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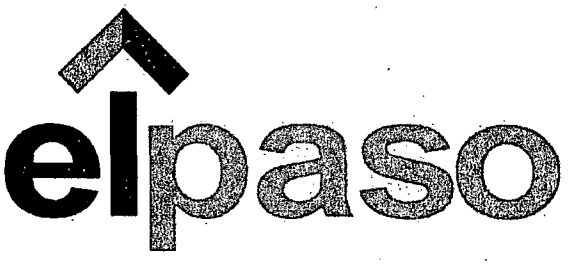
AGWMR

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)

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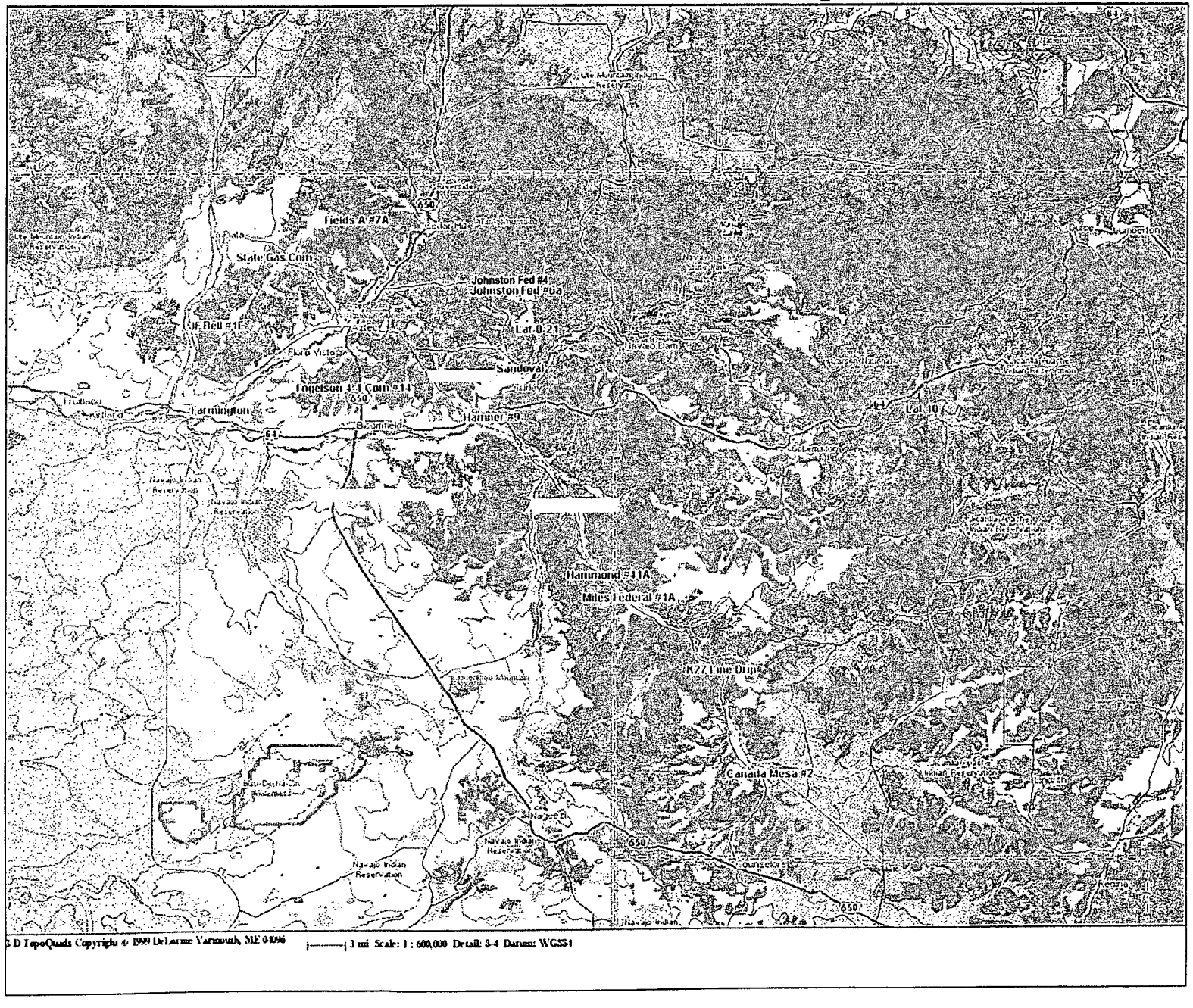
LIST OF ACRONYMS

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



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EPTPC GROUNDWATER SITES
2009 ANNUAL GROUNDWATER REPORT

Johnston Fed #6A
Meter Code: 89232

SITE DETAILS

Legal Description:	**Town:**	31N	**Range:**	9W	**Sec:**	35	**Unit:** F
NMOCD Haz Ranking:	40	**Land Type:**	Federal	**Operator:**	ConocoPhillips		

PREVIOUS ACTIVITIES

Site Assessment:	8/94	**Excavation:**	9/94 (80cy)	**Soil Boring:**	8/95
Monitor Well:	8/95	**Geoprobe:**	NA	**Additional MWs:**	11/06
Downgradient MWs:	6/00	**Replace MW:**	NA	**Quarterly Initiated:**	4/96
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	7/97
Annual Initiated:	NA	**Quarterly Resumed:**	NA	**PSH Removal in 2009?**	Yes

SUMMARY OF 2009 ACTIVITIES

MW-1: Quarterly free-product recovery and water level monitoring were performed during 2009.

MW-2: Quarterly water level monitoring was performed during 2009.

MW-3: Annual groundwater sampling (March) and quarterly water level monitoring were performed during 2009.

MW-4: Quarterly water level monitoring was performed during 2009.

MW-5: Annual groundwater sampling (March) and quarterly water level monitoring were performed during 2009.

MW-6: Annual groundwater sampling (March) and quarterly water level monitoring were performed during 2009.

Site-Wide Activities: Monitoring well MW-6 was repaired on March 4, 2009. This well was previously hit by a truck and the aboveground completion was bent over and cracked.

SITE MAP

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

EPTPC GROUNDWATER SITES
2009 ANNUAL GROUNDWATER REPORT

Johnston Fed #6A
Meter Code: 89232

SUMMARY TABLES AND GRAPHS

- Historic analytical and water level data are summarized in Table 1 and presented graphically in Figures 2 through 7. Where applicable, static water level elevations were corrected for measurable thicknesses of free-product (specific gravity of 0.8).
- Historic free-product recovery data are summarized in Table 2 and presented graphically in Figures 2, 4, and 6.
- 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.

DISPOSITION OF GENERATED WASTES

All purge water was taken to the El Paso Natural Gas Rio Vista Compressor Station. Spent absorbent 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, as well as a summary of product recovery volumes.

RESULTS

- The groundwater flow gradient is generally to the northeast.
- Free-product recovery efforts at MW-1 resulted in removal of approximately 0.94 gallons of free-product, bringing the cumulative total recovered to date to 9.85 gallons.
- The groundwater sample collected from MW-3 met the applicable NMWQCC standards. This was the first sample collected from this well since 2002.
- The groundwater sample collected from MW-5 met the applicable NMWQCC standards. This was the first sample collected from this well since 2002.
- Downgradient monitor well MW-6 did not exhibit detectable BTEX concentrations in 2009. This well has been sampled annually subsequent to its installation in November 2006. The groundwater has met standards each year.

RECOMMENDATIONS

- EPTPC will continue quarterly free-product recovery efforts at MW-1; however, the frequency of these activities may be adjusted based on the observed product thicknesses and amounts recovered during the monitoring visits. MW-1 will also be sampled annually.

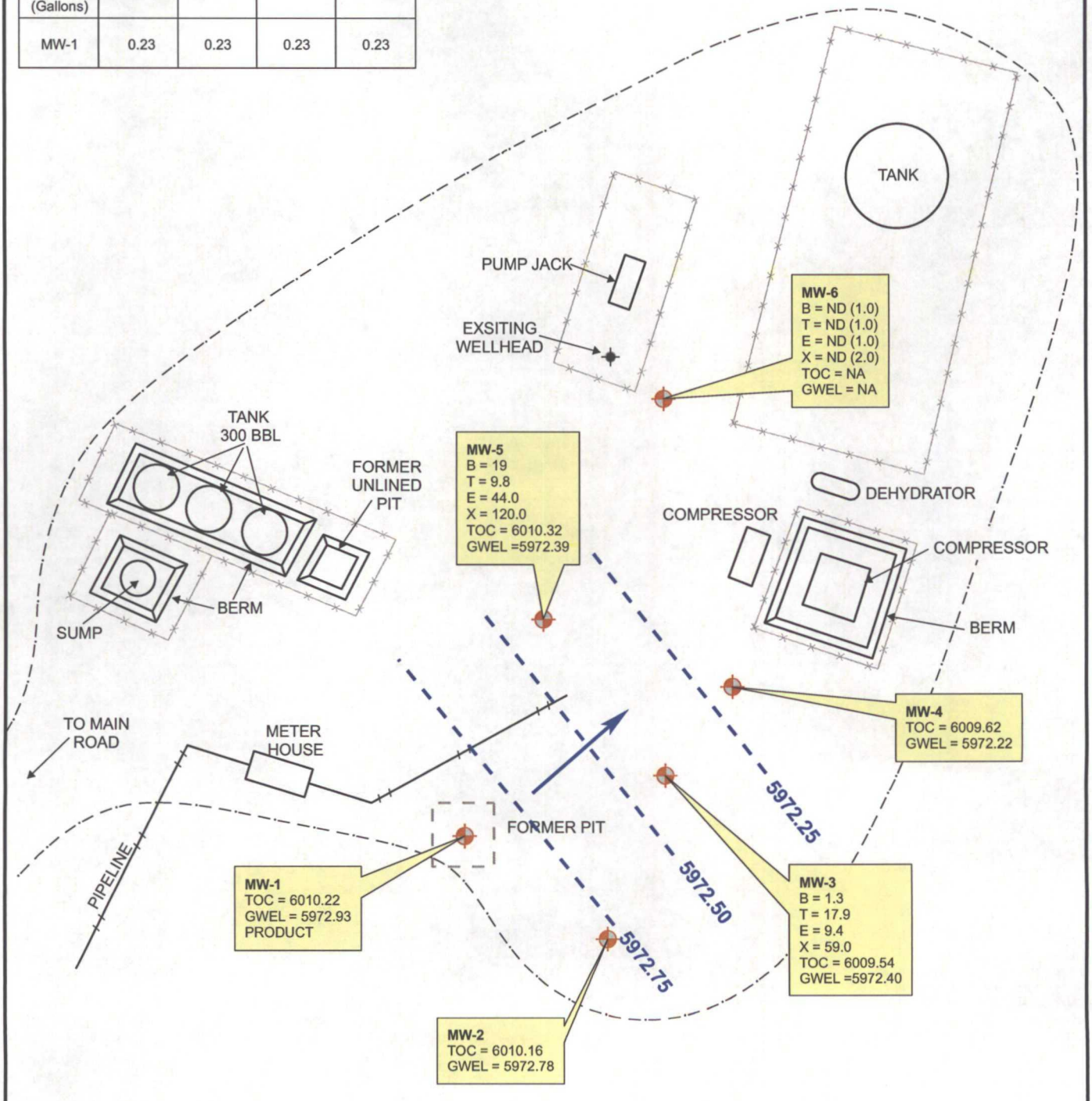
- BTEX concentrations in MW-2 were below closure standards for four sampling events (1997 – 2002); therefore, EPTPC will sample MW-2 again only at closure.

- Since free-product was not observed in either MW-3 or MW-5 during 2009, these wells will be sampled annually in March and gauged quarterly to monitor for free-product.

- BTEX concentrations in MW-4 were below closure standards for the last five sampling events (2003 – 2008); therefore, EPTPC will plan to sample MW-4 again only at closure.

- EPTPC will attempt to sample MW-6 in April. EPTPC may recommend discontinuing this sampling after one more annual event if BTEX concentrations remain below standards.

Product Removed (Gallons)	3/5/09	6/2/09	8/28/09	11/4/09
MW-1	0.23	0.23	0.23	0.23



LEGEND

MW-4	Existing Monitoring / Observation Well	B	Benzene (ug/L)
→	Groundwater Flow Direction	T	Toluene (ug/L)
—1275—	Potentiometric Surface Contour (Inferred Where Dashed)	E	Ethylbenzene (ug/L)
ND	Not Detected; Reporting Limit Shown In Parenthesis	X	Total Xylenes (ug/L)
		TOC	Top of Casing (ft. AMSL)
		GWEL	Groundwater Elevation (ft. AMSL)

N

0 10 20 30 40 Feet

MWH

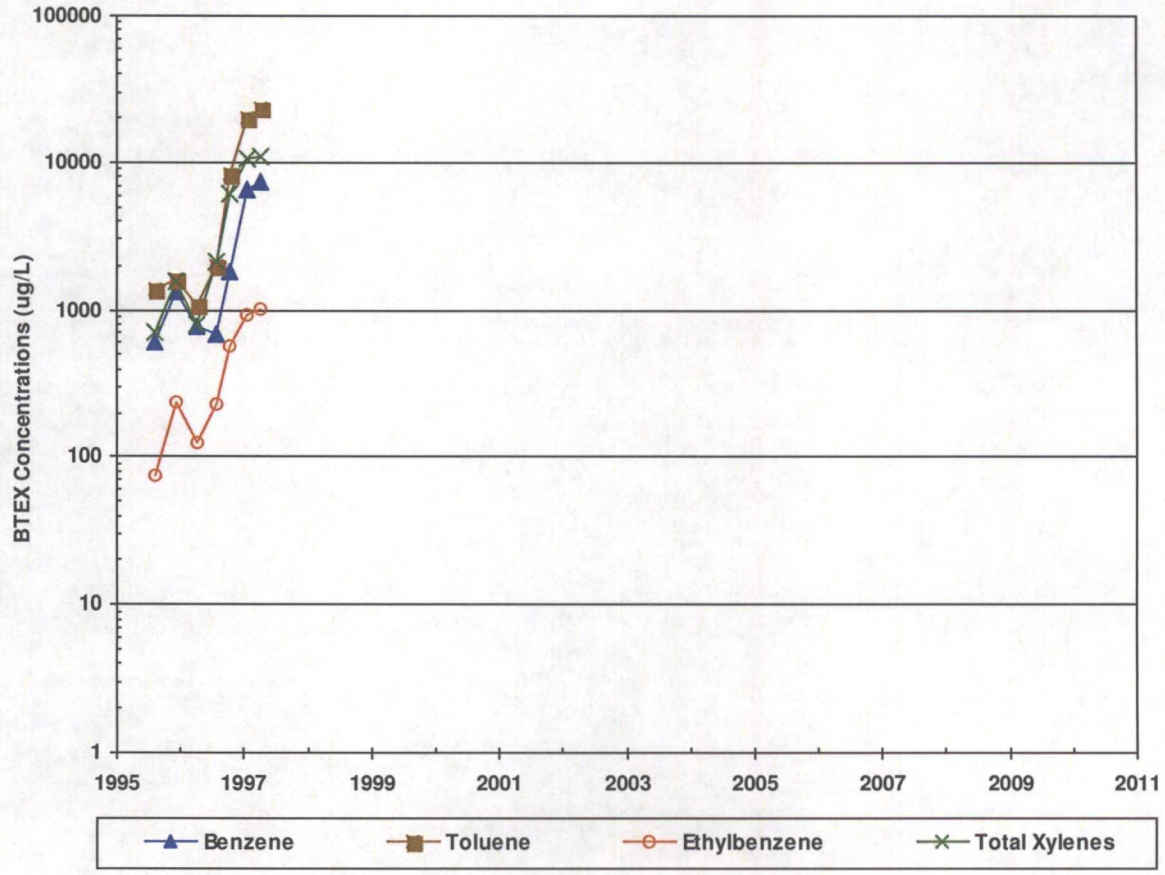
elpaso

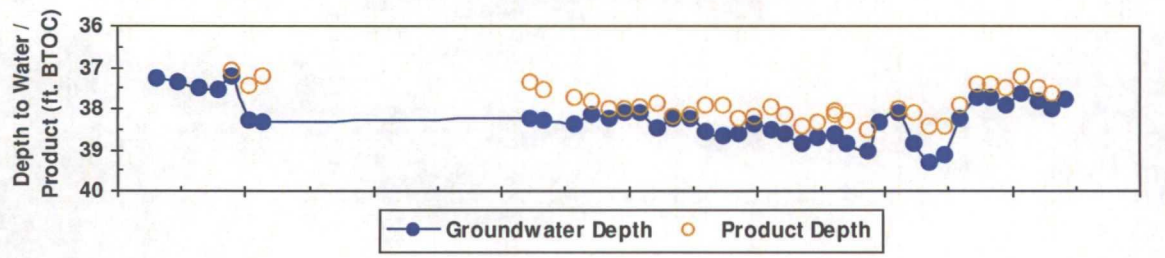
PROJECT: JOHNSTON FEDERAL #6A

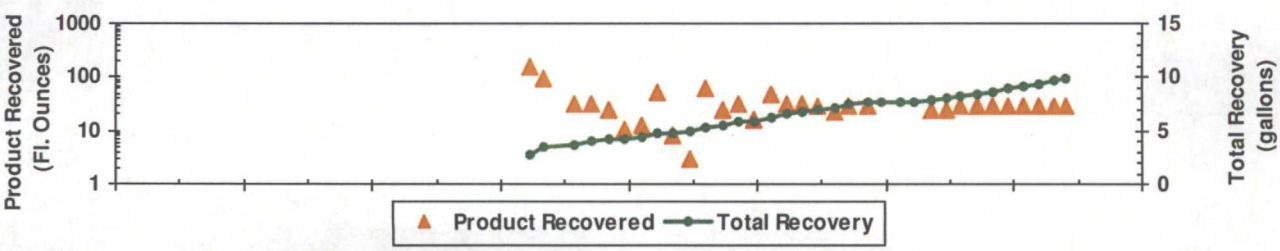
TITLE: Groundwater Potentiometric Surface Map, and BTEX Concentrations - March 5, 2009

FIGURE: 1

FIGURE 2
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
JOHNSTON FED #6A (METER #89232)
MW01

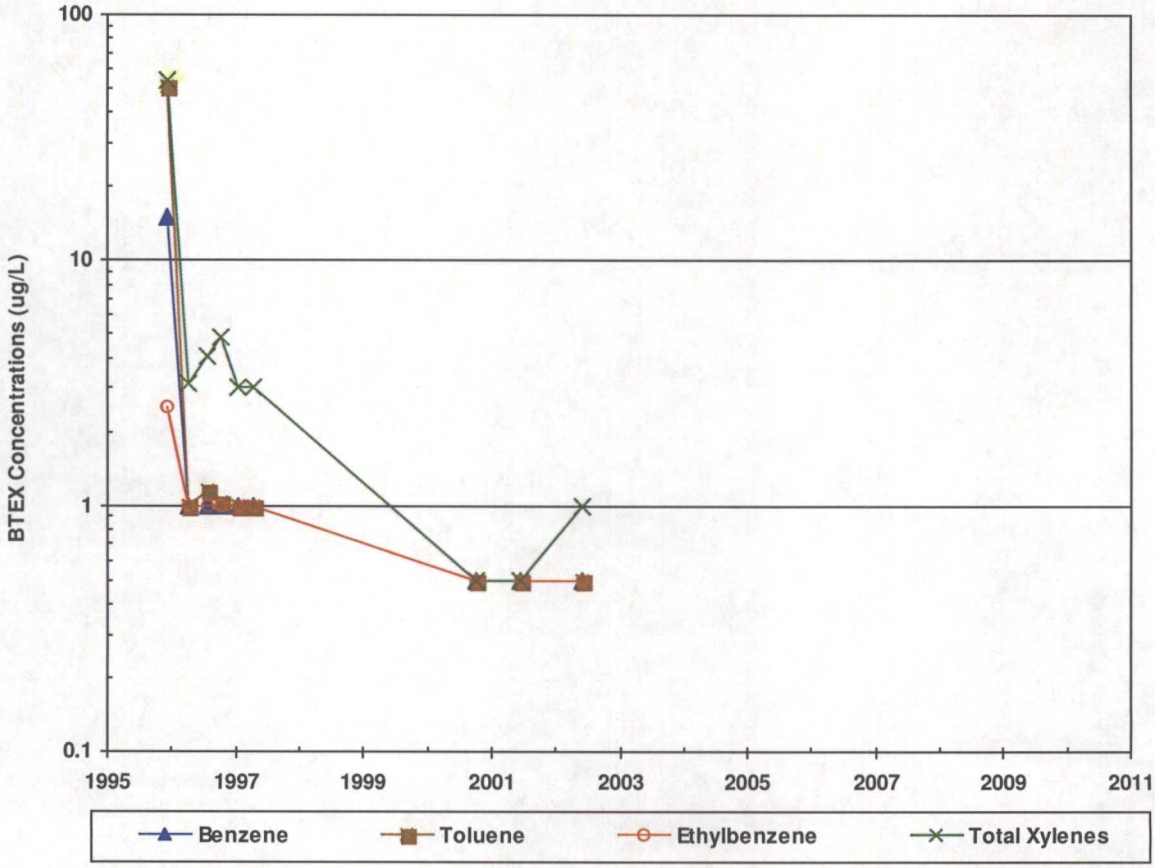






**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 3
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
JOHNSTON FED #6A (METER #89232)
MW02



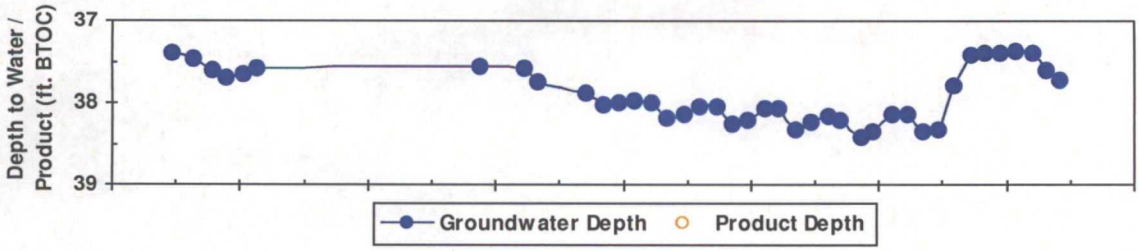
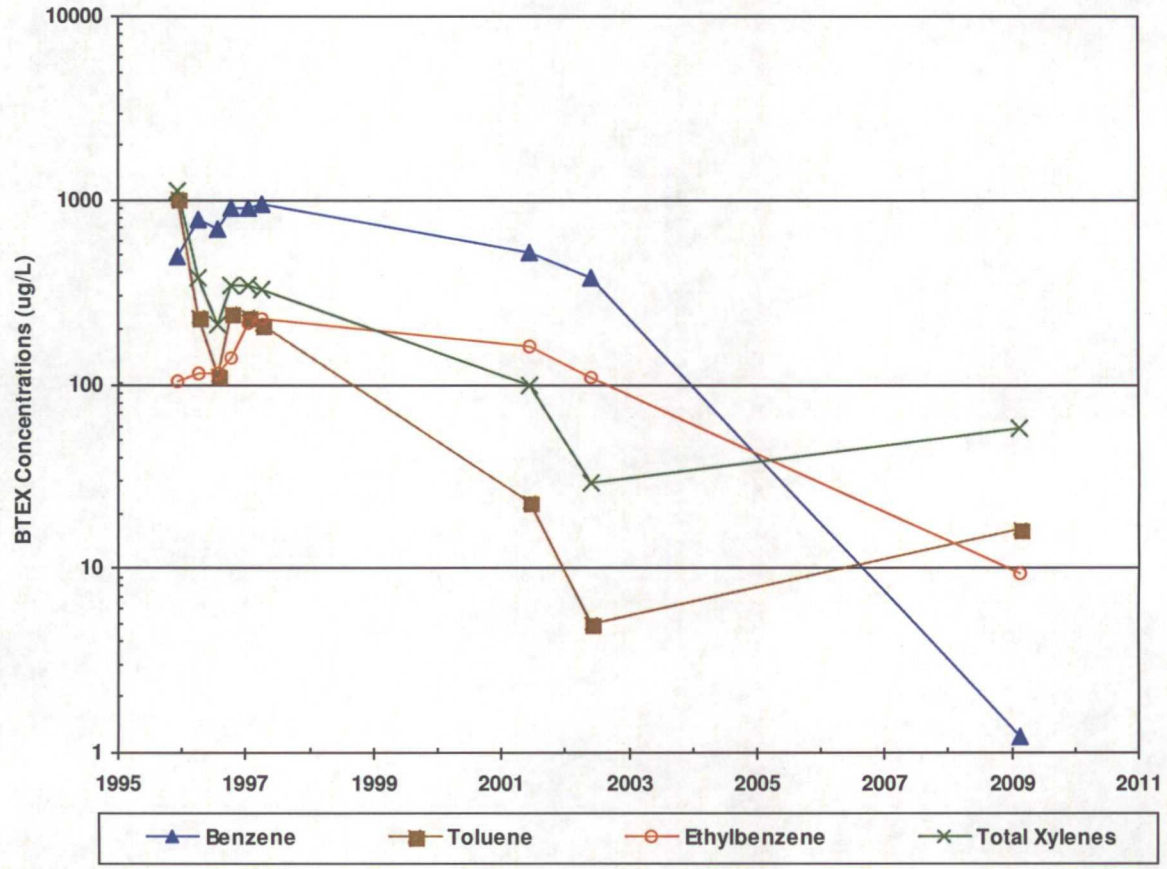
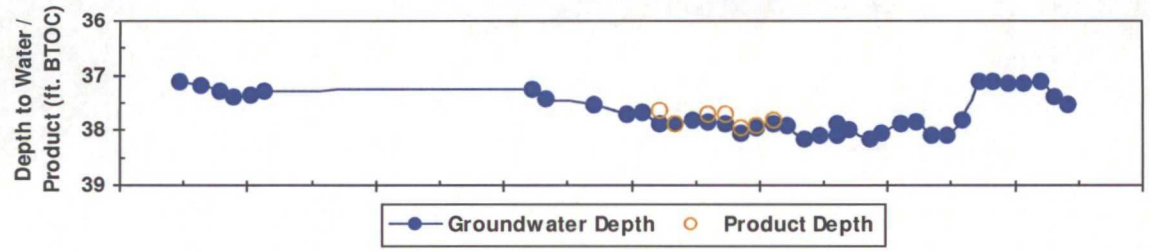
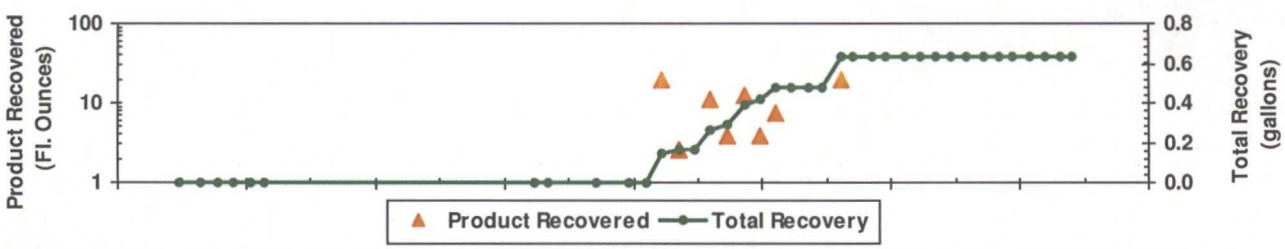


FIGURE 4
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
JOHNSTON FED #6A (METER #89232)
MW03







**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 5
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
JOHNSTON FED #6A (METER #89232)
MW04

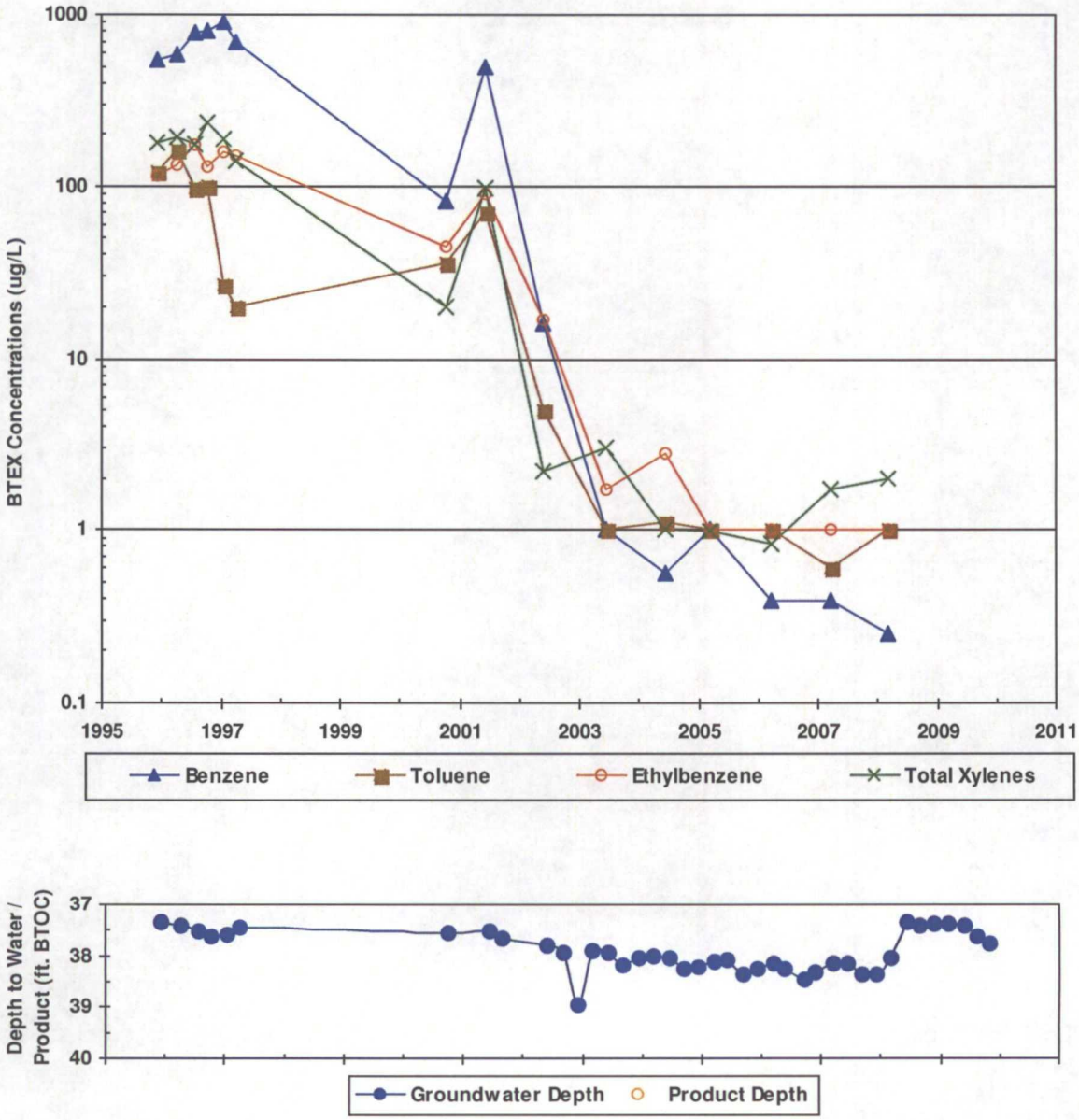
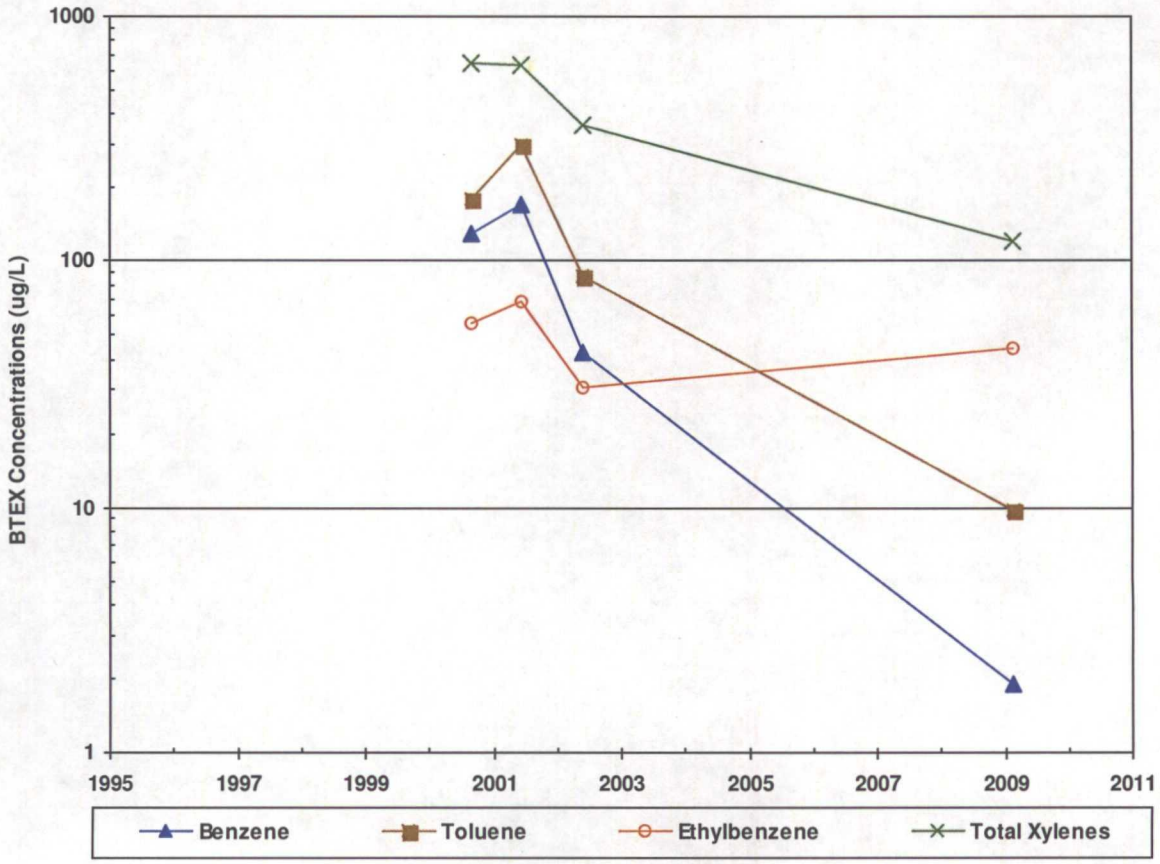
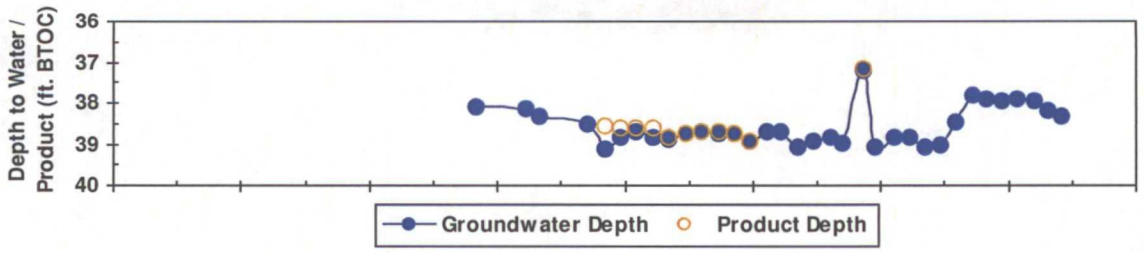
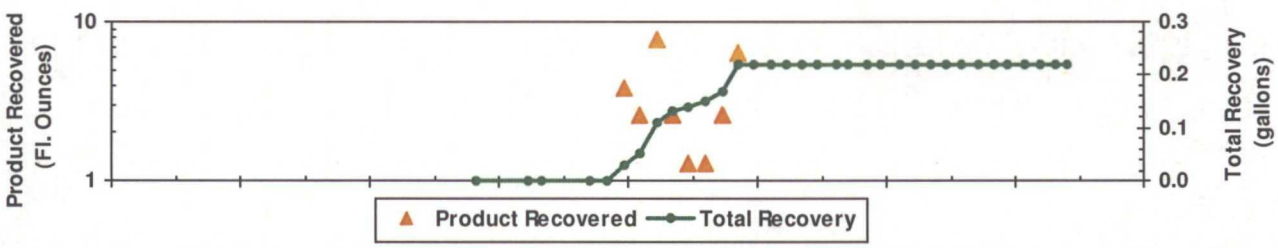


FIGURE 6
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
JOHNSTON FED #6A (METER #89232)
MW05







**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 7
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
JOHNSTON FED #6A (METER #89232)
MW06

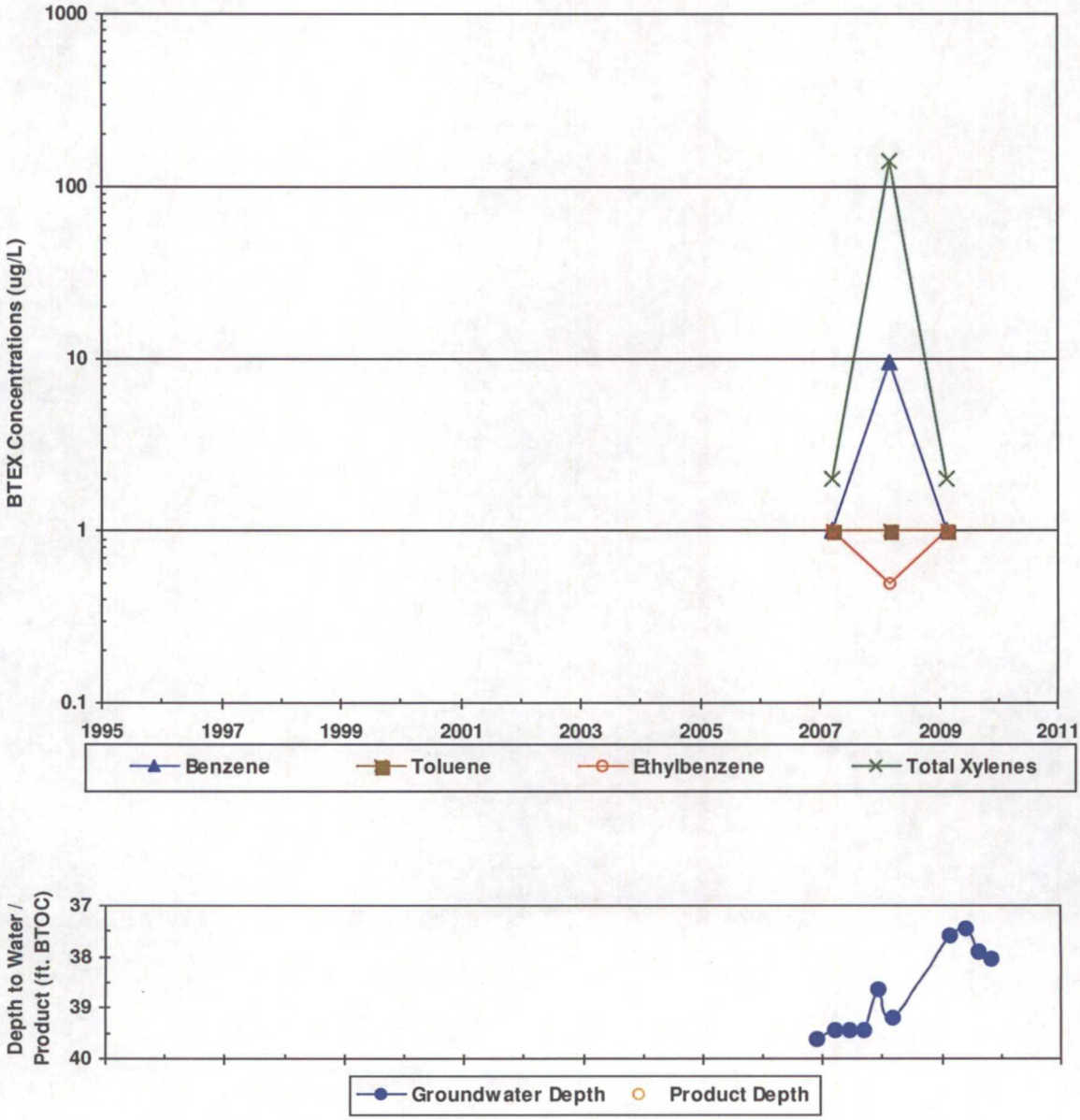


TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)

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 (ft AMSL)
NMWQCC GW Std.:		10	750	750	620		
MW01	8/10/1995	**605**	**1380**	74.6	**718**	37.24	5972.98
MW01	12/13/1995	**1330**	**1610**	235	**1540**	37.35	5972.87
MW01	4/11/1996	**775**	**1070**	124	**810**	37.48	5972.74
MW01	7/23/1996	**676**	**1980**	233	**2090**	37.55	5972.67
MW01	10/14/1996	**1790**	**8350**	580	**6200**	37.22	5973.12
MW01	1/22/1997	**6420**	**19800**	**934**	**10700**	38.26	5972.62
MW01	4/11/1997	**7310**	**23500**	**1010**	**10800**	38.31	5972.80
MW02	12/13/1995	**15.1**	50.8	<2.5	53.8	37.39	5972.77
MW02	4/11/1996	<1.0	<1.0	<1.0	3.13	37.47	5972.69
MW02	7/23/1996	<1.0	1.15	<1.0	4.06	37.60	5972.56
MW02	10/14/1996	<1.0	1.04	<1.0	4.85	37.70	5972.46
MW02	1/22/1997	<1.0	<1.0	<1.0	<3.0	37.66	5972.50
MW02	4/11/1997	<1.0	<1.0	<1.0	<3.0	37.58	5972.58
MW02	10/9/2000	<0.5	<0.5	<0.5	<0.5	37.56	5972.60
MW02	6/18/2001	<0.5	<0.5	<0.5	<0.5	37.58	5972.58
MW02	6/3/2002	<0.5	<0.5	<0.5	<1.0	37.88	5972.28
MW03	12/13/1995	**488**	**1020**	104	**1120**	37.11	5972.43
MW03	4/11/1996	**772**	231	113	379	37.17	5972.37
MW03	7/25/1996	**687**	112	115	209	37.30	5972.24
MW03	10/14/1996	**900**	240	140	340	37.40	5972.14
MW03	1/22/1997	**907**	234	215	340	37.35	5972.19
MW03	4/11/1997	**944**	209	223	322	37.29	5972.25
MW03	6/18/2001	**510**	23	160	98	37.26	5972.28
MW03	6/3/2002	**380**	<5.0	110	29	37.55	5971.99
MW03	3/5/2009	1.2	16.5	9.4	58.2	37.14	5972.40
MW04	12/13/1995	**545**	121	114	177	37.34	5972.28
MW04	4/11/1996	**591**	160	133	193	37.42	5972.20
MW04	7/25/1996	**793**	96.4	172	174	37.54	5972.08
MW04	10/14/1996	**800**	100	130	235	37.64	5971.98
MW04	1/22/1997	**899**	26.7	157	186	37.60	5972.02
MW04	4/11/1997	**703**	20.1	149	138	37.47	5972.15
MW04	10/9/2000	**81**	36	45	20	37.56	5972.06
MW04	6/18/2001	**490**	70	91	96	37.53	5972.09
MW04	6/3/2002	**16**	<5.0	17	2.2	37.80	5971.82

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)

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 (ft AMSL)
NMWQCC GW Std.:		**10**	**750**	**750**	**620**		
MW04	6/18/2003	<1.0	<1.0	1.7	<3.0	37.95	5971.67
MW04	6/22/2004	0.56J	1.1	2.8	<1.0	38.04	5971.58
MW04	3/23/2005	<1.0	<1.0	<1.0	0.99	38.11	5971.51
MW04	3/27/2006	0.39J	<1.0	<1.0	0.83J	38.16	5971.46
MW04	3/28/2007	0.39J	0.60J	<1.0	1.7J	38.16	5971.46
MW04	3/10/2008	0.25J	<1.0	<1.0	<2.0	38.05	5971.57
MW05	8/30/2000	**130**	180	56	**650**	38.11	5972.21
MW05	6/18/2001	**170**	300	68	**630**	38.13	5972.19
MW05	6/4/2002	**43**	87	31	360	38.51	5971.81
MW05	3/5/2009	1.9	9.8	44.0	120	37.93	5972.39
MW06	3/28/2007	<1.0	<1.0	<1.0	<2.0	39.43	5971.11
MW06	3/10/2008	9.4	<1.0	0.50J	139	39.21	5971.33
MW06	3/5/2009	<1.0	<1.0	<1.0	<2.0	37.61	5972.93

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.

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW01	10/14/1996	37.07	37.22	0.15	NA	NA	5973.12
MW01	1/22/1997	37.43	38.26	0.83	NA	NA	5972.62
MW01	4/11/1997	37.20	38.31	1.11	NA	NA	5972.80
MW01	6/18/2001	37.34	38.21	0.87	1.25	2.75	5972.71
MW01	9/4/2001	37.54	38.27	0.73	0.75	3.50	5972.53
MW01	3/4/2002	37.74	38.35	0.61	0.25	3.75	5972.36
MW01	6/4/2002	37.81	38.14	0.33	0.25	4.00	5972.34
MW01	9/10/2002	38.00	38.24	0.24	0.20	4.20	5972.17
MW01	12/12/2002	38.01	38.11	0.10	0.08	4.28	5972.19
MW01	3/14/2003	37.95	38.08	0.13	0.10	4.38	5972.24
MW01	6/18/2003	37.88	38.47	0.59	0.40	4.78	5972.22
MW01	9/16/2003	38.17	38.25	0.08	0.06	4.84	5972.03
MW01	12/17/2003	38.13	38.23	0.10	0.02	4.87	5972.07
MW01	3/16/2004	37.90	38.57	0.67	0.47	5.33	5972.19
MW01	6/22/2004	37.90	38.65	0.75	0.19	5.52	5972.17
MW01	9/22/2004	38.21	38.60	0.39	0.25	5.77	5971.93
MW01	12/21/2004	38.20	38.38	0.18	0.13	5.90	5971.98
MW01	3/23/2005	37.95	38.50	0.55	0.39	6.29	5972.16
MW01	6/17/2005	38.13	38.62	0.49	0.25	6.54	5971.99
MW01	9/20/2005	38.40	38.83	0.43	0.25	6.79	5971.73
MW01	12/14/2005	38.31	38.72	0.41	0.23	7.02	5971.83
MW01	3/25/2006	38.15	38.66	0.51	0.17	7.19	5971.97
MW01	3/27/2006	38.05	38.62	0.57	--	7.19	5972.06
MW01	6/6/2006	38.29	38.84	0.55	0.22	7.41	5971.82
MW01	9/25/2006	38.51	39.01	0.50	0.22	7.63	5971.61
MW01	3/28/2007	38.02	38.09	0.07	--	7.63	5972.19
MW01	6/18/2007	38.09	38.86	0.77	--	7.63	5971.98
MW01	9/17/2007	38.40	39.32	0.92	0.19	7.82	5971.64
MW01	12/17/2007	38.42	39.13	0.71	0.19	8.01	5971.66
MW01	3/10/2008	37.90	38.24	0.34	0.22	8.22	5972.25
MW01	6/17/2008	37.38	37.71	0.33	0.23	8.45	5972.77
MW01	9/10/2008	37.41	37.72	0.31	0.23	8.68	5972.75
MW01	12/2/2008	37.51	37.89	0.38	0.23	8.91	5972.63
MW01	3/5/2009	37.20	37.63	0.43	0.23	9.15	5972.93

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW01	6/2/2009	37.49	37.83	0.34	0.23	9.38	5972.66
MW01	8/28/2009	37.65	37.99	0.34	0.23	9.62	5972.50
MW01	11/4/2009	--	37.77	0.00	0.23	9.85	5972.45
MW03	6/18/2003	37.63	37.87	0.24	0.15	0.15	5971.86
MW03	9/16/2003	37.87	37.88	0.01	0.02	0.17	5971.67
MW03	3/16/2004	37.72	37.85	0.13	0.09	0.26	5971.79
MW03	6/22/2004	37.72	37.88	0.16	0.03	0.29	5971.79
MW03	9/22/2004	37.96	38.07	0.11	0.10	0.39	5971.56
MW03	12/21/2004	37.93	37.96	0.03	0.03	0.42	5971.60
MW03	3/23/2005	37.80	37.88	0.08	0.06	0.48	5971.72
MW03	3/25/2006	--	38.09	0.00	0.15	0.63	5971.45
MW05	9/10/2002	38.54	39.13	0.58	--	0.00	5971.66
MW05	12/12/2002	38.62	38.83	0.21	0.03	0.03	5971.66
MW05	3/14/2003	38.60	38.70	0.10	0.02	0.05	5971.70
MW05	6/18/2003	38.62	38.85	0.23	0.06	0.11	5971.65
MW05	9/16/2003	38.83	38.88	0.05	0.02	0.13	5971.48
MW05	12/17/2003	38.74	38.75	0.01	0.01	0.14	5971.58
MW05	3/16/2004	38.68	38.72	0.04	0.01	0.15	5971.63
MW05	6/22/2004	38.70	38.74	0.04	0.02	0.17	5971.61
MW05	9/22/2004	38.74	38.74	0.00	0.05	0.22	5971.58
MW05	12/21/2004	38.92	38.93	0.01	--	0.22	5971.40
MW05	9/25/2006	37.18	37.20	0.02	--	0.22	5973.14

Notes:

"--" indicates either that product was not measurably detected or that product was not recovered.

"NA" indicates that the respective data point is not available.

Groundwater elevations may not be static due to removal of equipment. Corrections for product thickness utilize SG of 0.8.

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

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: San Juan Basin | Location: Johnston Federal #6A | Well No: MW-3
Client: MWH | Date: 3/5/2009 | Time: 8:15
Project Manager: Ashley Ager | Sampler's Name: Troy Urban

Measuring Point: TOC | Depth to Water: 37.14 ft | Depth to Product: ft
Well Diameter: 4" | Total Depth: 46.55 ft | Product Thickness: ft
Water Column Height: 9.41 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
9.41 x .65	6.11 x 3		18.33 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
8:21	6.79	2.08	59.4				1	tan, silty, HC odor
	6.94	2.12	59.2				2	tan, silty, HC odor
	7.01	2.29	59.4				3	tan, silty, HC odor
	7.15	2.42	59.4				5	tan, silty, HC odor
	7.29	2.60	59.4				10	tan, silty, HC odor
	7.34	2.60	59.4				15	light gray, HC odor
	7.35	2.61	59.5				17	light gray, bailing down
	7.35	2.60	59.7				18	light gray, bailing down
Final:	7.37	2.6	59.7				18.5	light gray, HC odor

COMMENTS:

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

Water Disposal: Rio Vista

Sample ID: MW-3 | Sample Time: 9:02

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

Trip Blank: 05032009TB01 | Duplicate Sample: MW-9 at 08:30

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

WATER LEVEL DATA

Project Name: San Juan Basin Groundwater **Date:** 03/05/2009
Project Manager: Ashley Ager
Client: MWH
Site Name: Johnston Federal #6A

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	7:55 AM	37.20	37.63	0.43	30 oz	static
MW-2		-	37.38	-	-	
MW-3		-	37.14	-	-	
MW-4		-	37.40	-	-	
MW-5		-	38.93	-	-	
MW-6		-	37.61	-	-	Semi-repaired well. TOC elevation needs to be re-surveyed

Comments
Operator: ConocoPhillips

Signature: *Ashley L. Ager* Date: 03/06/2009

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

WATER LEVEL DATA

Project Name: San Juan Basin Groundwater **Date:** 06/02/2009
Project Manager: Ashley Ager
Client: MWH
Site Name: Johnston Federal #6A

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	########	37.49	37.83	0.34	30 oz	replaced sock
MW-2		-	37.40	-	-	
MW-3		-	37.12	-	-	
MW-4		-	37.43	-	-	
MW-5		-	37.95	-	-	
MW-6		-	37.46	-	-	

Comments

Signature: *Ashley L. Ager* Date: 06/04/2009

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

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: San Juan Basin | Location: Johnston Federal #6A | Well No: MW-6
Client: MWH | Date: 3/5/2009 | Time: 9:57
Project Manager: Ashley Ager | Sampler's Name: Troy Urban

Measuring Point: TOC | Depth to Water: 37.61 ft | Depth to Product: ft
Well Diameter: 2" | Total Depth: 46.15 ft | Product Thickness: ft
Water Column Height: 8.54 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
8.54 x .16	1.36 x 3		4.08 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
10:20	7.16	2.57	60.4				0.25	brown, silty
	7.17	2.49	59.9				0.5	brown, silty
	7.16	2.54	59.7				0.75	brown, silty
	7.13	2.57	58.3				1	brown, silty
	7.14	2.54	59.0				2	brown, silty
	7.12	2.53	59.4				3	brown, silty
	7.11	2.53	58.5				3.75	brown, silty
	7.11	2.48	59.2				4	brown, silty
Final:	7.11	2.53	58.6				4.25	brown, silty

COMMENTS: Well is semi-repaired. TOC elevation needs to be resurveyed.

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

Water Disposal: Rio Vista

Sample ID: MW-6 | Sample Time: 10:54

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

Trip Blank: 05032009TB01 | Duplicate Sample:

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WELL DEVELOPMENT AND SAMPLING LOG

Project Name: San Juan Basin | Location: Johnston Federal #6A | Well No: MW-5
Client: MWH | Date: 3/5/2009 | Time: 9:02
Project Manager: Ashley Ager | Sampler's Name: Troy Urban

Measuring Point: TOC | Depth to Water: 38.93 ft | Depth to Product: ft
Well Diameter: 2" | Total Depth: 42.66 ft | Product Thickness: ft
Water Column Height: 3.73 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
3.73 x .16	0.59 x 3		1.77 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
9:27	7.02	2.79	60.1				0.25	clear, HC odor, yellow particles
	7.01	2.89	59.9				0.5	dark gray, HC odor
	7.02	2.83	59.9				0.75	dark gray, HC odor
	7.02	2.87	59.7				1	dark gray, HC odor
	7.03	2.87	59.9				1.5	dark gray, HC odor
	7.06	2.87	59.5				1.75	dark gray, HC odor
Final:	7.08	2.85	59.7				2	dark gray, HC odor

COMMENTS:

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

Water Disposal: Rio Vista

Sample ID: MW-5 | Sample Time: 9:47

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

Trip Blank: 05032009TB01 | Duplicate Sample:

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

WATER LEVEL DATA

Project Name: San Juan Basin Groundwater **Date:** 08/28/2009
Project Manager: Ashley Ager
Client: MWH
Site Name: Johnston Federal #6A

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	3:04 PM	37.65	37.99	0.34	30 oz	replaced sock
MW-2		-	37.60	-	-	
MW-3		-	37.40	-	-	
MW-4		-	37.64	-	-	
MW-5		-	38.19	-	-	
MW-6		-	37.89	-	-	

Comments

Signature: *Ashley L. Ager* Date: 08/31/2009

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

WATER LEVEL DATA

Project Name: San Juan Basin Groundwater **Date:**
Project Manager: Ashley Ager
Client: MWH
Site Name: Johnston Federal #6A

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1	10:09 AM	-	37.77	-	30 oz
MW-2		-	37.73	-	-
MW-3		-	37.52	-	-
MW-4		-	37.76	-	-
MW-5		-	38.32	-	-
MW-6		-	38.03	-	-

Comments

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

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

WATER LEVEL DATA

11/04/2009

Comments
replaced sock

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

Site Visit Memo

To: Jed Smith

From: Ashley Ager

CC: File

Date: March 4, 2009

Re: Johnston Federal #6A

03/03/09
10:52: arrived at Johnston Federal #6A to pull PR sock from MW-1. Sock was 100% saturated (30oz removed).

Current operator is Conoco Phillips.

Reviewed site map and made photos.

Repaired MW-6 by digging out cracked cement, metal housing and around cracked PVC well. Cut PVC riser below crack, attached coupler and PVC extension. Re-installed housing and backfilled with dirt. Well is ready to be sampled, but is not secured by cement pad.

12:45: leave Johnston Federal #6A

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

03/11/09

Technical Report for

Montgomery Watson

San Juan Basin Pit Groundwater Remediation 2008-2009

Accutest Job Number: T25931

Sampling Date: 03/05/09

Report to:

MWH Americas
1801 California St. Suite 2900
Denver, CO 80202
jed.smith@mwhglobal.com; daniel.a.wade@mwhglobal.com;
craig.moore@mwhglobal.com
ATTN: Jed Smith

Total number of pages in report: **18**

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: William Reeves 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.

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Sections: 1 2 3 4 5

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Sample Summary

Montgomery Watson

Job No: T25931

San Juan Basin Pit Groundwater Remediation 2008-2009

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
T25931-1	03/05/09	08:30	TU	03/06/09	AQ	Ground Water	JOHNSTON 6A MW-9
T25931-2	03/05/09	09:02	TU	03/06/09	AQ	Ground Water	JOHNSTON 6A MW-3
T25931-3	03/05/09	09:47	TU	03/06/09	AQ	Ground Water	JOHNSTON 6A MW-5
T25931-4	03/05/09	10:54	TU	03/06/09	AQ	Ground Water	JOHNSTON 6A MW-6
T25931-5	03/05/09	07:00	TU	03/06/09	AQ	Trip Blank Water	050309TB01

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Montgomery Watson	**Job No**	T25931
Site:	San Juan Basin Pit Groundwater Remediation 2008-2009	**Report Date**	3/10/2009 4:11:13 PM

4 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/05/2009 and were received at Accutest on 03/06/2009 properly preserved, at 1 Deg. C and intact. These Samples received an Accutest job number of T25931. 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:** GKK1445

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T25934-1MS, T25934-1MSD were used as the QC samples indicated.
- T25931-3 for Toluene: Result for Toluene was not confirmed by 2nd column. Result from 2nd coulmn is 2.0ug/l.
- T25931-2 for Toluene: Result for Toluene was not confirmed by 2nd column. Result from 2nd coulmn is 2.50ug/l.
- T25931-1 for Toluene: Result for Toluene was not confirmed by 2nd column. Result from 2nd coulmn is 2.70ug/l.
- T25931-1 for Benzene: Result for benzene was not confirmed by 2nd column. Result from 2nd coulmn is 0.22ug/l.

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

Client Sample ID:	JOHNSTON 6A MW-9		
Lab Sample ID:	T25931-1	Date Sampled:	03/05/09
Matrix:	AQ - Ground Water	Date Received:	03/06/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation 2008-2009		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK029846.D	1	03/09/09	FI	n/a	n/a	GKK1445
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 [a]	1.3	1.0	0.21	ug/l	
108-88-3	Toluene [a]	17.9	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	9.4	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	59.0	2.0	0.55	ug/l	
95-47-6	o-Xylene	17.6	1.0	0.55	ug/l	
	m,p-Xylene	41.4	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	116%		58-125%
98-08-8	aaa-Trifluorotoluene	113%		73-139%

(a) More than 40% RPD for detected concentrations between two GC columns.

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:	JOHNSTON 6A MW-3		
Lab Sample ID:	T25931-2	Date Sampled:	03/05/09
Matrix:	AQ - Ground Water	Date Received:	03/06/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation 2008-2009		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK029847.D	1	03/09/09	FI	n/a	n/a	GKK1445
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	1.2	1.0	0.21	ug/l	
108-88-3	Toluene [a]	16.5	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	9.4	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	58.2	2.0	0.55	ug/l	
95-47-6	o-Xylene	16.8	1.0	0.55	ug/l	
	m,p-Xylene	41.4	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	117%		58-125%
98-08-8	aaa-Trifluorotoluene	112%		73-139%

(a) More than 40% RPD for detected concentrations between two GC columns.

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

Client Sample ID:	JOHNSTON 6A MW-5		
Lab Sample ID:	T25931-3	Date Sampled:	03/05/09
Matrix:	AQ - Ground Water	Date Received:	03/06/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation 2008-2009		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK029848.D	1	03/09/09	FI	n/a	n/a	GKK1445
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	1.9	1.0	0.21	ug/l	
108-88-3	Toluene [a]	9.8	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	44.0	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	120	2.0	0.55	ug/l	
95-47-6	o-Xylene	32.6	1.0	0.55	ug/l	
	m,p-Xylene	87.4	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	124%		58-125%
98-08-8	aaa-Trifluorotoluene	100%		73-139%

(a) More than 40% RPD for detected concentrations between two GC columns.

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

Client Sample ID:	JOHNSTON 6A MW-6		
Lab Sample ID:	T25931-4	Date Sampled:	03/05/09
Matrix:	AQ - Ground Water	Date Received:	03/06/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation 2008-2009		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK029849.D	1	03/09/09	FI	n/a	n/a	GKK1445
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	103%		58-125%
98-08-8	aaa-Trifluorotoluene	78%		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

Accutest Laboratories

Report of Analysis

3.5

Client Sample ID:	050309TB01		
Lab Sample ID:	T25931-5	Date Sampled:	03/05/09
Matrix:	AQ - Trip Blank Water	Date Received:	03/06/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation 2008-2009		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK029845.D	1	03/09/09	FI	n/a	n/a	GKK1445
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	102%		58-125%
98-08-8	aaa-Trifluorotoluene	79%		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 ___ of

FED-EX Tracking #	Bottle Order Control #
8663 2309 4719	
Accutest Quote #	Accutest Job #
	T25931

Client / Reporting Information		Project Information	
Company Name: MWH		Project Name / No.: EPTPC San Juan Basin Pit GW Remediation 2008-2009	
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: Houstor State: TX	Zip: 77002
Phone No.: 303-291-2276	Fax No.	Phone No.	Fax No.
Samplers's Name: Troy Urban		Client Purchase Order #	

Requested Analyses: BTEX (8021B)

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)	LAB USE ONLY
1	Johnston 6A MW-9	030509	0820	GW	3	X								X	
2	Johnston 6A MW-3	030509	0902	GW	3	X								X	
3	Johnston 6A MW-5	030509	0947	GW	3	X								X	
4	Johnston 6A MW-6	030509	1054	GW	3	X								X	
5	050309TBØ1	030509	0700	GW	2	X								X	

Turnaround Time (Business days) — Approved By:/ Date:

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

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

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] 3/5/09	1255	1	2	3-6-9 9:20	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 X Cooler Temp. 1.0 C

T25931: Chain of Custody
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SAMPLE INSPECTION FORM

Accutest Job Number: T25931 Client: MWH Date/Time Received: 3-6-9 900

# of Coolers Received: 1 Thermometer #: IR-1 Temperature Adjustment Factor: -0.4

Cooler Temps: #1: 1.0 #2: _____ #3: _____ #4: _____ #5: _____ #6: _____ #7: _____ #8: _____

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

Airbill Numbers: 8663 2309 4719

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: [signature] 3-6-9

INFORMATION AND SAMPLE LABELING VERIFIED BY: [signature]

CORRECTIVE ACTIONS

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

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

Client Instructions:

I:\mwalker\forms\samplemanagement

4.1

T25931: Chain of Custody
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SAMPLE RECEIPT LOG

JOB #: T25931 DATE/TIME RECEIVED: 3-6-9 900

CLIENT: MWH INITIALS: EHC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	Johnston 6A MW-9	030509 0830	W	40ml	1-3	VR	1 (2) 3 4 5 6 7 8	<2 >12
	2	MW-3	0902					1 (2) 3 4 5 6 7 8	<2 >12
	3	MW-5	947					1 (2) 3 4 5 6 7 8	<2 >12
	4	MW-6	1054					1 (2) 3 4 5 6 7 8	<2 >12
	5	Trip Blank	—	—	40ml	1-2		1 (2) 3 4 5 6 7 8	<2 >12

EHC 3-6-9

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

T25931: Chain of Custody
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GC Volatiles

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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: T25931
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation 2008-2009

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1445-MB	KK029837.D	1	03/09/09	FI	n/a	n/a	GKK1445

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

T25931-1, T25931-2, T25931-3, T25931-4, T25931-5

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	101%	58-125%
98-08-8	aaa-Trifluorotoluene	80%	73-139%

Blank Spike Summary

Job Number: T25931
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation 2008-2009

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1445-BS	KK029834.D	1	03/09/09	FI	n/a	n/a	GKK1445

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

T25931-1, T25931-2, T25931-3, T25931-4, T25931-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.6	98	86-121
100-41-4	Ethylbenzene	20	20.4	102	81-116
108-88-3	Toluene	20	20.0	100	87-117
1330-20-7	Xylenes (total)	60	60.7	101	85-115
95-47-6	o-Xylene	20	20.1	101	87-116
	m,p-Xylene	40	40.6	102	84-116

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	101%	58-125%
98-08-8	aaa-Trifluorotoluene	84%	73-139%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T25931
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation 2008-2009

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T25934-1MS	KK029850.D	1	03/09/09	FI	n/a	n/a	GKK1445
T25934-1MSD	KK029851.D	1	03/09/09	FI	n/a	n/a	GKK1445
T25934-1	KK029838.D	1	03/09/09	FI	n/a	n/a	GKK1445

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

T25931-1, T25931-2, T25931-3, T25931-4, T25931-5

CAS No.	Compound	T25934-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2.8		20	23.3	103	23.3	103	0	86-121/19
100-41-4	Ethylbenzene	1.0	U	20	21.4	107	21.4	107	0	81-116/14
108-88-3	Toluene	1.0	U	20	21.0	105	20.8	104	1	87-117/16
1330-20-7	Xylenes (total)	2.0	U	60	64.2	107	63.9	107	0	85-115/12
95-47-6	o-Xylene	1.0	U	20	21.4	107	21.2	106	1	87-116/16
	m,p-Xylene	1.0	U	40	42.7	107	42.7	107	0	84-116/13

CAS No.	Surrogate Recoveries	MS	MSD	T25934-1	Limits
460-00-4	4-Bromofluorobenzene	106%	104%	102%	58-125%
98-08-8	aaa-Trifluorotoluene	79%	78%	81%	73-139%