1R - 261

ANNUAL MONITORING REPORT

4/05/2005

Tipperary CORPORATION

633 Seventeenth Street
Suite 1550
Denver, Colorado 80202-3622

April 5, 2005

VIA OVERNIGHT MAIL

Mr. Roger C. Anderson
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

IRP 263
264
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RE: Progress Report for Year 2004
Bagley Field
Pit Closure Project
Lea County, NM

Dear Mr. Anderson:

Please find enclosed the 2004 results from our monitor wells in the subject project area. This report summarizes the results from water samples taken on October 1, 2004. These results represent seven years of monitoring. On April 19, 2004, the NMOCD modified the monitoring program for the project to allow sampling on an annual basis. In general, we are continuing to observe decreasing levels of BTEX in the monitor wells.

The Executive Summary section contains a general discussion of the project to date and a Location Map of the pit reclamation projects.

A summary of the investigation work and results to date for each pit closure site is included. The following data is presented for each site:

- Well site plat with monitor well locations.
- Ground water potentiometric map for the 2004 sampling with the direction and magnitude of the hydraulic gradient.
- Table of ground water recovery volumes (where applicable).
- Well bailing log for each well.
- Summary table and chart of water quality results for each well.
- Geologic/lithologic log and well construction diagram for each new well.

We will continue to sample and prepare a progress report for your office on an annual basis. If you have any questions, please call me at (303) 293-9379.

Very truly yours,

Tipperary Oil & Gas Corporation

Larry G. Sugano
Vice President - Engineering

Enclosures

cc: NMOCD Hobbs Office
Whole Earth Environmental

Tipperary Oil & Gas Corporation
Bagley Field
2004 Annual Report

Executive Summary

Site History

In response to a request by a 1996 request by the NMOCD, Tipperary Corporation began a program to close a series of ten surface impoundments located with their Bagley Field west of Tatum, New Mexico. The closure program consisted of excavating the impoundments and encapsulating the contaminant plume within high-density polyethylene. As part of the closure program, a groundwater investigation was conducted at each site. The investigation concluded that due to the relatively shallow depth to the surface of the aquifer, each site impacted the Ogallala Aquifer to varying degrees.

The remediation plan included passive monitoring of those sites showing no free product on the water table and active fluid removal by means of the erection of windmills at three sites found to have more significant concentrations. A series of water monitoring wells were placed down gradient of each location. Each such well has been sampled and tested on a quarterly basis with the results of each laboratory analyses provided to the NMOCD on an annual basis. To date, three sites have been remediated to final closure. On April 19, 2004, the NMOCD modified the monitoring program to allow sampling on an annual basis.

Procedures

Whole Earth employs a Grundfos electric submersible pump and individual bailers dedicated to each well. The well fluids are pumped into a trailer mounted storage tank and sent to disposal at the Burro Pipeline Station No. 1.

The submersible pump is thoroughly decontaminated between each well by spraying the exterior with detergent followed by a clear water rinse; the inside of the pump and hose assembly is cleaned by pumping a minimum volume of five gallons of Alquinox through the system between each well.

Results and Conclusions

Generally, the trend for each pit site is to show lower concentrations of BTEX within each recovery and monitor well bore. During this sampling round we noticed that those bores containing free products had increased volumes of hydrocarbons over all previous sampling rounds. We believe that this is due to the reduction of frequency in bailing the wells (once versus four times per year). In future bailings we will continue to pump sufficient volumes from each bore containing free product until such time as the oil is no longer visible within the discharge stream.

A map showing the project area is attached. The following sections present the investigation work results to date for each of the sites.

WHOLE EARTH ENVIROMENTAL, INC.

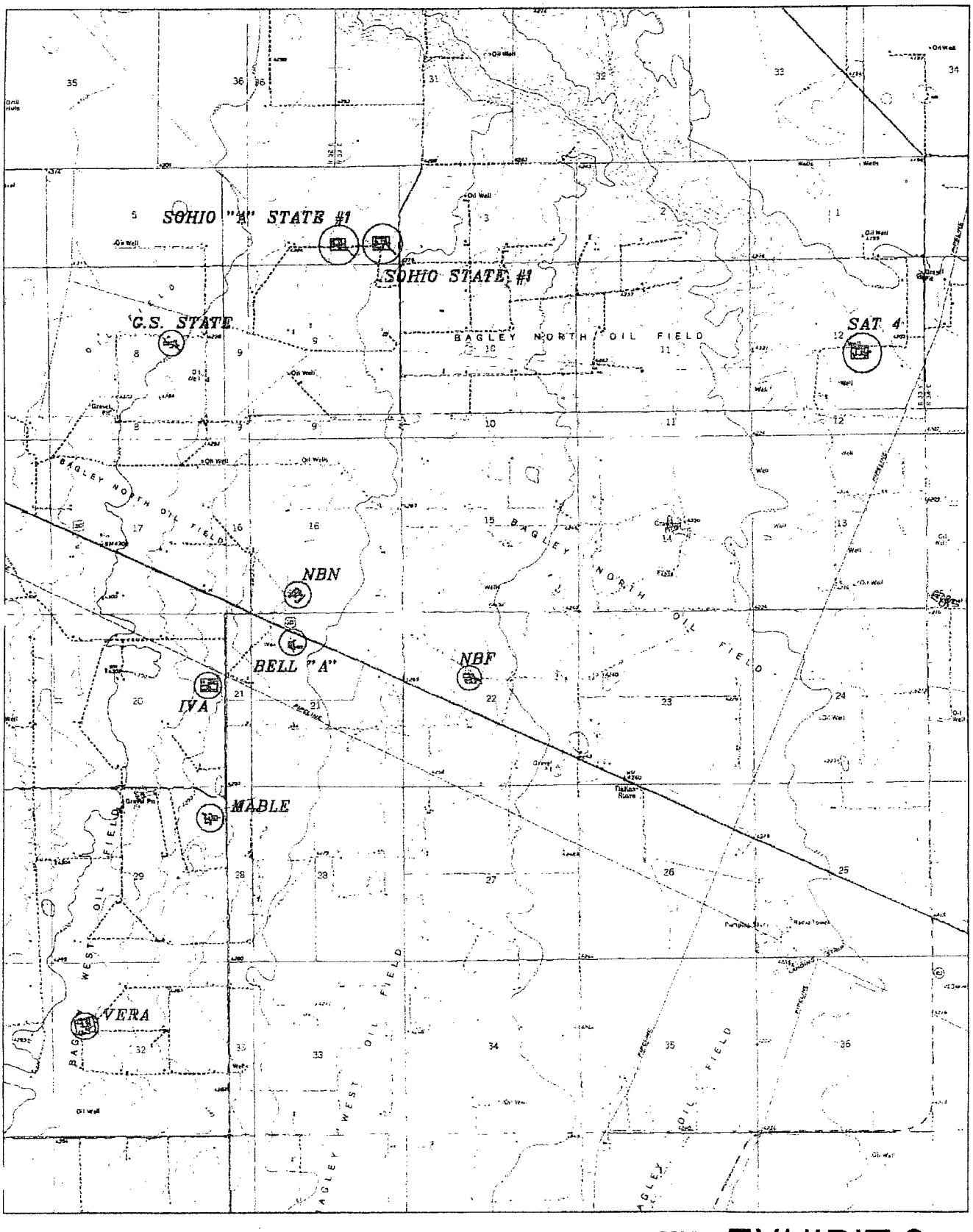


EXHIBIT 9

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO	W.O. Number: 9352	Drawn By: K. GOAD
	Date: 10-21-99	Disk: KJG #122 – WE9352.DWG

Tipperary Oil & Gas Corporation
Bagley Field
2004 Annual Report

Collier #1
Section 9F-T11S-R33E

IRP 261

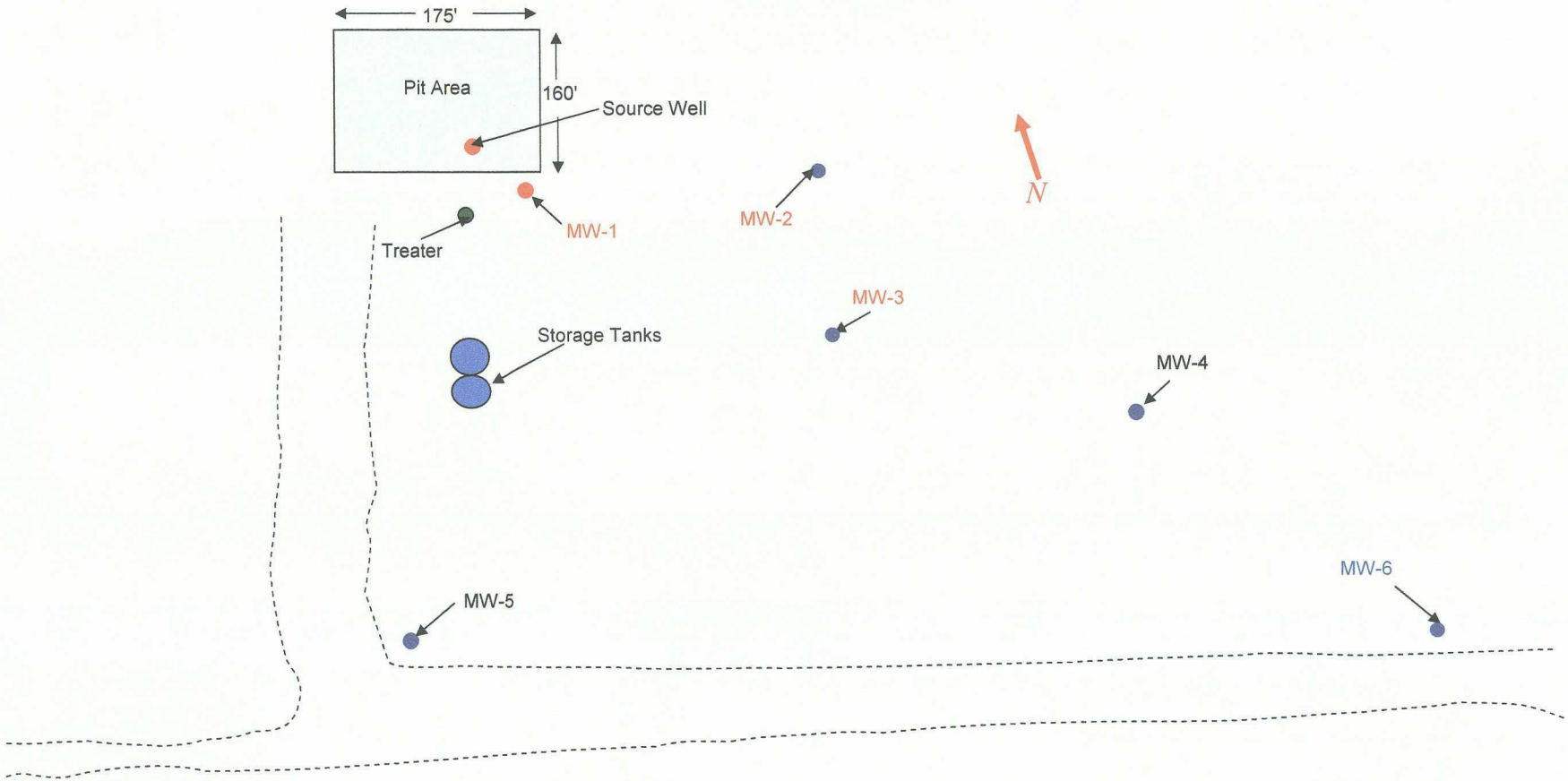
The Collier #1 site consists of one recovery well and six monitoring wells. Due to the installation of pumping equipment within the recovery well bore, we were unable to sample. All monitor wells show BTEX concentrations within NMOCD standards.

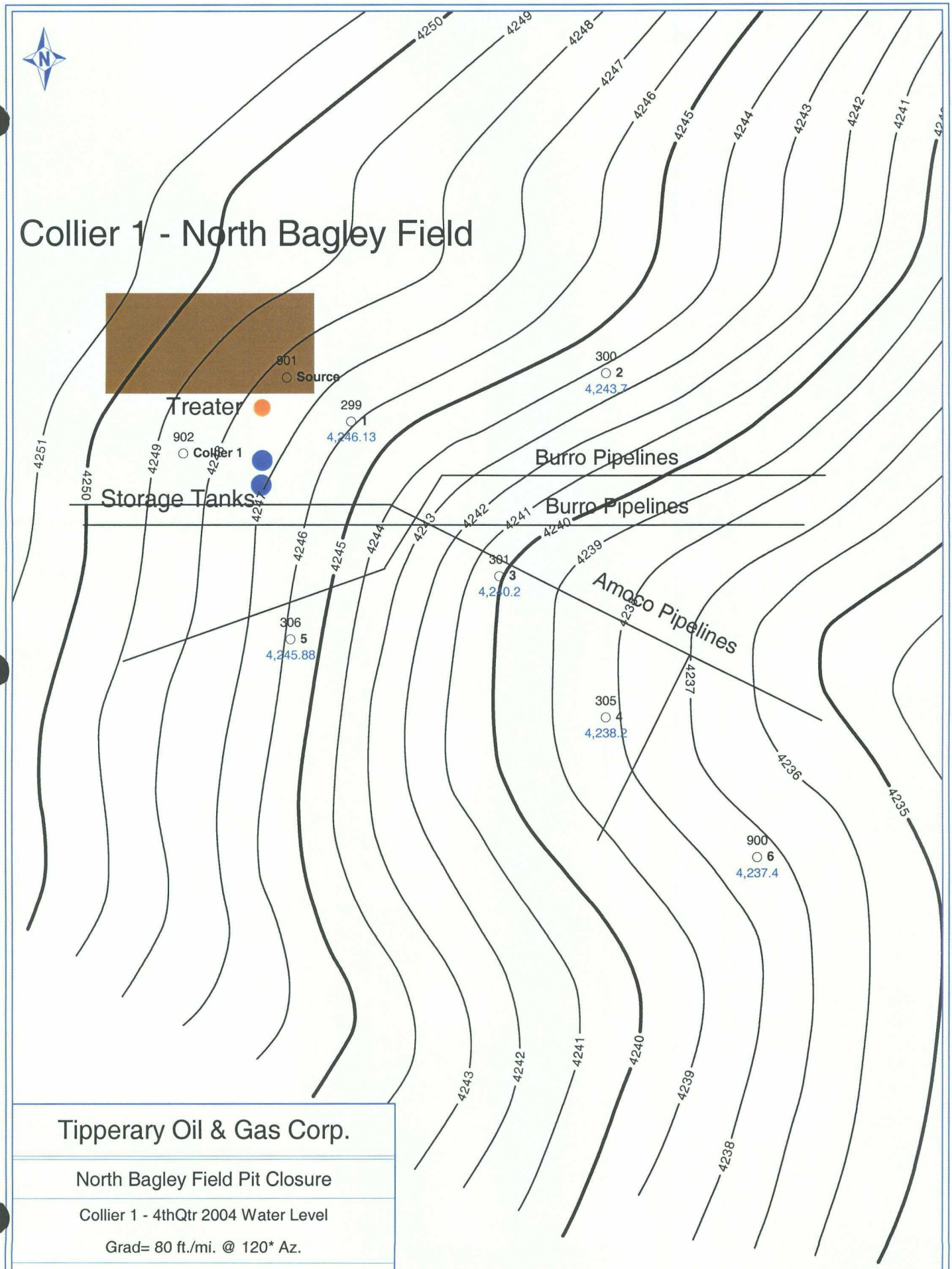
We are still waiting on approval of our abatement plan; therefore, we have not started the pumping equipment in the recovery well. We will continue to monitor the results on an annual basis.

Please find the following data:

- Well-site plat with monitor well locations.
- Ground water potentiometric map for 2004 sampling with direction and magnitude of the hydraulic gradient.
- Well completion diagram for each well.
- Well bailing log for each well.
- Summary table and chart of ground water quality results for each well.
- Copy of the recent laboratory results with the QA/QC results.

Tipperary Corporation
Collier # 1
Monitor Well Locations





Tipperary Oil & Gas Corp.

North Bagley Field Pit Closure

Collier 1 - 4thQtr 2004 Water Level

Grad= 80 ft./mi. @ 120* Az.

0 53 106

METERS

PETRA 4/4/2005 9:22:09 PM

Atkins Engineering Associates, Inc. 2904 W. 2nd St., Roswell, NM 88202-3156	LOG OF BORING Callier #1, MW-1 (Page 1 of 2)

Whole Earth Environmental 19606 San Gabriel Houston, TX 77084	Date	: 07-02-01	Site Location : Caprock, NM
	Drill Start	: *0800*	: Sec. 9, T11S, R33E
	Drill End	: 1330	Auger Type : Hollow Stem
Contact: Mike Griffin	Boring Location	: SE of old pit	Logged By : Mort Bates
Job#: WHOLETH.MWD.01			

Depth in Feet	GRAPHIC	USCS	Samples	DESCRIPTION	Lab mg/kg	PID ppm-v	Well: MW-1
0				Caliche w/ rock, tan & white, loose, dry			Grout
5							
10							Bentonite seal
15							
20							4" PVC Casing
25				Caliche w/ sand, tan, firm, dry			
30		SM		Silty sand, tan, loose, dry			Silica sand pack
35							
40							4" .020 slot screen
45		SS		Sandstone w/ sand, tan, firm, dry			
50							

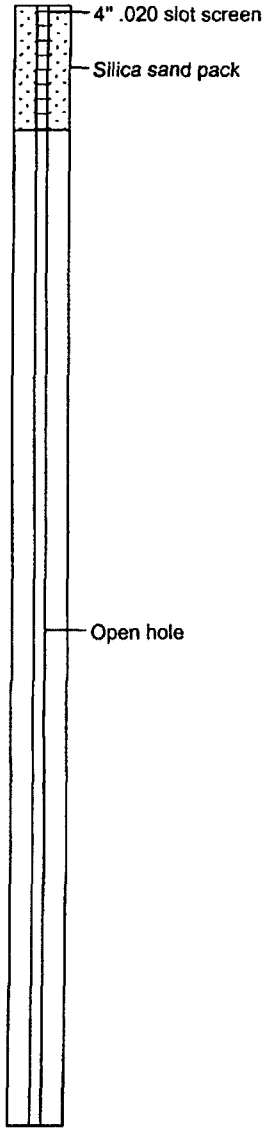
07-05-2001 C:\MTECH46\WHOLETH\MWD01\mw-1.bor

Atkins Engineering Associates, Inc. 2904 W. 2nd St., Roswell, NM 88202-3156	LOG OF BORING Callier #1, MW-1 (Page 2 of 2)

Whole Earth Environmental 19606 San Gabriel Houston, TX 77084	Date	: 07-02-01	Site Location : Caprock, NM
	Drill Start	: 0800	: Sec. 9, T11S, R33E
	Drill End	: 1330	Auger Type : Hollow Stem
Contact: Mike Griffin	Boring Location	: SE of old pit	Logged By : Mort Bates
Job#: WHOLETH.MWD.01			

Depth in Feet	GRAPHIC	USCS	Samples	DESCRIPTION	Lab mg/kg	PID ppm-v
50		SS				
				Clayey sand, ted, tight, damp		
55						
60		SC				
65						
70						
75		CL		Sandy clay, tan, soft, wet		
80				Clayey sand, tan, soft, wet		
85		SC				
90						
95				Total depth 95' Water level 44.0'		
100						

Well: MW-1



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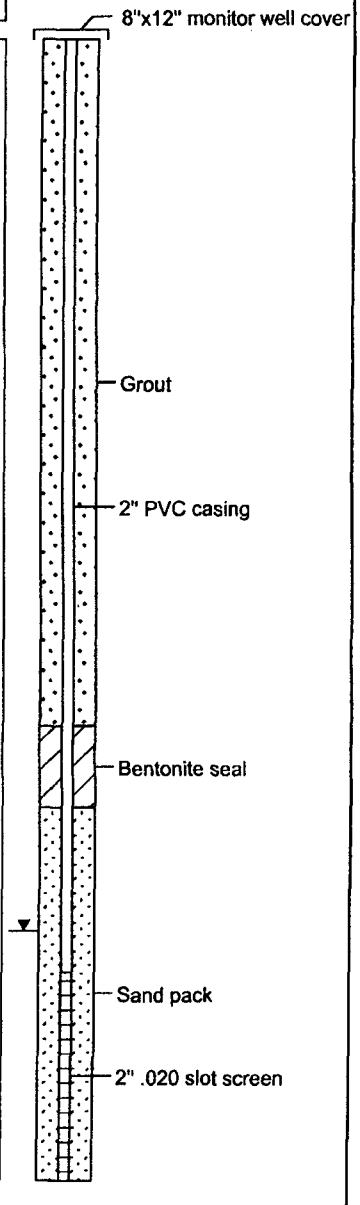
07-05-2001

Atkins Engineering Associates, Inc. 2904 W. 2nd St., Roswell, NM 88202-3156	LOG OF BORING Callier #1, MW-2 (Page 1 of 1)

Whole Earth Environmental 19606 San Gabriel Houston, TX 77084	Date	: 07-02-01	Site Location : Caprock, NM : Sec. 9, T11S, R33E
	Drill Start	: 1400	
	Drill End	: 1800	Auger Type : Hollow Stem
Contact: Mike Griffin	Boring Location	: 200'SE of MW-1	Logged By : Mort Bates
Job#: WHOLETH.MWD.01			

Depth in Feet	GRAPHIC	USCS	Samples	DESCRIPTION	Lab mg/kg	PID ppm-v
0		CL		Clay w/ caliche rock, tan, firm, dry		
5				Caliche, white, firm, dry		
10						
15		SM		Silty sand w/ caliche, pink, firm, dry		
20						
25		SM		Silty sand, tan, loose, dry		
30						
35						
		SS		Sandstone w/ sand, tan, firm, damp		
40		SP		Sand, tan, tight, damp		
45						
50		SP		Sand, tan, soft, wet		
55				Total depth 55' Water level 43'		
60						



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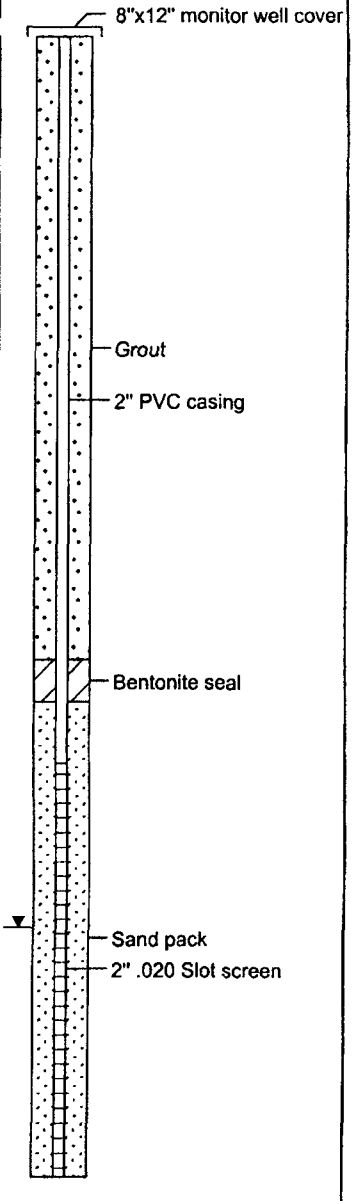
Atkins Engineering Associates, Inc. 2904 W. 2nd St., Roswell, NM 88202-3156	LOG OF BORING Callier#1 MW-3 (Page 1 of 1)

Whole Earth 19606 San Gabriel Houston, TX 77084	Date	: 08-09-01	Site Location : Caprock, NM : T11S, R33E, Sec. 9
Contact: Mike Griffin	Drill Start	: 0800	
Job#: WHOLETH.MWE!01	Drill End	: 1030	Auger Type : Hollow Stem
	Boring Location	: 254'SE of MW-2	Logged By : Mort Bates

Depth in Feet	GRAPHIC	USCS	Samples	DESCRIPTION	Lab	PID ppm-v
0		CL		Clay w/ caliche rock, brown, loose, damp		
5		SM		Silty sand w/ caliche, tan, firm, dry		
25		SP		Poorly graded sand, tan, loose, dry		
30		SP		Sand w/ sandstone, tan, loose, dry		
35		SS		Sandstone w/ sand, tan, firm, dry		
40		SP		Sand, tan, loose, damp		
45		SP		Sand, tan, loose, moist		
55				Total depth 55' Water level 43.00'		
60						

Well: MW-3



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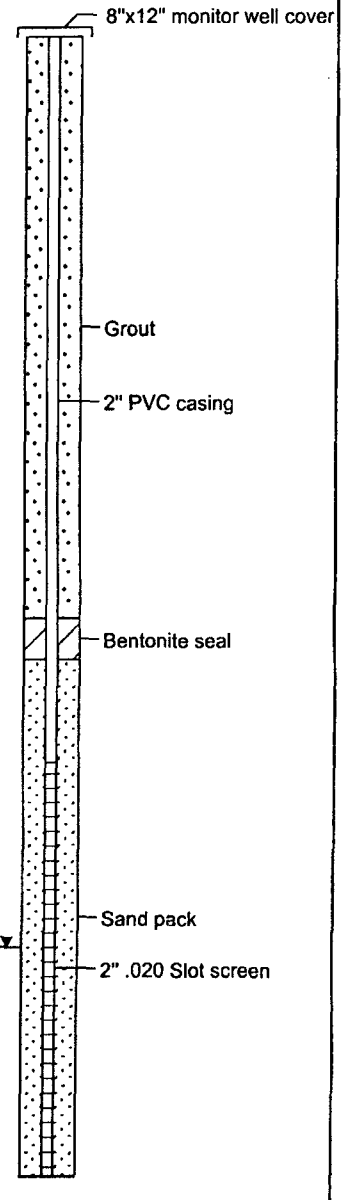
08-10-2001

Atkins Engineering Associates, Inc. 2904 W. 2nd St., Roswell, NM 88202-3156	LOG OF BORING Callier#1 MW-4 (Page 1 of 1)

Whole Earth 19606 San Gabriel Houston, TX 77084	Date	: 08-09-01	Site Location	: Caprock, NM
	Drill Start	: 1100		: T11S, R33E, Sec. 9
	Drill End	: 1500	Auger Type	: Hollow Stem
Contact: Mike Griffin	Boring Location	: 250'SE of MW-3	Logged By	: Mort Bates
Job#: WHOLETH.MWE.01				

Depth in Feet	GRAPHIC	USCS	Samples	DESCRIPTION	Lab	PID ppm-v
0		CL		Clay w/ caliche rock, brown, loose, dry		
				Caliche rock, tan, hard, dry		
5				Silty sand w/ caliche, tan, firm, dry		
10		SM				
15						
20						
25		SP		Poorly graded, sand, tan, loose, dry		
30						
35		SP		Sand w/ sandstone, tan, loose, dry		
40		SS		Cemented sandstone, tan, firm, dry		
45		SP		Sand, tan, loose, moist		
50						
55				Total depth 55' Water level 44.0'		
60						

Well: MW-4



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08-10-2001

Collier

Monitor Well Bailing Log

Collier MW #1

Lat:	N33^0 22.93165'
Long.	W103^0 37.24791
Surf. Elev.	4290.13 Ft.

As Drilled			As Measured					
Date:	6/13/2003		Date:	1/24/04	9/30/04			
Top of Water	44	Ft.	Top of Water	44.00	44.60			Ft.
Bottom of Bore	65	Ft.	Bottom of Bore	63.20	63.90			Ft.
			Bore Volumn	3.10	3.11			Gal.
			LPNL Top	NA	NA			Ft.
			LPNL Bottom	NA	NA			Ft.
			DPNL Top	NA	NA			Ft.
			DPNL Bottom	NA	NA			Ft.
			Min. Bailing Vol.	9.29	9.34			Gal.
			Actual Bailing Vol.	15.00	10.00			Gal.

Comments

Collier

Monitor Well Bailing Log

Collier MW #2

Lat:	N33^0 22.93853'
Long.	W103^0 37.17871
Surf. Elev.	4286.9 Ft.

As Drilled			As Measured					
Date:	6/14/2003		Date:	1/24/04	9/30/04			
Top of Water	42	Ft.	Top of Water	43.10	43.30			Ft.
Bottom of Bore	60	Ft.	Bottom of Bore	58.70	58.60			Ft.
			Bore Volumn	2.52	2.47			Gal.
			LPNL Top	NA	NA			Ft.
			LPNL Bottom	NA	NA			Ft.
			DPNL Top	NA	NA			Ft.
			DPNL Bottom	NA	NA			Ft.
			Min. Bailing Vol.	7.55	7.40			Gal.
			Actual Bailing Vol.	15.00	10.00			Gal.

Comments

Collier

Monitor Well Bailing Log

Collier MW #3

Lat:	N33' 22' 53.8"
Long.	W103' 37' 12.5"
Surf. Elev.	4284

As Drilled			As Measured					
Date:	7/2/2001		Date:	1/24/04	9/30/04			
Top of Water	43	Ft.	Top of Water	43.90	43.80			Ft.
Bottom of Bore	55	Ft.	Bottom of Bore	54.90	55.00			Ft.
			Bore Volumn	1.77	1.81			Gal.
			LPNL Top	NA	NA			Ft.
			LPNL Bottom	NA	NA			Ft.
			DPNL Top	NA	NA			Ft.
			DPNL Bottom	NA	NA			Ft.
			Min. Bailing Vol.	5.32	5.42			Gal.
			Actual Bailing Vol.	15.00	10.00			Gal.

Comments

Collier

Monitor Well Bailing Log

Collier MW #4

Lat:	N33' 22' 51.9"
Long.	W103' 37' 10.8"
Surf. Elev.	4281

As Drilled			As Measured					
Date:	8/9/2001		Date:	1/24/04	9/30/04			
Top of Water	43	Ft.	Top of Water	42.70	42.50			Ft.
Bottom of Bore	55	Ft.	Bottom of Bore	52.50	55.10			Ft.
			Bore Volumn	1.58	2.03			Gal.
			LPNL Top	NA	NA			Ft.
			LPNL Bottom	NA	NA			Ft.
			DPNL Top	NA	NA			Ft.
			DPNL Bottom	NA	NA			Ft.
			Min. Bailing Vol.	4.74	6.10			Gal.
			Actual Bailing Vol.	15.00	10.00			Gal.

Comments

Collier

Monitor Well Bailing Log

Collier MW #5

Lat:	33^0 22.054'
Long.	103^0 37.259'
Surf. Elev.	

As Drilled			As Measured					
Date:	6/13/2003		Date:	1/24/04	9/30/04			
Top of Water	43.7	Ft.	Top of Water	44.50	45.00			Ft.
Bottom of Bore	60	Ft.	Bottom of Bore	58.10	58.30			Ft.
			Bore Volumn	2.19	2.15			Gal.
			LPNL Top	NA	NA			Ft.
			LPNL Bottom	NA	NA			Ft.
			DPNL Top	NA	NA			Ft.
			DPNL Bottom	NA	NA			Ft.
			Min. Bailing Vol.	6.58	6.44			Gal.
			Actual Bailing Vol.	15.00	10.00			Gal.

Comments

Collier

Monitor Well Bailing Log

Collier MW #6

Lat:	N33' 22' 53.8"
Long.	W103' 37' 12.5"
Surf. Elev.	4284 Ft.

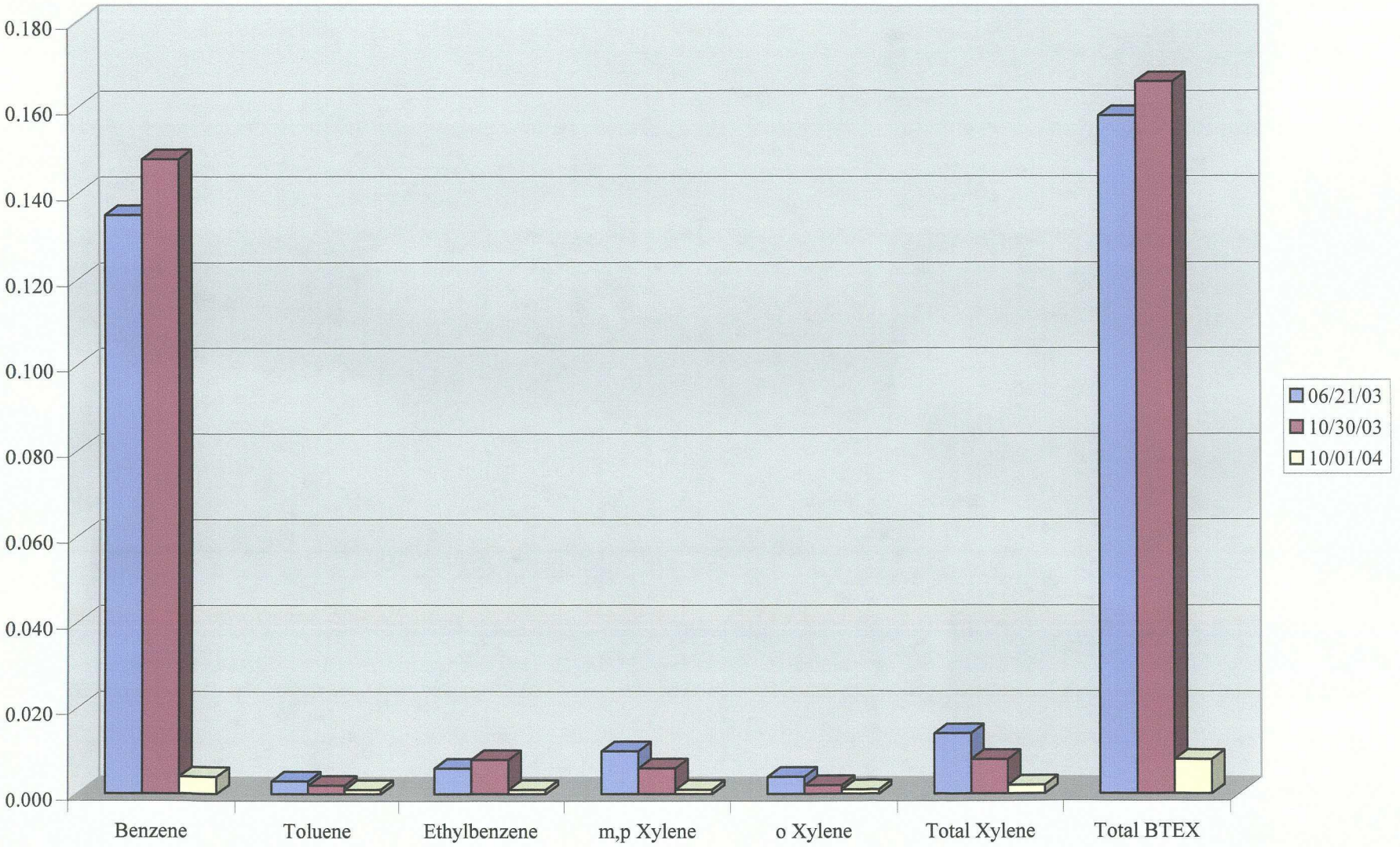
As Drilled		As Measured					
Date:	8/9/2001	Date:	1/24/04	9/30/04			
Top of Water	44 Ft.	Top of Water	43.40	43.40			Ft.
Bottom of Bore	55 Ft.	Bottom of Bore	44.80	48.90			Ft.
		Bore Volumn	0.23	0.89			Gal.
		LPNL Top	NA	NA			Ft.
		LPNL Bottom	NA	NA			Ft.
		DPNL Top	NA	NA			Ft.
		DPNL Bottom	NA	NA			Ft.
		Min. Bailing Vol.	0.68	2.66			Gal.
		Actual Bailing Vol.	5.00	5.00			Gal.

Comments

Collier
Monitor Well # 1

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
0306749-01	06/21/03	0.135	0.003	0.006	0.010	0.004	0.014	0.158
0307790-08	10/30/03	0.148	0.002	0.008	0.006	0.002	0.008	0.166
4J04004-01	10/01/04	0.004	0.001	0.001	0.001	0.001	0.002	0.008

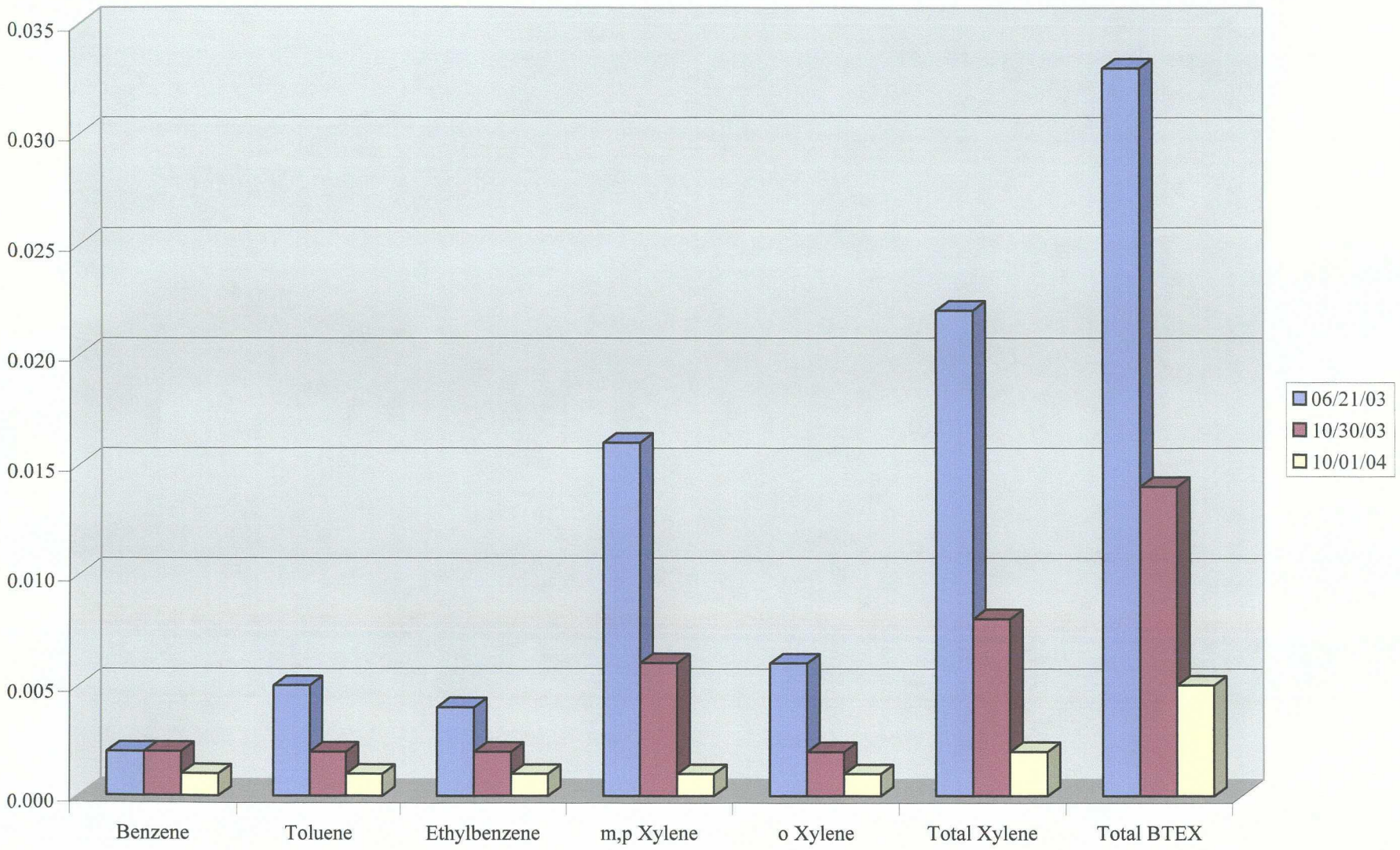
Collier MW #1


0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
06/21/03
10/30/03
10/01/04

Collier
Monitor Well # 2

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
0306749-02	06/21/03	0.002	0.005	0.004	0.016	0.006	0.022	0.033
0307790-09	10/30/03	0.002	0.002	0.002	0.006	0.002	0.008	0.014
4J04004-02	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005

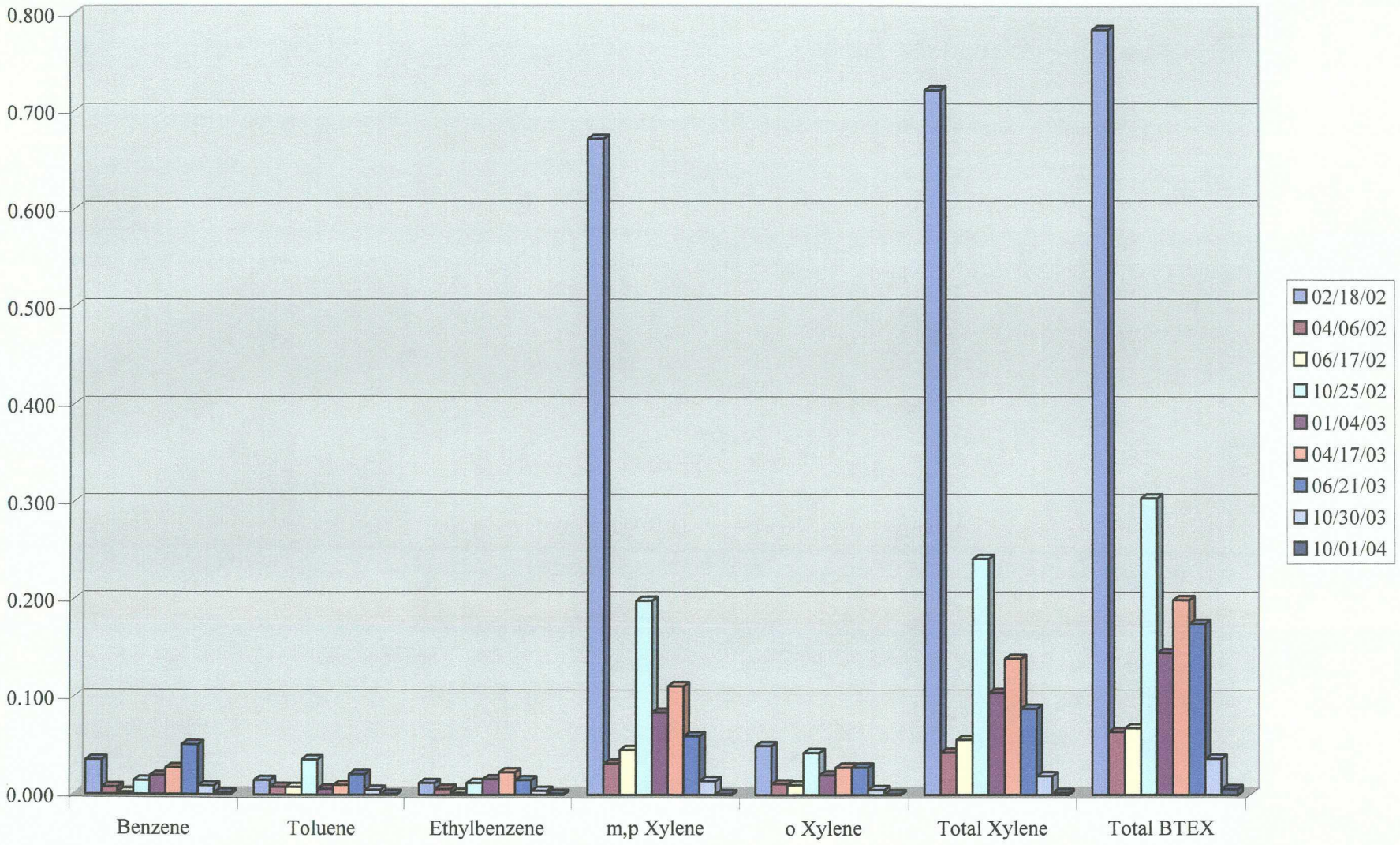
Collier MW #2


0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
06/21/03
10/30/03
10/01/04

Collier Monitor Well # 3

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
0202618-1	02/18/02	0.035	0.015	0.012	0.671	0.050	0.721	0.783
0203000-01	04/06/02	0.007	0.008	0.006	0.032	0.011	0.043	0.064
0002051-02	06/17/02	0.002	0.008	0.002	0.046	0.010	0.056	0.068
0204814-02	10/25/02	0.014	0.036	0.012	0.198	0.043	0.241	0.303
0205349-36	01/04/03	0.019	0.006	0.016	0.084	0.020	0.104	0.145
0306249-37	04/17/03	0.027	0.010	0.023	0.111	0.028	0.139	0.199
0306733-40	06/21/03	0.051	0.021	0.015	0.060	0.028	0.088	0.175
0307790-10	10/30/03	0.009	0.005	0.004	0.014	0.005	0.019	0.037
4J04004-03	10/01/04	0.002	0.001	0.001	0.001	0.001	0.002	0.006

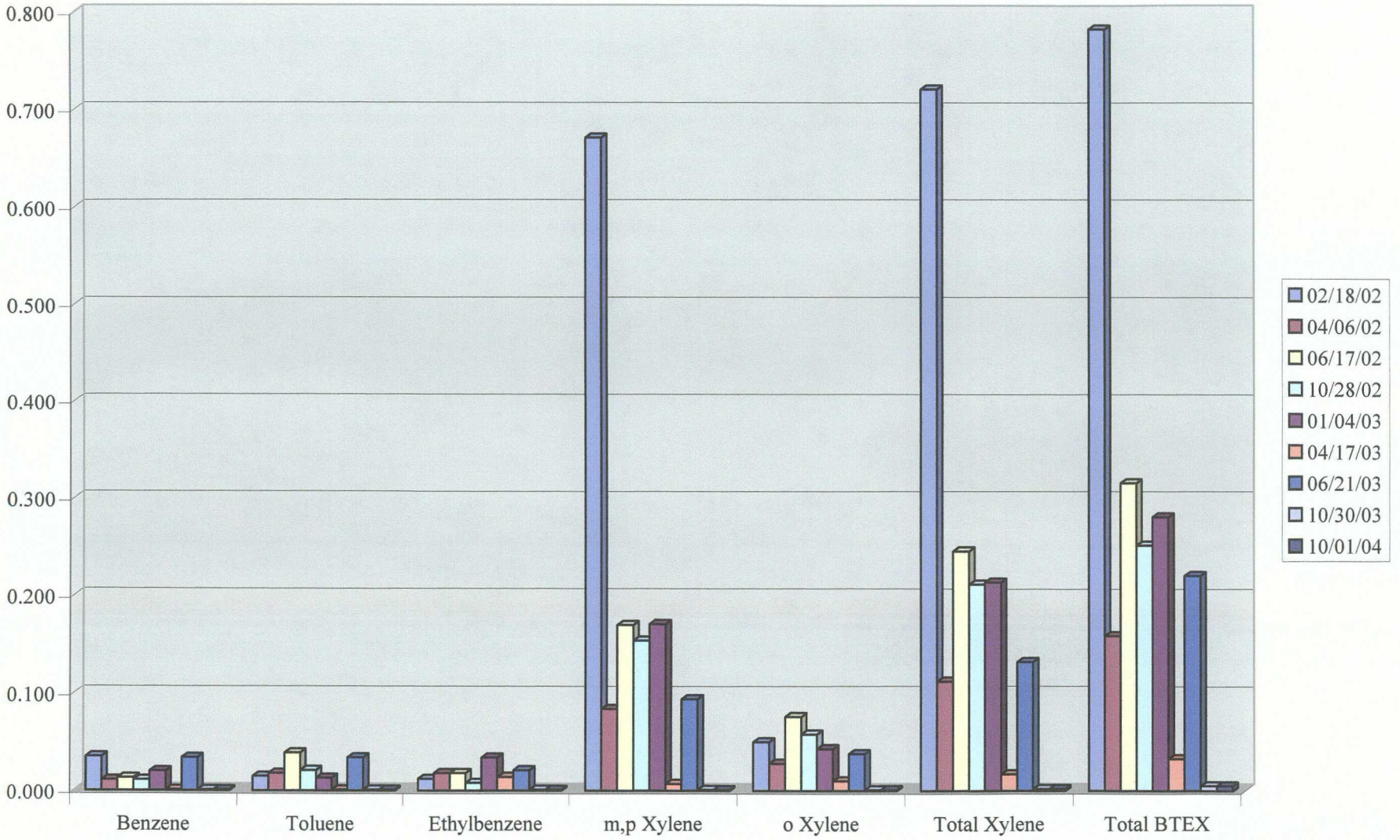
Collier MW #3


0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
02/18/02
04/06/02
06/17/02
10/25/02
01/04/03
04/17/03
06/21/03
10/30/03
10/01/04

Collier Monitor Well # 4

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
0202618-1	02/18/02	0.035	0.015	0.012	0.671	0.050	0.721	0.783
0203000-2	04/06/02	0.011	0.018	0.018	0.084	0.028	0.112	0.159
0203602-33	06/17/02	0.013	0.039	0.018	0.170	0.076	0.246	0.316
0204814-02	10/28/02	0.011	0.021	0.008	0.154	0.058	0.212	0.252
0205349-37	01/04/03	0.020	0.013	0.034	0.171	0.043	0.214	0.281
0306249-38	04/17/03	0.001	0.001	0.014	0.007	0.010	0.017	0.033
0306733-41	06/21/03	0.034	0.034	0.021	0.094	0.038	0.132	0.221
0307790-11	10/30/03	0.001	0.001	0.001	0.001	0.001	0.002	0.005
4J04004-04	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005

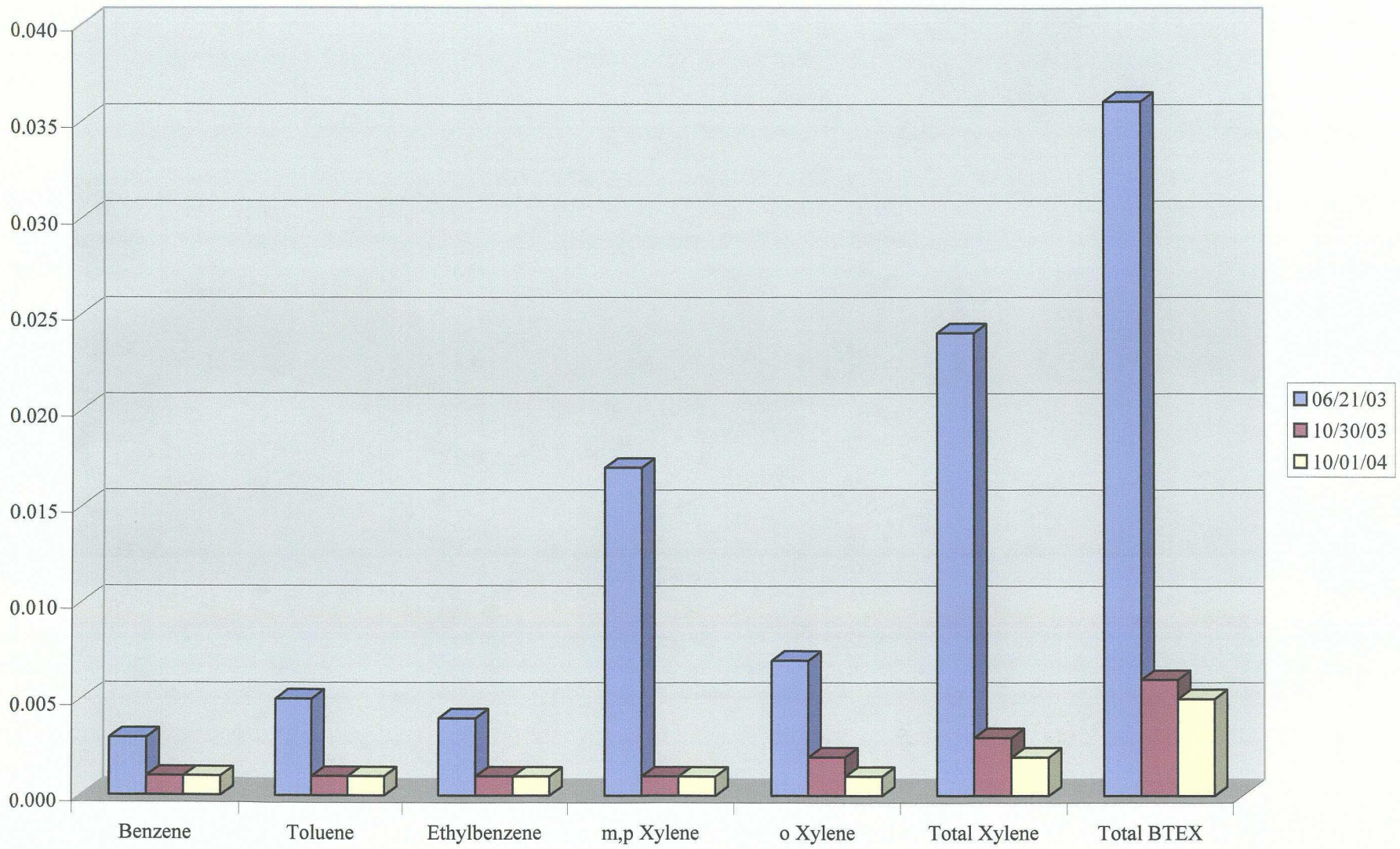
Collier MW #4


0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
02/18/02
04/06/02
06/17/02
10/28/02
01/04/03
04/17/03
06/21/03
10/30/03
10/01/04

Collier
Monitor Well # 5

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
0306749-03	06/21/03	0.003	0.005	0.004	0.017	0.007	0.024	0.036
0307790-12	10/30/03	0.001	0.001	0.001	0.001	0.002	0.003	0.006
4J04004-05	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005

Collier MW #5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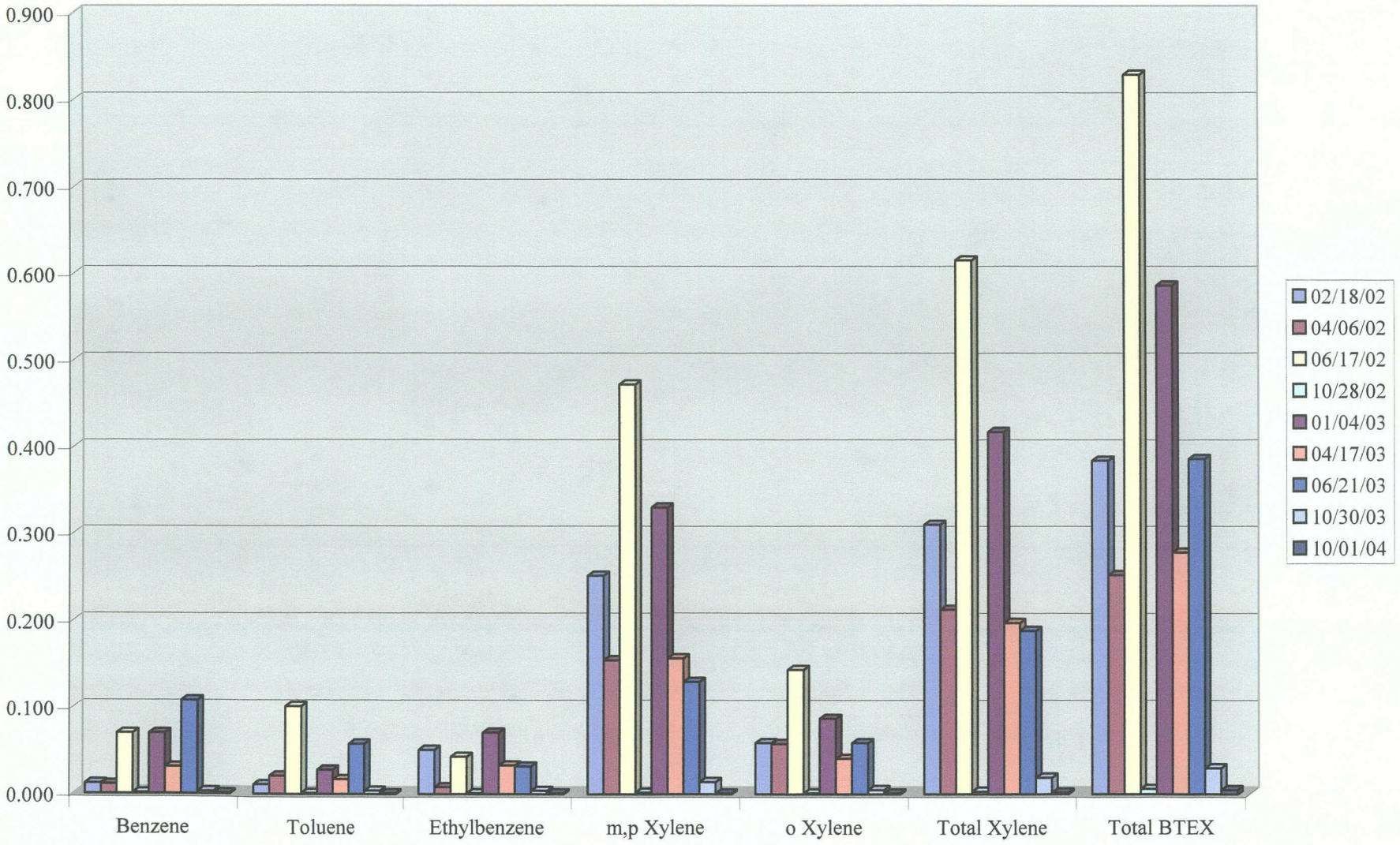
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
06/21/03
10/30/03
10/01/04

Collier Monitor Well # 6

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
0202618-1	02/18/02	0.012	0.011	0.051	0.251	0.059	0.310	0.384
1204814-04	04/06/02	0.011	0.021	0.008	0.154	0.058	0.212	0.252
0203602-33	06/17/02	0.070	0.101	0.043	0.472	0.143	0.615	0.829
0204814-05	10/28/02	0.001	0.001	0.001	0.002	0.001	0.003	0.006
0205349-38	01/04/03	0.070	0.028	0.071	0.330	0.087	0.417	0.586
0306249-39	04/17/03	0.031	0.017	0.033	0.156	0.041	0.197	0.278
0306733-42	06/21/03	0.108	0.058	0.032	0.129	0.059	0.188	0.386
0307790-13	10/30/03	0.003	0.004	0.004	0.014	0.005	0.019	0.030
4J04004-06	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005

Collier MW #6


0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
02/18/02
04/06/02
06/17/02
10/28/02
01/04/03
04/17/03
06/21/03
10/30/03
10/01/04

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Mike Griffin

WHOLE EARTH ENVIRONMENTAL

2103 Arbor Cove

Katy, TX 77494

Project: Collier

Project Number: None Given

Location: None Given

Lab Order Number: 4J04004

Report Date: 10/15/04

WHOLE EARTH ENVIRONMENTAL	Project: Collier	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4J04004-01	Water	10/01/04 00:00	10/03/04 13:00
MW-2	4J04004-02	Water	10/01/04 00:00	10/03/04 13:00
MW-3	4J04004-03	Water	10/01/04 00:00	10/03/04 13:00
MW-4	4J04004-04	Water	10/01/04 00:00	10/03/04 13:00
MW-5	4J04004-05	Water	10/01/04 00:00	10/03/04 13:00
MW-6	4J04004-06	Water	10/01/04 00:00	10/03/04 13:00

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WHOLE EARTH ENVIRONMENTAL	Project: Collier	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4J04004-01) Water									
Benzene	**0.00382**	0.00100	mg/L	1	EJ40716	10/06/04	10/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.9 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.2 %*		*80-120*	"	"	"	"	
MW-2 (4J04004-02) Water									
Benzene	ND	0.00100	mg/L	1	EJ40716	10/06/04	10/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.8 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.7 %*		*80-120*	"	"	"	"	
MW-3 (4J04004-03) Water									
Benzene	**0.00234**	0.00100	mg/L	1	EJ40716	10/06/04	10/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.7 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*84.2 %*		*80-120*	"	"	"	"	
MW-4 (4J04004-04) Water									
Benzene	ND	0.00100	mg/L	1	EJ40716	10/06/04	10/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.8 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.6 %*		*80-120*	"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (4J04004-05) Water									
Benzene	ND	0.00100	mg/L	1	EJ40716	10/06/04	10/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.5 %*	*80-120*		"	"	"	"	
MW-6 (4J04004-06) Water									
Benzene	ND	0.00100	mg/L	1	EJ40716	10/06/04	10/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*80.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.6 %*	*80-120*		"	"	"	"	

WHOLE EARTH ENVIRONMENTAL	Project: Collier	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4J04004-01) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40901	10/05/04	10/05/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**220**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**2910**	5.00	"	1	EJ40906	10/09/04	10/09/04	EPA 325.3M	
Sulfate	**170**	1.25	"	2.5	EJ40904	10/09/04	10/09/04	EPA 375.4	
MW-2 (4J04004-02) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40901	10/05/04	10/05/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**118**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**2220**	5.00	"	1	EJ40906	10/09/04	10/09/04	EPA 325.3M	
Sulfate	**113**	1.25	"	2.5	EJ40904	10/09/04	10/09/04	EPA 375.4	
MW-3 (4J04004-03) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40901	10/05/04	10/05/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**152**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**8330**	5.00	"	1	EJ40906	10/09/04	10/09/04	EPA 325.3M	
Sulfate	**206**	2.50	"	5	EJ40904	10/09/04	10/09/04	EPA 375.4	
MW-4 (4J04004-04) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40901	10/05/04	10/05/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**104**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**638**	5.00	"	1	EJ40906	10/09/04	10/09/04	EPA 325.3M	
Sulfate	**103**	1.25	"	2.5	EJ40904	10/09/04	10/09/04	EPA 375.4	
MW-5 (4J04004-05) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40901	10/05/04	10/05/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**120**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**44.3**	5.00	"	1	EJ40906	10/09/04	10/09/04	EPA 325.3M	
Sulfate	**88.0**	1.25	"	2.5	EJ40904	10/09/04	10/09/04	EPA 375.4	

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WHOLE EARTH ENVIRONMENTAL	Project: Collier	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (4J04004-06) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40901	10/05/04	10/05/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**148**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**26.6**	5.00	"	1	EJ40906	10/09/04	10/09/04	EPA 325.3M	
Sulfate	**115**	1.25	"	2.5	EJ40904	10/09/04	10/09/04	EPA 375.4	

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WHOLE EARTH ENVIRONMENTAL	Project: Collier	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4J04004-01) Water									
Calcium	**75.9**	1.00	mg/L	100	EJ41304	10/11/04	10/11/04	EPA 6010B	
Magnesium	**13.5**	0.0100	"	10	"	"	"	"	
Potassium	**10.6**	0.500	"	"	"	"	"	"	
Sodium	**1660**	10.0	"	1000	"	"	"	"	
MW-2 (4J04004-02) Water									
Calcium	**671**	10.0	mg/L	1000	EJ41304	10/11/04	10/11/04	EPA 6010B	
Magnesium	**85.7**	0.100	"	100	"	"	"	"	
Potassium	**13.8**	0.500	"	10	"	"	"	"	
Sodium	**774**	10.0	"	1000	"	"	"	"	
MW-3 (4J04004-03) Water									
Calcium	**2620**	10.0	mg/L	1000	EJ41304	10/11/04	10/11/04	EPA 6010B	
Magnesium	**240**	0.100	"	100	"	"	"	"	
Potassium	**53.2**	0.500	"	10	"	"	"	"	
Sodium	**3550**	10.0	"	1000	"	"	"	"	
MW-4 (4J04004-04) Water									
Calcium	**351**	1.00	mg/L	100	EJ41304	10/11/04	10/11/04	EPA 6010B	
Magnesium	**36.8**	0.0100	"	10	"	"	"	"	
Potassium	**5.92**	0.100	"	2	"	"	"	"	
Sodium	**64.2**	1.00	"	100	"	"	"	"	
MW-5 (4J04004-05) Water									
Calcium	**70.4**	1.00	mg/L	100	EJ41305	10/12/04	10/12/04	EPA 6010B	
Magnesium	**12.6**	0.0100	"	10	"	"	"	"	
Potassium	**4.14**	0.0500	"	1	"	"	"	"	
Sodium	**34.8**	0.100	"	10	"	"	"	"	
MW-6 (4J04004-06) Water									
Calcium	**63.8**	1.00	mg/L	100	EJ41305	10/12/04	10/12/04	EPA 6010B	
Magnesium	**9.30**	0.0100	"	10	"	"	"	"	
Potassium	**13.8**	0.500	"	"	"	"	"	"	
Sodium	**49.4**	0.100	"	"	"	"	"	"	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40716 - EPA 5030C (GC)										
Blank (EJ40716-BLK1)				Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*81.8*		*ug/l*	*100*		*81.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*88.0*		"	*100*		*88.0*	*80-120*			
LCS (EJ40716-BS1)				Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	83.8		ug/l	100		83.8	80-120			
Toluene	82.6		"	100		82.6	80-120			
Ethylbenzene	80.9		"	100		80.9	80-120			
Xylene (p/m)	179		"	200		89.5	80-120			
Xylene (o)	84.6		"	100		84.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*106*		"	*100*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*118*		"	*100*		*118*	*80-120*			
Calibration Check (EJ40716-CCV1)				Prepared: 10/05/04 Analyzed: 10/06/04						
Benzene	83.1		ug/l	100		83.1	80-120			
Toluene	83.4		"	100		83.4	80-120			
Ethylbenzene	80.8		"	100		80.8	80-120			
Xylene (p/m)	167		"	200		83.5	80-120			
Xylene (o)	83.4		"	100		83.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*102*		"	*100*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*117*		"	*100*		*117*	*80-120*			
Matrix Spike (EJ40716-MS1)	**Source: 4J05006-03**			Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	82.5		ug/l	100	ND	82.5	80-120			
Toluene	82.7		"	100	ND	82.7	80-120			
Ethylbenzene	80.8		"	100	ND	80.8	80-120			
Xylene (p/m)	168		"	200	ND	84.0	80-120			
Xylene (o)	82.5		"	100	ND	82.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	*97.6*		"	*100*		*97.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*114*		"	*100*		*114*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40716 - EPA 5030C (GC)										
Matrix Spike Dup (EJ40716-MSD1)	**Source: 4J05006-03**			Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	83.3		ug/l	100	ND	83.3	80-120	0.965	20	
Toluene	83.8		"	100	ND	83.8	80-120	1.32	20	
Ethylbenzene	80.8		"	100	ND	80.8	80-120	0.00	20	
Xylene (p/m)	166		"	200	ND	83.0	80-120	1.20	20	
Xylene (o)	82.8		"	100	ND	82.8	80-120	0.363	20	
Surrogate: a,a,a-Trifluorotoluene	*104*		"	*100*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*114*		"	*100*		*114*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40901 - General Preparation (WetChem)										
Blank (EJ40901-BLK1)				Prepared & Analyzed: 10/05/04						
Carbonate Alkalinity	ND	0.200	mg/L							
Bicarbonate Alkalinity	ND	4.00	"							
Hydroxide Alkalinity	ND	0.200	"							
Duplicate (EJ40901-DUP1)	**Source: 4J04003-01**			Prepared & Analyzed: 10/05/04						
Carbonate Alkalinity	0.00	0.200	mg/L		0.00				20	O-04
Bicarbonate Alkalinity	310	4.00	"		312			0.643	20	O-04
Hydroxide Alkalinity	0.00	0.200	"		0.00				20	O-04
Reference (EJ40901-SRM1)				Prepared & Analyzed: 10/05/04						
Carbonate Alkalinity	0.0501		mg/L	0.0500		100	80-120			
Batch EJ40904 - General Preparation (WetChem)										
Blank (EJ40904-BLK1)				Prepared & Analyzed: 10/09/04						
Sulfate	ND	0.500	mg/L							
Calibration Check (EJ40904-CCV1)				Prepared & Analyzed: 10/09/04						
Sulfate	48.9		mg/L	50.0		97.8	80-120			
Duplicate (EJ40904-DUP1)	**Source: 4J04004-01**			Prepared & Analyzed: 10/09/04						
Sulfate	168	1.25	mg/L		170			1.18	20	
Batch EJ40906 - General Preparation (WetChem)										
Blank (EJ40906-BLK1)				Prepared & Analyzed: 10/09/04						
Chloride	ND	5.00	mg/L							

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40906 - General Preparation (WetChem)										
Matrix Spike (EJ40906-MS1)	**Source: 4J04003-01**			Prepared & Analyzed: 10/09/04						
Chloride	1100	5.00	mg/L	500	603	99.4	80-120			
Matrix Spike Dup (EJ40906-MSD1)	**Source: 4J04003-01**			Prepared & Analyzed: 10/09/04						
Chloride	1090	5.00	mg/L	500	603	97.4	80-120	0.913	20	
Reference (EJ40906-SRM1)				Prepared & Analyzed: 10/09/04						
Chloride	4960		mg/L	5000		99.2	80-120			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ41304 - 6010B/No Digestion										
Blank (EJ41304-BLK1)				Prepared & Analyzed: 10/11/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EJ41304-CCV1)				Prepared & Analyzed: 10/11/04						
Calcium	2.14		mg/L	2.00		107	85-115			
Magnesium	2.16		"	2.00		108	85-115			
Potassium	1.80		"	2.00		90.0	85-115			
Sodium	1.82		"	2.00		91.0	85-115			
Duplicate (EJ41304-DUP1)	**Source: 4J04003-01RE1**			Prepared & Analyzed: 10/11/04						
Calcium	367	1.00	mg/L		385			4.79	20	
Magnesium	48.7	0.0100	"		49.0			0.614	20	
Potassium	24.2	0.500	"		24.2			0.00	20	
Sodium	654	10.0	"		679			3.75	20	
Batch EJ41305 - 6010B/No Digestion										
Blank (EJ41305-BLK1)				Prepared & Analyzed: 10/12/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EJ41305-CCV1)				Prepared & Analyzed: 10/12/04						
Calcium	2.18		mg/L	2.00		109	85-115			
Magnesium	2.25		"	2.00		112	85-115			
Potassium	1.84		"	2.00		92.0	85-115			
Sodium	1.89		"	2.00		94.5	85-115			

WHOLE EARTH ENVIRONMENTAL	Project: Collier	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ41305 - 6010B/No Digestion										
Duplicate (EJ41305-DUP1)	**Source: 4J04009-02**		Prepared & Analyzed: 10/12/04							
Calcium	104	1.00	mg/L		102			1.94	20	
Magnesium	10.9	0.0100	"		10.7			1.85	20	
Potassium	33.9	0.500	"		36.4			7.11	20	
Sodium	79.8	1.00	"		79.8			0.00	20	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Notes and Definitions

O-04	This sample was analyzed outside the EPA recommended holding time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 10/15/04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Biezugbe, Lab Tech.