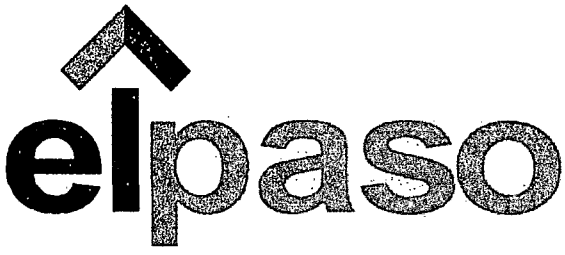
3R - 235

AGWMR

2009



El Paso Tennessee
Pipeline Company

San Juan Basin Pit Program
Groundwater Sites Project

Final 2009 Annual Report
Federal Sites (Volume 1)

April 2010

MWH

1801 California Street, Suite 2900
Denver, Colorado 80202

2009 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I

EL PASO TENNESSEE PIPELINE COMPANY

TABLE OF CONTENTS

METER or LINE ID	NMOCD CASE NO.	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
87640	3RP-155-0	Canada Mesa #2	24N	06W	24	I
89961	3RP-170-0	Fields A#7A	32N	11W	34	E
73220	3RP-068-0	Fogelson 4-1 Com. #14	29N	11W	4	P
89894	3RP-186-0	Hammond #41A	27N	08W	25	O
97213	3RP-190-0	Hamner #9	29N	09W	20	A
94715	3RP-196-0	James F. Bell #1E	30N	13W	10	P
89232	3RP-202-0	Johnston Fed #6A	31N	09W	35	F
LD072	3RP-204-0	K27 LD072	25N	06W	4	E
LD174	3RP-212-0	LAT L 40	28N	04W	13	H
LD151	3RP-213-0	Lat 0-21 Line Drip	30N	09W	12	O
94810	3RP-223-0	Miles Fed 1A	26N	07W	5	F
89620	3RP-235-0	Sandoval GC A #1A	30N	09W	35	C

* The Hamner #9 site was submitted for closure in January 2009 and is pending approval from NMOCD. There were no monitoring activities for this site in 2009.

elpaso MWH

MWH

BUILDING A BETTER WORLD

RECEIVED OCD

2010 APR 19 A 10:39

April 16, 2010

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

RE: El Paso Tennessee Pipeline Company Pit Groundwater Remediation Sites
2009 Annual Reports

Dear Mr. Von Gonten:

MWH Americas, Inc., on behalf of El Paso Tennessee Pipeline Company (EPTPC), is submitting the enclosed 2009 Annual Reports for each of EPTPC's 21 remaining San Juan River Basin pit groundwater remediation sites. The reports present the 2009 sampling and product recovery data and include recommendations for 2010 activities at these sites.

The 2009 Annual Reports are divided into three volumes based on location type. The volumes are as follows:

Volume	Location Type
1	Federal Land
2	Non-Federal Land (Excl. Navajo Nation)
3	Navajo Nation

If you have any questions concerning the enclosed reports, please call either Doug Stavinoha of EPTPC (713-420-5150), Ian Yanagisawa of EPTPC (713-420-7361), or me (303-291-2276).

Sincerely,

Jed Smith
Project Manager

encl.

cc: Bill Freeman – NNEPA, Shiprock, NM (Volume 3 Only)
Bill Liese – BLM, Farmington, NM (Volume 1 Only)
Brandon Powell – NMOCD, Aztec, NM (Volumes 1, 2, and 3)
Doug Stavinoha – EPTPC (Volumes 1, 2, and 3)

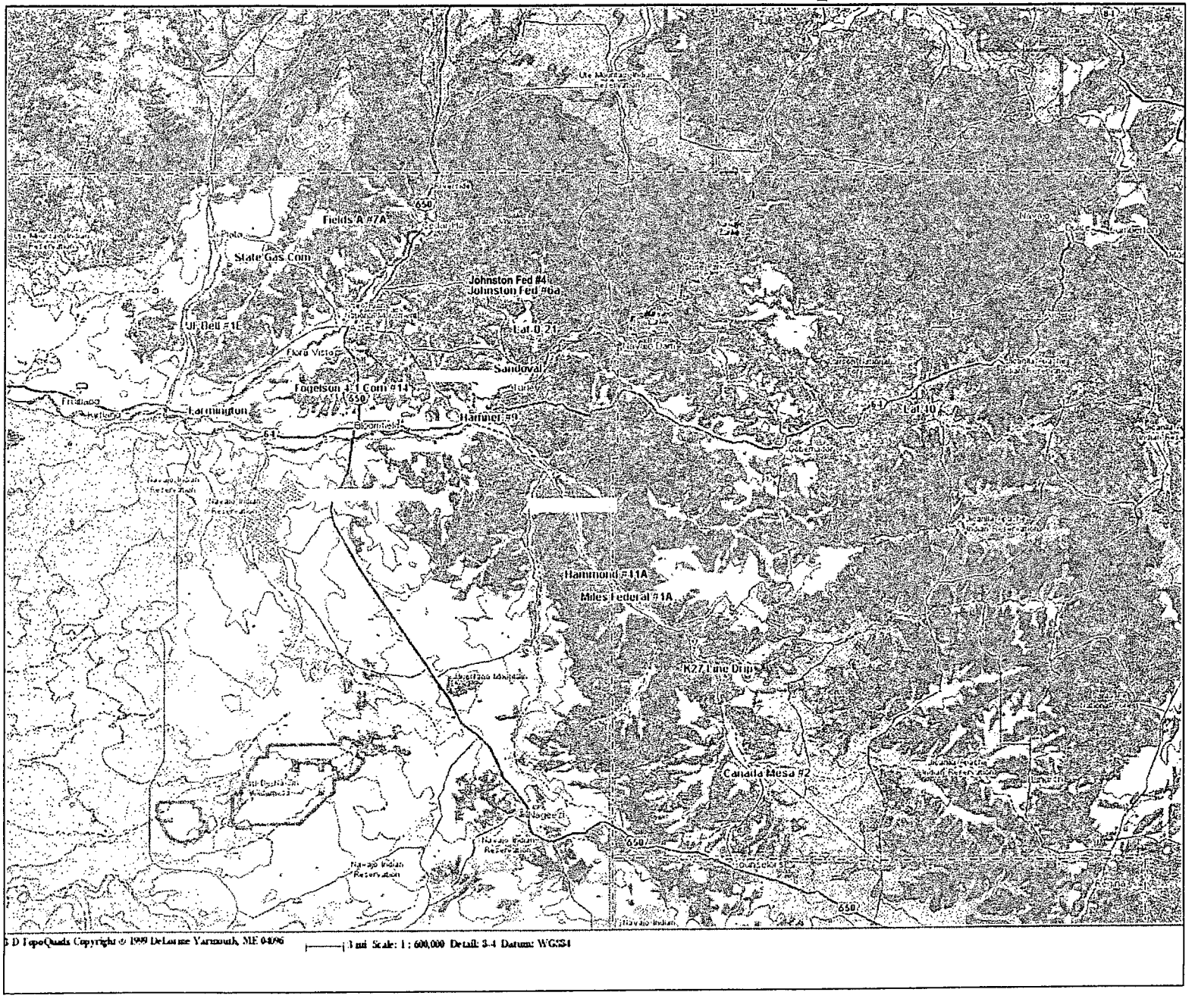
1801 California Street
Suite 2900
Denver, Colorado 80202

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

LIST OF ACRONYMS

AMSL	above mean sea level
B	benzene
btoc	below top of casing
E	ethylbenzene
EPTPC	El Paso Tennessee Pipeline Company
ft	foot/feet
GWEL	groundwater elevation
ID	identification
MW	monitor well
NMWQCC	New Mexico Water Quality Control Commission
T	toluene
TOC	top of casing
NA	not applicable
NMOCD	New Mexico Oil Conservation Division
NS	not sampled
ORC	oxygen-releasing compound
µg/L	micrograms per liter
X	total xylenes

Federal Groundwater Site Map



EPTPC GROUNDWATER SITES
2009 ANNUAL GROUNDWATER REPORT

Sandoval GC A #1A
Meter Code: 89620

SITE DETAILS

Legal Description:	**Town:**	30N	**Range:**	9W	**Sec:**	35	**Unit:** C
NMOCD Haz Ranking:	10	**Land Type:**	Federal	**Operator:**	BP / Amoco Production Company		

PREVIOUS ACTIVITIES

Site Assessment:	5/94	**Excavation:**	9/94 (50 cy)	**Soil Boring:**	5/95
Monitor Well:	5/95	**Geoprobe:**	NA*	**Additional MWs:**	NA*
Downgradient MWs:	NA	**Replace MW:**	8/97	**Quarterly Initiated:**	4/96
ORC Nutrient Injection:	10/01	**Re-Excavation:**	7/97 (504cy)	**PSH Removal Initiated:**	NA
Annual Initiated:	4/99	**Quarterly Resumed:**	NA	**PSH Removal in 2009?**	No

*Downgradient monitoring wells were attempted in 1995, but met with drilling refusal. In 1997, geoprobe borings were attempted, but were again met with drilling refusal.

SUMMARY OF 2009 ACTIVITIES

MW-1: Annual groundwater sampling and dissolved oxygen measurement (November) were performed during 2009. 3 fresh ORC socks were placed in the well following the annual sampling event.

Site-Wide Activities: No other activities were performed at this Site during 2009.

SITE MAP

A Site map (November) is attached as Figure 1.

SUMMARY TABLES AND GRAPHS

- Historic analytical and water level data are summarized in Table 1 and presented graphically on Figure 2.
- The 2009 laboratory report is presented in Attachment 1 (included on CD).
- The 2009 field documentation is presented in Attachment 2 (included on CD).

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this Site during 2009.

EPTPC GROUNDWATER SITES
2009 ANNUAL GROUNDWATER REPORT

Sandoval GC A #1A
Meter Code: 89620

DISPOSITION OF GENERATED WASTES

All purge water was taken to the El Paso Natural Gas Rio Vista Compressor Station. The spent oxygen-releasing socks were managed as non-hazardous solid waste.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this Site; however, the attached Site map presents the analytical data collected during 2009.

RESULTS

- Regional groundwater flow is estimated to be toward the south, toward the San Juan River (approximately 1 mile away).

- The benzene concentration in MW-1 decreased in 2009 to 88.4 µg/L, from a previous year result of 120 µg/L in 2008. As a long-term trend, the benzene concentrations continue to decrease from the historic high concentration of 10,400 µg/L in 1996.

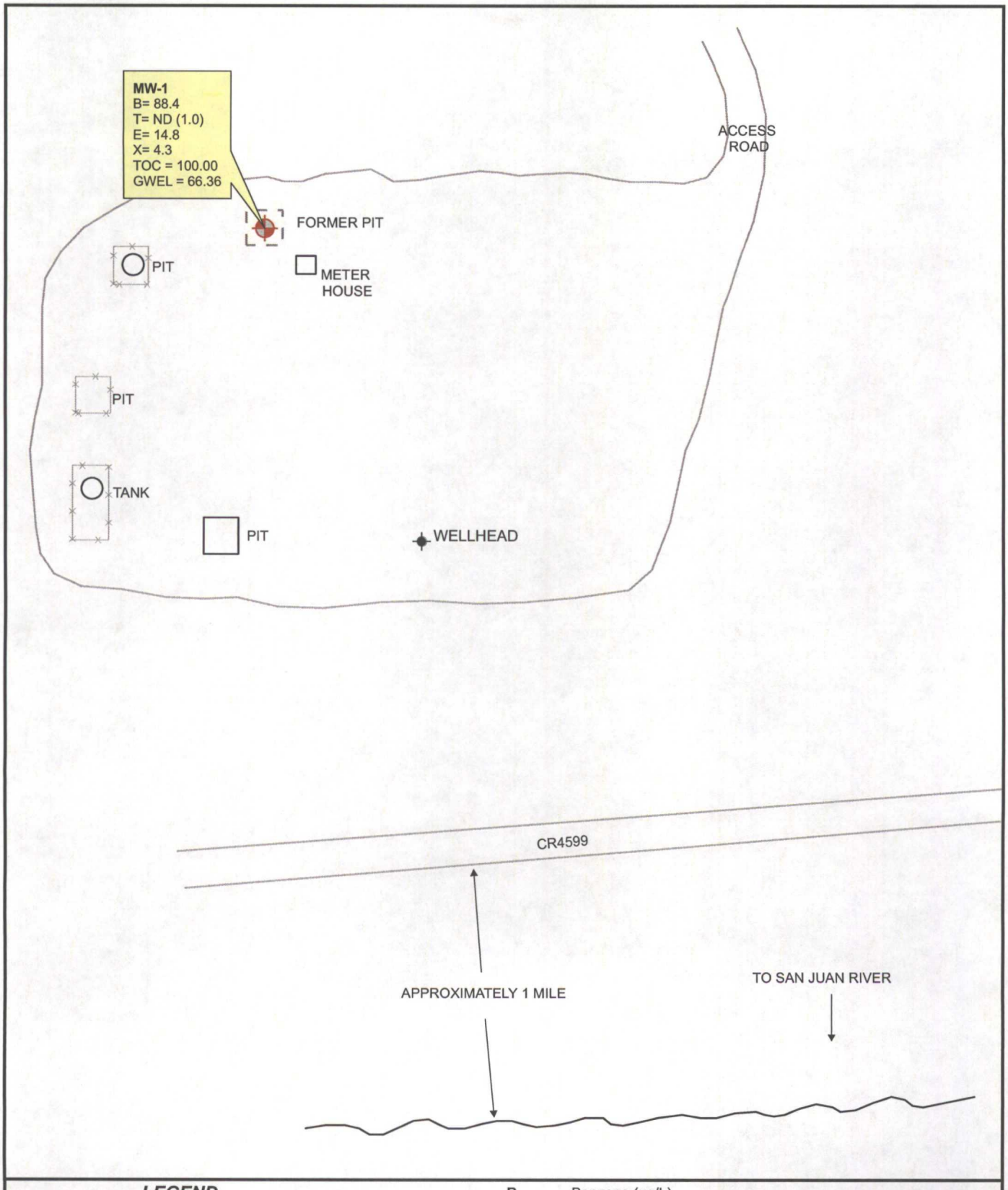
- The dissolved oxygen in MW-1 was approximately 21 mg/L on November 2, 2009, when the ORC® socks were removed for the upcoming sampling event. The dissolved oxygen results indicated that sufficient oxygen was present year-round for natural aerobic biodegradation to proceed un-impeded.

- Previous attempts to install downgradient monitoring wells in December 1995 resulted in drilling refusal. Therefore, additional wells are not considered to be feasible at this Site.

RECOMMENDATIONS

- EPTPC will continue annual groundwater sampling and dissolved oxygen measurements at MW-1. Once benzene concentrations approach the NMWQCC benzene standard of 10 µg/L, sampling will be conducted on a quarterly basis.

- EPTPC will continue to inspect the ORC socks installed in MW-1 and will replace them annually.



LEGEND

MW-4	Existing Monitoring / Observation Well
PZ-01	Abandoned Monitoring Well
→	Groundwater Flow Direction
—1275—	Potentiometric Surface Contour (Inferred Where Dashed)

B	Benzene (ug/L)
T	Toluene (ug/L)
E	Ethylbenzene (ug/L)
X	Total Xylenes (ug/L)
TOC	Top of Casing (ft.*)
GWEL	Groundwater Elevation (ft. *)

* = Elevations in feet relative to a 100 ft benchmark.

Not To Scale

MWH

elpaso

PROJECT: SANDOVAL GC A#1A

TITLE: Groundwater Potentiometric Surface Map, and BTEX Concentrations - November 4, 2009

FIGURE: 1

FIGURE 2
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
SANDOVAL GC A #1A (METER #89620)
MW01

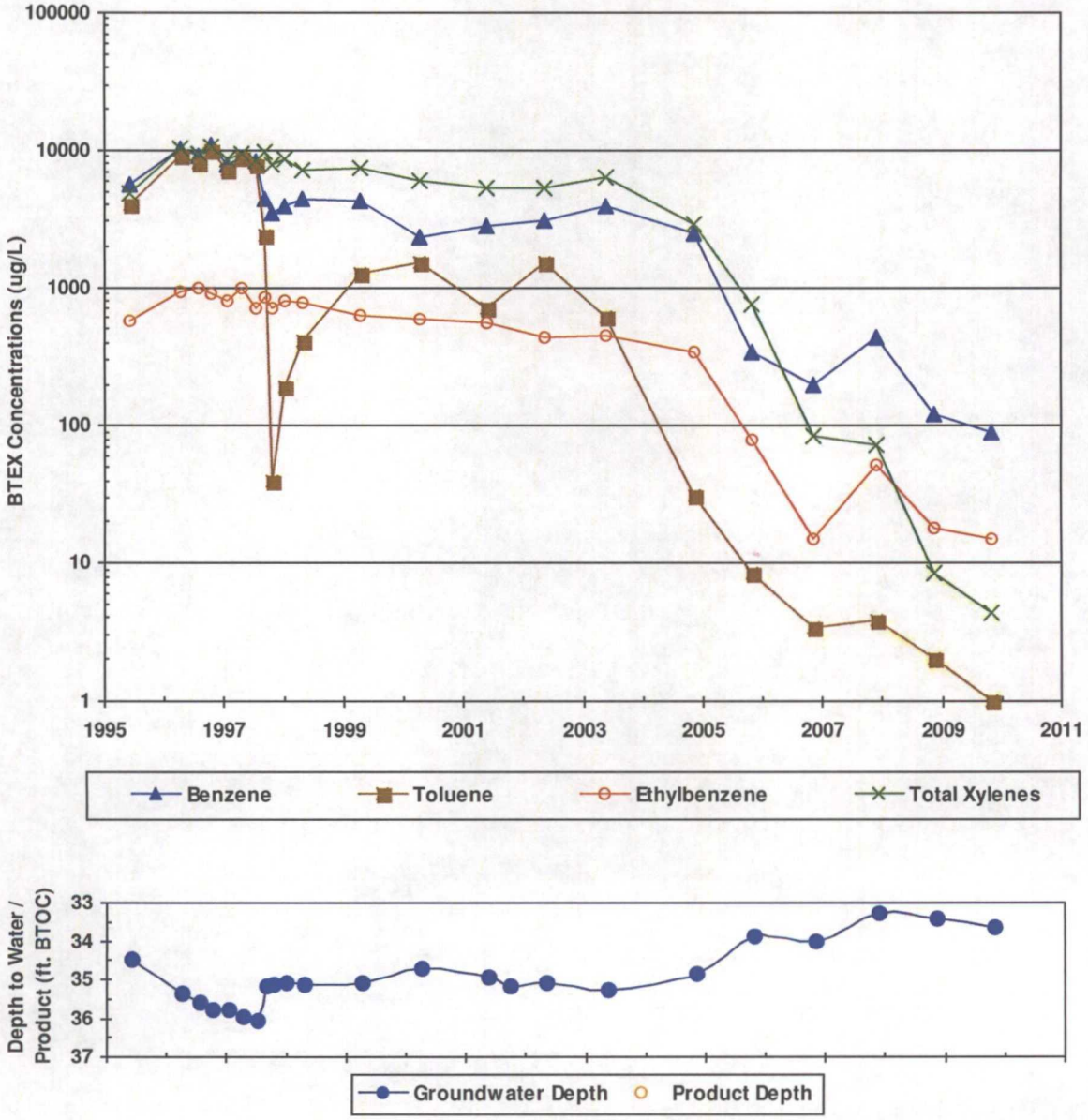


TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
SANDOVAL GC A #1A (METER #89620)

Monitor Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)	Corrected GW Elevation (Feet*)
NMWQCC GW Std.:		10	750	750	620		
MW01	5/30/1995	**5500**	**3980**	579	**4780**	34.49	65.51
MW01	4/12/1996	**10400**	**8960**	**925**	**10100**	35.39	64.61
MW01	7/26/1996	**8980**	**7980**	**1000**	**9430**	35.61	64.39
MW01	10/18/1996	**11050**	**9960**	**900**	**10700**	35.79	64.21
MW01	1/21/1997	**7700**	**7210**	**787**	**8430**	35.80	64.20
MW01	4/16/1997	**8900**	**8680**	**996**	**9250**	35.99	64.01
MW01	7/11/1997	**8240**	**7850**	709	**8230**	36.05	63.95
MW01	9/4/1997	**4420**	**2370**	**850**	**9660**	35.18	64.82
MW01	10/22/1997	**3460**	39.6	714	**7690**	35.14	64.86
MW01	1/6/1998	**3850**	194	**795**	**8570**	35.10	64.90
MW01	4/23/1998	**4330**	406	**783**	**7220**	35.15	64.85
MW01	4/19/1999	**4300**	**1260**	629	**7440**	35.10	64.90
MW01	4/13/2000	**2300**	**1500**	590	**5900**	34.70	65.30
MW01	5/30/2001	**2800**	710	560	**5200**	34.97	65.03
MW01	5/16/2002	**3000**	**1500**	440	**5300**	35.11	64.89
MW01	5/21/2003	**3850**	601	443	**6360**	35.26	64.74
MW01	11/16/2004	**2490**	30.9	346	**2860**	34.84	65.16
MW01	11/8/2005	**338**	8.5	80.1	**757**	33.87	66.13
MW01	11/8/2006	**198**	3.4	14.9	83.6	34.02	65.98
MW01	11/29/2007	**441**	3.8	52.2	72.2	33.29	66.71
MW01	11/18/2008	**120**	<2.0	17.9	8.3	33.41	66.59
MW01	11/4/2009	**88.4**	<1.0	14.8	4.3	33.64	66.36

Notes:

Results shown in bold typeface exceed their respective New Mexico Water Quality Control Commission standards.

"J" = result is qualified as estimated. See laboratory report and/or supplemental data validation report for further detail.

"<" = analyte was not detected at the indicated reporting limit.

Static groundwater elevations have been corrected for product thickness where applicable. Specific gravity of 0.8 used.

Lodestar Services, Incorporated
PO Box 4465, Durango, CO 81302 Office (970) 946-1093

WATER LEVEL DATA

Project Name: San Juan Basin Groundwater **Date:** 11/04/2009
Project Manager: Ashley Ager
Client: MWH
Site Name: Sandoval

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	10:52 AM	-	33.64	-	-	Replaced ORC socks - installed 3 new socks

Comments

Signature: *Ashley L. Ager* Date: 11/05/2009

Lodestar Services, Incorporated
PO Box 4465, Durango, CO 81302 Office (970) 946-1093

Site Visit Memo

To: Jed Smith

From: Ashley Ager

CC:

Date: November 3, 2009

Re: Sandoval GC A 001A Site Visit

11/02/09
13:27 hrs, Pulled ORC socks in advance of sampling.
Measured DO: 21.23 mg/L (calibrated at 5500' elevation, 0 salinity).

Lodestar Services, Incorporated
PO Box 4465, Durango, CO 81302 Office (970) 946-1093

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: San Juan Basin | Location: Sandoval | Well No: MW-1
Client: MWH | Date: 11/4/2009 | Time: 10:52
Project Manager: Ashley Ager | Sampler's Name: Troy Urban

Measuring Point: TOC | Depth to Water: 33.64 ft | Depth to Product: ft
Well Diameter: 4" | Total Depth: 37.03 ft | Product Thickness: ft
Water Column Height: 3.39 ft

Sampling Method: ☐ Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other
☑ Bottom Valve Bailer ☐ Double Check Valve Bailer

Criteria: ☑ 3 to 5 Casing Volumes of Water Removal ☑ Stabilization of Indicator Parameters ☑ Other bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
3.39 x .65	2.20 x 3		6.61 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
11:07	7.24	2.19	59.9				1	clear
	7.37	2.29	59.7				2	clear
	7.35	2.28	59.7				3	clear, bailing down
Final: 11:20	7.42	2.18	59.5				4.3 gal	clear, bailed dry

COMMENTS: well bailed dry during purging. Replaced ORC socks after sampling.

Instrumentation: ☑ pH Meter ☐ DO Monitor ☑ Conductivity Meter ☑ Temperature Meter ☐ Other

Water Disposal: Rio Vista

Sample ID: MW-1 | Sample Time: 11:18

Analysis Requested: ☑ BTEX ☐ VOCs ☐ Alkalinity ☐ TDS ☐ Cations ☐ Anions ☐ Nitrate ☐ Nitrite ☐ Metals
☐ Other

Trip Blank: | Duplicate Sample:

Gulf Coast ACCUTEST. Laboratories

IT'S ALL IN THE CHEMISTRY

11/13/09

Technical Report for

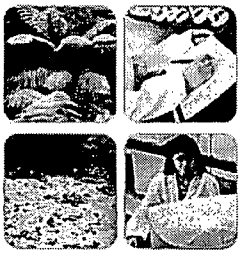
Montgomery Watson

San Juan Basin Pit Groundwater Remediation

Sandoval/ WO 94293

Accutest Job Number: T41511

Sampling Date: 11/04/09



Report to:

MWH Americas
1801 California St. Suite 2900
Denver, CO 80202
jed.smith@mwhglobal.com

ATTN: Jed Smith

Total number of pages in report: 14

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.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

Table of Contents

Sample Summary

Montgomery Watson

Job No: T41511

San Juan Basin Pit Groundwater Remediation
Project No: Sandoval/ WO 94293

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
T41511-1	11/04/09	11:18	TU	11/05/09	AQ	Ground Water	SANDOVAL MW-1

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Montgomery Watson	**Job No**	T41511
Site:	San Juan Basin Pit Groundwater Remediation	**Report Date**	11/12/2009 4:28:37 PM

1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 11/04/2009 and were received at Accutest on 11/05/2009 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of T41511. 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:** GKK1582

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T41575-2MS, T41575-2MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Benzene are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Benzene are outside control limits. Probable cause due to matrix interference.

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:	SANDOVAL MW-1		
Lab Sample ID:	T41511-1	Date Sampled:	11/04/09
Matrix:	AQ - Ground Water	Date Received:	11/05/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK033094.D	1	11/11/09	FI	n/a	n/a	GKK1582
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	88.4	1.0	0.36	ug/l	
108-88-3	Toluene	ND	1.0	0.28	ug/l	
100-41-4	Ethylbenzene	14.8	1.0	0.25	ug/l	
1330-20-7	Xylenes (total)	4.3	2.0	0.93	ug/l	
95-47-6	o-Xylene	0.63	1.0	0.36	ug/l	J
	m,p-Xylene	3.7	1.0	0.57	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%		58-125%
98-08-8	aaa-Trifluorotoluene	115%		73-139%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST
Laboratories

CHAIN OF CUSTODY

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 2 of 2

FED-EX Tracking #	Bottle Order Control #
8706 6705 1186	
Accutest Quote #	Accutest Job # T41511

Client / Reporting Information			Project Information		
Company Name: MWH			Project Name / No.: EPTPC San Juan Basin Pit GW Remediation -Sandoval		
Project Contact: Jed Smith	E-Mail: jed.smith@mwhglobal.com		Bill to: El Paso Corp	Invoice Attn.: Norma Ramos	
Address: 1801 California Street, Suite 2900			Address: 1001 Louisiana Street, Rm S1904B		
City: Denver	State: CO	Zip: 80202	City: Hou	State: TX	Zip: 77002
Phone No.: 303-291-2276	Fax No.:		Phone No.:	Fax No.:	
Samplers's Name: Troy Urban			Client Purchase Order #: W094293		

Requested Analyses: BTEX (8021B) Include m, p, & o-xylene

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	BTEX (8021B) Include m, p, & o-xylene	LAB USE ONLY
	Sandoval MW-1	110409	1118	GW	3	X								X	

Turnaround Time (Business days)

- [X] 10 Day STANDARD
- [ ] 7 Day
- [ ] 4 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] TRRP-13
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

If samples are received unpreserved, please notify MWH regarding holding time!!!

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 [signature]	11/4/09 1620	1	2 Fed Ex	11/05/09 900	2 [signature]
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 2.4

4.1

4

T41511: Chain of Custody
Page 1 of 3

SAMPLE INSPECTION FORM

Accutest Job Number: T41511 Client: MWH Date/Time Received: 11/5/09 9:00

# of Coolers Received: 1 Thermometer #: IR1 Temperature Adjustment Factor: +0.4

Cooler Temps: #1: 4.3 #2: _____ #3: _____ #4: _____ #5: _____ #6: _____ #7: _____ #8: _____

Method of Delivery: (FEDEX) UPS Accutest Courier Greyhound Delivery Other

Airbill Numbers: 870667051186

COOLER INFORMATION

- [ ] Custody seal missing or not intact
- [ ] Temperature criteria not met
- [ ] Wet ice received in cooler

CHAIN OF CUSTODY

- [ ] Chain of Custody not received
- [ ] Sample D/T unclear or missing
- [ ] Analyses unclear or missing
- [ ] COC not properly executed

SAMPLE INFORMATION

- [ ] Sample containers received broken
- [ ] VOC vials have headspace
- [ ] Sample labels missing or illegible
- [ ] ID on COC does not match label(s)
- [ ] D/T on COC does not match label(s)
- [ ] Sample/Bottles rcvd but no analysis on COC
- [ ] Sample listed on COC, but not received
- [ ] Bottles missing for requested analysis
- [ ] Insufficient volume for analysis
- [ ] Sample received improperly preserved

TRIP BLANK INFORMATION

- [ ] Trip Blank on COC but not received
- [ ] Trip Blank received but not on COC
- [ ] Trip Blank not intact
- [ ] Received Water Trip Blank
- [ ] Received Soil TB

Number of Encores? _____
Number of 5035 kits? _____
Number of lab-filtered metals? _____

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: TC 11/5/09

INFORMATION AND SAMPLE LABELING VERIFIED BY: YC 11-5-09

CORRECTIVE ACTIONS

Client Representative Notified: _____ **Date:** _____

By Accutest Representative: _____ **Via:** Phone Email

Client Instructions:

4.1

T41511: Chain of Custody
Page 2 of 3

SAMPLE RECEIPT LOG

9:00

JOB #: T41511 DATE/TIME RECEIVED: 11/05/09

CLIENT: MWH INITIALS: TC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	SANDOVAL MW-1	11/04/09 11:18	W	40ml	1-3	VR	1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
			TC 11/5/09					1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

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T41511: Chain of Custody
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QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: T41511
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1582-MB	KK033089.D	1	11/10/09	FI	n/a	n/a	GKK1582

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

T41511-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.36	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.28	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.93	ug/l	
95-47-6	o-Xylene	ND	1.0	0.36	ug/l	
	m,p-Xylene	ND	1.0	0.57	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	84%	58-125%
98-08-8	aaa-Trifluorotoluene	112%	73-139%

Blank Spike Summary

Job Number: T41511
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1582-BS	KK033085.D	1	11/10/09	FI	n/a	n/a	GKK1582

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

T41511-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	21.5	108	86-121
100-41-4	Ethylbenzene	20	20.6	103	81-116
108-88-3	Toluene	20	20.5	103	87-117
1330-20-7	Xylenes (total)	60	62.2	104	85-115
95-47-6	o-Xylene	20	20.8	104	87-116
	m,p-Xylene	40	41.5	104	84-116

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	95%	58-125%
98-08-8	aaa-Trifluorotoluene	115%	73-139%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T41511
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T41575-2MS	KK033096.D	1	11/11/09	FI	n/a	n/a	GKK1582
T41575-2MSD	KK033097.D	1	11/11/09	FI	n/a	n/a	GKK1582
T41575-2	KK033090.D	1	11/10/09	FI	n/a	n/a	GKK1582

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

T41511-1

CAS No.	Compound	T41575-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.51	J	20	25.4	124*	25.7	126*	1	86-121/19
100-41-4	Ethylbenzene	ND		20	22.5	113	22.4	112	0	81-116/14
108-88-3	Toluene	ND		20	22.8	114	22.9	115	0	87-117/16
1330-20-7	Xylenes (total)	ND		60	66.9	112	66.9	112	0	85-115/12
95-47-6	o-Xylene	ND		20	22.2	111	22.2	111	0	87-116/16
	m,p-Xylene	ND		40	44.7	112	44.7	112	0	84-116/13

CAS No.	Surrogate Recoveries	MS	MSD	T41575-2	Limits
460-00-4	4-Bromofluorobenzene	91%	91%	88%	58-125%
98-08-8	aaa-Trifluorotoluene	111%	112%	109%	73-139%