

**1R - 0261**

**REPORTS**

**DATE:**

**2008**



**Whole Earth Environmental, Inc.**

2103 Arbor Cove  
Katy, Tx. 77494  
281.394.2050  
whearth@msn.com

January 17, 2008

NMOCD  
1220 South St. Francis Dr.  
Sante Fe, NM 88241

Attn: Glenn von Gonten

Dear Glenn:

Enclosed, please find a copy of the Burro Pipeline Annual Report for 2007. Whole Earth Environmental, Inc. acquired Burro Pipeline Corporation in may of last year. We are hopeful to begin a more aggressive remediation approach than has been possible in the past and the individual site descriptions contained within this report reflect these desires.

Warmest personal regards,

A handwritten signature in black ink, appearing to read 'M. Griffin', with a long horizontal stroke extending to the right.

Mike Griffin  
President  
Whole Earth Environmental, Inc.



## EXECUTIVE SUMMARY

### **Location**

The Bagley Field is located approximately twenty miles west of Tatum, Lea County, New Mexico on State lands. The surrounding terrain is essentially featureless with no surface streams or significant topographical variation present. The area is described as semi-arid with a net pan evaporation / precipitation value of -78" per year.

### **Land Use**

The land surface is primarily used for the grazing of cattle; however extensive oil and gas operations have been present since the 1960s.

### **Site History**

Tipperary Corporation's activities within the area consisted of commercial brine collection and disposal system (Burro Pipeline) and a series of at least thirty-six wells. The production wells were sold to Phoenix Hydrocarbons in 2002 with Tipperary retaining the environmental liability relating to ten production pits. Two of the pits have been closed in accordance with NMOCD rules and eight sites remain under active remediation. In October 2005, Santos USA Corporation purchased the remaining assets of Tipperary Corporation that included the environmental liabilities associated with the ten former production pits, the Lane Salt Lake Facility, and a previously closed production station, Satellite 4.

In May, 2007 Whole Earth Environmental, Inc. acquired Burro Pipeline Corporation from Santos, USA, Inc. The property assets of Burro Pipeline consist solely of the equipment associated with the recovery and monitoring of the eight environmental defects described within this report.

### **Remediation Activities**

Of the eight remaining pit sites, four are under active remediation. Three sites are equipped with windmills and one is equipped with an electric submersible pump. In each case, the contaminated groundwater is pumped from the aquifer directly into the Burro Disposal System owned by Transrepublic, Inc. and operated by Phoenix Hydrocarbons. All sites under active remediation have seen dramatic declines in criteria contaminants and each have predictable times to final closure.



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### **Remediation Activities**

Of the eight remaining pit sites, four are under active remediation. Three sites are equipped with windmills and one is equipped with an electric submersible pump. In each case, the contaminated groundwater is pumped from the aquifer directly into the Burro Disposal System. All sites under active remediation have seen dramatic declines in criteria contaminants and each have predictable times to final closure.

Of the four remaining sites, Burro Pipeline proposes to conduct further investigations to include the installation of several temporary monitor wells to better define plume sources, geometry, and the most efficient active remediation plan. Details of the proposed investigations are included with the individual well sections of this report.

Burro anticipates completing the budgeting process for these investigations by June 30, 2007 and will submit a detailed investigation plan to the NMOCD by September 15, 2007.

Sohio A → Sohio # 1

Collier # 1

G.S. State

Bell State

Mable COM

Iva COM

NBF

Geological Survey  
Map of 1880

Scale: 1:100,000



Geological Survey  
Map of 1880

Scale: 1:100,000

Order No	Amd #	Applicant	Facility	Notes	Mental Perm	Reviewer	County	Contact
260	0	TIPPERARY OIL & GAS CORP	BELL STATE "A"	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
261	0	TIPPERARY OIL & GAS CORP	COLLIER #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050 AP-32
262	0	TIPPERARY OIL & GAS CORP	GULF STATE #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
263	0	TIPPERARY OIL & GAS CORP	IVA COM #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
264	0	TIPPERARY OIL & GAS CORP	MABEL COM #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
265	0	TIPPERARY OIL & GAS CORP	NORTH BAGLEY FIELD PITS	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
266	0	TIPPERARY OIL & GAS CORP	SATELLITE #4	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	C	Von Gonten Lea		Mike Griffin- 281-394-2050
267	0	TIPPERARY OIL & GAS CORP	SOHIO STATE #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
268	0	TIPPERARY OIL & GAS CORP	SOHIO STATE "A"	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
269	0	TIPPERARY OIL & GAS CORP	STATE NBF #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	A	Von Gonten Lea		Mike Griffin- 281-394-2050
270	0	TIPPERARY OIL & GAS CORP	STATE NBN #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	C	Von Gonten Lea		Mike Griffin- 281-394-2050
271	0	TIPPERARY OIL & GAS CORP	VERA #1	wp-2/25/08-sold to Phoenix-Tipperary retained Envr Liability-Tipperary sold assits to Santos USA Corp. incl Envr Liability, WholeEarth acquired Burro Pipeline system previously owned by Tipperary..	C	Von Gonten Lea		Mike Griffin- 281-394-2050

NOT RELEVANT  
 P-1 M-G-1-1-1  
 V-1 M-1-1  
 LANE SALT LAKE



## **Collier**

The Collier site consists of one recovery well and six monitoring wells. We completed repairs to the electrical downhole pump in November and immediately showed a marked improvement in the BTEX concentrations within the source well. We discovered that the aquifer is quite thin at this location with a recharge capacity that limits us to operating the pump only three minutes per hour.

# Collier Monitor Well Locations

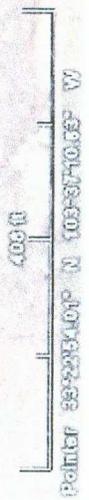
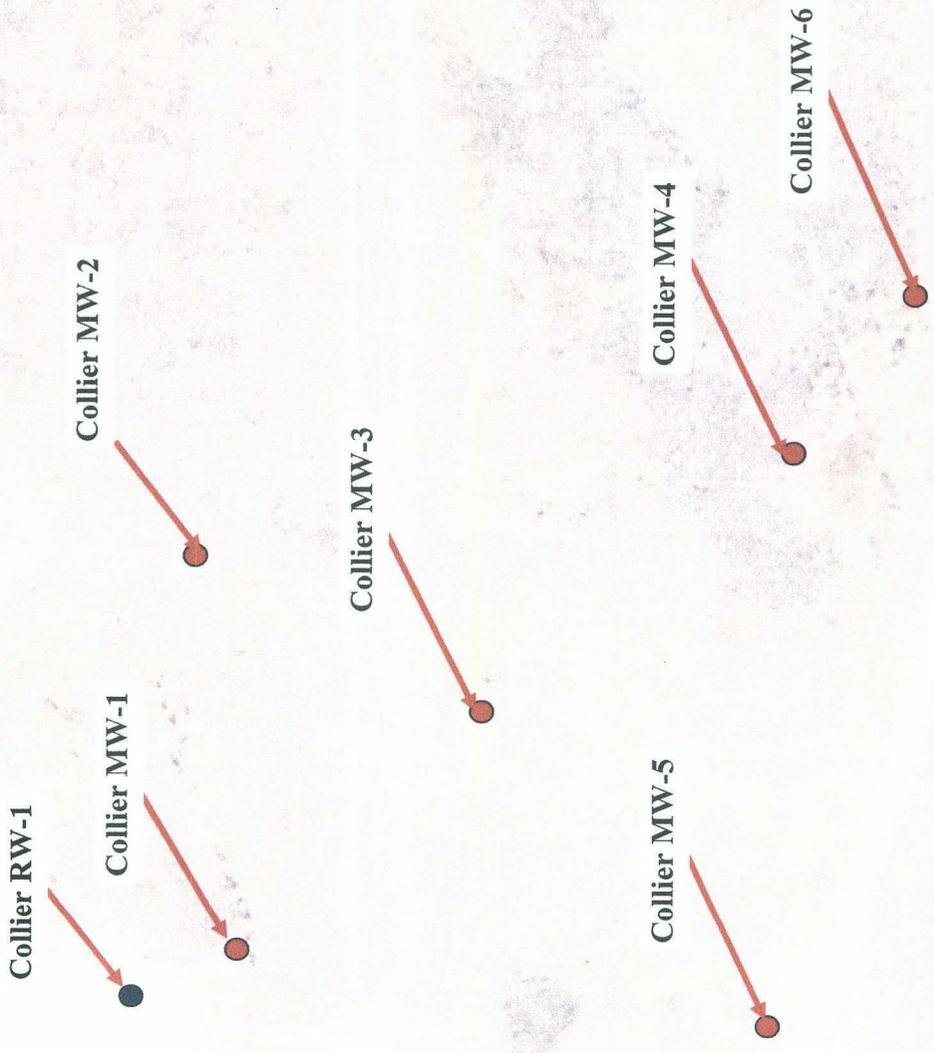
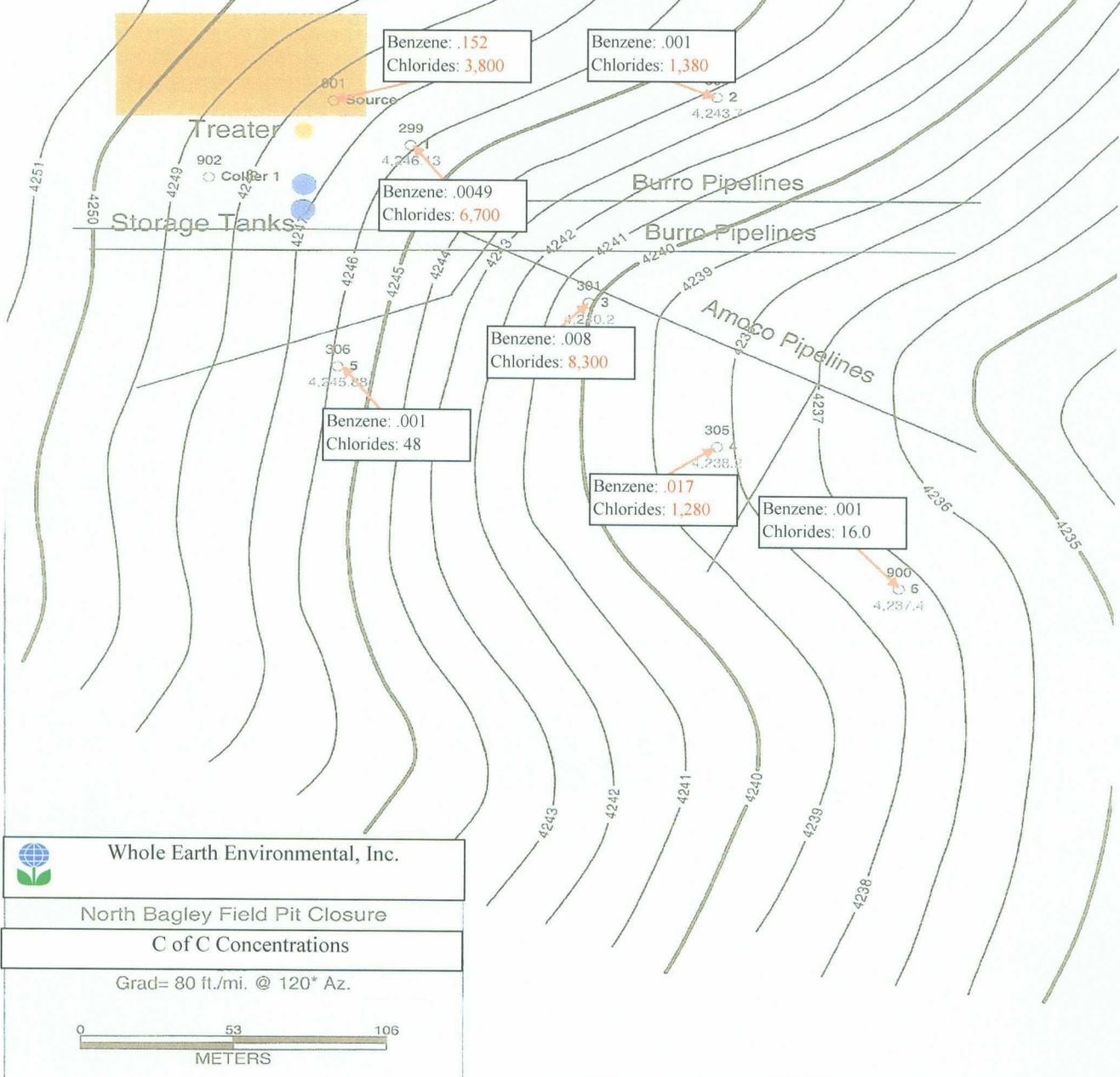


Image © 2000 DigitalGlobe

Streamline 111111 100%



# Collier 1 - North Bagley Field





10-21-2005 13:51

10.21.2005 13:51















**Analytical Results  
Collier # 1  
Source Well**

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX	Chlorides
0202618-4	02/18/02	0.671	0.025	0.115	0.277	0.065	0.342	1.153	
0203001-30	04/10/02	0.852	0.113	0.040	0.264	0.049	0.313	1.318	
0203602-31	06/17/02	0.739	0.087	0.018	0.176	0.033	0.209	1.053	
0204814-01	10/25/02	0.439	0.068	0.016	0.139	0.033	0.172	0.695	
H13645-4	11/05/07	0.152	0.019	0.016			0.134	0.321	3800

**Analytical Results  
Collier # 1  
Monitor Well # 1**

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX	Chlorides
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	
4J4004-01	10/01/04	0.004	0.001	0.001	0.001	0.001	0.002	0.008	
5J24006-01	10/21/05	0.020	0.008	0.023	0.123	0.047	0.170	0.221	
7A15014-01	01/13/07	0.001	0.001	0.001	0.001	0.001	0.002	0.005	3090
H13645-5	11/07/07	0.049	0.005	0.016			0.115	0.185	6700

**Analytical Results  
Collier # 1  
Monitor Well # 2**

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX	Chlorides
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	
5J24006-02	10/21/05	0.001	0.001	0.001	0.001	0.001	0.002	0.005	
7A15014-02	01/13/07	0.001	0.001	0.001	0.001	0.001	0.002	0.005	1380
H13645-3	11/05/07	0.008	0.008	0.023			0.178	0.217	6500

**Analytical Results  
Collier # 1  
Monitor Well # 3**

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX	Chlorides
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	
4J4004-03	10/01/04	0.002	0.001	0.001	0.001	0.001	0.002	0.006	
5J24006-03	10/21/05	0.001	0.001	0.001	0.001	0.001	0.002	0.005	
7A15014-03	01/13/07	0.001	0.001	0.001	0.001	0.001	0.002	0.005	8720
H13645-7	11/05/07	0.008	0.007	0.019			0.155	0.189	8300

**Analytical Results  
Collier # 1  
Monitor Well # 4**

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX	Chlorides
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	
4J4004-04	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005	
5J24006-04	10/21/05	0.001	0.001	0.001	0.001	0.001	0.002	0.005	
7A15014-04	01/13/07	0.001	0.001	0.001	0.001	0.001	0.002	0.005	775
H13645-6	11/05/07	0.017	0.015	0.040			0.032	0.104	1280

**Analytical Results  
Collier # 1  
Monitor Well # 5**

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX	Chlorides
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	
5J24006-05	10/21/05	0.001	0.001	0.001	0.001	0.001	0.002	0.005	
7A15014-05	01/13/07	0.001	0.001	0.001	0.001	0.001	0.002	0.005	45.3
H13645-2	11/05/07	<.001	<.001	<.001			<.003	<.006	48

**Analytical Results  
Collier # 1  
Monitor Well # 6**

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX	Chlorides
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	
4J4004-06	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005	
5J24006-06	10/21/05	0.001	0.001	0.001	0.001	0.001	0.002	0.005	
7A15014-06	01/13/07	0.001	0.001	0.001	0.001	0.001	0.002	0.005	26
H13645-1	11/05/07	<.001	<.001	<.001			<.003	<.006	16



# ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
WHOLE EARTH ENVIRONMENTAL  
ATTN: MICHAEL C. GRIFFIN  
2103 ARBOR COVE  
KATY, TX 77494  
FAX TO: (281) 394-2051

Receiving Date: 11/06/07  
Reporting Date: 11/08/07  
Project Owner: NOT GIVEN  
Project Name: COLLIER  
Project Location: NOT GIVEN

Sampling Date: 11/05/07  
Sample Type: GROUNDWATER  
Sample Condition: COOL & INTACT  
Sample Received By: SB  
Analyzed By: CK

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
	ANALYSIS DATE	11/07/07	11/07/07	11/07/07	11/07/07
H13645-1	COLLIER MW6	<0.001	<0.001	<0.001	<0.003
H13645-2	COLLIER MW5	<0.001	<0.001	<0.001	<0.003
H13645-3	COLLIER MW2	0.008	0.008	0.023	0.178
H13645-4	COLLIER SOURCE	0.152	0.019	0.016	0.134
H13645-5	COLLIER MW1	0.049	0.005	0.016	0.115
H13645-6	COLLIER MW4	0.017	0.015	0.040	0.320
H13645-7	COLLIER MW3	0.008	0.007	0.019	0.155
	Quality Control	0.108	0.102	0.102	0.312
	True Value QC	0.100	0.100	0.100	0.300
	% Recovery	108	102	102	104
	Relative Percent Difference	5.6	5.4	6.0	6.8

METHOD: EPA SW-846 8021B

Cheryl D. Keene  
Chemist

11/08/07  
Date

H13645B WEE

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



# CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
WHOLE ENVIRONMENTAL, INC.  
ATTN: MICHAEL C. GRIFFIN  
2103 ARBOR COVE  
KATY, TX 77494  
FAX TO: (281) 394-2051

Receiving Date: 11/06/07  
Reporting Date: 11/07/07  
Project Number: NOT GIVEN  
Project Name: COLLIER  
Project Location: NOT GIVEN

Sampling Date: 11/05/07  
Sample Type: GROUNDWATER  
Sample Condition: COOL & INTACT  
Sample Received By: SB  
Analyzed By: KS

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/L)
H13645-1	COLLIER MW6	16.0
H13645-2	COLLIER MW5	48.0
H13645-3	COLLIER MW2	6,500
H13645-4	COLLIER SOURCE	3,800
H13645-5	COLLIER MW1	6,700
H13645-6	COLLIER MW4	1,280
H13645-7	COLLIER MW3	8,300
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1
METHOD: Standard Methods		4500-ClB

Kristen Suprioto  
Chemist

11/07/07  
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

