

1R - 266

# REPORTS

DATE:

4/27/1999



**Tipperary**  
CORPORATION

633 Seventeenth Street  
Suite 1550  
Denver, Colorado 80202

April 27, 1999

CERTIFIED MAIL

Mr. William C. Olson  
New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505

**RE: April 1999 Progress Report  
Tatum Pit Closure Project  
Lea County, NM**

**RECEIVED**

**MAY 06 1999**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Dear Mr. Olson:

Please find enclosed additional results from our monitor wells in the subject project area. These results are from water samples taken on April 1, 1999. These samples represent the seventh quarter of monitoring. We will continue to analyze water samples quarterly.

In our January 1999 progress report, we requested final closure for these projects: Vera (pit and monitor well #5) and State NBN (pit and monitor well #7). In your letter dated March 29, 1999, you requested a water table potentiometric map as well as the magnitude of the hydraulic gradient at these sites to complete your review of our request. Please be advised that we are currently constructing this data and it will be forwarded to you as soon as it is completed.

Additional monitor wells were constructed March 15-16 at the following pit sites: Bell A, State NBF, Sohio 1, Sohio A, and GS State. Complete water analyses from these new monitor wells are included in this report. It appears that an additional monitor well will be necessary for the Sohio 1 and Sohio A pit sites. These will be installed accordingly.

If you have any questions, please call me at (303) 293-9379.

Very truly yours,

Larry G. Sugano  
Vice President - Engineering

cc: NMOCD Hobbs Office

Enclosures



**Tipperary**  
CORPORATION

TATUM PIT CLOSURE PROJECT  
WATER SAMPLING RESULTS  
APRIL, 1999

## **Executive Summary**

### **Iva COM**

Having completed six consecutive quarters of sampling monitor wells 1 & 2 with no BTEX component exceeding WQCC standards, we began a sampling program from the source well. The results are presented in this report. We do not plan to continue to sample wells 1 & 2.

### **Mable COM**

Monitor well #3 has passed six consecutive quarters with no BTEX component exceeding WQCC standards. We do not plan to continue monitoring the location, but will provide complete analyses (RCRA 8 metals, BTEX, and major cation / anions) at the conclusion of the sampling program for the source well. Monitor well #4 showed a slight increase in BTEX concentrations reflecting a normal seasonal increase in water table levels. The source well shows moderate benzene and xylene concentrations.

### **Vera**

The analytical results of six consecutive quarterly samplings described in our February 16<sup>th</sup> summary revealed no BTEX component concentration in excess of WQCC standards. Tipperary requests final closure of this pit.

### **Bell A**

Monitor wells 6, 13 & 14 show normal increases in BTEX concentrations due to seasonal changes within the water table. An additional delineation well (#25) was drilled a distance of 150' southeast of the mid-point of wells 13 & 14. The drilling log is included within this report. The analytical results of water samples obtained from this new well reflect no BTEX, RCRA 8 metals or cation / anion concentrations in excess of WQCC standards. (See Environmental Labs of Texas log no. 17265).

### **NBF**

Monitor wells 8, 15 & 16 show normal increases in BTEX concentrations due to seasonal changes within the water table. An additional delineation well (#26) was drilled at a distance of 150' southeast of the mid-point of wells 15 & 16. The drilling log is included within this report. The analytical results of water samples obtained from this new well reflect no BTEX, RCRA 8 metals or cation / anion concentrations in excess of WQCC standards. (See Environmental Labs of Texas log no. 17266).

### **NBN**

The analytical results of six consecutive quarterly samplings described in our February 16<sup>th</sup> summary revealed no BTEX component concentration in excess of WQCC standards. Tipperary requests final closure of this pit.

**Sohio State #1**

Monitor wells 10, 17 & 18 show normal increases in BTEX concentrations due to seasonal changes within the water table. An additional delineation well (#28) was drilled at a distance of 150' southeast of the mid-point of wells 17 & 18. The drilling log is included within this report. The analytical results of water samples obtained from this new wells reflect acceptable RCRA 8 metals and cation / anion concentrations however the BTEX concentrations are in excess of WQCC standards. (See Environmental Labs of Texas log no. 17268). A fifth monitor well will be drilled, cased, developed and tested.

**Sohio State A**

Monitor wells 10, 19 & 20 show normal increases in BTEX concentrations due to seasonal changes within the water table. An additional delineation well (#27) was drilled at a distance of 150' southeast of the mid-point of wells 19 & 20. The drilling log is included within this report. The analytical results of water samples obtained from this new well reflect acceptable RCRA 8 metals and cation / anion concentrations however the BTEX concentrations are in excess of WQCC standards. (See Environmental Labs of Texas log no. 17267). A fifth monitor well will be drilled, cased, developed and tested.

**G.S. State**

Monitor wells 21 & 22 show normal increases in BTEX concentrations due to seasonal changes within the water table. An additional delineation well (#29) was drilled at a distance of 150' southeast of the mid-point of wells 21 & 22. The drilling log is included within this report. The analytical results of water samples obtained from this new well reflect no BTEX, RCRA 8 metals or cation / anion concentrations in excess of WQCC standards. (See Environmental Labs of Texas log no. 17269).

**Satellite #4**

BTEX concentrations within monitor wells 9 & 23 remain essentially unchanged from the January, 1999 sampling round.

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TIPPERARY  
ATTN: MR. VICTOR A. VICE  
P.O. BOX 857  
TATUM, NM 88267  
FAX: 505-398-6510  
FAX: 281-646-8996

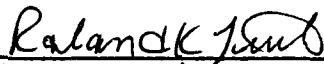
Receiving Date: 04/02/99  
Sample Type: Water  
Project : None Given  
Project Location: None Given

Analysis Date: 4/05 & 4/06/99  
Sampling Date: 04/01/99  
Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYLBENZENE (mg/l)	m,p-XYLENE (mg/l)	o-XYLENE (mg/l)
17428	Iva Corn Source Well	2.05	4.15	0.902	5.50	3.80
17429	Mable Corn Source Well	0.486	0.432	0.066	1.00	0.713
17430	Mable Corn #4	0.012	0.008	0.002	0.010	0.006
17431	Bell A #6	0.139	0.013	0.006	0.011	0.006
17432	Bell A #13	0.021	0.018	0.003	0.009	0.006
17433	Bell A #14	0.108	0.015	0.004	0.009	0.005
17434	NBF #8	0.032	0.002	0.004	0.003	0.001
17435	NBF #15	3.11	1.98	0.214	0.767	0.435
17436	NBF #16	3.15	0.164	0.078	0.219	0.098
17437	Sohio St. #1- #10	2.34	0.067	0.168	0.203	0.100
17438	Sohio St. #1- #17	1.35	0.092	0.079	0.248	0.138
17439	Sohio St. #1- #18	3.35	0.331	0.114	0.469	0.280
17440	Sohio St. #1- #28	0.446	0.065	0.011	0.041	0.058
17441	Sohio St. A - #11	0.048	0.008	0.004	0.014	0.010
17442	Sohio St. A - #19	0.026	0.010	0.006	0.016	0.010
17443	Sohio St. A - #20	0.547	0.011	0.005	0.030	0.009
17444	Sohio St. A - #27	0.056	0.007	0.006	0.007	0.013
17445	G.S. State #21	0.124	0.008	0.042	0.012	0.007
17446	G.S. State #22	0.059	0.010	0.036	0.022	0.014
17447	G.S. State #29	0.004	<0.001	<0.001	0.035	<0.001
17448	Satellite #4 - #9	0.027	0.005	0.004	0.004	0.002
17449	Satellite #4 - #23	0.004	0.004	0.001	0.003	0.002

% IA	102	99	97	97	99
% EA	100	97	97	91	95
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8020,5030

  
Raland K. Tuttle

4-7-99  
Date

# Environmental Lab of Texas, Inc. 12600 West I-20 East Odessa, Texas 79763 (915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: <b>TIPPECAN DICKS</b>		Phone #: <b>505-398-6509</b>		ANALYSIS REQUEST								
Company Name & Address: <b>Mike Griffin</b>		FAX #: <b>505-398-6509</b>		TCLP Metals Ag As Ba Cd Cr Pb Hg Se Total Metals Ag As Ba Cd Cr Pb Hg Se TCLP Semi Volatiles TOS RCI								
Project #:		Project Name:		TPH 118.1								
Project Location:		Sampler Signature:		BTX 8020/5030								
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX			PRESERVATIVE METHOD			SAMPLING		
				WATER	AIR	SLUDGE	OTHER	ICL	INOS	ICE	NONE	OTHER
17428	TVA Com Source Well	2		X				X			4-1	
17429	Mable Com Source Well	2		X				X			4-1	
17430	Mable Com # 4	2		X				X			4-1	
17431	Bell A # 6 #13 #44	2	2A	X				X			4-1	
17432	UBF # 8 #15 #16	2	2A	X				X			4-1	
17433	Solo ST #1 #10 #17 #18 #28	2	2A	X				X			4-1	
17434	Solo ST #A #11 #19 #20 #27	2	2A	X				X			4-1	
17435	SS. STAR # 21 #22 #29	2	2A	X				X			4-1	
17436	SATELLITE #45 - Mable #9 #23											
Retrieved by: <b>D.A. Vee</b>		Date: <b>4-2-99</b>	Times: <b>1010</b>	Received by: <b>Mike Griffin</b>								
Retrieved by:		Date:	Times:	Received by:								
Retrieved by:		Date:	Times:	Received by Laboratory:								

# Environmental Lab of Texas, Inc. 12600 West I-2 at Odessa, Texas 79763 (915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:		Phone #:		FAX #:		ANALYSIS REQUEST										
Company Name & Address:		Project Name:		Sampler Signature:		BTEX 8020/5030 TPH 418.1 TCLP Metals Ag As Ba Cd Cr Pb Hg Se Total Metals Ag As Ba Cd Cr Pb Hg Se TCLP Volatiles TCLP Semi Volatiles TDS RCI										
Project #:		Project Name:		Sampler Signature:												
Project Location:		Project Name:		Sampler Signature:												
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	VOLUME/AMOUNT	MATRIX	PRESERVATIVE METHOD					SAMPLING						
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	HNO3	ICE	NONE	OTHER	DATE	TIME	
17431	BELA #6															
17432	#13															
17433	#14															
17434	NBF #8															
17435	#15															
17436	#16															
17437	Sohio St #1 #10															
17438	#17															
17439	#18															
17440	#28															
17441	Sohio St #A #11															
Relinquished by:		Date:	Times:	Received by:		REMARKS										
Relinquished by:		Date:	Times:	Received by:												
Relinquished by:		Date:	Times:	Received by Laboratory:												



# CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

[illegible]

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TIPPERARY OIL & GAS  
633 17TH  
DENVER, COLORADO 80202  
FAX: 281-646-8996 (Mike Griffin)

Receiving Date: 03/17/99  
Sample Type: Water  
Project: Tatum Dileneation  
Project Location: Tatum, New Mexico

Analysis Date: 03/17/99  
Sampling Date: 03/17/99  
Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYLBENZENE (mg/l)	m,p-XYLENE (mg/l)	o-XYLENE (mg/l)
17265	#25 Bell	0.006	0.004	0.004	0.005	0.004
17266	#26 NBF	0.002	0.003	0.001	0.002	0.001
17267	#27 Sohio A	0.118	0.019	0.005	0.004	0.008
17268	#28 Sohio #1	0.156	0.008	0.003	0.010	0.005
17269	#29 G.S. State	0.012	0.012	0.004	0.021	0.041

% IA	104	100	99	98	99
% EA	108	104	101	102	103
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8020,5030

  
Ralank K. Tuttle

3-26-99  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TIPPERARY OIL & GAS  
633 17TH  
DENVER, COLORADO 80202  
FAX: 281-646-8996(Mike Griffin)

Receiving Date: 03/17/99  
Sample Type: Water  
Project : Tatum Dileneation  
Project Location: Tatum, N.M.

Analysis Date: See below  
Sampling Date: 3/17/99  
Sample Condition: Intact/Iced

ELT#	Field Code	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	CO3 (mg/L)	HCO3 (mg/L)
17265	#25 Bell	189	46	281	8.7	851	300	0	159
17266	#26 NBF	31.4	16	65	6.4	53	175	0	159
17267	#27 Sohio A	144	78	377	16.2	1028	195	0	329
17268	#28 Sohio #1	715	140	4660	20.8	8685	195	0	329
17269	#29 G.S. State	178	44	102	8.1	487	150	0	281

ANALYSIS DATE	3/24/99	3/24/99	3/24/99	3/24/99	3/18/99	3/18/99	3/18/99	3/18/99
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QUALITY CONTROL	53.9	5.1	55.9	5.2	5140	48	*	*
TRUE VALUE	50.0	5.0	50.0	5.0	5000	50	*	*
% PRECISION	108	102	111	104	103	96	*	*

METHODS: EPA 4.1.1, 215.1, 242.1, 273.1, 258.1, 325.3, 375.4, 310.2.

  
Raland K. Tuttle

3-26-99  
Date

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TIPPERARY OIL & GAS  
633 17TH  
DENVER, COLORADO 80202  
FAX: 281-646-8996(Mike Griffin)

Receiving Date: 03/17/99  
Sample Type: Water  
Project : Tatum Dileneation  
Project Location: Tatum, N.M.

Analysis Date: Hg 3/23/99  
Analysis Date: 3/25/99  
Sampling Date: 3/17/99  
Sample Condition: Intact/Iced

## TOTAL METALS (mg/L)

ELT#	Field Code	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
17265	#25 Bell	ND	ND	0.250	ND	0.0110	ND	ND	ND
17266	#26 NBF	ND	ND	0.201	ND	0.0060	ND	ND	ND
17267	#27 Sohio A	ND	ND	0.276	ND	0.0110	ND	ND	ND
17268	#28 Sohio #1	ND	0.028	0.709	ND	0.0220	ND	0.0090	ND
17269	#29 G.S. State	ND	ND	0.369	ND	0.0080	ND	ND	ND

REPORTING LIMIT	0.0050	0.005	0.010	0.0010	0.0050	0.00020	0.0030	0.0050
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ND = Not detected at the reporting limit.

% INSTRUMENT ACCURACY	100	106	95	100	94	103	98	112
% EXTRACTION ACCURACY	96	104	97	100	96	96	99	102

METHODS: EPA 200.7, 245.2

  
Raland K. Tuttle

3-26-99  
Date



**GULF STATES JALYTICAL**  
6310 Rothway, Houston, Texas 77040  
(713) 690-4444, Fax (713) 690-5646

**Request for Analysis**

Company: **Denver, CO** Tele #: **80202**  
Address: **Tipperary 086** 633 17th  
Reports Sent To: **Whole Earth** P.O. #: **Project #:**

Project Name: **Tatum Dismount** Project Location: **Tatum, NM**

Sampler(s) Name: (Signature) **M. Giff**  
Courier: **M. Giff**

Field Sample ID	Sampling		Matrix				Haz. Sample (Y/N)
	Date	Time	Water	Soil	Sludge	Oil	
1. # 25 Bell (17265)	3-17	8:10	✓				3 N
2. # 26 NBF (17266)	3-17	8:26	✓				3 N
3. # 27 Sahia A (17267)	3-17	8:44	✓				3 N
4. # 28 Sahia #1 (17268)	3-17	9:05	✓				3 N
5. # 29 GS State (17269)	3-17	9:25	✓				3 N
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							

QC Package: (check one)  
☐ CLP ☐ Site Specific  
☐ Tier 1 ☐ Tier 2 ☐ QC Summary

Relinquished by: (Signature) <b>M. Giff</b>	Date: <b>3-17-99</b>	Time: <b>1345</b>	Received by: (Signature) <b>Ruback</b>	Date: <b>3-17-99</b>	Time: <b>1345</b>
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by Laboratory: (Signature)	Date:	Time:

Remarks: **M. Giff**  
GSAI Group:

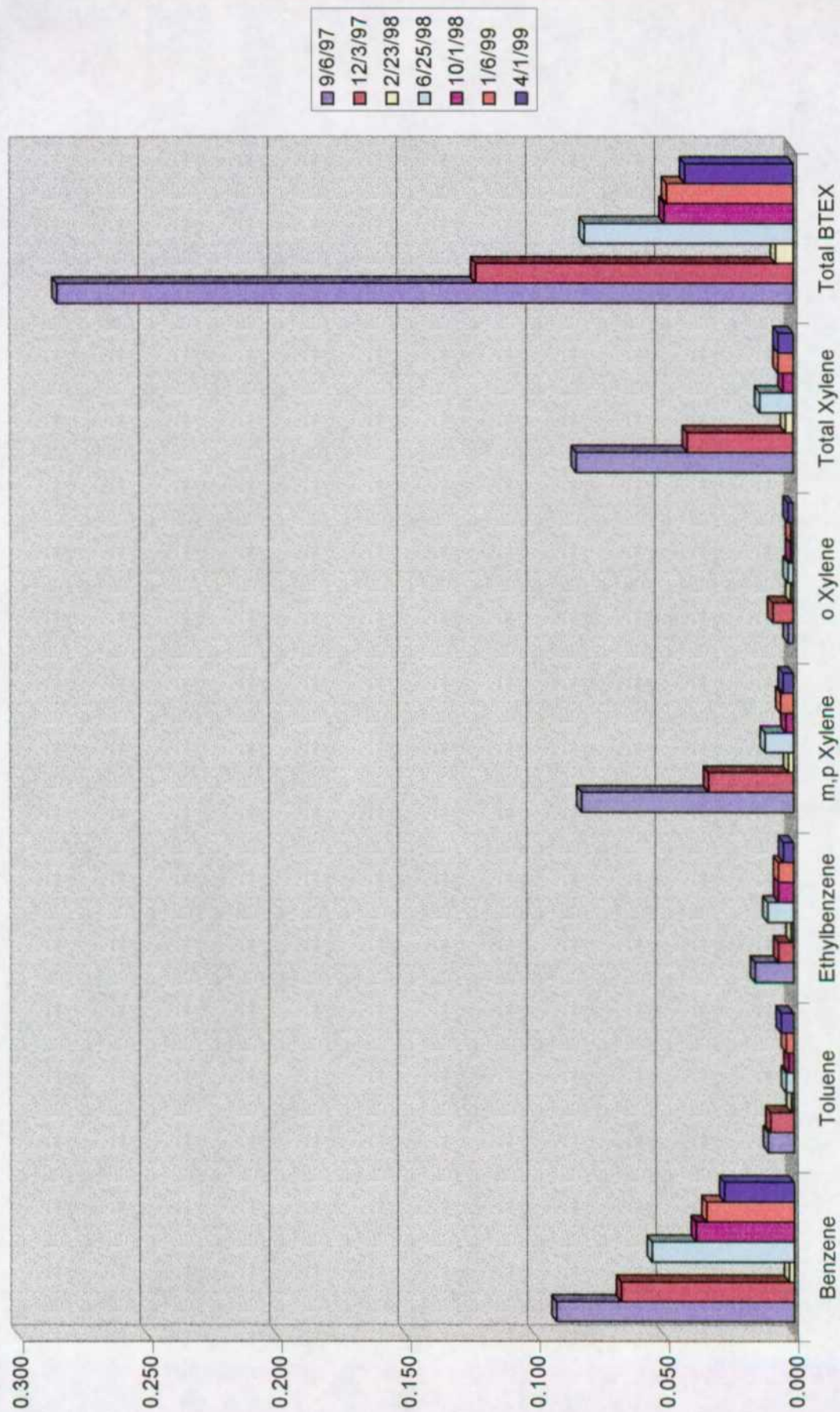
# Monitor Well # 9

## Satellite # 4

### Sampling Results

Lab. #	12485	13191	14065	14664	15596	16603	17448
Sample Date	9/6/97	12/3/97	2/23/98	6/25/98	10/1/98	1/6/99	4/1/99
Benzene	0.092	0.067	0.002	0.055	0.038	0.034	0.027
Toluene	0.010	0.009	0.001	0.003	0.002	0.003	0.005
Ethylbenzene	0.015	0.006	0.001	0.010	0.006	0.006	0.004
m,p Xylene	0.082	0.033	0.002	0.011	0.003	0.005	0.004
o Xylene	0.002	0.008	0.001	0.002	0.001	0.001	0.002
Total Xylene	0.084	0.041	0.003	0.013	0.004	0.006	0.006
Total BTEX	0.285	0.123	0.007	0.081	0.050	0.049	0.042

# Satellite 4 # 9





# Monitor Well # 23

## Satellite # 4

### Sampling Results

Lab. #	12727	13192	14045	14677	15603	16593	17449
Sample Date	10/2/97	12/3/97	3/23/98	6/25/98	10/1/98	1/6/99	4/1/99
Benzene	0.001	0.040	0.071	0.002	0.048	0.004	0.004
Toluene	0.001	0.012	0.004	0.001	0.023	0.003	0.004
Ethylbenzene	0.001	0.009	0.012	0.001	0.001	0.001	0.001
m,p Xylene	0.002	0.042	0.017	0.003	0.004	0.004	0.003
o Xylene	0.001	0.019	0.002	0.001	0.002	0.002	0.002
Total Xylene	0.003	0.061	0.019	0.004	0.006	0.006	0.005
Total BTEX	0.009	0.122	0.106	0.008	0.078	0.014	0.014



# Satellite 4 # 23

