECT No.: 1004919.CC06
AutoCAD FILE: SJRP_fig.5-06ELEV.dwg
SCALE: As Shown
FIGURE No: 4

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS MAY, 2006



LEGEND

MW-4	Approximate Monitoring Well Location
E-3 / MW-1 / P-2	Approximate Abandoned Well Location
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)
→	Direction of Groundwater Flow (Estimated)
5260	Potentiometric Surface (Approximate & Assumed Where Dashed)
GWEL	Groundwater Elevation (Feet Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued to Report	1-07	J.Hurley	N.Day	J.Smith

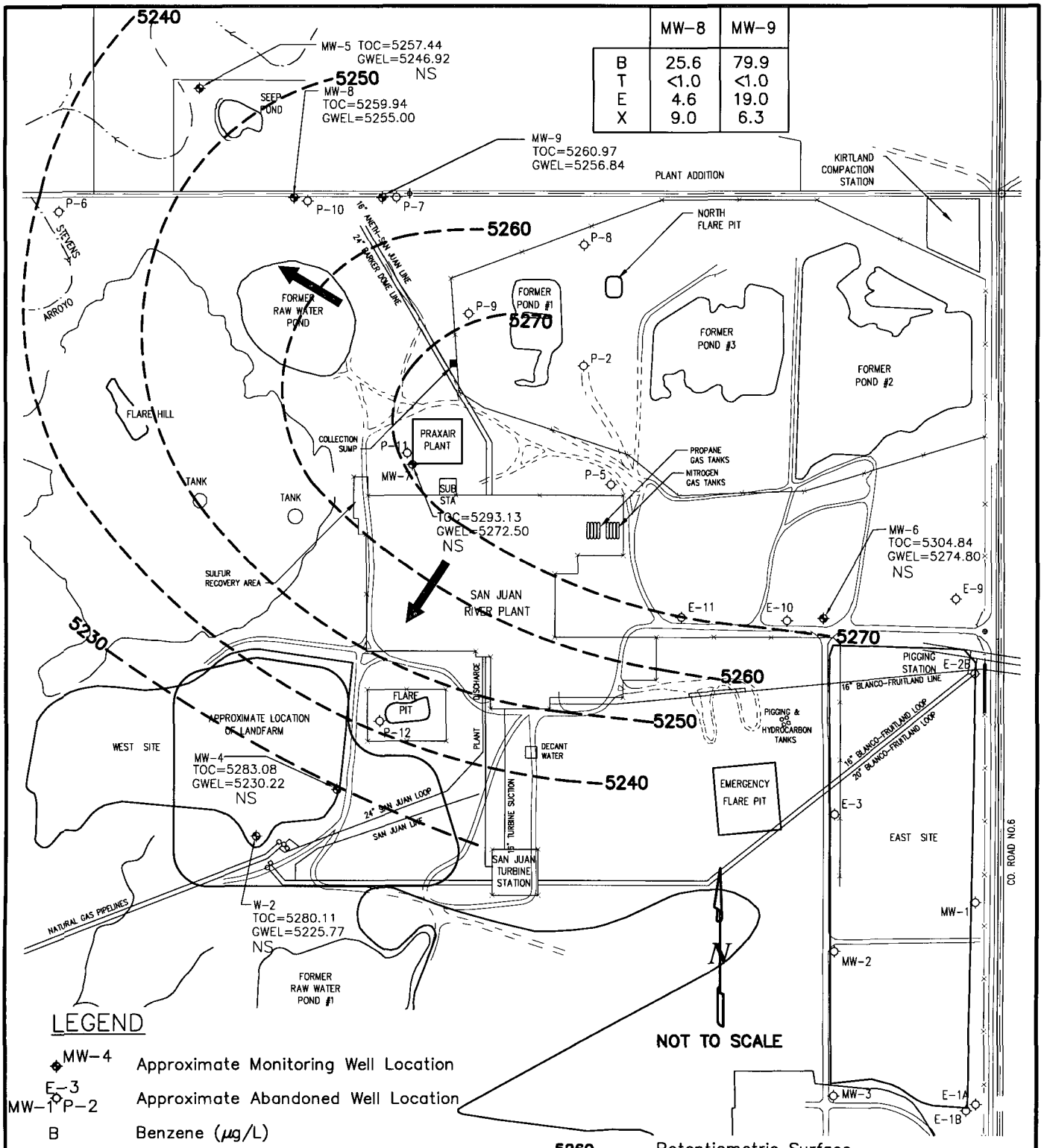
MWH

PROJECT No.: 1004919.CC06
AutoCAD FILE: SURP_fig.5-06ELEV.dwg
SCALE: As Shown
FIGURE No: 5

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS AUGUST, 2006



	MW-8	MW-9
B	25.6	79.9
T	<1.0	<1.0
E	4.6	19.0
X	9.0	6.3

NOT TO SCALE

LEGEND

MW-4	Approximate Monitoring Well Location
E-3	Approximate Abandoned Well Location
MW-1 P-2	
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)
→	Direction of Groundwater Flow (Estimated)
5260	Potentiometric Surface (Approximate & Assumed Where Dashed)
GWEL	Groundwater Elevation (Feet Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued for Report	1-07	J.Hurley	N.Day	J.Smith

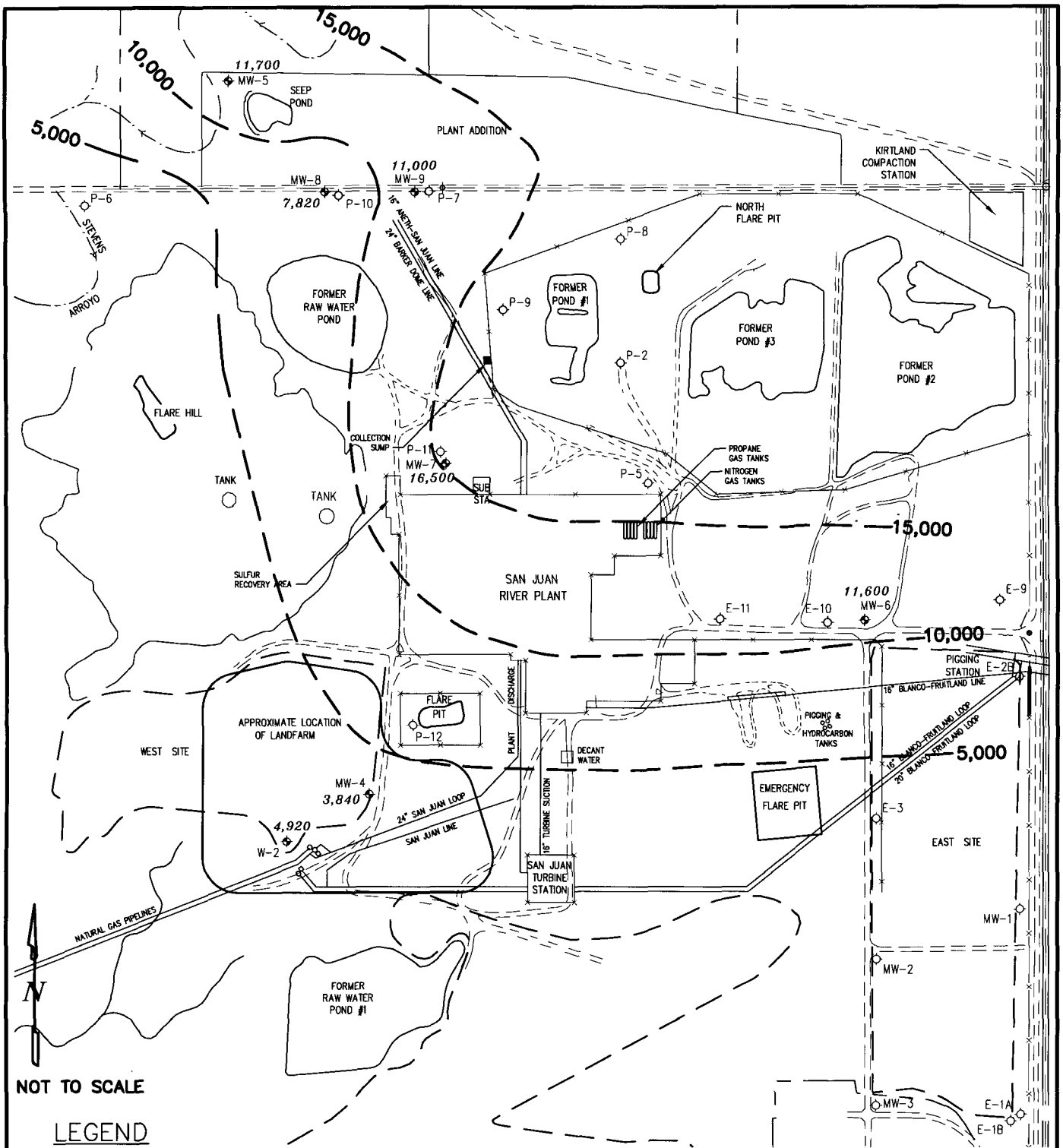
MWH

PROJECT No.: 1004919.CC06
AutoCAD FILE: SJRP_fig.5-06ELEV.dwg
SCALE: As Shown
FIGURE No: 6

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS DECEMBER, 2006



NOT TO SCALE

LEGEND

- MW-4 — Approximate Monitoring Well Location
- E-3 / MW-1 P-2 — Approximate Abandoned Well Location
- 16,500 — Total Dissolved Solids (mg/L)
- 10,000 — Total Dissolved Solids Isoconcentration (mg/L) (Estimated where dashed)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued for Report	11-06	J.Hurley	W.Grunvig	J.Smith

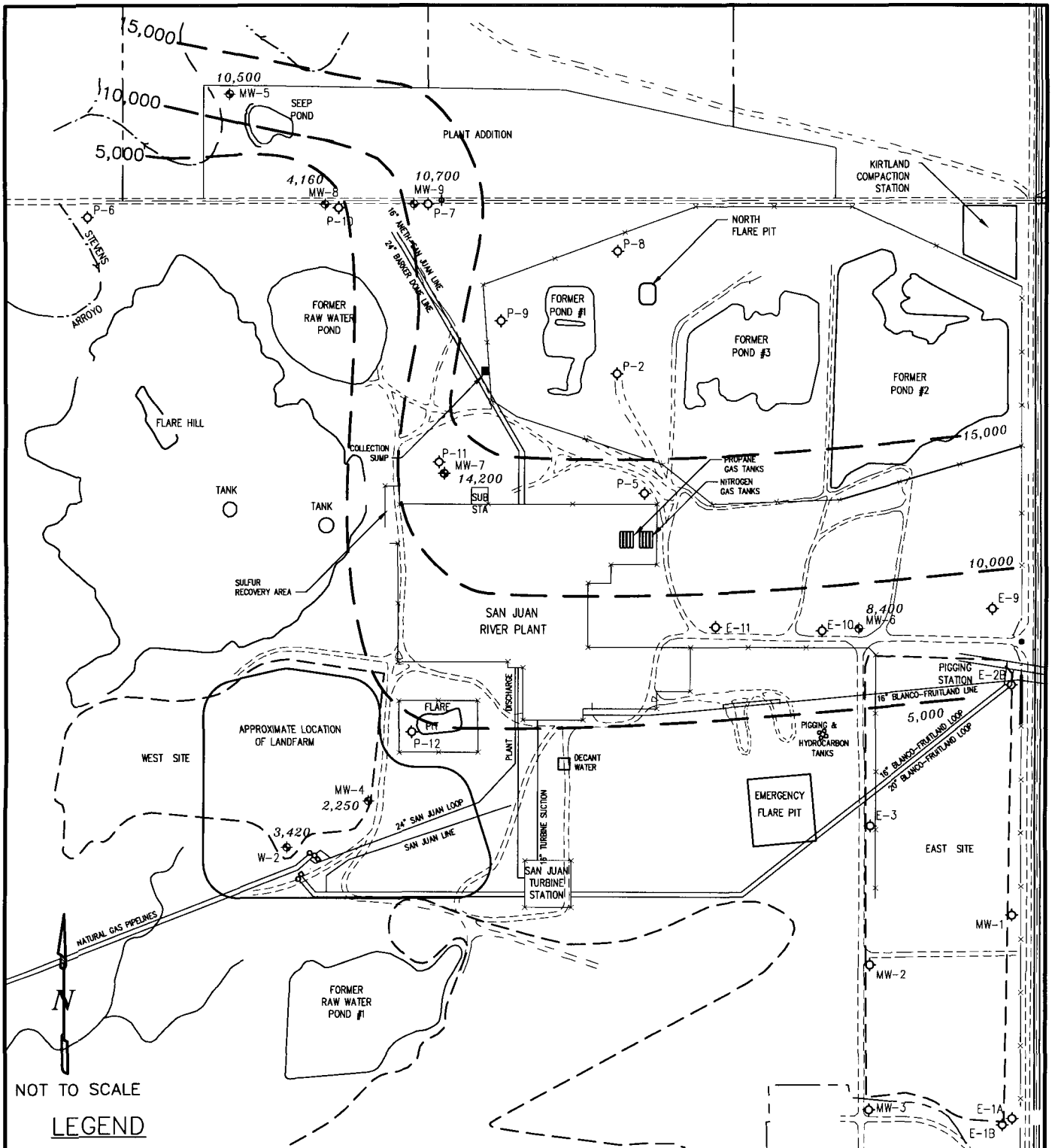
MWH

PROJECT No.: 1004919.CC06
AutoCAD FILE: SJRP Fig7 TDS 8-06
SCALE: N.T.S.
FIGURE No.: 7

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

TDS ISOCONCENTRATION MAP AUGUST 2006



NOT TO SCALE

LEGEND

MW-4	Approximate Monitoring Well Location
E-3	Approximate Abandoned Well Location
3,600	Sulfate Concentration in ppm
——10——	Sulfate Isoconcentration (ppm) (Estimated)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued for Report	11/06	J.Hurley	W.Grunvig	J.Smith

MWH

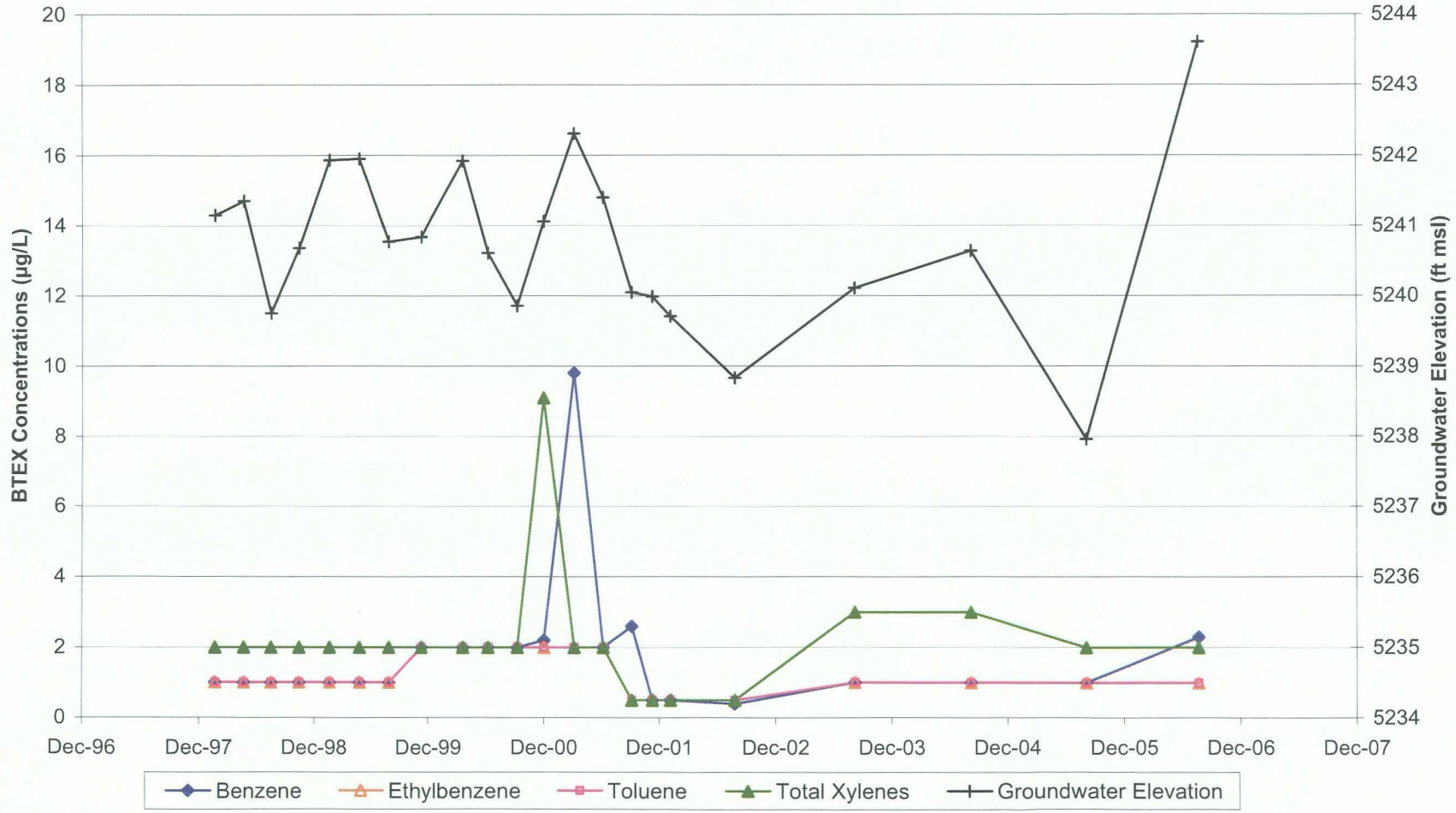
PROJECT No.: 100491B.CC06
AutoCAD FILE: SJRPSulfate Fig8
SCALE: Not to Scale
FIGURE No: 8

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

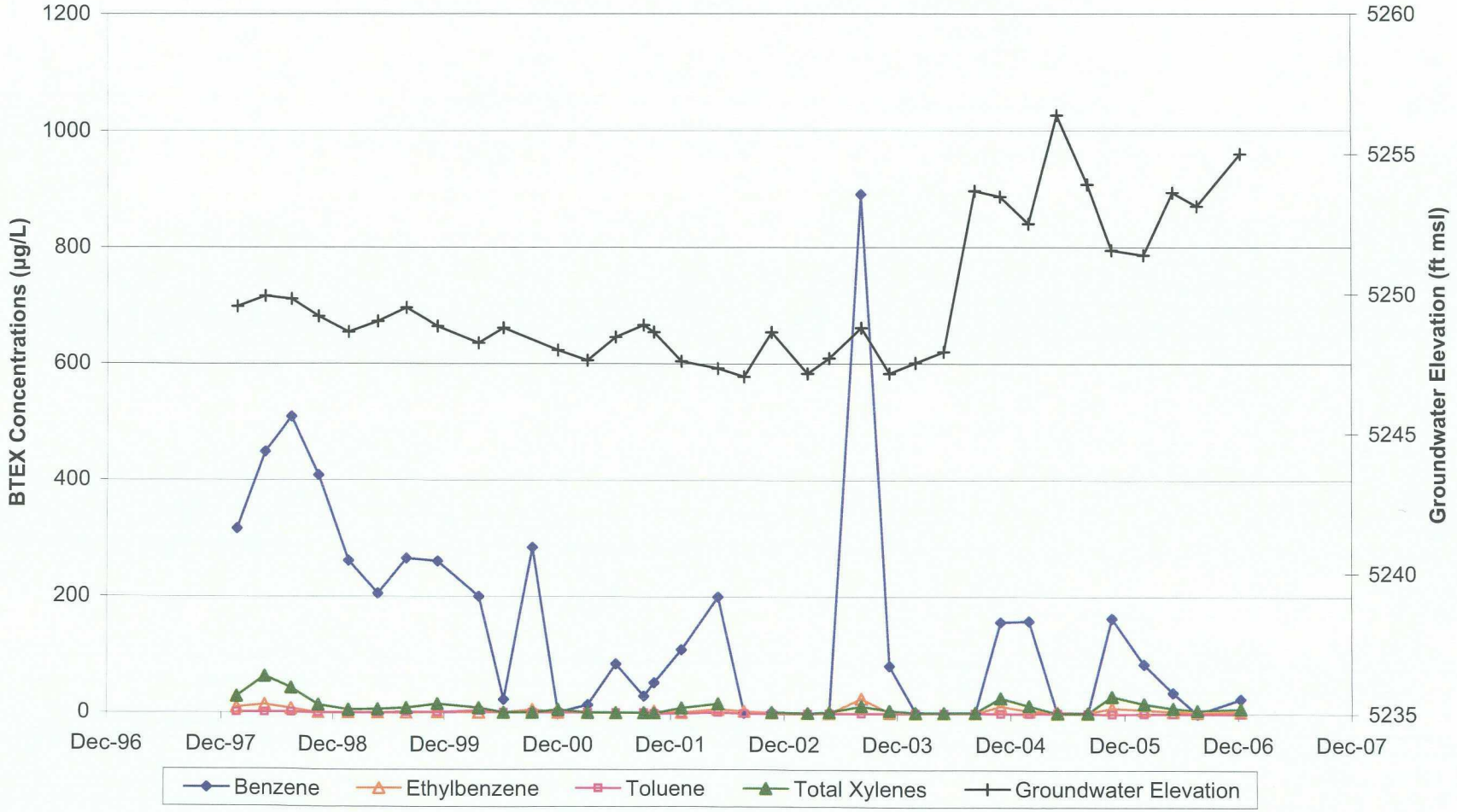
SULFATE ISOCONCENTRATION MAP AUGUST, 2006

FIGURE 9
Historic MW-5 BTEX Concentrations and Groundwater Elevations
San Juan River Plant Site



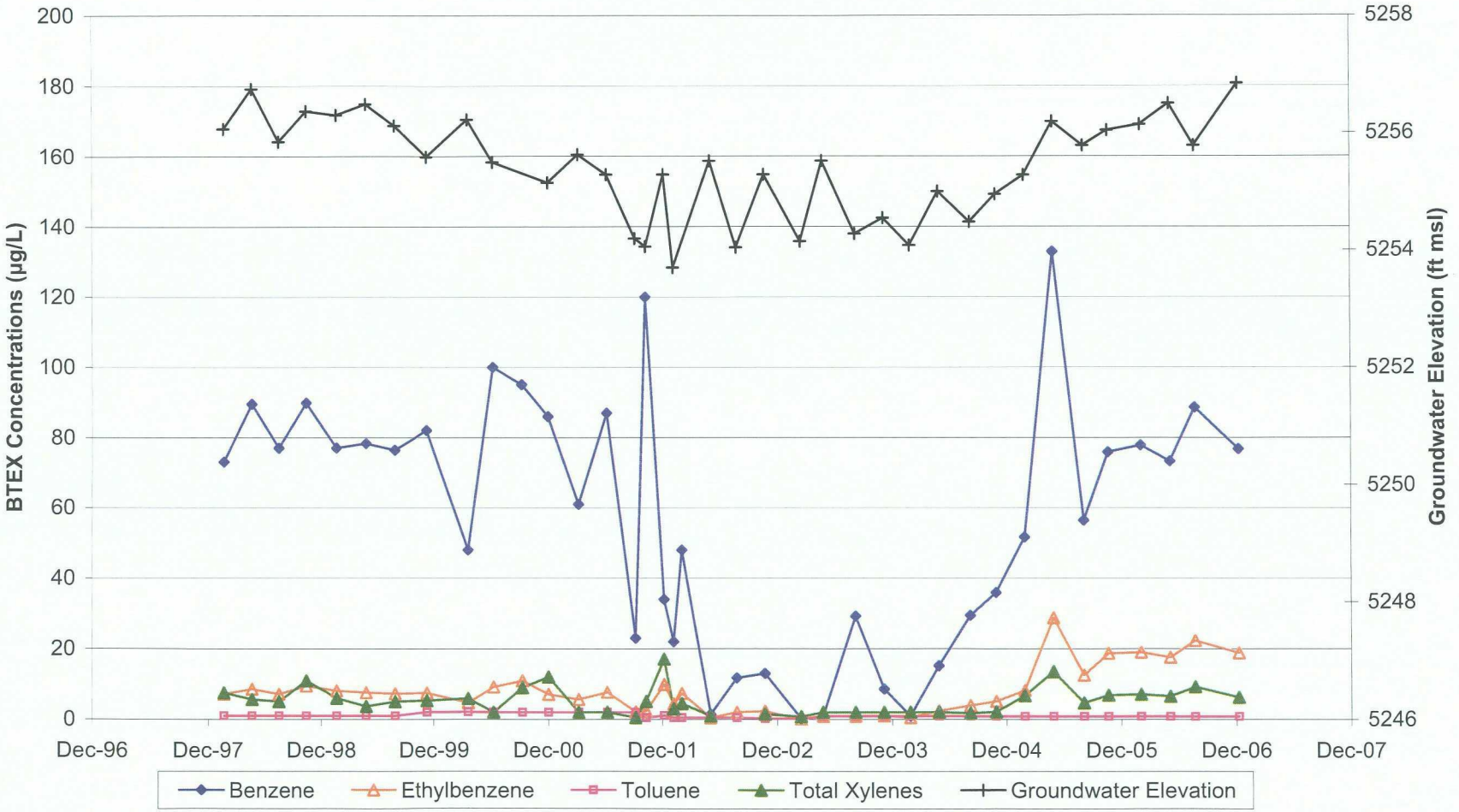
Note: A concentration of 1 µg/L for benzene, toluene, or ethylbenzene and a concentration of 2 µg/L for total xylene indicates parameter not detected.

FIGURE 10
Historic MW-8 BTEX Concentrations and Groundwater Elevations
San Juan River Plant Site



Note: A concentration of 1 µg/L for benzene, toluene, or ethylbenzene and a concentration of 2 µg/L for total xylene indicates parameter not detected.

FIGURE 11
Historic MW-9 BTEX Concentrations and Groundwater Elevations
San Juan River Plant Site



Note: A concentration of 1 µg/L for benzene, toluene, or ethylbenzene and a concentration of 2 µg/L for total xylene indicates parameter not detected.

TABLES

TABLE 1

SUMMARY OF 2006 BTEX ANALYTICAL AND FIELD DATA

SAN JUAN RIVER PLANT SITE

Location Identification	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	m,p-Xylene (µg/L)	o-Xylene (µg/L)	Total Xylenes (µg/L)	Field pH (Std. Units)	Temperature (°F)	Conductivity (µmhos/cm)	Depth to Water (feet bgs)
W-2	8/10/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	6.92	62.7	3,980	58.72
MW-4	8/10/2006	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	6.48	65.3	3,520	55.57
MW-5	8/10/2006	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	5.23	61.9	10,940	13.83
MW-6	8/10/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	5.57	63.3	9,550	30.37
MW-7	8/10/2006	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	6.43	67.1	12,410	20.33
MW-8	2/20/2006	85.2 J	<1.0 J	8.3 J	17.4 J	<1.0 J	17.6 J	6.55	56.7	4,900	8.55
MW-8	5/24/2006	36.3	<1.0	5.0	9.7	<1.0	9.7	6.75	56.9	5,970	6.31
MW-8	8/10/2006	0.57	<1.0	3.4	6.4	<1.0	6.4	6.56	64.3	6,140	6.80
MW-8	12/27/2006	25.6	<1.0	4.6	9.0	<1.0	9.0	6.72	56.3	7,740	4.94
MW-9	2/17/2005	77.9	<1.0	19.1	6.9	<1.0	7.1	5.54	54.8	7,220	4.83
MW-9	5/19/2005	73.4	<1.0	17.7	6.6	<1.0	6.6	5.74	58.1	8,550	4.47
MW-9	8/10/2006	88.7	<1.0	22.5	9.3	<1.0	9.3	4.90	61.8	10,200	5.19
MW-9	11/9/2005	76.9	<1.0	19.0	6.3	<1.0	6.3	6.46	56.1	12,780	4.13

J = Estimated value

TABLE 2
SUMMARY OF 2006 INORGANIC ANALYTICAL DATA
SAN JUAN RIVER PLANT SITE

Parameter	NMWQCC Standard	W-2 8/10/2006	MW-4 8/10/2006	MW-5 8/10/2006	MW-6 8/10/2006	MW-7 8/10/2006	MW-8 8/10/2006	MW-9 8/10/2006
Metals								
Aluminum (µg/L)	5,000	1,540	416	3,340	6,450	801	219	9,770
Arsenic (µg/L)	100	< 5.0	63.6	< 5.0	< 5.0	< 5.0	7.4	< 5.0
Barium (µg/L)	1,000	< 200	< 200	< 200	< 200	< 200	< 200	< 200
Cadmium (µg/L)	10	< 4.0	< 4.0	4.0	6.8	< 4.0	< 4.0	8.2
Calcium (µg/L)	NE	399,000	245,000	338,000	389,000	421,000	91,600	346,000
Chromium (µg/L)	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Cobalt (µg/L)	50	< 50	103	50.5	123	< 50	< 50	193
Copper (µg/L)	1,000	< 25	56.7	< 25	<25	<25	< 25	45.8
Iron (µg/L)	1,000	1,020	31,800	1,990	296	295	<100	1,480
Lead (µg/L)	50	10.2	51	9.6	7.6	8.9	5.1	8.7
Magnesium (µg/L)	NE	111,000	95,300	203,000	273,000	231,000	216,000	244,000
Manganese (µg/L)	200	256	5,800	7,640	4,820	4,580	1,040	7,360
Mercury (µg/L)	2	< 0.20	0.21	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Molybdenum (µg/L)	1,000	< 10	< 10	< 10	< 10	< 10	16	< 10
Nickel (µg/L)	200	< 40	182	180	155	< 40	< 40	307
Potassium (µg/L)	NE	5,630	8,770	44,400	34,200	31,000	73,000	23,800
Selenium (µg/L)	50	136	<5.0	<5.0	995	47.7	< 5.0	<5.0
Silver (µg/L)	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Sodium (µg/L)	NE	1,150,000	1,050,000	4,640,000	3,400,000	4,970,000	2,210,000	3,720,000
Zinc (µg/L)	10,000	148	200	259	527	88.9	52.6	624
Inorganics								
Alkalinity as CaCO3 (mg/L)	NE	163	870	109	54	1140	2150	22
Chloride (mg/L)	250	162	385	1140	1320	344	147	674
Nitrate+Nitrite (mg/L)	10	18	0.2	0.1	314	33	0.7	< 0.050
Sulfate (mg/L)	600	3,420	2,250	10,500	8,400	14,200	4,160	10,700
Total Dissolved Solids (mg/L)	1,000	4,920	3,840	11,700	11,600	16,500	7,820	11,000

NE = Not established