AP - 069

ANNUAL MONITORING REPORT

4/03/2008

AP 069

MWH

BUILDING A BETTER WORLD

April 3, 2008

Mr. Glenn von Gonten
New Mexico Oil Conservation Division (NMOCD)
1220 South St., Francis Drive
Santa Fe, New Mexico 87505

RE: 2007 Annual Report for the EPNG San Juan River Plant Project
NMOCD Reference Number: AP-69-0

Dear Mr. Von Gonten:

MWH Americas, Inc., on behalf of El Paso Natural Gas Company (EPNG) is submitting the enclosed 2007 Annual Report for the San Juan River Plant project. The report presents the 2007 monitoring data and includes recommendations for 2008 activities at this Site.

If you have any questions or comments concerning the enclosed report, please call either Nancy Prince of EPTPC (719-520-4690) or me (303-291-2276).

Sincerely,

Jed Smith
Project Manager

cc: Brandon Powell – NMOCD, Aztec, NM
Nancy Prince – EPTPC
MWH Project File

1801 California Street
Suite 2900
Denver, Colorado 80202

TEL 303 291 2222
FAX 303 291 2221
www.mwhglobal.com

TABLE OF CONTENTS

Section No.		Page No
EXECUTIVE SUMMARY		ES-1
1.0	INTRODUCTION	1-1
2.0	PROJECT HISTORY	2-1
3.0	SUMMARY OF 2007 ACTIVITIES	3-1
3.1	GROUNDWATER MONITORING PROGRAM	3-1
3.2	HYDROCARBON REMEDIATION	3-1
4.0	DISCUSSION OF 2007 RESULTS	4-1
4.1	SITE-WIDE GROUNDWATER MONITORING RESULTS	4-1
4.2	QUARTERLY SAMPLING RESULTS	4-1
5.0	CONCLUSIONS AND RECOMMENDATIONS	5-1
5.1	SITE-WIDE GROUNDWATER MONITORING PROGRAM	5-1
5.2	HYDROCARBON REMEDIATION PROGRAM	5-1
6.0	REFERENCES	6-1

LIST OF FIGURES

Figure No.	Description
1	Site Location Map
2	Site Layout Map, San Juan River Plant
3	Groundwater Potentiometric Surface Contours and BTEX Concentrations February 2007
4	Groundwater Potentiometric Surface Contours and BTEX Concentrations May 2007
5	Groundwater Potentiometric Surface Contours and BTEX Concentrations August 2007
6	Groundwater Potentiometric Surface Contours and BTEX Concentrations November 2007
7	TDS Isoconcentration Map – August 2007
8	Sulfate Isoconcentration Map – August 2007
9	Historic MW-5 BTEX Concentrations and Groundwater Elevations
10	Historic MW-8 BTEX Concentrations and Groundwater Elevations
11	Historic MW-9 BTEX Concentrations and Groundwater Elevations

LIST OF TABLES

Table No.	Description
1	Summary of 2007 BTEX Analytical and Field Data
2	Summary of 2007 Inorganic Analytical Data

LIST OF APPENDICES

Appendix	Description
A	2007 Documentation of Field Activities
B	2007 Laboratory Reports

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. In June 1992, the SJRP was sold to Western Gas Resources, Inc. (WGR), which is now a wholly owned subsidiary of Anadarko Petroleum Corporation. 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. MW-8 benzene concentrations during 2007 ranged from <2.0 ug/L to 28.1 ug/L. The air sparging system at MW-9 was shut down in February 2004 and has remained off throughout 2007 in order to assess groundwater conditions. During this shut-down period, benzene concentrations in MW-9 have slowly increased. In 2007, concentrations of benzene ranged from 44.8 ug/L to 90.9 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 2007. 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. EPNG owned the SJRP until June 1992. Since that time, the facility has been owned and operated by Western Gas Resources, Inc. (WGR), which is now a wholly owned subsidiary of Anadarko Petroleum Corporation. 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 2007, 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 to assess static groundwater conditions at the site.

- During 2004 through 2006, 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.

- The air sparge system has remained off since system shut down in 2004. Site activities for 2007 included quarterly sampling of MW-8 and MW-9, and site-wide annual groundwater monitoring.

- In May 2007, monitoring well MW-7, which was located immediately adjacent to the Praxair facility, was plugged and abandoned at Praxair's request, in order to facilitate new process construction.

3.0 SUMMARY OF 2007 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 2007.

3.1 GROUNDWATER MONITORING PROGRAM

The groundwater monitoring program included the following components during 2007:

- On August 23, 2007, the six 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 2007 and analyzed for BTEX compounds to evaluate the effectiveness of hydrocarbon remediation activities.

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

All groundwater monitoring activities during 2007 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 2007 remediation activities.

ORC Enhancement. The ORC socks in MW-8 were not replaced during 2007. Dissolved oxygen was measured during the February, May and August sampling events; dissolved oxygen concentrations were 9.02 mg/L, 11.4 mg/L, and 4.82 mg/L respectively, indicating that sufficient oxygen was still available for biodegradation. In addition, BTEX concentrations in MW-8 were below their respective NMWQCC standards in the third and fourth quarters of 2007. ORC socks will generally be replaced annually, or as-needed, based on quarterly monitoring of dissolved oxygen and BTEX 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 2007 RESULTS

This section describes the results of activities conducted at the SJRP during 2007.

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 2007 are presented in **Table 1** and on **Figure 5**. During the annual sampling event, BTEX concentrations in W-2 and MW-6, were below analytical detection limits. MW-4 and MW-5 had a benzene concentrations of 0.37 µg/L (estimated results below the reporting limit) and 3.7 µg/L respectively, both below the NMWQCC standard of 10 µg/L. These results are consistent with the results from 2002 through 2006. Results from MW-8 and MW-9 are discussed in the next section, along with the other quarterly sampling results. Documentation of 2007 field activities are included in **Appendix A**, and the analytical laboratory reports are included in **Appendix B**.

Inorganic Sampling Results. Results for inorganic samples collected during 2007 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 2007 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 2007 quarterly sampling, MW-8 benzene concentrations were above NMWQCC standards at 28.1 µg/L and 19.6 µg/L in the first and second quarters, respectively, then fell below detection limits in the third and fourth quarters of 2007. Concentrations in this well show significant fluctuations historically.

Benzene concentrations in MW-9 have remained above standards (44.8 µg/L, 82 µg/L, 88.1 µg/L, and 90.9 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 BTEX 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 2007 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. However, the benzene concentrations in MW-8 were non-detect during the third and fourth quarters of 2007.

- 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 and BTEX 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.

MWH, 2007, *2006 Annual Report San Juan River Plant.* March 2007.

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.

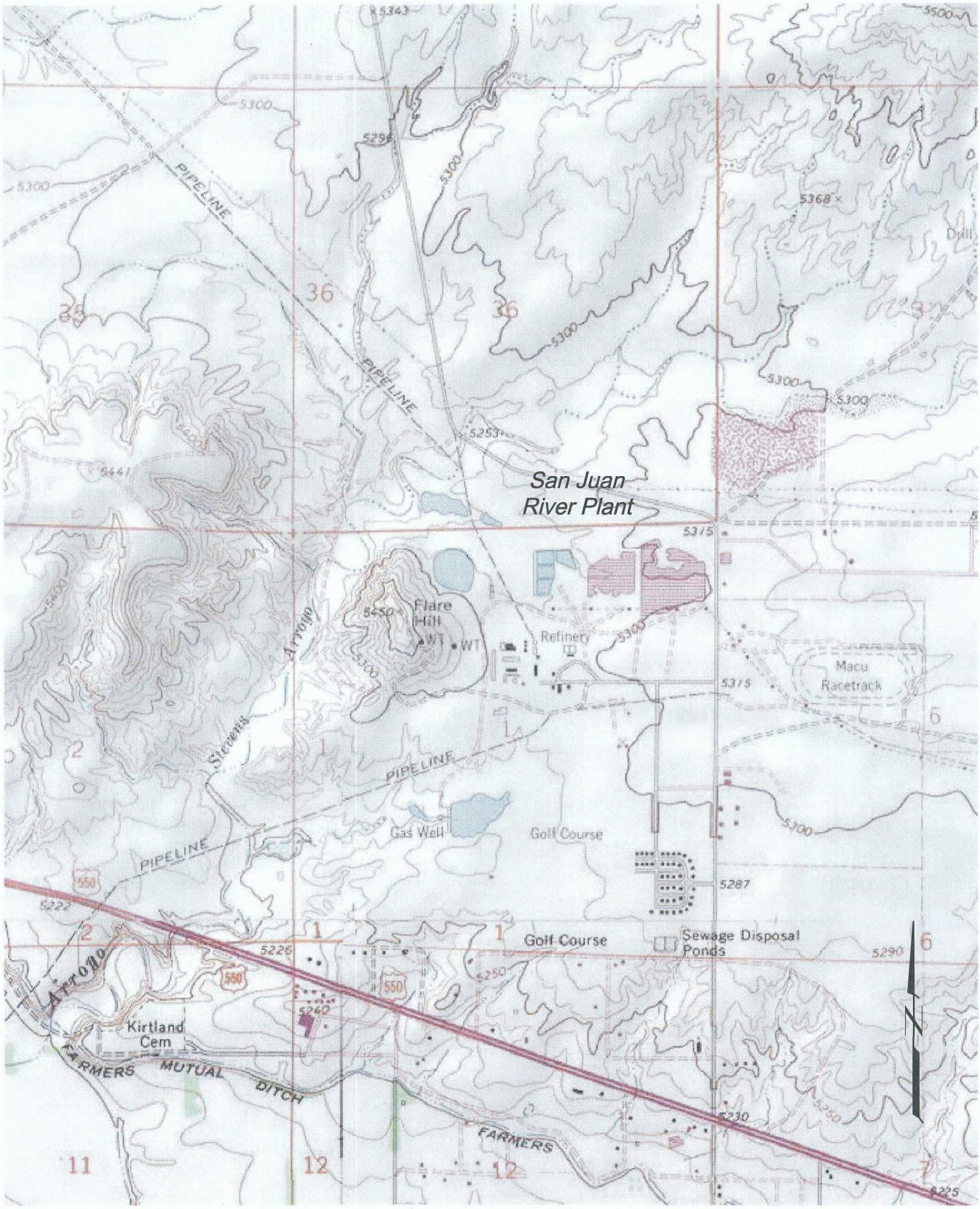
New Mexico Oil Conservation Division, January 23, 2006, Letter to Mr. Scott Pope, El Paso Energy Corporation, Case #GW039R, *Stage 1 Abatement Plan Proposal El Paso Natural Gas – San Juan River Plant/ Praxair Nitrogen Plant,* San Juan River Plant, Kirtland, New Mexico.

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.:

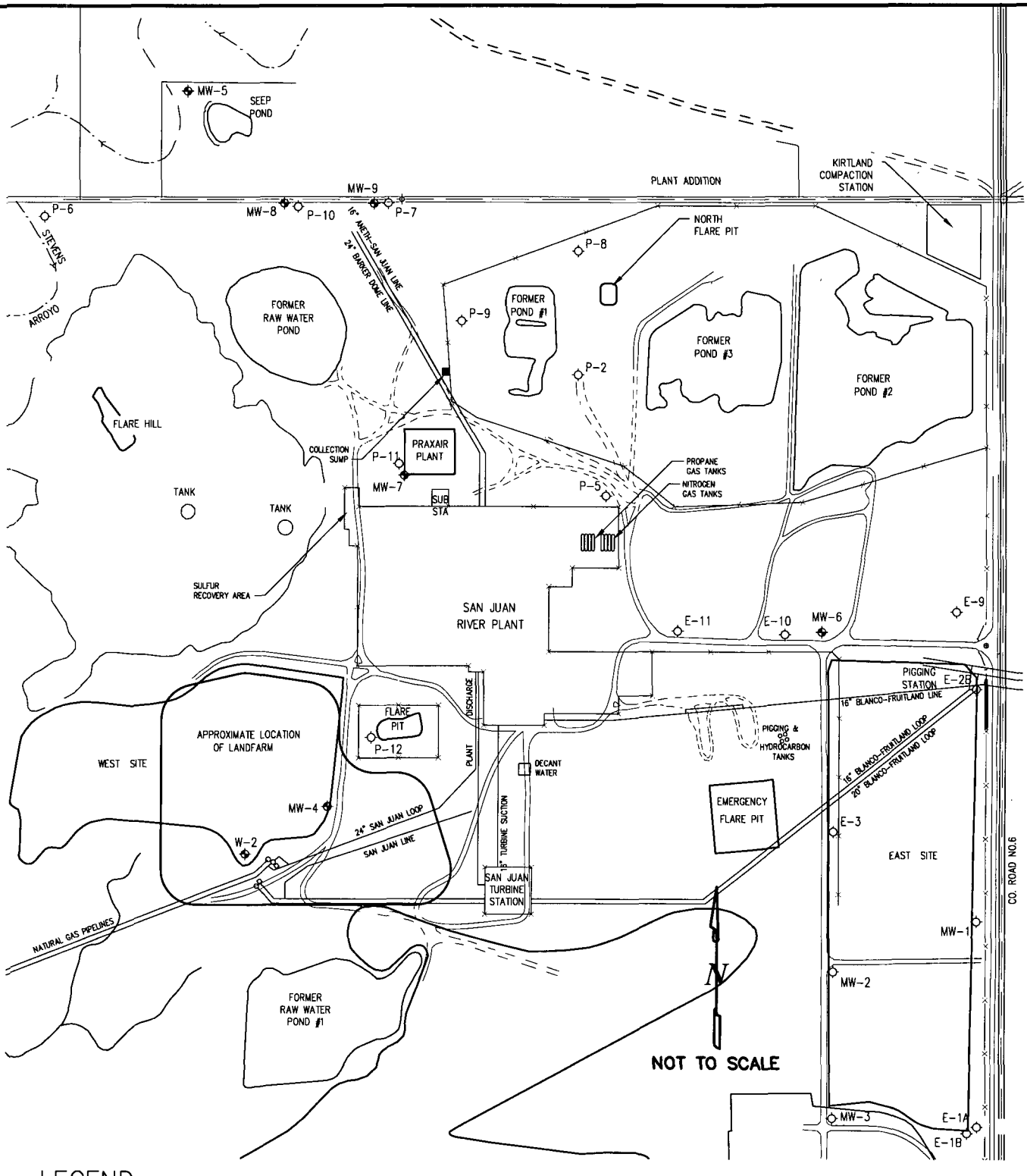
AutoCAD FILE: SJRiver Site Loc

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

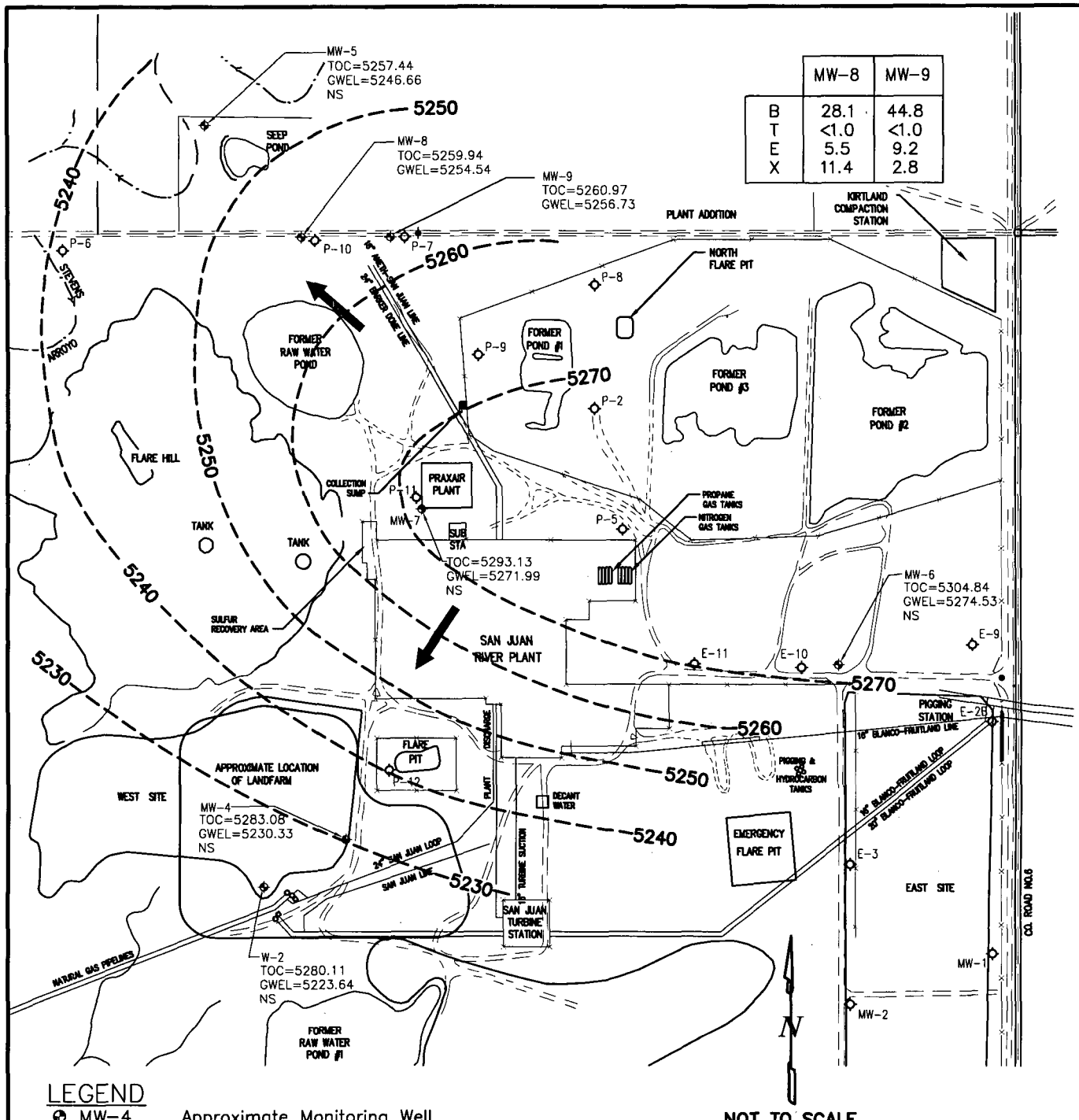
MWH

PROJECT No.: 1004918.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



LEGEND

MW-4	Approximate Monitoring Well Location and Number	5777	Potentiometric Surface (Approximate & Assumed Where Dashed)
E-3 / MW-1 P-2	Approximate Abandoned Well Location.	B	Benzene (µg/L)
→	Direction of Groundwater Flow (Estimated)	T	Toluene (µg/L)
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)	E	Ethylbenzene (µg/L)
TOC	Top of Casing	X	Total Xylenes (µg/L)

NOT TO SCALE

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
0	Issued For February, 2007	3/07	J.Hurley	W.Grundvig	J.Smith

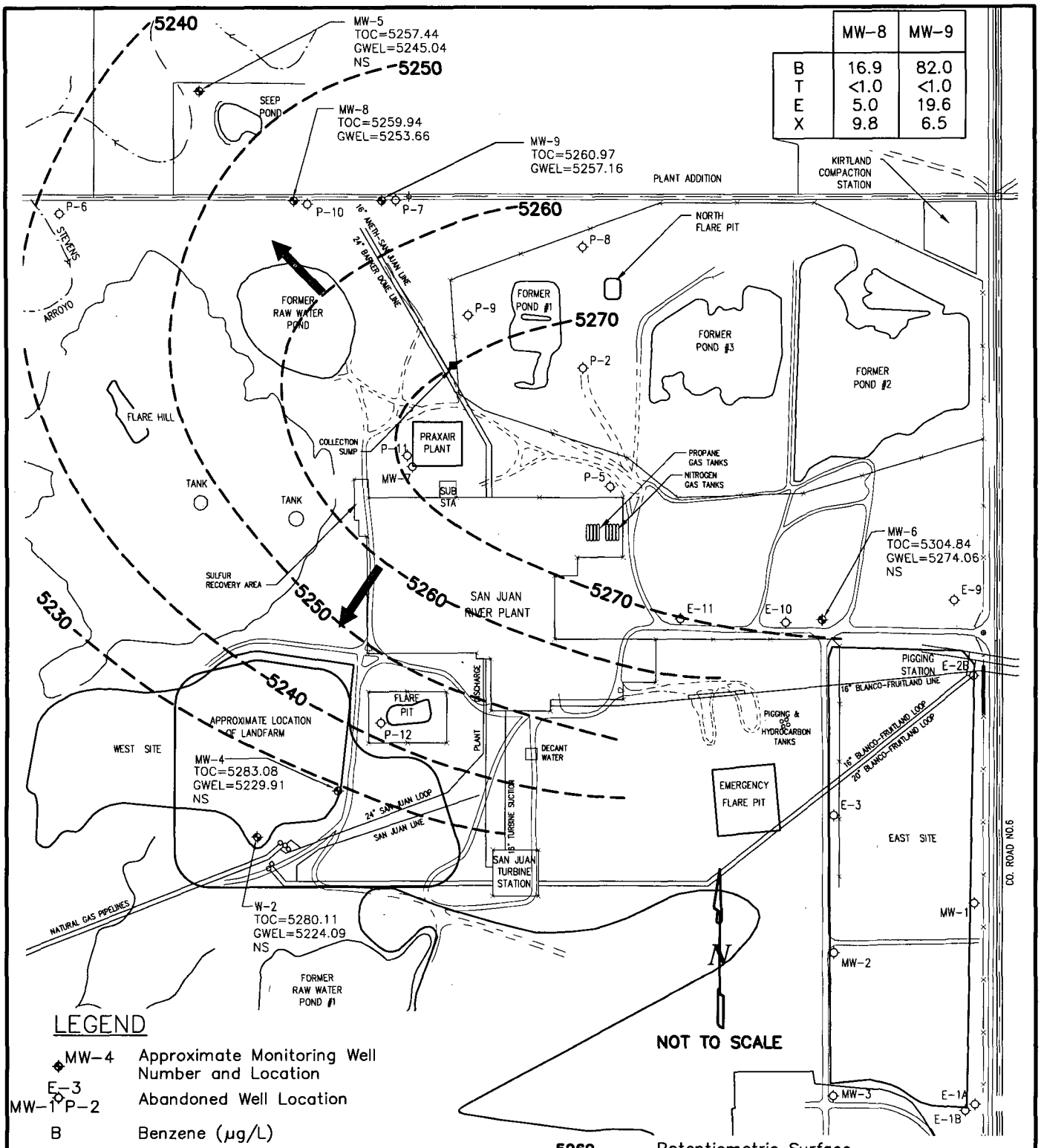
MWH

PROJECT No.: 1004919.CC06
AutoCAD FILE: Fig3SJRP-GW3-07.dwg
SCALE: As Shown
FIGURE No: 3

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

GROUNDWATER POTENTIOMETRIC SURFACE CONCENTRATIONS AND BTEX CONCENTRATIONS FEBRUARY, 2007



LEGEND

MW-4	Approximate Monitoring Well Number and Location
E-3 / MW-1 P-2	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
0	Issued to Report	06-07	J.Hurley	N.Day	J.Smith

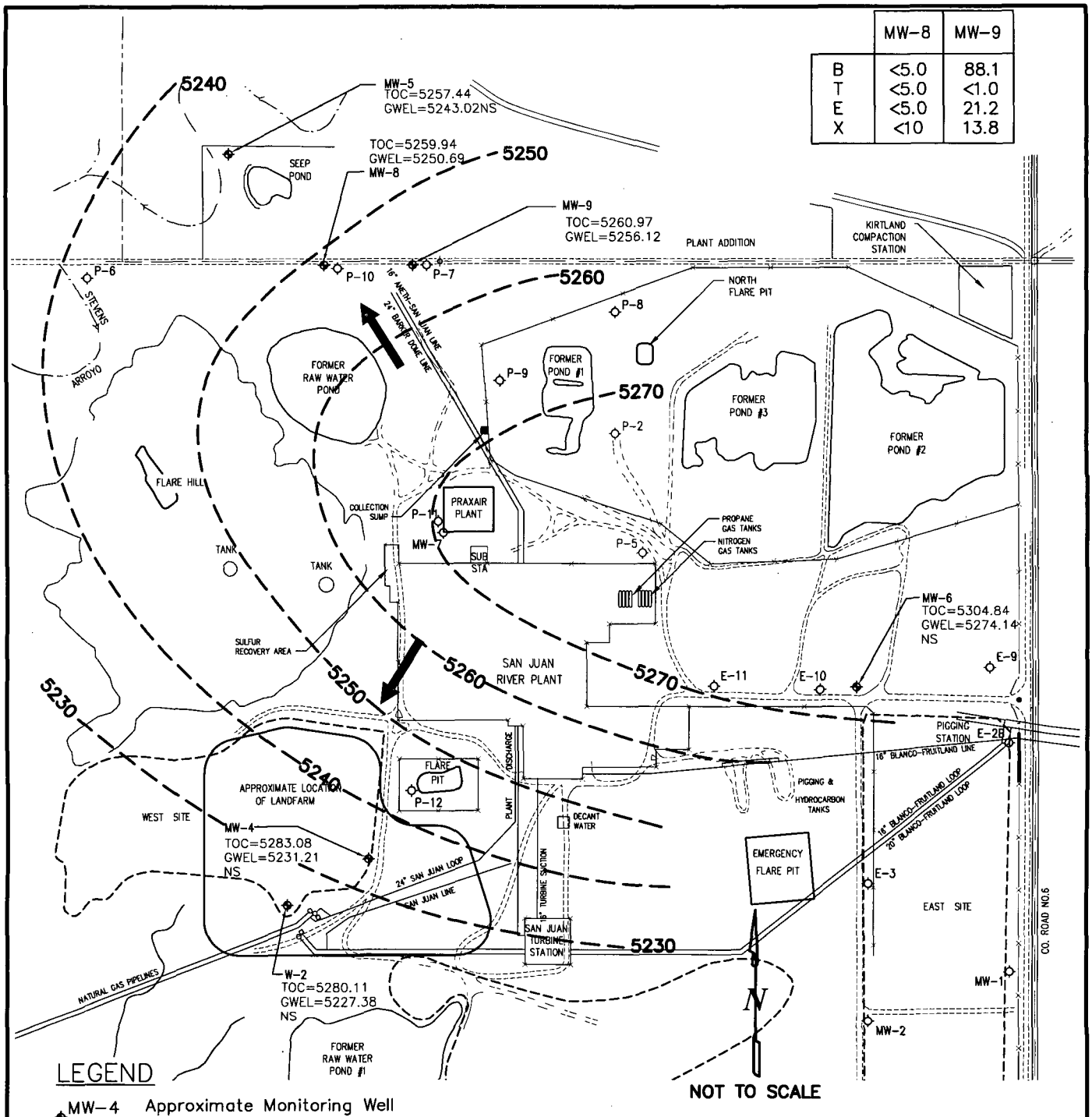
MWH

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 2007



LEGEND

- MW-4 — Approximate Monitoring Well Number and Location
- E-3 / MW-1 / P-2 — 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
0	Issued to Report	06-07	D.Wade	N.Day	J.Smith

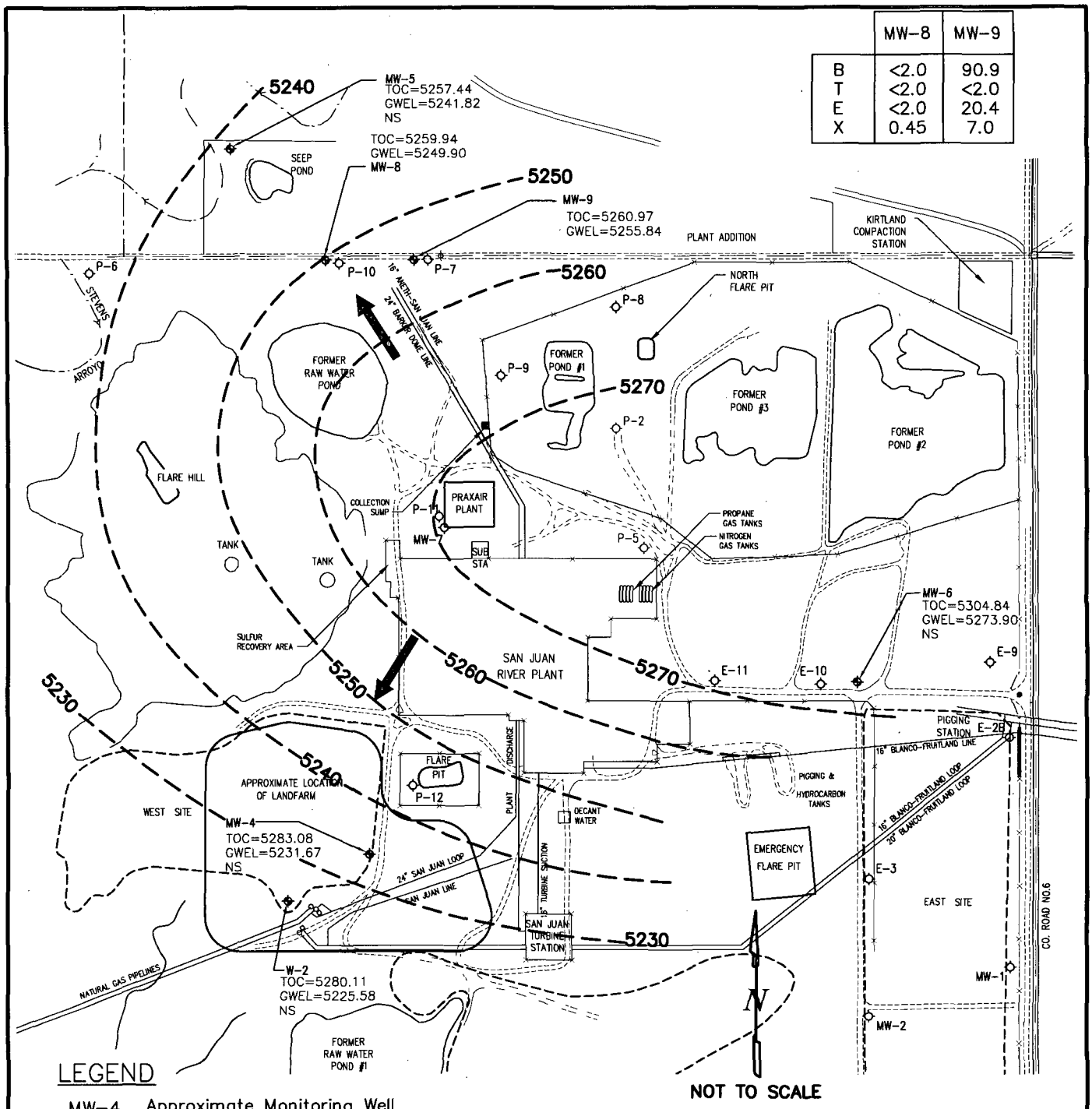
MWH

PROJECT No.: 1005521.0601
AutoCAD FILE: SJRP-GW-2007.dwg
SCALE: As Shown
FIGURE No: 5

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS AUGUST 2007



LEGEND

- MW-4 — Approximate Monitoring Well Number and Location
- E-3 / MW-1 / P-2 — 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
0	Issued to Report	06-07	D.Wade	N.Day	J.Smith

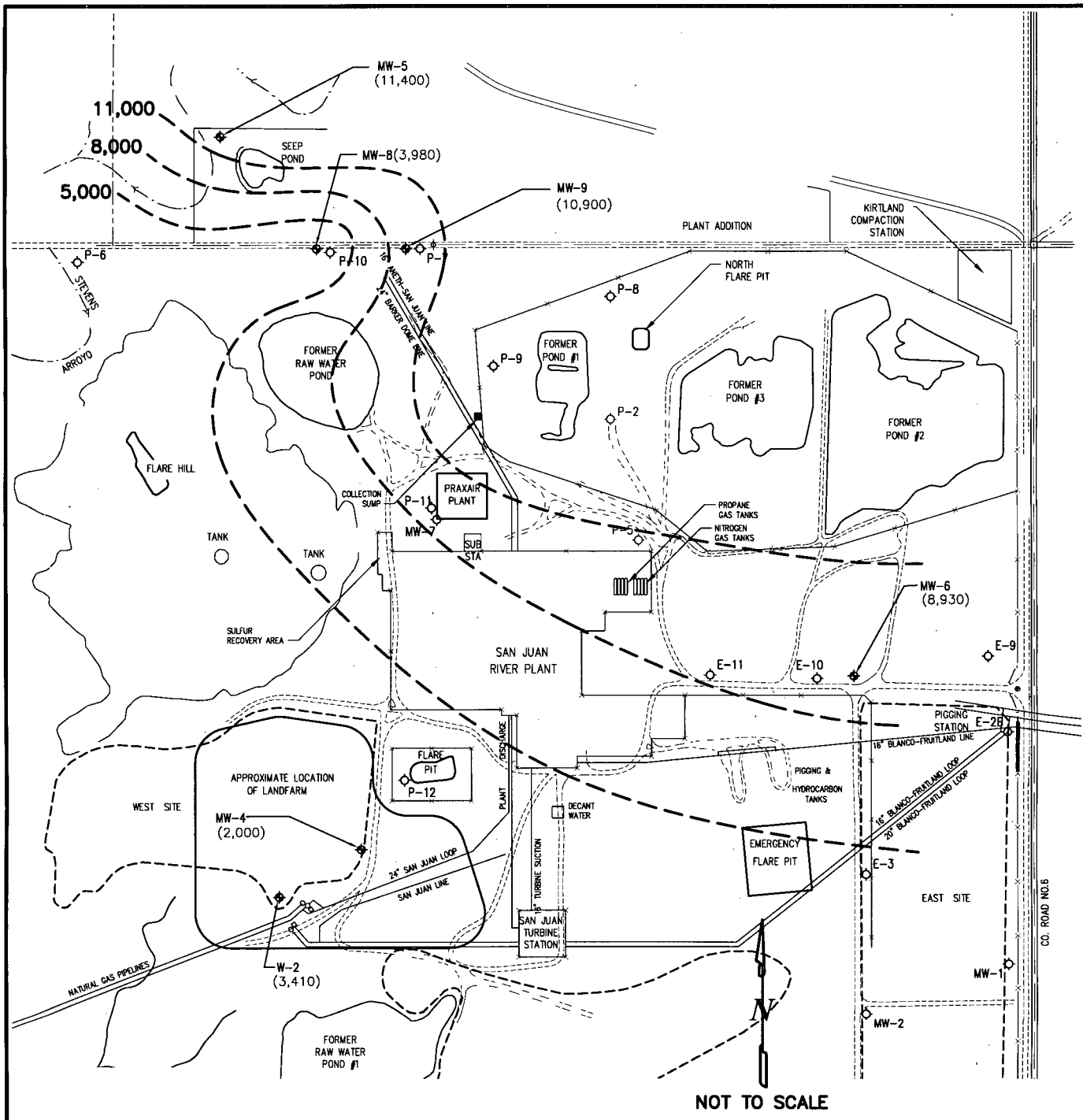
MWH

PROJECT No.: 1005521.0601
AutoCAD FILE: SJRP-GW-2007.dwg
SCALE: As Shown
FIGURE No: 6

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS NOVEMBER 2007



LEGEND

- MW-4 — Approximate Monitoring Well Number and Location
- E-3 / MW-1 / P-2 — Abandoned Well Location
- 5000 — Total Dissolved Solids Isoconcentration (mg/L) (Estimated where dashed)
- (3,410) — Total Dissolved Solids (mg/L)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
0	Issued to Report	06-07	D.Wade	N.Day	J.Smith

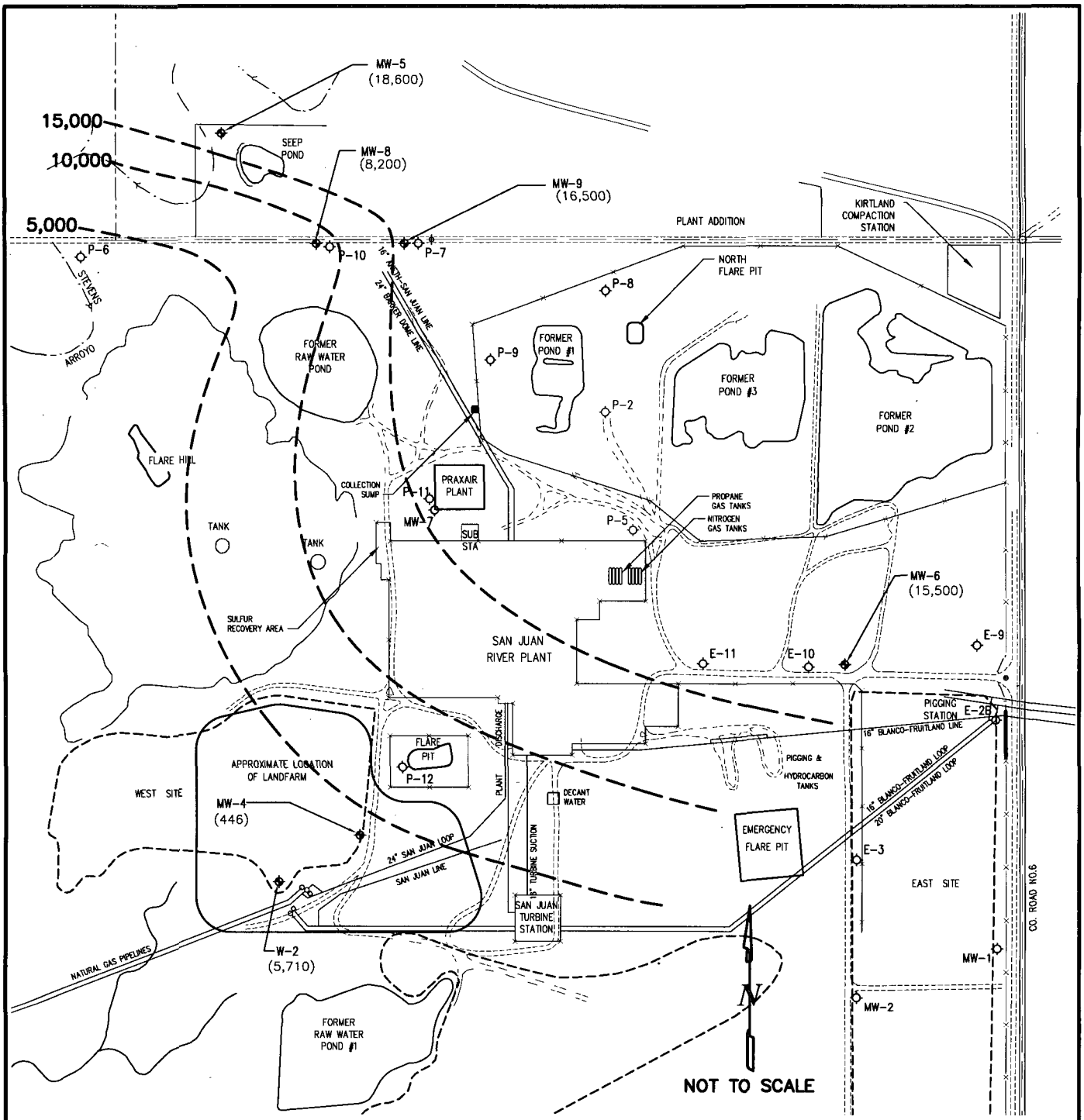
MWH

PROJECT No.: 1005521.0601
AutoCAD FILE: SJRP-GW-2007.dwg
SCALE: As Shown
FIGURE No: 7

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

TDS ISOCONCENTRATION MAP
AUGUST 2007



LEGEND

- ◆MW-4 — Approximate Monitoring Well Number and Location
- E-3 / MW-1 ○P-2 — Abandoned Well Location
- 5260 — Sulfate Isoconcentration (mg/L) (Estimated where dashed)
- (3,410) — Sulfate Concentration (mg/L)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
0	Issued to Report	06-07	D.Wade	N.Day	J.Smith

MWH

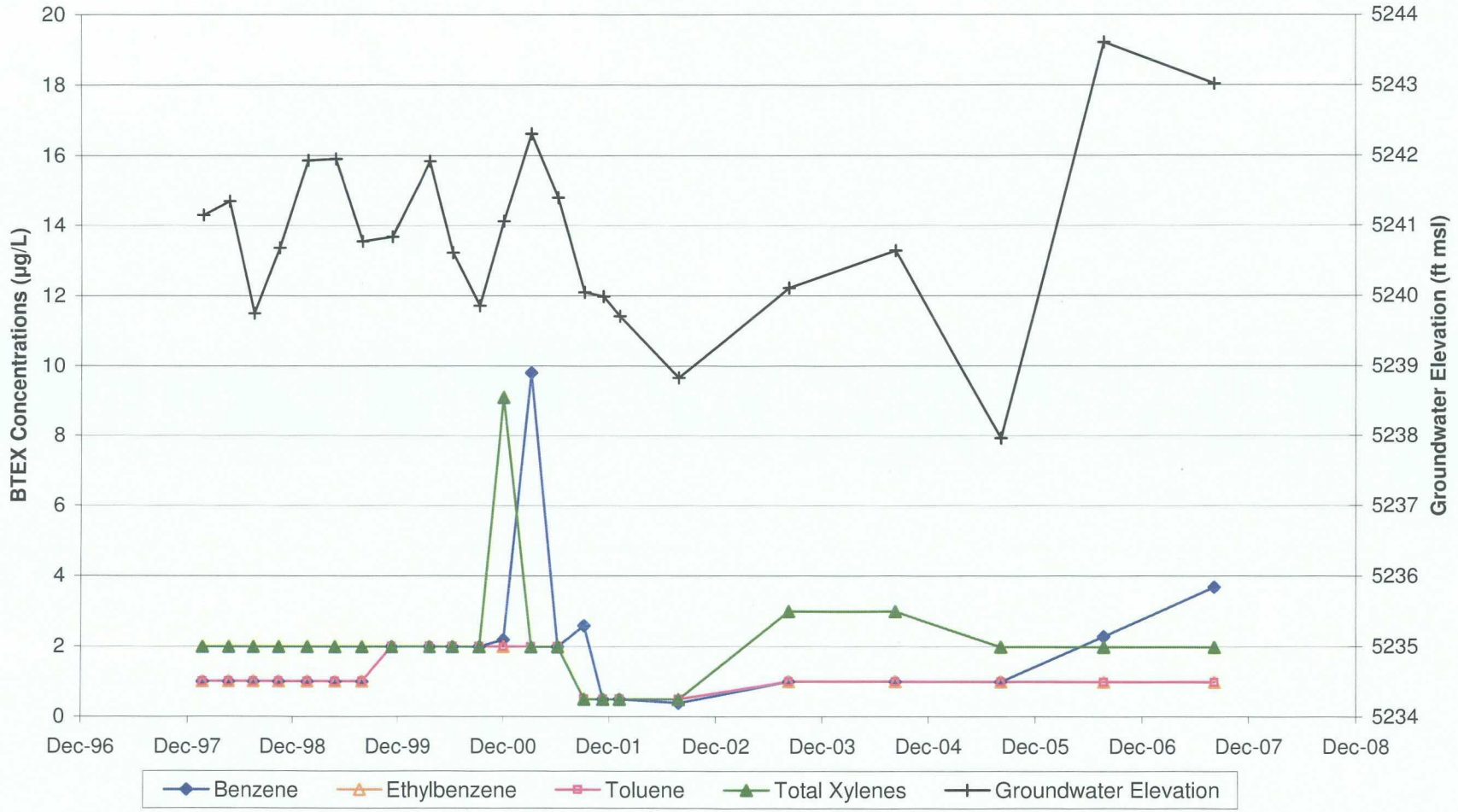
PROJECT No.: 1005521.0601
AutoCAD FILE: SJRP-GW-2007.dwg
SCALE: As Shown
FIGURE No: 8

elpaso

EL PASO NATURAL GAS
SAN JUAN RIVER PLANT

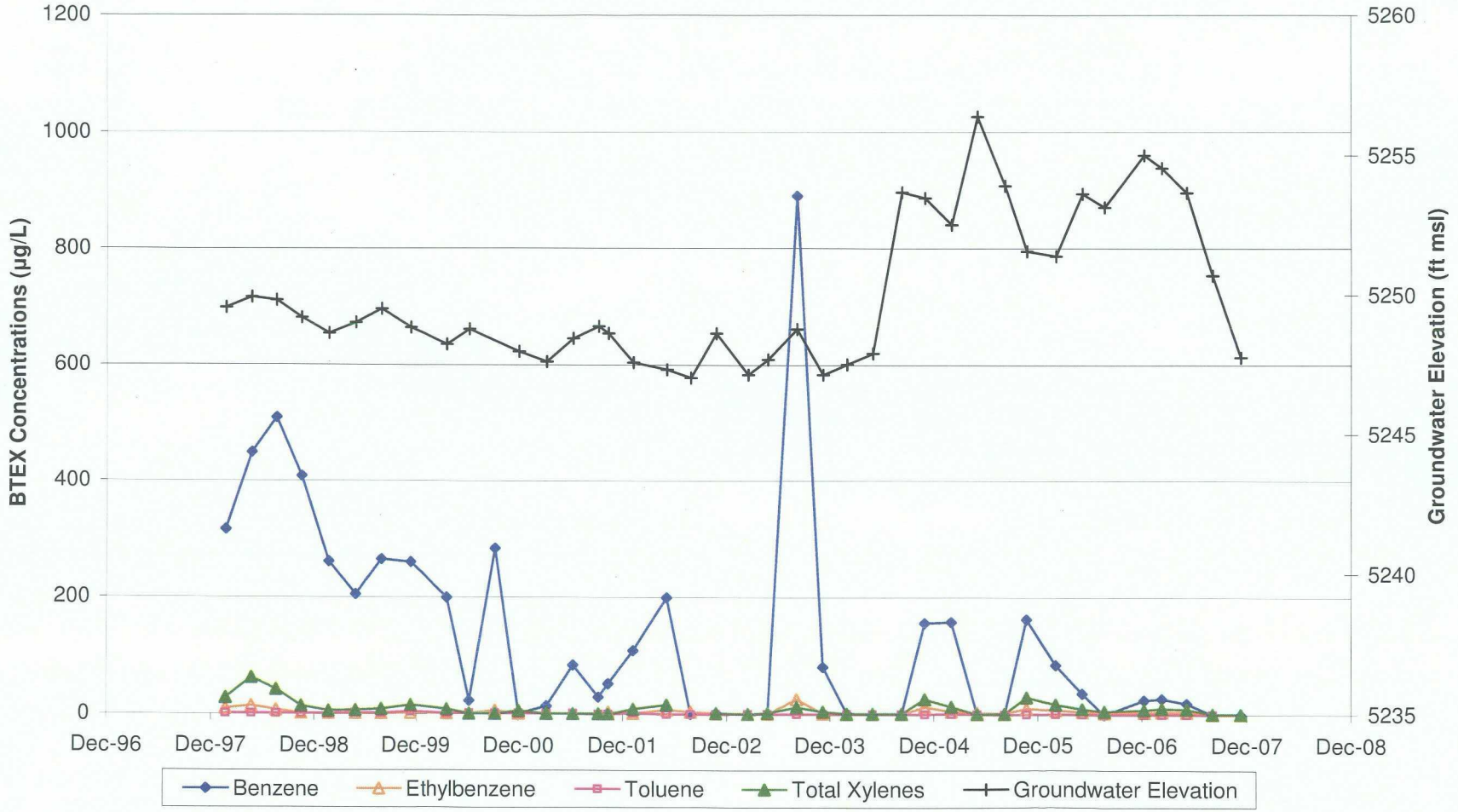
SULFATE ISOCONCENTRATION MAP AUGUST 2007

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



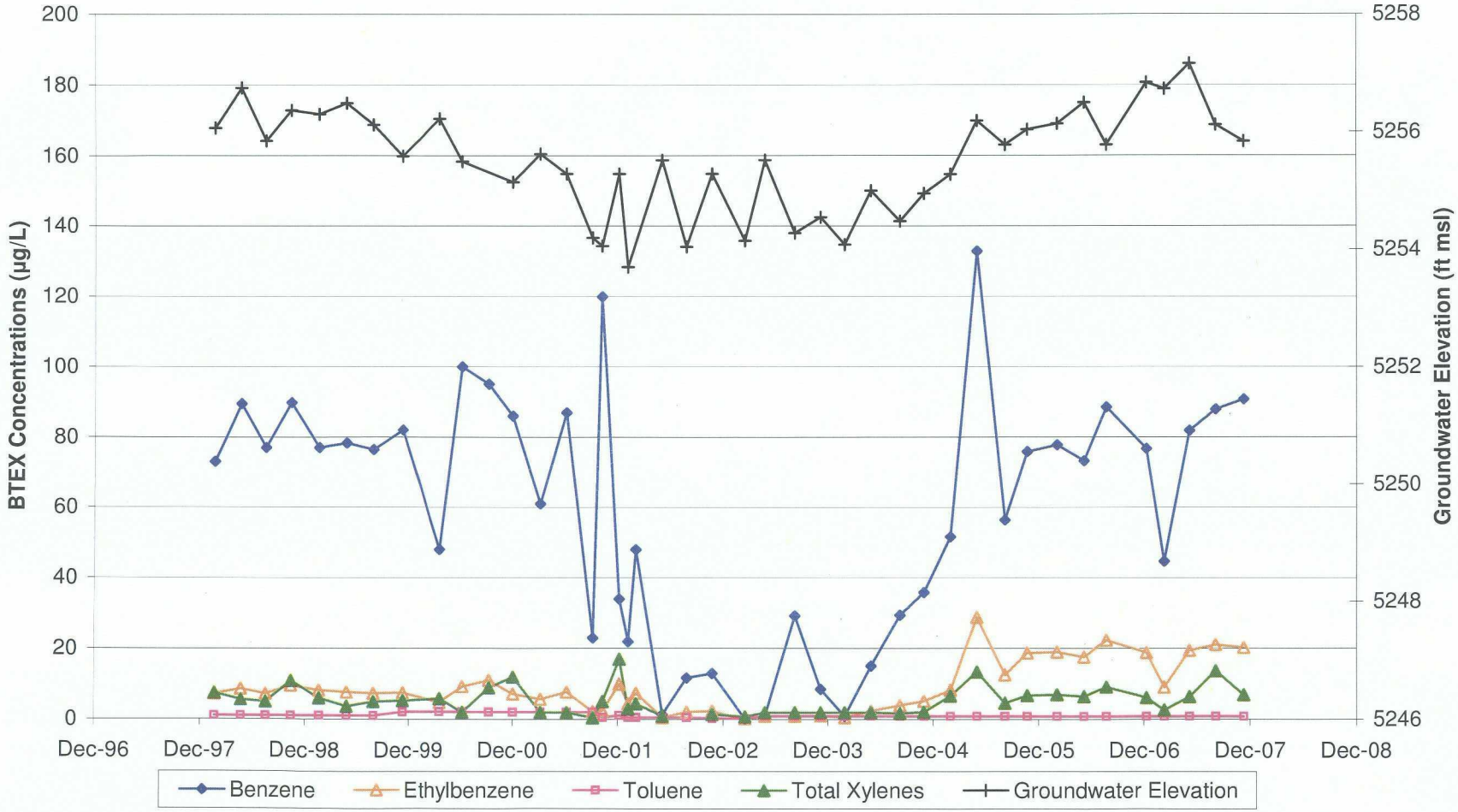
Note: A concentration of 1 µg/L for benzene, toluene, or ethylbenzene and a concentration of 2 µg/L for total xylene indicates parameter not detected.

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 2007 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	8/23/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	7.07	16.3	4,610	52.73
MW-4	8/23/2007	0.37J	<1.0	<1.0	<2.0	<1.0	<2.0	6.74	18.6	4,040	51.87
MW-5	8/23/2007	3.7	<1.0	<1.0	<1.0	<1.0	<2.0	5.11	15.8	12,740	14.42
MW-6	8/23/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	5.24	16.1	11,270	30.70
MW-8	2/27/2007	28.1	<1.0	5.5	11.4	<1.0	11.4	6.41	12.7	7,570	5.40
MW-8	5/25/2007	19.6	<1.0	5.0	9.8	<1.0	9.8	7.04	13.9	10,460	6.28
MW-8	8/23/2007	<5.0J	<5.0J	<5.0J	<5.0J	<5.0J	<10J	6.97	17.0	6,440	9.25
MW-8	11/28/2007	<2.0J	<2.0J	<2.0J	<4.0J	<2.0J	0.45J	7.50	13.4	14,970	12.16
MW-9	2/27/2007	44.8	<1.0	9.2	2.8	<1.0	2.8	4.71	14.8	16,010	4.24
MW-9	5/25/2007	82	<1.0	19.6	6.5	<1.0	6.5	4.64	14.0	19,640	3.81
MW-9	8/23/2007	88.1	<1.0	21.2	13.8	<1.0	13.8	4.81	15.7	11,400	4.85
MW-9	11/28/2007	90.9	<2.0	20.4	7.0	<2.0	7	5.53	12.4	15,570	5.13

J = Estimated value or reporting limit.

TABLE 2
SUMMARY OF 2007 INORGANIC ANALYTICAL DATA
SAN JUAN RIVER PLANT SITE

Parameter	NMWQCC Standard	W-2 8/23/2007	MW-4 8/23/2007	MW-5 8/23/2007	MW-6 8/23/2007	MW-8 8/23/2007	MW-9 8/23/2007
Metals							
Aluminum (µg/L)	5,000	12,800	9,290	16,900	12,600	1,300	16,300
Arsenic (µg/L)	100	< 5.0	21.1	< 5.0	< 5.0	< 5.0	< 5.0
Barium (µg/L)	1,000	< 200	< 200	< 200	< 200	< 200	< 200
Cadmium (µg/L)	10	0.37J	< 4.0	4.8	8.1	< 4.0	< 4.0
Calcium (µg/L)	NE	404,000	249,000	342,000	325,000	69,500	108,000
Chromium (µg/L)	50	< 10	< 10	< 10	< 10	< 10	< 10
Cobalt (µg/L)	50	< 50	88.3	63.7	161	< 50	205
Copper (µg/L)	1,000	32.9	68.3	30	38.7	< 25	121
Iron (µg/L)	1,000	<5.0J	<5.0J	<5.0J	<5.0J	<5.0J	<10J
Lead (µg/L)	50	<2.0J	<2.0J	<2.0J	<4.0J	<2.0J	0.45J
Magnesium (µg/L)	NE	133,000	108,000	232,000	356,000	288,000	289,000
Manganese (µg/L)	200	223	6,590	8,040	5,880	590	6,420
Mercury (µg/L)	2	< 0.20	0.42	< 0.20	< 0.20	< 0.20	< 0.20
Molybdenum (µg/L)	1,000	< 10	< 10	< 10	< 10	16.5	< 10
limit.	200	< 40	268	183	187	< 40	318
Potassium (µg/L)	NE	8,880	10,100	46,400	39,400	87,400	23,700
Selenium (µg/L)	50	143	< 5.0	< 5.0	893	< 5.0	<5.0
Silver (µg/L)	50	< 10	< 10	< 10	< 10	< 10	< 10
Sodium (µg/L)	NE	1,120,000	910,000	4,410,000	3,370,000	2,220,000	3,590,000
Zinc (µg/L)	10,000	169	110	304	594	132	732
Inorganics							
Alkalinity as CaCO3 (mg/L)	NE	165	820	35	30	2,580	25
Chloride (mg/L)	250	338	303	1730	1830	165	775
Nitrate+Nitrite (mg/L)	10	18	2.1	2.6	258	0.6	0.4
Sulfate (mg/L)	600	5,710	4,460	18,600	15,500	8,200	16,500
Total Dissolved Solids (mg/L)	1,000	3,410	2,000	11,400	8,930	3,980	10,900

NE = Not established

APPENDICES

APPENDIX A

2007 DOCUMENTATION OF FIELD ACTIVITIES

(Included electronically on attached CD)

Lodestar Services, Incorporated
PO Box 3861 Farmington, NM 87499-3861 Office (505) 334-2791

WATER LEVEL DATA

Project Name_	**San Juan Basin Ground Water**	**Project No.**	**30001.0**
Project Manager	**MJN**		
Client Company	**MWH**	**Date**	**022707**
Site Name	**San Juan River Plant**		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Total Depth	Comments
MW-4	**1120**	-	**52.75**		
W-2		-	**56.47**		
MW-6		-	**30.31**		
MW-7		-	**21.14**		
MW-8		-	**5.40**		**Sampled for BTEX**
MW-9		-	**4.24**		**Sampled for BTEX**
MW-5		-	**10.78**		

Comments: Reinstalled ORC in MW-8 following sampling.

Signature: Martin J. Nee Date: February 27, 2007

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-8 Development **Sampling**
Project Manager MJN Date 022707 Start Time 1004 Weather windy 40s
Depth to Water 5.4 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 16.8 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
16.8 x 0.65	10.92 x 3		32.76

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1011	**5.96**	**6810**	**11.7**				**4.5**	**clear, yellow tinge**
	5.84	**6650**	**11.3**				**9**	**clear, yellow tinge**
	5.79	**6700**	**11.8**				**13.5**	**clear, yellow tinge**
	5.85	**6850**	**12.0**				**18**	**clear, yellow tinge**
	6.46	**7340**	**12.5**				**22.5**	**clear, yellow tinge**
	6.34	**7420**	**12.7**				**27**	**clear, yellow tinge**
	6.41	**7740**	**12.8**				**31.5**	**clear, yellow tinge**
1102	**6.41**	**7570**	**12.7**		**9.02**		**36**	**clear, yellow tinge**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1102	**6.41**	**7570**	**12.7**		**9.02**			**36**	**clear, yellow tinge**

COMMENTS: ORC socks had been out of the well since 022607 Replaced them after sampling.

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor**X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-8 Sample Time 1103

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB 260207tb01

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-9 Development **Sampling**
Project Manager MJN Date 022707 Start Time 1127 Weather Windy 40s
Depth to Water 4.24 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 17.68 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
17.68 x 0.65	11.49 x 3		33.69

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1149	**4.45**	**17350**	**14.6**				**4.5**	**clear yellow tinge**
	4.23	**15240**	**13.9**				**9**	**clear yellow tinge**
	4.26	**15470**	**14.2**				**13.5**	**clear yellow tinge**
	4.45	**16390**	**14.8**				**18**	**clear yellow tinge**
	4.70	**15940**	**14.8**				**22.5**	**clear yellow tinge, well is bailing down**
1217	**4.71**	**16010**	**14.8**		**1.02**		**26.5**	**clear yellow tinge, well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1217	**4.71**	**16010**	**14.8**		**1.02**			**26.5**	**clear yellow tinge, well has bailed down**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor **X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-9 Sample Time 1220

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB 260207TB01

Lodestar Services, Incorporated
PO Box 3861 Farmington, NM 87499-3861 Office (505) 334-2791

WATER LEVEL DATA

Project Name_ San Juan Basin Ground Water **Project No.** 30001.0
Project Manager MJN
Client Company MWH **Date** 052507
Site Name San Juan River Plant

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Total Depth	Comments
MW-4	0830	-	53.17		
W-2		-	56.02		
MW-6		-	30.78		
MW-7		-	na		well abandoned
MW-8		-	6.28		Sampled for BTEX
MW-9		-	3.81		Sampled for BTEX
MW-5		-	12.40		

Comments: Reinstalled ORC in MW-8 following sampling.

Signature: Martin J. Nee Date: May 25, 2007

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-8 Development **Sampling**
Project Manager MJN Date 052507 Start Time 1012 Weather 70s
Depth to Water 6.28 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 15.92 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
15.92 x 0.65	10.35 x 3		31.04

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1018	**6.73**	**7310**	**15.6**				**1**	**clear**
	6.72	**7050**	**13.9**				**5**	**clear**
	6.67	**6890**	**13.7**				**10**	**clear**
	7.22	**7650**	**14.0**				**15**	**clear, slight yellow tinge**
	6.94	**7580**	**13.8**				**20**	**clear, slight yellow tinge**
	6.86	**8860**	**14.0**				**25**	**clear, slight yellow tinge**
	9.10	**8290**	**14.0**				**30**	**clear, slight yellow tinge, well is bailing down**
	9.49	**8600**	**14.0**				**31**	**clear, slight yellow tinge**
1053	**7.04**	**10460**	**13.9**		**11.4**		**32**	**clear, slight yellow tinge, well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Vol Evac.	Comments/Flow Rate
1053	**7.04**	**10460**	**13.9**		**11.4**		**32**	**clear, slight yellow tinge, well has bailed down**

COMMENTS: ORC socks had been out of the well since 052407 Replaced them after sampling.

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor**X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-8 Sample Time 1055

BTEX VOCs Alkalinity TDS Cations Anions Nitrate · Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB 240507tb01

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-9 Development **Sampling**
Project Manager MJN Date 052507 Start Time 0925 Weather 70s
Depth to Water 3.81 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 18.11 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐
Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
18.11 x 0.65	11.77 x 3		35.31

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
0928	**4.48**	**16260**	**16.4**				**1**	**clear yellow tinge, sudsy**
	4.39	**15430**	**14.5**				**5**	**clear yellow tinge, sudsy**
	4.45	**15070**	**14.0**				**10**	**clear yellow tinge, sudsy**
	4.44	**15170**	**14.1**				**15**	**clear yellow tinge, sudsy**
	4.01	**15830**	**14.0**				**20**	**clear yellow tinge, sudsy, well is bailing down**
	4.44	**15330**	**13.9**				**25**	**clear yellow tinge, sudsy**
0956	**4.64**	**19640**	**14.0**		**1.93**		**28**	**clear yellow tinge, sudsy, well has bailed down**

Final:

Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Vol Evac.	Comments/Flow Rate
0956	**4.64**	**19640**	**14.0**		**1.93**		**28**	**clear yellow tinge, sudsy, well has bailed down**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor **X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-9 Sample Time 1000

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB 240507TB01

Lodestar Services, Incorporated
PO Box 3861 Farmington, NM 87499-3861 Office (505) 334-2791

WATER LEVEL DATA

Project Name_	**San Juan Basin Ground Water**	**Project No.**	**30001.0**
Project Manager	**MJN**		
Client Company	**MWH**	**Date**	**082307**
Site Name	**San Juan River Plant**		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Total Depth	Comments
MW-4	0648	-	51.87		Sampled, complete analyte list
W-2		-	52.73		Sampled, complete analyte list
MW-6		-	30.70		Sampled, complete analyte list
MW-7		-			abandoned 5/07
MW-8		-	9.25		Sampled, complete analyte list
MW-9		-	4.85		Sampled, complete analyte list
MW-5		-	14.42		Sampled, complete analyte list

Comments: MW-8 not static, pulled ORC socks 4 hrs before sampling. Reinstalled ORC in MW-8 following sampling.

Signature: *Martin J. Nee* Date: August 23, 2007

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-4 Development **Sampling**
Project Manager MJN Date 8/23/07 Start Time 0831 Weather sunny 80s
Depth to Water 51.87 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 5.04 Well Dia. 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
5.04 x 0.16	.80 x 3		2.42 g

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (ounces)	Comments/ Flow rate
0842	**6.82**	**3880**	**18.2**				**.25**	**clear**
	6.87	**3820**	**17.6**				**.5**	**clear**
	6.83	**4030**	**17.6**				**.75**	**clear, well is bailing down**
0851	**6.74**	**4040**	**18.6**				**1.25**	**cloudy, well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
0851	**6.74**	**4040**	**18.6**					**1.25**	**cloudy, well has bailed down**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor**X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-4 Sample Time 0852

BTEX VOCs **Alkalinity** **TDS** **Cations** **Anions** **Nitrate** **Nitrite** **Ammonia** TKN **NMWQCC** **Metals** Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-5 Development **Sampling**
Project Manager MJN Date 8/23/07 Start Time 0918 Weather sunny 80s
Depth to Water 14.42 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 17.49 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer **x** Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
17.49 x 0.65	11.35 x 3		34.07

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
0923	**4.78**	**13420**	**18.4**				**1**	**clear**
	4.76	**12650**	**17.0**				**2**	**grey, cloudy**
	4.78	**13790**	**16.4**				**3**	**grey, cloudy**
	4.78	**12590**	**16.1**				**5**	**grey, cloudy**
	4.74	**12760**	**16.8**				**10**	**grey, cloudy**
	4.82	**12920**	**16.5**				**15**	**grey, cloudy**
	4.93	**14040**	**16.2**				**20**	**grey, cloudy**
	4.92	**13060**	**16.4**				**25**	**grey, cloudy**
	4.95	**13130**	**16.1**				**26**	**cloudy, well is bailing down**
	4.98	**12750**	**15.8**				**27.5**	**cloudy**
0952	**5.11**	**12740**	**15.8**				**27.75**	**cloudy, well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
0952	**5.11**	**12740**	**15.8**					**27.75**	**cloudy, well has bailed down**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor**X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-5 Sample Time 0955

BTEX VOCs **Alkalinity** **TDS** **Cations** **Anions** **Nitrate** **Nitrite** **Ammonia** TKN **NMWQCC** **Metals** Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-6 Development **Sampling**
Project Manager MJN Date 8/23/07 Start Time 0702 Weather sunny 80s
Depth to Water 30.70 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 11.45 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐
Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
11.45 x 0.65	7.42 x 3		22.29

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
0702	**6.84**	**10600**	**16.4**				**1**	**tan, cloudy**
	7.09	**10820**	**16.2**				**2**	**tan, cloudy**
	7.15	**12160**	**16.2**				**3**	**tan, cloudy**
	7.09	**10880**	**16.1**				**5**	**tan, cloudy**
	6.29	**11310**	**16.3**				**10**	**tan, cloudy**
	5.81	**11310**	**16.1**				**15**	**tan, cloudy**
	5.61	**11360**	**16.1**				**20**	**tan, cloudy**
	5.52	**11300**	**16.1**				**21**	**tan, cloudy**
	5.63	**11220**	**16.1**				**22**	**tan, cloudy**
0734	**5.24**	**11270**	**16.1**				**23**	**tan, cloudy**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
0734	**5.24**	**11270**	**16.1**					**23**	**tan, cloudy**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor**X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-6 Sample Time 0735

BTEX VOCs **Alkalinity** **TDS** **Cations** **Anions** **Nitrate** **Nitrite** **Ammonia** TKN **NMWQCC** **Metals** Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-8 Development **Sampling**
Project Manager MJN Date 08/23/07 Start Time 1105 Weather clear 90s
Depth to Water 9.25 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 12.95 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
12.95x 0.65	8.42 x 3		25.25

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1110	**7.02**	**6750**	**21.8**				**1**	**hydrocarbon odor**
	6.97	**6300**	**19.8**				**2**	**clear, yellow tinge**
	6.93	**6300**	**18.7**				**3**	**clear, yellow tinge**
	6.98	**8610**	**18.1**				**5**	**clear, yellow tinge**
	7.12	**7260**	**18.1**				**10**	**light brown**
	7.66	**7280**	**16.9**				**15**	**light brown**
	8.51	**7080**	**16.4**				**17.75**	**well is bailing down**
	8.21	**6570**	**16.0**				**18.5**	**light brown**
1124	**6.97**	**6440**	**17.0**				**20.5**	**well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1124	**6.97**	**6440**	**17.0**		**4.82**			**20.5**	**well has bailed down**

COMMENTS: ORC socks had been out of the well since 082307 0700 hrs, replaced them after sampling

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor**X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-8 Sample Time 1140

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD_____ BD_____ BD Name/Time_____ TB_____

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-9 Development **Sampling**
Project Manager MJN Date 08/23/07 Start Time 1015 Weather clear 80s
Depth to Water 4.85 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 17.07 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
17.07 x 0.65	11.09 x 3		33.29

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1018	**4.47**	**14390**	**22.8**				**1**	**clear yellow tinge**
	4.35	**12480**	**21.3**				**2**	**clear yellow tinge**
	4.37	**12550**	**20.7**				**3**	**clear yellow tinge**
	4.38	**12890**	**19.8**				**5**	**clear yellow tinge**
	4.44	**11830**	**17.3**				**10**	**clear yellow tinge**
	4.59	**12670**	**16.8**				**15**	**clear yellow tinge**
	4.45	**12670**	**15.8**				**20**	**clear yellow tinge**
	4.60	**11390**	**15.4**				**22.5**	**clear yellow tinge, well is bailing down**
1038	**4.81**	**11400**	**15.7**				**24.5**	**clear yellow tinge, well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1038	**4.81**	**11400**	**15.7**		**0.98**			**24.5**	**clear yellow tinge, well has bailed down**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor **X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-9 Sample Time 1040

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: W-2 Development **Sampling**
Project Manager MJN Date 8/23/07 Start Time 0750 Weather sunny 80s
Depth to Water 52.73 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 11.64 Well Dia. 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
11.6 x 0.16	1.8 x 3		5.58

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (oz)	Comments/ Flow rate
0804	**6.98**	**4580**	**16.8**				**.25**	**clear**
	7.04	**4610**	**16.5**				**.5**	**clear**
	7.20	**4710**	**16.5**				**.75**	**clear**
	7.24	**4540**	**16.5**				**1**	**clear**
	7.04	**4690**	**16.3**				**2**	**slightly cloudy, well is bailing down**
	7.07	**4620**	**16.3**				**2.125**	**slightly cloudy**
0819	**7.07**	**4610**	**16.3**				**2.2**	**slightly cloudy, well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
0819	**7.07**	**4610**	**16.3**					**2.2**	**slightly cloudy, well has bailed down**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor**X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP W-2 Sample Time 0820

BTEX VOCs **Alkalinity** **TDS** **Cations** **Anions** **Nitrate** **Nitrite** **Ammonia** TKN **NMWQCC** **Metals** Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

Lodestar Services, Incorporated
PO Box 3861 Farmington, NM 87499-3861 Office (505) 334-2791

WATER LEVEL DATA

Project Name_	**San Juan Basin Ground Water**	**Project No.**	**30001.0**
Project Manager	**MJN**		
Client Company	**MWH**	**Date**	**11/28/07**
Site Name	**San Juan River Plant**		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Total Depth	Comments
MW-4	**0648**	-	**51.41**		**Static**
W-2		-	**54.53**		**Static**
MW-6		-	**30.94**		**Static**
MW-7		-			**abandoned 5/07**
MW-8		-	**10.04**		**Sampled, BTEX, static**
MW-9		-	**5.13**		**Sampled, BTEX, static**
MW-5		-	**15.62**		**Static**

Comments: Reinstalled ORC in MW-8 following sampling.

Signature: *Martin J. Nee* Date: November 28, 2007

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-8 Development **Sampling**
Project Manager MJN Date 11/28/07 Start Time 1313 Weather clear 40s
Depth to Water 12.16 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 12.16 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
12.16 x 0.65	7.90 x 3		23.71

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1315	**7.18**	**12970**	**14.8**				**1**	**hydrocarbon odor**
	7.23	**13950**	**14.4**				**2**	**clear, yellow tinge**
	7.03	**13410**	**14.6**				**3**	**clear, yellow tinge**
	7.02	**13880**	**14.4**				**5**	**clear, yellow tinge**
	7.19	**14260**	**13.8**				**10**	**light brown**
	7.85	**15860**	**13.6**				**15**	**light brown**
1330	**7.50**	**14970**	**13.4**				**16.67**	**well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1330	**7.50**	**14970**	**13.4**					**16.67**	**well has bailed down**

COMMENTS: Replaced ORC after sampling. Collected duplicate sample MW-52 time 1531

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor **X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-8 Sample Time 1331

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB 112807tb01

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: San Juan River Plant Client: MWH/EL Paso
Location: SJRP Well No: MW-9 Development **Sampling**
Project Manager MJN Date 11/28/07 Start Time 1334 Weather clear 40s
Depth to Water 5.13 Depth to Product na Product Thickness na Measuring Point TOC
Water Column Height 16.79 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
16.79 x 0.65	10.91 x 3		32.74

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1336	**5.2**	**15750**	**12.5**				**1**	**clear yellow tinge**
	5.25	**14580**	**13.0**				**2**	**clear yellow tinge**
	5.23	**14270**	**13.4**				**3**	**clear yellow tinge**
	5.19	**14100**	**13.6**				**5**	**clear yellow tinge**
	5.22	**15950**	**13.8**				**10**	**clear yellow tinge**
	5.33	**13880**	**13.4**				**15**	**clear yellow tinge**
	5.43	**14030**	**12.8**				**20**	**clear yellow tinge, well is bailing down**
1356	**5.53**	**15570**	**12.4**				**21.5**	**clear yellow tinge, well has bailed down**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1356	**5.53**	**15570**	**12.4**					**21.5**	**clear yellow tinge, well has bailed down**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor **X** _____ Other _____
Conductivity Meter **X** _____

Water Disposal Rio Vista Sample ID SJRP MW-9 Sample Time 1357

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB 112807tb01

APPENDIX B

2007 LABORATORY REPORTS

(Included electronically on attached CD)

DATA VERIFICATION WORKSHEET

Analytical Method/Analytes:	SW-846 8021B (BTEX)	**Sample Collection Date(s):**	02/27/07
Laboratory:	Accutest	**MWH Job Number:**	SJRB
Batch Identification:	T16473	**Matrix:**	Water
MS/MSD Parent(s)[a]:	None	**Field Replicate Parent(s):**	None

Verification Craig Moore – 06/26/07
(Date/Signature)

Foot Notes	Site ID	Sample ID	Lab. ID	Hits (Y/N)	Quals.	Comments
None	SJRB	MW-8,SJRP	T16473-1	Y	None	
None	SJRB	MW-9,SJRP	T16473-2	Y	None	

DATA VERIFICATION WORKSHEET

Analytical Method:	**SW-846 8021B (BTEX)**	**MWH Job Number:**	**SJRB**
Laboratory:	**Accutest**	**Batch Identification:**	**T16473**

Verification Criteria								
Sample ID	**MW-8**	**MW-9**						
Lab ID	**T16473-1**	**T16473-2**						
Holding Time	A	A						
Analyte List	A	A						
Reporting Limits	A	A						
Surrogate Spike Recovery	A	A						
Trip Blank	A	A						
Equipment Rinseate Blanks	N/A	N/A						
Field Duplicate/Replicate	N/A	N/A						
Initial Calibration	N	N						
Initial Calibration Verification (ICV)	N	N						
Continuing Calibration Verification (CCV)	N	N						
Method Blank	A	A						
Laboratory Control Sample (LCS)	A	A						
Laboratory Control Sample Duplicate (LCSD)	N	N						
Matrix Spike/Matrix Spike Dup. (MS/MSD)	A[3]	N/A						
Retention Time Window	N	N						
Injection Time(s)	N	N						
Hardcopy vs. Chain-of-Custody	A	A						
EDD vs. Hardcopy	N	N						
EDD vs. Chain of Custody	N	N						

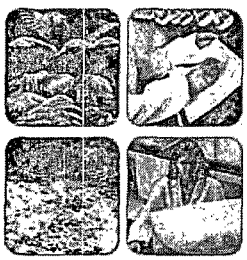
(a) List QC batch identification if different than Batch ID
A indicates verification criteria were met
A/L indicates verification criteria met based upon Laboratory's QC Summary Form
X indicates verification criteria were not met
N indicates data review were not a project specific requirement
N/A indicates criteria are not applicable for the specified analytical method or sample
N/R indicates data not available for review

NOTES:

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

03/02/07



Technical Report for

Montgomery Watson

San Juan River Plant (SJRP)

D-ALAB-SANJUAN-006

Accutest Job Number: T16473

Sampling Date: 02/27/07

Report to:

MWH Americas, Inc.
1801 California St. Suite 2900
Denver, CO 80202
jennifer.a.hurley@mwhglobal.com

ATTN: Ms. Jennifer Hurley

Total number of pages in report: 15

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Ron Martino
Laboratory Manager

Sections: 1 2 4 5

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Sample Results **5**
3.1: T16473-1: MW-8,SJRP 6
3.2: T16473-2: MW-9,SJRP 7
Section 4: Misc. Forms **8**
4.1: Chain of Custody 9
Section 5: GC Volatiles - QC Data Summaries **11**
5.1: Method Blank Summary 12
5.2: Blank Spike Summary 14
5.3: Matrix Spike/Matrix Spike Duplicate Summary 15

Sample Summary

Montgomery Watson

Job No: T16473

San Juan River Plant (SJRP)
Project No: D-ALAB-SANJUAN-006

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
T16473-1	02/27/07	11:03 MN	02/28/07	AQ	Water	MW-8,SJRP
T16473-2	02/27/07	12:20 MN	02/28/07	AQ	Water	MW-9,SJRP

ACCUTEST Laboratories

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Montgomery Watson **Job No** T16473

Site: San Juan River Plant (SJRP) **Report Date** 3/2/2007 3:58:16 PM

2 Samples were collected on 02/27/2007 and were received at Accutest on 02/28/2007 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of T16473. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method SW846 8021B

Matrix AQ **Batch ID:** GKK1020

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16479-7MS, T16479-7MSD were used as the QC samples indicated.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-8,SJRP		
Lab Sample ID:	T16473-1	**Date Sampled:**	02/27/07
Matrix:	AQ - Water	**Date Received:**	02/28/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK018290.D	1	03/01/07	ZLH	n/a	n/a	GKK1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	28.1	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	5.5	1.0	0.33	ug/l	
1330-20-7	Xylenes (total)	11.4	2.0	0.36	ug/l	
95-47-6	o-Xylene	ND	1.0	0.14	ug/l	
	m,p-Xylene	11.4	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		56-136%
98-08-8	aaa-Trifluorotoluene	92%		50-144%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9,SJRP		
Lab Sample ID:	T16473-2	**Date Sampled:**	02/27/07
Matrix:	AQ - Water	**Date Received:**	02/28/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK018291.D	1	03/01/07	ZLH	n/a	n/a	GKK1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	44.8	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	9.2	1.0	0.33	ug/l	
1330-20-7	Xylenes (total)	2.8	2.0	0.36	ug/l	
95-47-6	o-Xylene	ND	1.0	0.14	ug/l	
	m,p-Xylene	2.8	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		56-136%
98-08-8	aaa-Trifluorotoluene	104%		50-144%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Drive, Houston, TX 77036
713-271-4700 FAX: 713-271-4770

FED-EX Tracking # 858677886480 | Bottle Order Control # | Accutest Quote # | EL Paso Pricing | Accutest Job # T16473

Client / Reporting Information

Company Name: MWH Americas, Inc.
Address: 1801 California St. Suite 2900
City: Denver | State: CO | Zip: 80202
Project Contact: Chandler Cole
Phone #: 303-291-7161
Samplers's Name: Martin Nee

Project Information

Project Name: SAN JUAN BASIN Plant
Street:
City: Colorado Springs | State: Co
Project #:
Fax #:
Client Purchase Order #: D-ALAB_San Juan-008

Requested Analysis

Matrix Codes

DW- Drinking Water
GW- Ground Water
WW- Water
SW- Surface Water
SO- Soil
SL-Sludge
OI-Oil
LIQ- Other Liquid
AIR- Air
SOL-Other Solid
WP-Wipe

Accutest Sample #	Field ID / Point of Collection		Collection: Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX (8021)	LAB USE ONLY
1	MW-8, SJRP		22707	1163	MN	WG	3	X							X	
2	MW-9, SJRP		22707	1220	MN	WG	3	X							X	

Turnaround Time (Business days)

- [XX] Std. 15 Business Days — Approved By:/ Date:
- [ ] 10 Day *RUSH*
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Level 1
- [x] Level 2
- [ ] Level 3
- [ ] Level 4
- [ ] Other
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format

Commercial "A" = Results Only

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		22707 1600	1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time: 9/28/07 10:10	Received By: A. Roy	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp: 2.0

Page 1

4.1.4

T16473: Chain of Custody
Page 1 of 2

ACCUTEST.

SAMPLE RECEIPT LOG

JOB #: T16473 DATE/TIME RECEIVED: 2/28/07 110:10

CLIENT: MWH Americas INITIALS: AR

Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):

1. [✓ Y] N Sample received in undamaged condition.
2. [✓ Y] N Samples received within temp. range.
3. Y [✓ NA] Sample received with proper pH.
4. [✓ Y] N Sample received in proper containers.
5. [✓ Y] N Sample volume sufficient for analysis.
6. [✓ Y] N Sample received with chain of custody.
7. [✓ Y] N Chain of Custody matches **sample IDs and analysis** on containers.
8. [✓ Y] N Samples Headspace acceptable
9. [✓ Y] N NA Custody seal received intact and tamper not evident on cooler.
10. Y N [✓ NA] Custody seal received intact and tamper not evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1-2	1-3	2/27	AQ	40ml.	VREF	1,[✓ 2],3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA

AR 2-28-07

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

pH of waters checked excluding volatiles

pH of soils N/A

Delivery method: Courier: FE

COOLER TEMP: 2.0 COOLER TEMP:

COOLER TEMP: COOLER TEMP:

Form: SM012, Rev.07/28/06, QAO

T16473: Chain of Custody

Page 2 of 2

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T16473
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1020-MB2	KK018289.D	1	03/01/07	ZLH	n/a	n/a	GKK1020

The QC reported here applies to the following samples: **Method:** SW846 8021B

T16473-1, T16473-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.36	ug/l	
95-47-6	o-Xylene	ND	1.0	0.14	ug/l	
	m,p-Xylene	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	90%	56-136%
98-08-8	aaa-Trifluorotoluene	93%	50-144%

Method Blank Summary

Job Number: T16473
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1020-MB	KK018266.D	1	03/01/07	ZLH	n/a	n/a	GKK1020

The QC reported here applies to the following samples: **Method:** SW846 8021B

GKK1020-BS, T16479-7MS, T16479-7MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.36	ug/l	
95-47-6	o-Xylene	ND	1.0	0.14	ug/l	
	m,p-Xylene	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	90%	56-136%
98-08-8	aaa-Trifluorotoluene	92%	50-144%

Blank Spike Summary

Job Number: T16473
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1020-BS	KK018267.D	1	03/01/07	ZLH	n/a	n/a	GKK1020

5.2

The QC reported here applies to the following samples: **Method:** SW846 8021B

T16473-1, T16473-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	17.0	85	72-125
100-41-4	Ethylbenzene	20	19.6	98	76-125
108-88-3	Toluene	20	19.3	97	74-125
1330-20-7	Xylenes (total)	60	59.6	99	78-124
95-47-6	o-Xylene	20	19.4	97	78-124
	m,p-Xylene	40	40.2	101	78-125

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	87%	56-136%
98-08-8	aaa-Trifluorotoluene	93%	50-144%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T16473
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T16479-7MS	KK018272.D	1	03/01/07	ZLH	n/a	n/a	GKK1020
T16479-7MSD	KK018273.D	1	03/01/07	ZLH	n/a	n/a	GKK1020
T16479-7	KK018271.D	1	03/01/07	ZLH	n/a	n/a	GKK1020

5.3

The QC reported here applies to the following samples: **Method:** SW846 8021B

T16473-1, T16473-2

CAS No.	Compound	T16479-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	16.5	83	16.5	83	0	45-137/21
100-41-4	Ethylbenzene	ND		20	19.1	96	19.1	96	0	68-126/15
108-88-3	Toluene	ND		20	18.6	93	18.3	92	2	63-130/22
1330-20-7	Xylenes (total)	ND		60	57.8	96	57.7	96	0	72-125/19
95-47-6	o-Xylene	ND		20	18.6	93	18.4	92	1	70-128/20
	m,p-Xylene	ND		40	39.2	98	39.3	98	0	63-136/19

CAS No.	Surrogate Recoveries	MS	MSD	T16479-7	Limits
460-00-4	4-Bromofluorobenzene	87%	89%	86%	56-136%
98-08-8	aaa-Trifluorotoluene	91%	92%	92%	50-144%

DATA VERIFICATION WORKSHEET

Analytical Method/Analytes:	SW-846 8021B (BTEX)	**Sample Collection Date(s):**	05/25/07
Laboratory:	Accutest	**MWH Job Number:**	SJRB
Batch Identification:	T17627	**Matrix:**	Water
MS/MSD Parent(s)[a]:	None	**Field Replicate Parent(s):**	None

Verification Craig Moore – 06/26/07

(Date/Signature)

Foot Notes	Site ID	Sample ID	Lab. ID	Hits (Y/N)	Quals.	Comments
None	SJRB	MW-8,SJRP	T17627-1	Y	None	
None	SJRB	MW-9,SJRP	T17627-2	Y	None	

DATA VERIFICATION WORKSHEET
(Page 2 of 2)

Analytical Method:	**SW-846 8021B (BTEX)**	**MWH Job Number:**	**SJRB**
Laboratory:	**Accutest**	**Batch Identification:**	**T17627**

Verification Criteria								
Sample ID	**MW-8**	**MW-9**						
Lab ID	**T17627-1**	**T17627-2**						
Holding Time	A	A						
Analyte List	A	A						
Reporting Limits	A	A						
Surrogate Spike Recovery	A	A						
Trip Blank	A	A						
Equipment Rinseate Blanks	N/A	N/A						
Field Duplicate/Replicate	N/A	N/A						
Initial Calibration	N	N						
Initial Calibration Verification (ICV)	N	N						
Continuing Calibration Verification (CCV)	N	N						
Method Blank	A	A						
Laboratory Control Sample (LCS)	A	A						
Laboratory Control Sample Duplicate (LCSD)	N	N						
Matrix Spike/Matrix Spike Dup. (MS/MSD)	A[3]	N/A						
Retention Time Window	N	N						
Injection Time(s)	N	N						
Hardcopy vs. Chain-of-Custody	A	A						
EDD vs. Hardcopy	N	N						
EDD vs. Chain of Custody	N	N						

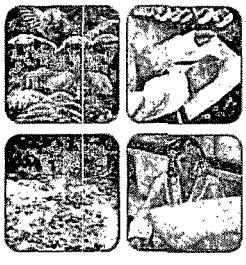
(a) List QC batch identification if different than Batch ID
A indicates verification criteria were met
A/L indicates verification criteria met based upon Laboratory's QC Summary Form
X indicates verification criteria were not met
N indicates data review were not a project specific requirement
N/A indicates criteria are not applicable for the specified analytical method or sample
N/R indicates data not available for review

NOTES:

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

06/08/07



Technical Report for

Montgomery Watson

San Juan River Plant (SJRP)

D-ALAB-SANJUAN-006

Accutest Job Number: T17627

Sampling Date: 05/25/07

Report to:

Montgomery Watson

Jennifer.A.Hurley@us.mwhglobal.com

ATTN: Jennifer Hurley

Total number of pages in report: 15

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Ron Martino
Laboratory Manager

Client Service contact: Agnes Vicknair 713-271-4700

Sections: 1 2 3 4 5

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Sample Results **5**
3.1: T17627-1: MW-8, SJRP 6
3.2: T17627-2: MW-9, SJRP 7
Section 4: Misc. Forms **8**
4.1: Chain of Custody 9
Section 5: GC Volatiles - QC Data Summaries **12**
5.1: Method Blank Summary 13
5.2: Blank Spike Summary 14
5.3: Matrix Spike/Matrix Spike Duplicate Summary 15

Sample Summary

Montgomery Watson

Job No: T17627

San Juan River Plant (SJRP)
Project No: D-ALAB-SANJUAN-006

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
T17627-1	05/25/07	10:55 MN	05/30/07	AQ	Ground Water	MW-8, SJRP
T17627-2	05/25/07	10:00 MN	05/30/07	AQ	Ground Water	MW-9, SJRP

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Montgomery Watson **Job No** T17627

Site: San Juan River Plant (SJRP) **Report Date** 6/8/2007 1:47:05 PM

2 Samples were collected on 05/25/2007 and were received at Accutest on 05/30/2007 properly preserved, at 2.2 Deg. C and intact. These Samples received an Accutest job number of T17627. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method SW846 8021B

Matrix AQ **Batch ID:** GKK1088

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T17634-1MS, T17634-1MSD were used as the QC samples indicated.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-8, SJRP		
Lab Sample ID:	T17627-1	**Date Sampled:**	05/25/07
Matrix:	AQ - Ground Water	**Date Received:**	05/30/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK019981.D	1	06/01/07	ZLH	n/a	n/a	GKK1088
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	19.6	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	5.0	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	9.8	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	9.8	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		56-136%
98-08-8	aaa-Trifluorotoluene	97%		50-144%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9, SJRP		
Lab Sample ID:	T17627-2	**Date Sampled:**	05/25/07
Matrix:	AQ - Ground Water	**Date Received:**	05/30/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK019982.D	1	06/01/07	ZLH	n/a	n/a	GKK1088
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	82.0	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	19.6	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	6.5	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	6.5	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%		56-136%
98-08-8	aaa-Trifluorotoluene	117%		50-144%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Drive, Houston, TX 77036
713-271-4700 FAX: 713-271-4770

FED-EX Tracking # 8586 7788 6491 | Bottle Order Control #
Accutest Quote # | EL Paso Pricing | Accutest Job # T17627

Client / Reporting Information

Company Name: MWH Americas, Inc.
Address: 1801 California St. Suite 2900
City: Denver | State: CO | Zip: 80202
Project Contact: Chandler Cole
Phone #: 303-291-2161
Samplers's Name: Monte Nee

Project Information

Project Name: SAN JUAN BASIN Plant
Street:
City: Colorado Springs | State: Co
Project #:
Fax #:
Client Purchase Order #: TWO D-ALAB_San Juan-006

Requested Analysis

Matrix Codes

DW- Drinking Water
GW- Ground Water
WW- Water
SW- Surface Water
SO- Soil
SL-Sludge
OI-Oil
LIQ- Other Liquid
AIR- Air
SOL-Other Solid
WP-Wipe

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX (8021)	LAB USE ONLY
1	MW-8, SJRP	5/29/07	1055	MN	WG	3	X								X	
2	MW-9, SJRP	5/29/07	1000	MN	WG	3	X								X	

Turnaround Time (Business days)

- [XX] Std. 15 Business Days
- [ ] 10 Day *RUSH*
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Approved By/ Date:

Data Deliverable Information

- [ ] Level 1
- [x] Level 2
- [ ] Level 3
- [ ] Level 4
- [ ] Other
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format

Commercial "A" = Results Only

Comments / Remarks

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/29/07 1630	1	2		2
	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3			3	4		4
	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp.
5		5/30/07 9:18	5 Cassie Escotto		☐	X 2.2

Page 1

4.1 4

T17627: Chain of Custody
Page 1 of 3

ACCUTEST.

SAMPLE RECEIPT LOG

JOB #: T17627 DATE/TIME RECEIVED: 5/30/07 9:18

CLIENT: MWH Americas INITIALS: CNE

Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):

1. (Y) N Sample received in undamaged condition.
2. (Y) N Samples received within temp. range.
3. Y (N) Sample received with proper pH.
4. (Y) N Sample received in proper containers.
5. (Y) N Sample volume sufficient for analysis.
6. (Y) N Sample received with chain of custody.
7. (Y) N Chain of Custody matches **sample IDs and analysis** on containers.
8. (Y) N Samples Headspace acceptable
9. (Y) N NA Custody seal received intact and tamper not evident on cooler.
10. Y N (NA) Custody seal received intact and tamper not evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1-2	1-3	5/25/07	AQ	40mL	VREF	1(2)3,4,5,6	U (<2) >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
				CNE 5/30/07		1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

pH of waters checked excluding volatiles

pH of soils N/A

Delivery method: Courier: FedEx

COOLER TEMP: 2.2 COOLER TEMP:

COOLER TEMP: COOLER TEMP:

Form: SM012, Rev.07/28/05, QAO

4.1 4

T17627: Chain of Custody

Page 2 of 3

ACCUTEST LABORATORIES
CUSTODY SEAL

ACCUTEST LABORATORIES
CUSTODY SEAL

ACCUTEST LABORATORIES
CUSTODY SEAL

ACCUTEST LABORATORIES
CUSTODY SEAL

DATE / TIME SEALED: 5-29-07 1630

INITIALS: MN

T17627

4.1 4

...n This portion can be removed for Recipient's records.

...te 5-29-07 FedEx Tracking Number 858677886491

...nder's ...me Martin Nee Phone 505 334 2791

Company Solaatia Services

Address 2 Cir 23500 Dept/Floor/Suite/Room

Chaco Mesa State NM ZIP 87415

...ur Internal Billing Reference

T17627: Chain of Custody
Page 3 of 3

GC Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T17627
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1088-MB	KK019962.D	1	06/01/07	ZLH	n/a	n/a	GKK1088

5.1

The QC reported here applies to the following samples: **Method:** SW846 8021B

T17627-1, T17627-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	92%	56-136%
98-08-8	aaa-Trifluorotoluene	98%	50-144%

Blank Spike Summary

Job Number: T17627
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1088-BS	KK019963.D	1	06/01/07	ZLH	n/a	n/a	GKK1088

5.2

The QC reported here applies to the following samples: **Method:** SW846 8021B

T17627-1, T17627-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.4	92	72-125
100-41-4	Ethylbenzene	20	19.9	100	76-125
108-88-3	Toluene	20	19.2	96	74-125
1330-20-7	Xylenes (total)	60	59.6	99	78-124
95-47-6	o-Xylene	20	20.1	101	78-124
	m,p-Xylene	40	39.6	99	78-125

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	91%	56-136%
98-08-8	aaa-Trifluorotoluene	98%	50-144%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T17627
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T17634-1MS	KK019966.D	1	06/01/07	ZLH	n/a	n/a	GKK1088
T17634-1MSD	KK019967.D	1	06/01/07	ZLH	n/a	n/a	GKK1088
T17634-1	KK019965.D	1	06/01/07	ZLH	n/a	n/a	GKK1088

5.3

The QC reported here applies to the following samples: **Method:** SW846 8021B

T17627-1, T17627-2

CAS No.	Compound	T17634-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	18.5	93	18.4	92	1	45-137/21
100-41-4	Ethylbenzene	ND		20	19.3	97	18.9	95	2	68-126/15
108-88-3	Toluene	ND		20	18.5	93	18.7	94	1	63-130/22
1330-20-7	Xylenes (total)	ND		60	58.0	97	57.3	96	1	72-125/19
95-47-6	o-Xylene	ND		20	19.5	98	19.4	97	1	70-128/20
	m,p-Xylene	ND		40	38.5	96	37.9	95	2	63-136/19

CAS No.	Surrogate Recoveries	MS	MSD	T17634-1	Limits
460-00-4	4-Bromofluorobenzene	91%	94%	92%	56-136%
98-08-8	aaa-Trifluorotoluene	99%	102%	98%	50-144%

DATA VERIFICATION WORKSHEET

Analytical Method/Analytes:	**Wet Chemistry**	**Sample Collection Date(s):**	**08/23/07**
Laboratory:	**Accutest**	**MWH Job Number:**	SJRB
Batch Identification:	**T18606**	**Matrix:**	**Water**
MS/MSD Parent(s)[(a)]:		**Field Replicate Parent(s):**	**None**

Verification Complete: Craig Moore -03/05/07
(Date/Signature)

Foot Notes	Site ID	Sample ID	Lab. ID	Hits (Y/N)	Quals.	Comments
None	SJRB	MW-6	T18606-1	Y	None	
None	SJRB	W-2	T18606-2	Y	None	
None	SJRB	MW-4	T18606-3	Y	None	
None	SJRB	MW-5	T18606-4	Y	None	
None	SJRB	MW-9	T18606-5	Y	None	
1	SJRB	MW-8	T18606-6	Y	None	

DATA VERIFICATION WORKSHEET
(Page 2 of 2)

Analytical Method:	**Wet Chemistry**	**MWH Job Number:**	**SJRB**
Laboratory:	**Accutest**	**Batch Identification:**	**T18606**

Verification Criteria								
Sample ID	**MW-6**	**W-2**	**MW-4**	**MW-5**	**MW-9**	**MW-8**		
Lab ID	**T18606-1**	**T18606-2**	**T18606-3**	**T18606-4**	**T18606-5**	**T18606-6**		
Hardcopy vs. Chain-of-Custody	A	A	A	A	A	A		
Holding Time	A	A	A	A	A	A		
Analyte List	A	A	A	A	A	A		
Reporting Limits	A	A	A	A	A	A		
Method Blank (all methods)	A	A	A	A	A	A		
Laboratory Control Sample (all methods)	A	A	A	A	A	A		
Matrix Spike/Matrix Spike Duplicate (all organic methods)	A	N/A	A	N/A	A	A[1]		
Matrix Duplicate (Lab Specific)	A	N/A	A	N/A	A	A		

(a) List QC batch identification if different than Batch ID
A indicates verification criteria were met
A/L indicates verification criteria met based upon Laboratory's QC Summary Form
X indicates verification criteria were not met
N indicates data review were not a project specific requirement
N/A indicates criteria are not applicable for the specified analytical method or sample
N/R indicates data not available for review

NOTES:

1) Matrix spike (MS) recovery high sulfate (836% [75-125]). Sample concentration greater than four time spike concentration and therefore MS recovery does not apply and no data are qualifed.

DATA VERIFICATION WORKSHEET

Analytical Method/Analytes: SW-846 6010B/7471A Metals

Sample Collection Date(s): 08/23/07

Laboratory: Accutest

MWH Job Number: SJRB

Batch Identification: T18606

Matrix: Water

MS/MSD Parent(s)[a]:

Field Replicate Parent(s): None

Verification Complete: Craig Moore -03/05/07
(Date/Signature)

Foot Notes	Site ID	Sample ID	Lab. ID	Hits (Y/N)	Quals.	Comments
None	SJRB	MW-6	T18606-1	Y	None	
None	SJRB	W-2	T18606-2	Y	None	
None	SJRB	MW-4	T18606-3	Y	None	
None	SJRB	MW-5	T18606-4	Y	None	
None	SJRB	MW-9	T18606-5	Y	None	
1,2	SJRB	MW-8	T18606-6	Y	J J J+	Lead @ 4.8 µg/l Zinc @ 132 µg/l Potassium @ 87400 µg/l

DATA VERIFICATION WORKSHEET

Analytical Method:	**SW-846 8021B (BTEX)**	**MWH Job Number:**	**SJRB**
Laboratory:	**Accutest**	**Batch Identification:**	**T18606**

Verification Criteria								
Sample ID	MW-6	W-2	MW-4	MW-5	MW-9	MW-8		
Lab ID	T18606-1	T18606-2	T18606-3	T18606-4	T18606-5	T18606-6		
Hardcopy vs. Chain-of-Custody	A	A	A	A	A	A		
Holding Time	A	A	A	A	A	A		
Analyte List	A	A	A	A	A	A		
Reporting Limits	A	A	A	A	A	A		
Laboratory Control Sample (all methods)	A	A	A	A	A	A		
Laboratory Control Sample Duplicate (lab specific)	A	A	A	A	A	A		
Serial Dilution	N/A	N/A	N/A	N/A	N/A	A		
Matrix Spike/Matrix Spike Duplicate (all organic methods)	N/A	N/A	N/A	N/A	A	A[2]		
Matrix Duplicate (Lab Specific)	N/A	N/A	N/A	N/A	A	A[1]		

(a) List QC batch identification if different than Batch ID
A indicates verification criteria were met
A/L indicates verification criteria met based upon Laboratory's QC Summary Form
X indicates verification criteria were not met
N indicates data review were not a project specific requirement
N/A indicates criteria are not applicable for the specified analytical method or sample
N/R indicates data not available for review

NOTES:

1) Laboratory replicate (LR) relative percent difference (RPD) outside acceptance criteria for lead (30.1% [20]) and zinc (105.6% [20]). Qualify data with a "J" flag indicating that the data are estimated.
2) Matrix spike (MS) and/or matrix spike duplicate (MSD) recoveries outside acceptance criteria for magnesium (92%/72%[75-125]), potassium (131%/123%[75-125]) and sodium (400%/220% [75-125]). Sample concentration greater than four time spike concentration for magnesium and sodium and therefore MS/MSD recoveries do no apply and data are not qualified. Qualify potassium data with a "J+" indicating that the datum is estimated, potentially biased high.

DATA VERIFICATION WORKSHEET

Analytical Method/Analytes: SW-846 8021B (BTEX) **Sample Collection Date(s):** 08/23/07

Laboratory: Accutest **MWH Job Number:** SJRB

Batch Identification: T18606 **Matrix:** Water

MS/MSD Parent(s)[a]: _____ **Field Replicate Parent(s):** None

Verification Complete: Craig Moore -03/05/07

(Date/Signature)

Foot Notes	Site ID	Sample ID	Lab. ID	Hits (Y/N)	Quals.	Comments
None	SJRB	MW-6	T18606-1	N		
None	SJRB	W-2	T18606-2	N		
None	SJRB	MW-4	T18606-3	Y		
None	SJRB	MW-5	T18606-4	Y		
None	SJRB	MW-9	T18606-5	Y		
1	SJRB	MW-8	T18606-6	N	UJ UJ UJ UJ UJ UJ	Benzene @ <5.0 µg/kg Toluene @ <5.0 µg/kg Ethylbenzene @ <5.0 µg/kg Xylenes (total) @ <10 µg/kg o-Xylene @ <5.0 µg/kg m,p-Xylene @ <5.0 µg/kg

DATA VERIFICATION WORKSHEET

Analytical Method:	**SW-846 8021B (BTEX)**	**MWH Job Number:**	**SJRB**
Laboratory:	**Accutest**	**Batch Identification:**	**T18606**

Verification Criteria								
Sample ID	MW-6	W-2	MW-4	MW-5	MW-9	MW-8		
Lab ID	T18606-1	T18606-2	T18606-3	T18606-4	T18606-5	T18606-6		
Holding Time	A	A	A	A	A	A		
Analyte List	A	A	A	A	A	A		
Reporting Limits	A	A	A	A	A	A		
Surrogate Spike Recovery	A	A	A	A	A	A		
Trip Blank	N/A	N/A	N/A	N/A	N/A	N/A		
Equipment Rinseate Blanks	N/A	N/A	N/A	N/A	N/A	N/A		
Field Duplicate/Replicate	N/A	N/A	N/A	N/A	N/A	N/A		
Initial Calibration	N	N	N	N	N	N		
Initial Calibration Verification (ICV)	N	N	N	N	N	N		
Continuing Calibration Verification (CCV)	N	N	N	N	N	N		
Method Blank	A	A	A	A	A	A		
Laboratory Control Sample (LCS)	A	A	A	A	A	A		
Laboratory Control Sample Duplicate (LCSD)	N	N	N	N	N	N		
Matrix Spike/Matrix Spike Dup. (MS/MSD)	N/A	N/A	N/A	N/A	N/A	N/A		
Retention Time Window	N	N	N	N	N	N		
Injection Time(s)	N	N	N	N	N	N		
Hardcopy vs. Chain-of-Custody	A	A	A	A	A	A		
EDD vs. Hardcopy	N	N	N	N	N	N		
EDD vs. Chain of Custody	N	N	N	N	N	N		

(a) List QC batch identification if different than Batch ID
A indicates verification criteria were met
A/L indicates verification criteria met based upon Laboratory's QC Summary Form
X indicates verification criteria were not met
N indicates data review were not a project specific requirement
N/A indicates criteria are not applicable for the specified analytical method or sample
N/R indicates data not available for review

NOTES:

1) Sample was not preserved, thus reducing the holding time from 14 days to seven. Sample analyzed thirteen days after sample collection or six days outside of holding time, introducing a possible low bias. Qualify associated positive sample results with "J-" flags, indicating the data are estimated and possibly biased low. Qualify associated non-detect sample results with "UJ" flags, indicating possible false negatives.

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

04/02/08

Technical Report for

Montgomery Watson

San Juan River Plant (SJRP)

D-ALAB-SANJUAN-006

Accutest Job Number: T18606

Sampling Date: 08/23/07

Report to:

MWH Americas, Inc.

jed.Smith@us.mwhglobal.com

ATTN: Mr. Jed Smith

Total number of pages in report: 49

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Ron Martino
Laboratory Manager

Client Service contact: Agnes Vicknair 713-271-4700

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Table of Contents

Sections: 1 2 3 4 5 6 7

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Sample Results **6**
3.1: T18606-1: MW-6 7
3.2: T18606-2: W-2 10
3.3: T18606-3: MW-4 13
3.4: T18606-4: MW-5 16
3.5: T18606-5: MW-9 19
3.6: T18606-6: MW-8 22
Section 4: Misc. Forms **25**
4.1: Chain of Custody 26
Section 5: GC Volatiles - QC Data Summaries **29**
5.1: Method Blank Summary 30
5.2: Blank Spike Summary 32
5.3: Matrix Spike/Matrix Spike Duplicate Summary 34
Section 6: Metals Analysis - QC Data Summaries **36**
6.1: Prep QC MP6503: Hg 37
6.2: Prep QC MP6507: Al,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Zn . 41
Section 7: General Chemistry - QC Data Summaries **46**
7.1: Method Blank and Spike Results Summary 47
7.2: Duplicate Results Summary 48
7.3: Matrix Spike Results Summary 49

Sample Summary

Montgomery Watson

Job No: T18606

San Juan River Plant (SJRP)
Project No: D-ALAB-SANJUAN-006

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
T18606-1	08/23/07	07:35 MN	08/24/07	AQ	Ground Water	MW-6
T18606-2	08/23/07	08:20 MN	08/24/07	AQ	Ground Water	W-2
T18606-3	08/23/07	08:52 MN	08/24/07	AQ	Ground Water	MW-4
T18606-4	08/23/07	09:55 MN	08/24/07	AQ	Ground Water	MW-5
T18606-5	08/23/07	10:40 MN	08/24/07	AQ	Ground Water	MW-9
T18606-6	08/23/07	11:25 MN	08/24/07	AQ	Ground Water	MW-8

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Montgomery Watson **Job No** T18606

Site: EPFS San Juan Basin Groundwater Site **Report Date** 9/10/2007 4:48:06 PM

6 Samples were collected on 08/23/2007 and were received at Accutest on 08/24/2007 properly preserved, at 1.7 Deg. C and intact. These Samples received an Accutest job number of T18606. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method SW846 8021B

Matrix AQ **Batch ID:** GKK1177

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18613-5MS, T18613-5MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Toluene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix AQ **Batch ID:** GKK1178

- All samples were analyzed within the recommended method holding time.
- Sample(s) T18708-2MS, T18708-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010B

Matrix AQ **Batch ID:** MP6507

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18606-6DUP, T18606-6MS, T18606-6MSD, T18606-6SDL, T18606-6DUP were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Potassium are outside control limits. Spike recovery indicates possible matrix interference.
- Matrix Spike Duplicate Recovery(s) for Potassium are outside control limits. Probable cause due to matrix interference.
- RPD(s) for Duplicate for Arsenic, Chromium, Cobalt, Copper, Lead, Nickel, Potassium, Zinc are outside control limits for sample MP6507-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for Serial Dilution for Aluminum, Potassium are outside control limits for sample MP6507-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP6507-SD1 for Potassium: Serial dilution indicates possible matrix interference.

Metals By Method SW846 7470A

Matrix AQ **Batch ID:** MP6503

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18606-5DUP, T18606-5MS, T18606-5MSD were used as the QC samples for metals.

Wet Chemistry By Method EPA 160.1

Matrix AQ	Batch ID: GN12322

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18606-1DUP were used as the QC samples for Solids, Total Dissolved.

Wet Chemistry By Method EPA 310.1

Matrix AQ	Batch ID: GN12319

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18606-1DUP, T18606-1MS were used as the QC samples for Alkalinity, Total as CaCO3.
- Matrix Spike Recovery(s) for Alkalinity, Total as CaCO3 are outside control limits. Probable cause due to matrix interference.

Wet Chemistry By Method EPA 325.3

Matrix AQ	Batch ID: GN12320

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18606-3DUP, T18606-3MS were used as the QC samples for Chloride.

Wet Chemistry By Method EPA 353.2

Matrix AQ	Batch ID: GN12314

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18539-1DUP, T18539-1MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

Wet Chemistry By Method EPA 375.3

Matrix AQ	Batch ID: GN12321

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18606-6DUP, T18606-6MS were used as the QC samples for Sulfate.
- Matrix Spike Recovery(s) for Sulfate are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Matrix AQ	Batch ID: GN12364

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T18606-5DUP, T18606-5MS were used as the QC samples for Sulfate.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

Sample Results

Report of Analysis

Report of Analysis

3.1

Client Sample ID:	MW-6		
Lab Sample ID:	T18606-1	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK022465.D	1	09/05/07	LJ	n/a	n/a	GKK1177
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	76%		61-125%
98-08-8	aaa-Trifluorotoluene	93%		50-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	T18606-1	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	12600	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Arsenic	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	8.1	4.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Calcium	325000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cobalt	161	50	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Copper	38.7	25	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Iron	3780	100	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Lead	11.0	3.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Magnesium	356000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Manganese	5880	15	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	08/28/07	08/28/07	NS	SW846 7470A [1]	SW846 7470A [3]
Molybdenum	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Nickel	187	40	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Potassium	39400	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Selenium	893	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Sodium	3370000	50000	ug/l	10	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Zinc	594	20	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA3076
(2) Instrument QC Batch: MA3080
(3) Prep QC Batch: MP6503
(4) Prep QC Batch: MP6507

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	T18606-1	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	30.0	5.0	mg/l	1	08/28/07 16:00	TW	EPA 310.1
Chloride	1830	50	mg/l	50	08/30/07 17:00	TW	EPA 325.3
Nitrogen, Nitrate + Nitrite	258	20	mg/l	400	08/28/07 08:00	CP	EPA 353.2
Solids, Total Dissolved	15500	10	mg/l	1	08/28/07	RM	EPA 160.1
Sulfate	8930	1000	mg/l	100	08/28/07 14:00	TW	EPA 375.3

RL = Reporting Limit

Report of Analysis

Client Sample ID:	W-2		
Lab Sample ID:	T18606-2	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK022467.D	1	09/05/07	LJ	n/a	n/a	GKK1177
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	64%		61-125%
98-08-8	aaa-Trifluorotoluene	79%		50-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	W-2		
Lab Sample ID:	T18606-2	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	12800	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Arsenic	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	< 4.0	4.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Calcium	404000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Copper	32.9	25	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Iron	10300	100	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Lead	14.0	3.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Magnesium	133000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Manganese	223	15	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	08/28/07	08/28/07	NS	SW846 7470A [1]	SW846 7470A [3]
Molybdenum	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Nickel	< 40	40	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Potassium	8880	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Selenium	143	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Sodium	1120000	25000	ug/l	5	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Zinc	169	20	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA3076
(2) Instrument QC Batch: MA3080
(3) Prep QC Batch: MP6503
(4) Prep QC Batch: MP6507

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.2

Client Sample ID:	W-2		
Lab Sample ID:	T18606-2	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	165	5.0	mg/l	1	08/28/07 16:00	TW	EPA 310.1
Chloride	338	17	mg/l	16.67	08/30/07 17:00	TW	EPA 325.3
Nitrogen, Nitrate + Nitrite	18.0	5.0	mg/l	100	08/28/07 08:00	CP	EPA 353.2
Solids, Total Dissolved	5710	10	mg/l	1	08/28/07	RM	EPA 160.1
Sulfate	3410	100	mg/l	10	08/28/07 14:00	TW	EPA 375.3

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	T18606-3	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK022468.D	1	09/05/07	LJ	n/a	n/a	GKK1177
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.37	1.0	0.21	ug/l	J
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		61-125%
98-08-8	aaa-Trifluorotoluene	113%		50-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	T18606-3	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	9290	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Arsenic	21.1	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	< 4.0	4.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Calcium	249000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cobalt	88.3	50	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Copper	68.3	25	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Iron	21700	100	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Lead	14.0	3.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Magnesium	108000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Manganese	6590	15	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Mercury	0.42	0.20	ug/l	1	08/28/07	08/28/07	NS	SW846 7470A [1]	SW846 7470A [3]
Molybdenum	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Nickel	268	40	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Potassium	10100	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Selenium	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Sodium	910000	25000	ug/l	5	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Zinc	110	20	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA3076
(2) Instrument QC Batch: MA3080
(3) Prep QC Batch: MP6503
(4) Prep QC Batch: MP6507

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.3

Client Sample ID:	MW-4		
Lab Sample ID:	T18606-3	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	820	5.0	mg/l	1	08/28/07 16:00	TW	EPA 310.1
Chloride	303	10	mg/l	10	08/30/07 17:00	TW	EPA 325.3
Nitrogen, Nitrate + Nitrite	2.1	0.25	mg/l	5	08/28/07 08:00	CP	EPA 353.2
Solids, Total Dissolved	4460	10	mg/l	1	08/28/07	RM	EPA 160.1
Sulfate	2000	100	mg/l	10	08/28/07 14:00	TW	EPA 375.3

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	T18606-4	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK022469.D	1	09/05/07	LJ	n/a	n/a	GKK1177
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.7	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	76%		61-125%
98-08-8	aaa-Trifluorotoluene	93%		50-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

3.4

Client Sample ID:	MW-5		
Lab Sample ID:	T18606-4	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	16900	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Arsenic	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	4.8	4.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Calcium	342000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cobalt	63.7	50	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Copper	30.0	25	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Iron	12100	100	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Lead	20.5	3.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Magnesium	232000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Manganese	8040	15	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	08/28/07	08/28/07	NS	SW846 7470A [1]	SW846 7470A [3]
Molybdenum	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Nickel	183	40	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Potassium	46400	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Selenium	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Sodium	4410000	50000	ug/l	10	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Zinc	304	20	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA3076
(2) Instrument QC Batch: MA3080
(3) Prep QC Batch: MP6503
(4) Prep QC Batch: MP6507

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	T18606-4	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	35.0	5.0	mg/l	1	08/28/07 16:00	TW	EPA 310.1
Chloride	1730	50	mg/l	50	08/30/07 17:00	TW	EPA 325.3
Nitrogen, Nitrate + Nitrite	2.6	1.0	mg/l	20	08/28/07 08:00	CP	EPA 353.2
Solids, Total Dissolved	18600	10	mg/l	1	08/28/07	RM	EPA 160.1
Sulfate	11400	1000	mg/l	100	09/07/07 14:00	TW	EPA 375.3

RL = Reporting Limit

Report of Analysis

3.5

Client Sample ID:	MW-9		
Lab Sample ID:	T18606-5	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK022477.D	1	09/05/07	LJ	n/a	n/a	GKK1178
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	88.1	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	21.2	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	13.8	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	13.8	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		61-125%
98-08-8	aaa-Trifluorotoluene	117%		50-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

3.5

Client Sample ID:	MW-9		
Lab Sample ID:	T18606-5	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	16300	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Arsenic	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	< 4.0	4.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Calcium	108000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cobalt	205	50	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Copper	121	25	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Iron	6330	100	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Lead	8.4	3.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Magnesium	289000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Manganese	6420	15	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	08/28/07	08/28/07	NS	SW846 7470A [1]	SW846 7470A [3]
Molybdenum	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Nickel	318	40	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Potassium	23700	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Selenium	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Sodium	3590000	50000	ug/l	10	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Zinc	732	20	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA3076
(2) Instrument QC Batch: MA3080
(3) Prep QC Batch: MP6503
(4) Prep QC Batch: MP6507

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.5

Client Sample ID:	MW-9		
Lab Sample ID:	T18606-5	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	25.0	5.0	mg/l	1	08/28/07 16:00	TW	EPA 310.1
Chloride	775	50	mg/l	50	08/30/07 17:00	TW	EPA 325.3
Nitrogen, Nitrate + Nitrite	0.40	0.050	mg/l	1	08/28/07 08:00	CP	EPA 353.2
Solids, Total Dissolved	16500	10	mg/l	1	08/28/07	RM	EPA 160.1
Sulfate	10900	1000	mg/l	100	09/07/07 14:00	TW	EPA 375.3

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	T18606-6	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK022478.D	5	09/05/07	LJ	n/a	n/a	GKK1178
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	5.0	1.1	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.7	ug/l	
1330-20-7	Xylenes (total)	ND	10	2.8	ug/l	
95-47-6	o-Xylene	ND	5.0	2.8	ug/l	
	m,p-Xylene	ND	5.0	3.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	72%		61-125%
98-08-8	aaa-Trifluorotoluene	81%		50-139%

(a) Sample analyzed beyond hold time; reported results are considered minimum values. Sample was not preserved to a PH < 2.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	T18606-6	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1300	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Arsenic	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Barium	< 200	200	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cadmium	< 4.0	4.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Calcium	69500	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Chromium	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Cobalt	< 50	50	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Copper	< 25	25	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Iron	855	100	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Lead	4.8	3.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Magnesium	288000	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Manganese	590	15	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Mercury	< 0.20	0.20	ug/l	1	08/28/07	08/28/07	NS	SW846 7470A [1]	SW846 7470A [3]
Molybdenum	16.5	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Nickel	< 40	40	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Potassium	87400	5000	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Selenium	< 5.0	5.0	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Silver	< 10	10	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Sodium	2220000	50000	ug/l	10	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]
Zinc	132	20	ug/l	1	08/28/07	08/30/07	NS	SW846 6010B [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA3076
(2) Instrument QC Batch: MA3080
(3) Prep QC Batch: MP6503
(4) Prep QC Batch: MP6507

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.6

Client Sample ID:	MW-8		
Lab Sample ID:	T18606-6	**Date Sampled:**	08/23/07
Matrix:	AQ - Ground Water	**Date Received:**	08/24/07
		Percent Solids:	n/a
Project:	San Juan River Plant (SJRP)		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	2580	20	mg/l	4	08/28/07 16:00	TW	EPA 310.1
Chloride	165	10	mg/l	10	08/30/07 17:00	TW	EPA 325.3
Nitrogen, Nitrate + Nitrite	0.60	0.050	mg/l	1	08/28/07 08:00	CP	EPA 353.2
Solids, Total Dissolved	8200	10	mg/l	1	08/28/07	RM	EPA 160.1
Sulfate	3980	10	mg/l	10	08/28/07 14:00	TW	EPA 375.3

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

T18606

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking # 8548 7738 8866 528 | Bottle Order Control #
Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: MWH Americas
Address: 1801 California St. # 2900
City: Denver State: CO Zip: 80202
Project Contact: Ted Smith E-mail:
Phone #: 303 291 2276
Sampler's Name: Nick

Project Information

Project Name: San Juan Basin Plant
Street:
City: State:
Project #:
Fax #:
Client Purchase Order # TWO DACAB San Juan 0006

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: ID	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	DI/OTHER	BTEX	Methyl Silicates	NO2 NO3	Alkalinity, SO4, TDS					Lab Use Only
1	MW-6		8/23/07	0735	MN	WG	5	3		1		1				X	X	X	X					
2	MW-7		8/23/07	0820	MN	WG	5	3		1		1				X	X	X	X					
3	MW-4		8/23/07	0852	MN	WG	5	3		1		1				X	X	X	X					
4	MW-5		8/23	0955	MN	WG	5	3		1		1				X	X	X	X					
5	MW-9		8/23	1040	MN	WG	5	3		1		1				X	X	X	X					
6	MW-8		8/23	1125	MN	WG	5			1		1	4			X	X	X	X					

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Turnaround Time (Business Days)

- [x] 10 Day STANDARD — Approved By: / Date:
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] TRRP13
- [ ] EDD Format

Commercial "A" = Results Only

Comments / Remarks

BTEX VOAs MW-8 are not preserved

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time	Received by	Relinquished by	Date Time	Received by:
1	8/23/07 1200	1	2		2
Relinquished by	Date Time:	Received by	Relinquished by	Date Time	Received by:
3		3	4		4
Relinquished by:	Date Time	Received by	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp
5		5				

4.1 4

T18606: Chain of Custody
Page 1 of 3

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking # 958677886528 | Bottle Order Control #
Accutest Quote # | Accutest Job # T18606

Client / Reporting Information

Company Name: NWH Americas
Address: 1801 California Ste 2900
City: Denver State: CO Zip: 80202
Project Contact: Jed Smith E-mail:
Phone #: 303 291 2276
Sampler's Name: Nee

Project Information

Project Name: San Juan Basin Plant
Street:
City: State:
Project #:
Fax #:
Client Purchase Order # DALAB TWO ~~DALAB~~ SanJuan 006

Requested Analysis

BTEX | Metals & Cations | NO2, NO3 | Alk, CHL, SO4, TDS

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	MeOH	DI H2O	ENCORE	BTEX	Metals & Cations	NO2, NO3	Alk, CHL, SO4, TDS	LAB USE ONLY
1	MW-6		8/23/07	0735	MN	WG	5	3		1	1	1				X	X	X	X	
2	W-7		8/23/07	0820	MN	WG	5	3		1	1	1				X	X	X	X	
3	MW-4		08/23/07	0852	MN	WG	5	3		1	1	1				X	X	X	X	
4	MW-5		0823	0955	MN	WG	5	3												
5	MW-9		0823	1040	MN	WG	5	3												
6	MW-8		0823	1125	MN	WG	5			1	1	4				X	X	X	X	

Turnaround Time (Business Days)

- [x] 10 Day *STANDARD* — Approved By: / Date
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- [ ] Commercial "A" — [ ] EDD Format
- [ ] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] TRRP13

Commercial "A" = Results Only

Comments / Remarks

BTEX VOAs MW-8 are not preserved

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time	Received by:	Relinquished by	Date Time	Received by
1 8/23/07	1208	1	2		2
Relinquished by:	Date Time	Received by:	Relinquished by:	Date Time	Received by:
3		3	4		4
Relinquished by:	Date Time	Received by:	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp
5	8/24/07 9:15	5		☐	☐	1.7

4.1 4

T18606: Chain of Custody
Page 2 of 3

ACCUTEST.

SAMPLE RECEIPT LOG

JOB #: T18606 DATE/TIME RECEIVED: 8/24/07/ 9:15

CLIENT: MWH Americas INITIALS: AR

Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):

1. (Y) N Sample received in undamaged condition.
2. (Y) N Samples received within temp. range.
3. (Y) N Sample received with proper pH.
4. (Y) N Sample received in proper containers.
5. (Y) N Sample volume sufficient for analysis.
6. (Y) N Sample received with chain of custody.
7. (Y) N Chain of Custody matches **sample IDs and analysis** on containers.
8. (Y) N Samples Headspace acceptable
9. (Y) N NA Custody seal received intact and tamper not evident on cooler.
10. Y N (NA) Custody seal received intact and tamper not evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1-5	1-3	8/23	AQ	40ml	VREF	(1),2,3,4,5,6	U, <2, >12, NA
↓	4	↓	↓	P250	2T	1,2,3,(4),5,6	U, (<2), >12, NA
↓	5	↓	↓	P500	↓	1,2,(3),4,5,6	U, (<2), >12, NA
↓	6	↓	↓	P1000	↓	(1),2,3,4,5,6	(U), <2, >12, NA
6	1-3	↓	↓	40ml	VREF	(1),2,3,4,5,6	U, <2, >12, (NA)
↓	4	↓	↓	P250	2T	1,2,3,(4),5,6	U, (<2), >12, NA
↓	5	↓	↓	P500	↓	1,2,(3),4,5,6	U, (<2), >12, NA
↓	6	↓	↓	P1000	↓	(1),2,3,4,5,6	(U), <2, >12, NA
		QUR 8-24-07				1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

~~pH of waters checked excluding volatiles~~

pH of soils N/A

Delivery method: Courier: FE

COOLER TEMP: 1.7 COOLER TEMP:

COOLER TEMP: COOLER TEMP:

Form: SM012, Rev.07/28/06, QAO

4.1 4

T18606: Chain of Custody
Page 3 of 3

ACCUTEST. Laboratories T18606

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T18606
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1177-MB	KK022444.D	1	09/04/07	LJ	n/a	n/a	GKK1177

5.1

The QC reported here applies to the following samples: **Method:** SW846 8021B

T18606-1, T18606-2, T18606-3, T18606-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	70%	61-125%
98-08-8	aaa-Trifluorotoluene	100%	50-139%

Method Blank Summary

Job Number: T18606
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1178-MB	KK022475.D	1	09/05/07	LJ	n/a	n/a	GKK1178

5.1

The QC reported here applies to the following samples: **Method:** SW846 8021B

T18606-5, T18606-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	69%	61-125%
98-08-8	aaa-Trifluorotoluene	103%	50-139%

Blank Spike Summary

Job Number: T18606
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1177-BS	KK022466.D	1	09/05/07	LJ	n/a	n/a	GKK1177

The QC reported here applies to the following samples: **Method:** SW846 8021B

T18606-1, T18606-2, T18606-3, T18606-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.8	94	79-122
100-41-4	Ethylbenzene	20	17.8	89	80-118
108-88-3	Toluene	20	19.0	95	78-120
1330-20-7	Xylenes (total)	60	55.9	93	80-120
95-47-6	o-Xylene	20	19.1	96	80-121
	m,p-Xylene	40	36.8	92	79-120

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	92%	61-125%
98-08-8	aaa-Trifluorotoluene	107%	50-139%

Blank Spike Summary

Job Number: T18606
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1178-BS	KK022476.D	1	09/05/07	LJ	n/a	n/a	GKK1178

5.2
5

The QC reported here applies to the following samples: **Method:** SW846 8021B

T18606-5, T18606-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.0	95	79-122
100-41-4	Ethylbenzene	20	17.9	90	80-118
108-88-3	Toluene	20	19.0	95	78-120
1330-20-7	Xylenes (total)	60	55.1	92	80-120
95-47-6	o-Xylene	20	18.3	92	80-121
	m,p-Xylene	40	36.8	92	79-120

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	88%	61-125%
98-08-8	aaa-Trifluorotoluene	102%	50-139%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T18606
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T18613-5MS	KK022447.D	100	09/05/07	LJ	n/a	n/a	GKK1177
T18613-5MSD	KK022448.D	100	09/05/07	LJ	n/a	n/a	GKK1177
T18613-5	KK022446.D	100	09/05/07	LJ	n/a	n/a	GKK1177

5.3

The QC reported here applies to the following samples: **Method:** SW846 8021B

T18606-1, T18606-2, T18606-3, T18606-4

CAS No.	Compound	T18613-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	5990		2000	8180	110	8020	102	2	63-140/20
100-41-4	Ethylbenzene	2310		2000	4510	110	4510	110	0	74-130/20
108-88-3	Toluene	9410		2000	12000	130* [a]	12000	130* [a]	0	76-129/20
1330-20-7	Xylenes (total)	8020		6000	14700	111	14600	110	1	75-130/20
95-47-6	o-Xylene	2280		2000	4480	110	4460	109	0	78-128/20
	m,p-Xylene	5750		4000	10300	114	10100	109	2	75-129/20

CAS No.	Surrogate Recoveries	MS	MSD	T18613-5	Limits
460-00-4	4-Bromofluorobenzene	113%	113%	104%	61-125%
98-08-8	aaa-Trifluorotoluene	128%	116%	115%	50-139%

(a) Outside control limits due to high level in sample relative to spike amount.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T18606
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T18708-2MS	KK022480.D	1	09/05/07	LJ	n/a	n/a	GKK1178
T18708-2MSD	KK022481.D	1	09/05/07	LJ	n/a	n/a	GKK1178
T18708-2	KK022479.D	1	09/05/07	LJ	n/a	n/a	GKK1178

5.3

The QC reported here applies to the following samples: **Method:** SW846 8021B

T18606-5, T18606-6

CAS No.	Compound	T18708-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.64	J	20	20.9	101	20.9	101	0	63-140/20
100-41-4	Ethylbenzene	ND		20	19.3	97	19.3	97	0	74-130/20
108-88-3	Toluene	ND		20	21.3	107	21.0	105	1	76-129/20
1330-20-7	Xylenes (total)	ND		60	58.9	98	59.7	100	1	75-130/20
95-47-6	o-Xylene	ND		20	19.2	96	19.9	100	4	78-128/20
	m,p-Xylene	ND		40	39.7	99	39.9	100	1	75-129/20

CAS No.	Surrogate Recoveries	MS	MSD	T18708-2	Limits
460-00-4	4-Bromofluorobenzene	94%	92%	72%	61-125%
98-08-8	aaa-Trifluorotoluene	108%	106%	86%	50-139%

Metals Analysis

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6503
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/28/07

Metal	RL	IDL	MB raw	final
Mercury	0.20	.049	0.0010	<0.20

Associated samples MP6503: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6503
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/28/07 08/28/07

Metal	T18606-5 Original	DUP	RPD	QC Limits	T18606-5 Original	MS	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-6.6	0.0	3.2	3.2	100.0	78-118

Associated samples MP6503: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6503
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/28/07

Metal	T18606-5 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	0.0	3.1	3.2	96.9	3.2	

Associated samples MP6503: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6503
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/28/07

Metal	BSP Result	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	3.0	3.2	93.8	80-120

Associated samples MP6503: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3

6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6507
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/28/07

Metal	RL	IDL	MB raw	final
Aluminum	200	51	9.1	<200
Antimony	5.0	1.8		
Arsenic	5.0	1.4	-0.19	<5.0
Barium	200	.1	0.0	<200
Beryllium	5.0	.06		
Boron	100	1.4	anr	
Cadmium	4.0	.5	-0.020	<4.0
Calcium	5000	8	4.0	<5000
Chromium	10	.9	-2.8	<10
Cobalt	50	.99	-0.33	<50
Copper	25	1.4	-0.21	<25
Iron	100	16	-1.4	<100
Lead	3.0	.7	0.27	<3.0
Magnesium	5000	8	2.7	<5000
Manganese	15	.2	-0.020	<15
Molybdenum	10	.45	0.43	<10
Nickel	40	1	-2.0	<40
Potassium	5000	80	-31	<5000
Selenium	5.0	1.7	2.1	<5.0
Silver	10	.5	-0.54	<10
Sodium	5000	160	12.0	<5000
Strontium	20	.5		
Thallium	10	1.5		
Tin	20	1.5	anr	
Titanium	20	.5		
Vanadium	50	.4		
Zinc	20	.8	2.4	<20

Associated samples MP6507: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6507
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/28/07 08/28/07

Metal	T18606-6 Original	DUP	RPD	QC Limits	T18606-6 Original	MS	Spikelot MPTW3	% Rec	QC Limits
Aluminum	1300	1260	17.4	0-20	1300	57300	50000	111.6	75-125
Antimony									
Arsenic	4.9	4.4	200.0(a)	0-20	4.9	403	400	100.8	75-125
Barium	28.9	26.6	5.5	0-20	28.9	434	400	101.5	75-125
Beryllium									
Boron	anr								
Cadmium	0.0	0.0	NC	0-20	0.0	392	400	98.0	75-125
Calcium	69500	65800	7.3	0-20	69500	119000	50000	96.4	75-125
Chromium	2.1	1.7	200.0(a)	0-20	2.1	406	400	101.5	75-125
Cobalt	5.0	4.9	200.0(a)	0-20	5.0	413	400	103.3	75-125
Copper	8.6	11.9	200.0(a)	0-20	8.6	438	400	109.5	75-125
Iron	855	829	7.3	0-20	855	50700	50000	99.6	75-125
Lead	4.8	6.5	200.0(a)	0-20	4.8	413	400	103.3	75-125
Magnesium	288000	272000	3.6	0-20	288000	334000	50000	104.0	75-125
Manganese	590	555	3.5	0-20	590	983	400	102.0	75-125
Molybdenum	16.5	16.1	13.9	0-20	16.5	403	400	96.1	75-125
Nickel	6.6	7.6	200.0(a)	0-20	6.6	399	400	99.8	75-125
Potassium	87400	80500	31.7 (a)	0-20	87400	153000(b	50000	189.0N(c	75-125
Selenium	3.2	0.0	0.0	0-20	3.2	419	400	104.8	75-125
Silver	0.0	0.0	NC	0-20	0.0	424	400	106.0	75-125
Sodium	2060000	2170000	2.3	0-20	2060000	2260000	50000	80.0	75-125
Strontium									
Thallium									
Tin	anr								
Titanium									
Vanadium									
Zinc	132	40.8	99.8 (a)	0-20	132	523	400	100.3	75-125

Associated samples MP6507: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Spike recovery is outside control limit due to high concentration of sample.
(c) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6507
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/28/07

Metal	T18606-6 Original	MSD	Spikelot MPTW3	% Rec	MSD RPD	QC Limit
Aluminum	1300	57200	50000	111.4	6.1	
Antimony						
Arsenic	4.9	400	400	100.0	0.3	
Barium	28.9	434	400	101.5	1.6	
Beryllium						
Boron	anr					
Cadmium	0.0	392	400	98.0	5.9	
Calcium	69500	116000	50000	90.4	6.7	
Chromium	2.1	405	400	101.3	5.1	
Cobalt	5.0	413	400	103.3	1.7	
Copper	8.6	437	400	109.3	10.1	
Iron	855	50600	50000	99.4	4.3	
Lead	4.8	411	400	102.8	0.7	
Magnesium	288000	324000	50000	84.0	3.9	
Manganese	590	966	400	97.8	3.0	
Molybdenum	16.5	404	400	96.4	3.9	
Nickel	6.6	398	400	99.5	1.2	
Potassium	87400	149000(a	50000	181.0N(b	23.2	
Selenium	3.2	417	400	104.3	0.7	
Silver	0.0	424	400	106.0	8.4	
Sodium	2060000	2170000	50000	-100.0(c	4.1	
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	132	452	400	82.5	15.7	

Associated samples MP6507: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery is outside control limit due to high concentration of sample.
(b) Spike recovery indicates possible matrix interference.
(c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6507
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/28/07

Metal	BSP Result	Spikelot MPTW3	% Rec	QC Limits
Aluminum	49200	50000	98.4	80-120
Antimony				
Arsenic	378	400	94.5	80-120
Barium	403	400	100.8	80-120
Beryllium				
Boron	anr			
Cadmium	387	400	96.8	80-120
Calcium	50800	50000	101.6	80-120
Chromium	393	400	98.3	80-120
Cobalt	395	400	98.8	80-120
Copper	403	400	100.8	80-120
Iron	49100	50000	98.2	80-120
Lead	392	400	98.0	80-120
Magnesium	53600	50000	107.2	80-120
Manganese	398	400	99.5	80-120
Molybdenum	392	400	98.0	80-120
Nickel	386	400	96.5	80-120
Potassium	50700	50000	101.4	80-120
Selenium	379	400	94.8	80-120
Silver	391	400	97.8	80-120
Sodium	50200	50000	100.4	80-120
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	445	400	111.3	80-120

Associated samples MP6507: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

QC Batch ID: MP6507
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/28/07

Metal	T18606-6 Original	SDL 1:5	RPD	QC Limits
Aluminum	1300	1320	11.8 (a)	0-10
Antimony				
Arsenic	4.94	0.00		0-10
Barium	28.9	28.4	1.4	0-10
Beryllium				
Boron	anr			
Cadmium	0.00	0.00	NC	0-10
Calcium	69500	68600	3.2	0-10
Chromium	2.10	0.00		0-10
Cobalt	5.01	0.00		0-10
Copper	8.62	0.00		0-10
Iron	855	867	2.8	0-10
Lead	4.83	7.84		0-10
Magnesium	288000	281000	0.2	0-10
Manganese	590	572	0.6	0-10
Molybdenum	16.5	18.4	0.3	0-10
Nickel	6.63	0.00		0-10
Potassium	87400	65300	11.7*(b)	0-10
Selenium	3.23	13.5		0-10
Silver	0.00	0.00	NC	0-10
Sodium	2060000	2430000	9.6	0-10
Strontium				
Thallium				
Tin	anr			
Titanium				
Vanadium				
Zinc	132	128	5.3	0-10

Associated samples MP6507: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN12319	5.0	<5.0	mg/l	2500	2300	92.0	80-120%
Chloride	GN12320	1.0	<1.0	mg/l	1000	1040	104.0	92-107%
Nitrogen, Nitrate + Nitrite	GN12314	0.050	<0.050	mg/l	0.50	0.53	106.0	89-112%
Solids, Total Dissolved	GN12322	10	<10	mg/l				
Sulfate	GN12321	10	<10	mg/l	100	81.1	81.0	80-120%
Sulfate	GN12364	10	<10[1]	mg/l	100	102	102.0	80-120%

Associated Samples:
Batch GN12314: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12319: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12320: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12321: T18606-1, T18606-2, T18606-3, T18606-6
Batch GN12322: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12364: T18606-4, T18606-5
(*) Outside of QC limits

7.1
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN12319	T18606-1	mg/l	30.0	2640	2.3	0-10%
Chloride	GN12320	T18606-3	mg/l	303	303	0.0	0-5%
Nitrogen, Nitrate + Nitrite	GN12314	T18539-1	mg/l	0.30	0.30	0.0	0-10%
Solids, Total Dissolved	GN12322	T18606-1	mg/l	15500	16000	3.2	0-15%
Sulfate	GN12321	T18606-6	mg/l	3980	4020	1.0	0-20%
Sulfate	GN12364	T18606-5	mg/l	10900	11000	1.0	0-20%

Associated Samples:
Batch GN12314: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12319: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12320: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12321: T18606-1, T18606-2, T18606-3, T18606-6
Batch GN12322: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12364: T18606-4, T18606-5
(*) Outside of QC limits

7.2
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T18606
Account: MWHSLCUT - Montgomery Watson
Project: San Juan River Plant (SJRP)

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN12319	T18606-1	mg/l	30.0	100	2720	140.0	79-122%
Chloride	GN12320	T18606-3	mg/l	303	100	403	100.0	81-119%
Nitrogen, Nitrate + Nitrite	GN12314	T18539-1	mg/l	0.30	0.1	0.40	100.0	80-119%
Sulfate	GN12321	T18606-6	mg/l	3980	25	4190	836.0(a)	75-125%
Sulfate	GN12364	T18606-5	mg/l	10900	2500	12900	81.0	75-125%

Associated Samples:
Batch GN12314: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12319: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12320: T18606-1, T18606-2, T18606-3, T18606-4, T18606-5, T18606-6
Batch GN12321: T18606-1, T18606-2, T18606-3, T18606-6
Batch GN12364: T18606-4, T18606-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

7.3
7

DATA VERIFICATION WORKSHEET

Analytical Method/Analytes:	**SW-846 8260B (BTEX)**	**Sample Collection Date(s):**	**11/28/07**
Laboratory:	**Accutest**	**MWH Job Number:**	SJRB
Batch Identification:	**T19919**	**Matrix:**	**Water**
MS/MSD Parent(s)[(a)]:		**Field Replicate Parent(s):**	**None**

Verification Craig Moore -03/27/08
(Date/Signature)

Foot Notes	Site ID	Sample ID	Lab. ID	Hits (Y/N)	Quals.	Comments
1,2	SJRP	MW-8	T19919-1	Y	UJ UJ UJ J- UJ UJ	Benzene @ <2.0 µg/kg Toluene @ <2.0 µg/kg Ethylbenzene @ <2.0 µg/kg Xylenes (total) @ 0.45 µg/kg o-Xylene @ <2.0 µg/kg m,p-Xylene @ <4.0 µg/kg
2	SJRP	MW-9	T19919-2	Y	None	
2	SJRP	MW-52	T19919-3	N	None	
		112807TB01	T19920-6	Y	None	

DATA VERIFICATION WORKSHEET

Analytical Method:	**SW-846 8021B (BTEX)**	**MWH Job Number:**	**SJRB**
Laboratory:	**Accutest**	**Batch Identification:**	**T19919**

Verification Criteria								
Sample ID	**MW-8**	**MW-9**	**MW-52**	**TB**				
Lab ID	**T19919-1**	**T19919-2**	**T19919-3**	**T19920-6**				
Holding Time	A[1]	A	A	A				
Analyte List	A	A	A	A				
Reporting Limits	A	A	A	A				
Surrogate Spike Recovery	A	A	A	A				
Trip Blank	A[2]	A[2]	A[2]	N/A				
Equipment Rinseate Blanks	N/A	N/A	N/A	N/A				
Field Duplicate/Replicate	N/A	N/A	N/A	N/A				
Initial Calibration	N	N	N	N				
Initial Calibration Verification (ICV)	N	N	N	N				
Continuing Calibration Verification (CCV)	N	N	N	N				
Method Blank	A	A	A	A				
Laboratory Control Sample (LCS)	A	A	A	A				
Laboratory Control Sample Duplicate (LCSD)	N	N	N	N				
Matrix Spike/Matrix Spike Dup. (MS/MSD)	N/A	N/A	N/A	N/A				
Retention Time Window	N	N	N	N				
Injection Time(s)	N	N	N	N				
Hardcopy vs. Chain-of-Custody	A	A	A	A				
EDD vs. Hardcopy	N	N	N	N				
EDD vs. Chain of Custody	N	N	N	N				

(a) List QC batch identification if different than Batch ID
A indicates verification criteria were met
A/L indicates verification criteria met based upon Laboratory's QC Summary Form
X indicates verification criteria were not met
N indicates data review were not a project specific requirement
N/A indicates criteria are not applicable for the specified analytical method or sample
N/R indicates data not available for review

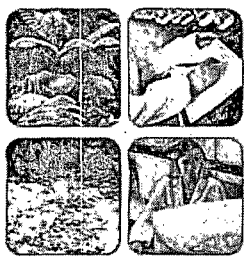
NOTES:

1) Sample pH at time of analysis was greater than two, thus reducing the holding time from 14 days to seven. Sample analyzed nine days after sample collection or two days outside of holding time, introducing a possible low bias. Qualify associated positive sample results with "J-" flags, indicating the data are estimated and possibly biased low. Qualify associated non-detect sample results with "UJ" flags, indicating possible false negatives.
2) Trip blank contains toluene @ 1.7 µg/l. Analyte not detected in associated samples, no qualification.

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

03/04/08



Technical Report for

Montgomery Watson

San Juan River Plant (SJRP)

TWO D-ALAB SANJUAN 006

Accutest Job Number: T19919

Sampling Date: 11/28/07

Report to:

Daniel.a.wade@mwhglobal.com

ATTN: Daniel Wade

Total number of pages in report: 19

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Ron Martino
Laboratory Manager

Client Service contact: Agnes Vicknair 713-271-4700

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Sections: 1 2 3 4 5

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Sample Results **5**
3.1: T19919-1: MW-8 6
3.2: T19919-2: MW-9 7
3.3: T19919-3: MW-52 8
Section 4: Misc. Forms **9**
4.1: Chain of Custody 10
Section 5: GC/MS Volatiles - QC Data Summaries **13**
5.1: Method Blank Summary 14
5.2: Blank Spike Summary 16
5.3: Matrix Spike/Matrix Spike Duplicate Summary 18

Sample Summary

Montgomery Watson

Job No: T19919

San Juan River Plant (SJRP)
Project No: TWO D-ALAB SANJUAN 006

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
T19919-1	11/28/07	13:31	MN	11/30/07	AQ	Ground Water	MW-8
T19919-2	11/28/07	13:57	MN	11/30/07	AQ	Ground Water	MW-9
T19919-3	11/28/07	15:31	MN	11/30/07	AQ	Ground Water	MW-52

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Montgomery Watson **Job No** T19919

Site: EPFS San Juan Basin Groundwater Site **Report Date** 12/10/2007 4:19:56 PM

3 Samples were collected on 11/28/2007 and were received at Accutest on 11/30/2007 properly preserved, at 2.3 Deg. C and intact. These Samples received an Accutest job number of T19919. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** VB1552

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T19925-32MS, T19925-32MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for m,p-Xylene are outside control limits. Outside control limits due to matrix interference.
- T19919-1: Sample was not preserved to a pH < 2; reported results are considered minimum values.

Matrix AQ **Batch ID:** VF2798

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

3.1

Client Sample ID:	MW-8		
Lab Sample ID:	T19919-1	**Date Sampled:**	11/28/07
Matrix:	AQ - Ground Water	**Date Received:**	11/30/07
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	B0130886.D	1	12/07/07	ZLH	n/a	n/a	VB1552
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.46	ug/l	
108-88-3	Toluene	ND	2.0	0.48	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.45	ug/l	
1330-20-7	Xylene (total)	0.45	6.0		ug/l	J
95-47-6	o-Xylene	ND	2.0	0.42	ug/l	
	m,p-Xylene	ND	4.0	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-125%
17060-07-0	1,2-Dichloroethane-D4	121%		69-128%
2037-26-5	Toluene-D8	98%		80-121%
460-00-4	4-Bromofluorobenzene	96%		69-142%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	T19919-2	**Date Sampled:**	11/28/07
Matrix:	AQ - Ground Water	**Date Received:**	11/30/07
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B0130887.D	1	12/07/07	ZLH	n/a	n/a	VB1552
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	90.9	2.0	0.46	ug/l	
108-88-3	Toluene	ND	2.0	0.48	ug/l	
100-41-4	Ethylbenzene	20.4	2.0	0.45	ug/l	
1330-20-7	Xylene (total)	7.0	6.0		ug/l	
95-47-6	o-Xylene	ND	2.0	0.42	ug/l	
	m,p-Xylene	7.0	4.0	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-125%
17060-07-0	1,2-Dichloroethane-D4	118%		69-128%
2037-26-5	Toluene-D8	98%		80-121%
460-00-4	4-Bromofluorobenzene	99%		69-142%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-52		
Lab Sample ID:	T19919-3	**Date Sampled:**	11/28/07
Matrix:	AQ - Ground Water	**Date Received:**	11/30/07
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	San Juan River Plant (SJRP)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F0088687.D	1	12/10/07	ZLH	n/a	n/a	VF2798
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.46	ug/l	
108-88-3	Toluene	ND	2.0	0.48	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.45	ug/l	
1330-20-7	Xylene (total)	ND	6.0		ug/l	
95-47-6	o-Xylene	ND	2.0	0.42	ug/l	
	m,p-Xylene	ND	4.0	0.94	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-125%
17060-07-0	1,2-Dichloroethane-D4	105%		69-128%
2037-26-5	Toluene-D8	102%		80-121%
460-00-4	4-Bromofluorobenzene	111%		69-142%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking # 8023725833317 | Bottle Order Control #
Accutest Quote # | Accutest Job # T19919

Client / Reporting Information

Company Name: MWH AMERICAS
Address: 1801 CALIFORNIA STE 2900
City: DENVER State: CO Zip: 80202
Project Contact: JED SMITH E-mail:
Phone #: 303 291 2276
Sampler's Name: M NEE

Project Information

Project Name: SAN JUAN BASIN PLANT
Street:
City: State:
Project #:
Fax #:
Client Purchase Order #: TWO D-ALAB SAN JUAN 006

Requested Analysis

8021b BTEX

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: DI	HCl	H2SO4	NaOH	NaHSO4	MeOH	ENCORE	LAB USE ONLY
1	MW-8		112807	1331	MN	WG	3				3			X	
2	MW-9		112807	1357	MN	WG	3	3						X	
3	MW-52		112807	1531	MN	WG	3				3			X	

Turnaround Time (Business Days)

- [x] 10 Day *STANDARD* — Approved By: / Date:
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] EDD Format
- [ ] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] TRRP13

Commercial "A" = Results Only

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery

Relinquished by Sampler:	Date Time	Received by	Relinquished by	Date Time	Received by
1 AK 112907	1600	1	2		2
Relinquished by:	Date Time	Received by:	Relinquished by:	Date Time:	Received by
3		3	4		4
Relinquished by:	Date Time: 11/29/07 12:00	Received by: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒	Cooler Temp 2.3

4.1 4

T19919: Chain of Custody
Page 1 of 3

ACCUTEST.

SAMPLE RECEIPT LOG

JOB #: T19919

DATE/TIME RECEIVED: 11/30/07 | 10:00

CLIENT: MWH Americas

INITIALS: AR

Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):

1. [✓ Y] N Sample received in undamaged condition.
2. [✓ Y] N Samples received within temp. range.
3. Y [✓ N] Sample received with proper pH.
4. [✓ Y] N Sample received in proper containers.
5. [✓ Y] N Sample volume sufficient for analysis.
6. [✓ Y] N Sample received with chain of custody.
7. [✓ Y] N Chain of Custody matches **sample IDs and analysis** on containers.
8. [✓ Y] N Samples Headspace acceptable
9. Y N [✓ NA] Custody seal received intact and tamper not evident on cooler.
10. Y N [✓ NA] Custody seal received intact and tamper not evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1-3	1-3	11/28	AQ	40ml	VREF	[✓ 1],2,3,4,5,6	U, <2, >12, NA
	(#2 is	the only	one	w/ 4C)		1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
		AR 11-30-07				1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

pH of waters checked excluding volatiles

pH of soils N/A

Delivery method: Courier: FE

COOLER TEMP: 2.3 COOLER TEMP:

COOLER TEMP: COOLER TEMP:

Form: SM012, Rev.07/28/06, QAO

T19919: Chain of Custody

Page 2 of 3

T19919

8b2372583317

Fedex Tracking Number

Phone

Company

Address

State

ZIP

Dept/Room/Floor/Suite/Room

our Internal Billing Reference

T19919: Chain of Custody
Page 3 of 3

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T19919
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1552-MB	B0130869.D	1	12/06/07	ZLH	n/a	n/a	VB1552

The QC reported here applies to the following samples: **Method:** SW846 8260B

T19919-1, T19919-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.46	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.45	ug/l	
108-88-3	Toluene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0		ug/l	
	m,p-Xylene	ND	4.0	0.94	ug/l	
95-47-6	o-Xylene	ND	2.0	0.42	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	76-125%
17060-07-0	1,2-Dichloroethane-D4	116%	69-128%
2037-26-5	Toluene-D8	96%	80-121%
460-00-4	4-Bromofluorobenzene	99%	69-142%

Method Blank Summary

Job Number: T19919
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF2798-MB	F0088682.D	1	12/10/07	ZLH	n/a	n/a	VF2798

5.1

The QC reported here applies to the following samples: **Method:** SW846 8260B

T19919-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.46	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.45	ug/l	
108-88-3	Toluene	ND	2.0	0.48	ug/l	
1330-20-7	Xylene (total)	ND	6.0		ug/l	
	m,p-Xylene	ND	4.0	0.94	ug/l	
95-47-6	o-Xylene	ND	2.0	0.42	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	76-125%
17060-07-0	1,2-Dichloroethane-D4	104%	69-128%
2037-26-5	Toluene-D8	103%	80-121%
460-00-4	4-Bromofluorobenzene	112%	69-142%

Blank Spike Summary

Job Number: T19919
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB1552-BS	B0130870.D	1	12/06/07	ZLH	n/a	n/a	VB1552

5.2

The QC reported here applies to the following samples: Method: SW846 8260B

T19919-1, T19919-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	26.3	105	73-121
100-41-4	Ethylbenzene	25	26.4	106	75-117
108-88-3	Toluene	25	25.6	102	75-119
1330-20-7	Xylene (total)	75	78.2	104	75-118
	m,p-Xylene	50	55.2	110	75-119
95-47-6	o-Xylene	25	23.0	92	74-117

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	76-125%
17060-07-0	1,2-Dichloroethane-D4	105%	69-128%
2037-26-5	Toluene-D8	96%	80-121%
460-00-4	4-Bromofluorobenzene	101%	69-142%

Blank Spike Summary

Job Number: T19919
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF2798-BS	F0088680.D	1	12/10/07	ZLH	n/a	n/a	VF2798

5.2

The QC reported here applies to the following samples: Method: SW846 8260B

T19919-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.0	96	73-121
100-41-4	Ethylbenzene	25	23.2	93	75-117
108-88-3	Toluene	25	23.4	94	75-119
1330-20-7	Xylene (total)	75	69.6	93	75-118
	m,p-Xylene	50	46.7	93	75-119
95-47-6	o-Xylene	25	22.9	92	74-117

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	76-125%
17060-07-0	1,2-Dichloroethane-D4	108%	69-128%
2037-26-5	Toluene-D8	102%	80-121%
460-00-4	4-Bromofluorobenzene	105%	69-142%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T19919
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T19925-32MS	B0130884.D	1	12/07/07	ZLH	n/a	n/a	VB1552
T19925-32MSD	B0130885.D	1	12/07/07	ZLH	n/a	n/a	VB1552
T19925-32	B0130871.D	1	12/06/07	ZLH	n/a	n/a	VB1552

5.3

The QC reported here applies to the following samples: **Method:** SW846 8260B

T19919-1, T19919-2

CAS No.	Compound	T19925-32 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2.0 U		25	30.3	121	28.6	114	6	74-125/18
100-41-4	Ethylbenzene	2.0 U		25	29.1	116	28.6	114	2	77-119/20
108-88-3	Toluene	2.0 U		25	28.5	114	27.7	111	3	79-119/21
1330-20-7	Xylene (total)	6.0 U		75	86.4	115	84.3	112	2	78-119/20
	m,p-Xylene	4.0 U		50	61.1	122* [a]	59.6	119	2	79-119/20
95-47-6	o-Xylene	2.0 U		25	25.3	101	24.8	99	2	76-118/21

CAS No.	Surrogate Recoveries	MS	MSD	T19925-32	Limits
1868-53-7	Dibromofluoromethane	103%	101%	101%	76-125%
17060-07-0	1,2-Dichloroethane-D4	118%	113%	114%	69-128%
2037-26-5	Toluene-D8	97%	97%	96%	80-121%
460-00-4	4-Bromofluorobenzene	98%	98%	96%	69-142%

(a) Outside control limits due to matrix interference.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T19919.
Account: MWHSLCUT Montgomery Watson
Project: San Juan River Plant (SJRP)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T20012-5MS	F0088699.D	1	12/10/07	ZLH	n/a	n/a	VF2798
T20012-5MSD	F0088700.D	1	12/10/07	ZLH	n/a	n/a	VF2798
T20012-5	F0088696.D	1	12/10/07	ZLH	n/a	n/a	VF2798

5.3

The QC reported here applies to the following samples: **Method:** SW846 8260B

T19919-3

CAS No.	Compound	T20012-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2.0 U		25	25.7	103	25.3	101	2	74-125/18
100-41-4	Ethylbenzene	2.0 U		25	24.4	98	24.1	96	1	77-119/20
108-88-3	Toluene	2.0 U		25	24.9	100	24.7	99	1	79-119/21
1330-20-7	Xylene (total)	6.0 U		75	74.0	99	72.2	96	2	78-119/20
	m,p-Xylene	4.0 U		50	49.5	99	48.6	97	2	79-119/20
95-47-6	o-Xylene	2.0 U		25	24.5	98	23.6	94	4	76-118/21

CAS No.	Surrogate Recoveries	MS	MSD	T20012-5	Limits
1868-53-7	Dibromofluoromethane	98%	99%	99%	76-125%
17060-07-0	1,2-Dichloroethane-D4	106%	106%	103%	69-128%
2037-26-5	Toluene-D8	102%	103%	104%	80-121%
460-00-4	4-Bromofluorobenzene	106%	105%	113%	69-142%