

1R - 263

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

1997 - 2004

112263

**Olson, William**

---

**From:** Olson, William  
**Sent:** Monday, April 19, 2004 9:58 AM  
**To:** 'Mike Griffin'; Olson, William  
**Cc:** Larry Sugano; Darrell Glueck  
**Subject:** RE: Tipperary 2nd Qtr. Bagley Field Sampling Relief

Dear Mr. Griffin:

This correspondence is sent to you in response to Tipperary Corporation's (TC) below April 2, 2004 request to modify the water quality monitoring program for ground water remediation sites in the Bagley Field west of Tatum, New Mexico. Due to the stability of contamination at the sites over time, the New Mexico Oil Conservation Division (NMOCD) agrees to modify the ground water monitoring program for the Bagley Field sites as set out below:

1. Ground water from **all** site monitoring wells at each site shall be sampled on an annual basis.
2. All ground water samples shall be obtained and analyzed for concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) and major cations and anions using EPA approved methods and quality assurance/quality control procedures.
3. TC shall notify the NMOCD at least 1 week prior to the sampling events such that the NMOCD has the opportunity to witness the events and split samples.

Please be advised that NMOCD approval does not relieve TC of responsibility if the program fails to adequately monitor contamination at the sites, or if contamination outside the scope of the monitoring program is found to exist. In addition, NMOCD approval does not relieve TC of responsibility for compliance with any other federal, state, or local laws and regulations.

If you have any questions, please contact me.

Sincerely,

William C. Olson  
Hydrologist  
New Mexico Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
(505) 476-3491

---

-----Original Message-----

**From:** Mike Griffin [mailto:whearth@msn.com]  
**Sent:** Friday, April 02, 2004 11:27 AM  
**To:** Bill Olson  
**Cc:** Larry Sugano; Darrell Glueck

4/19/2004

**Subject:** Tipperary 2nd Qtr. Bagley Field Sampling Relief

Good Morning, Bill:

On March 23rd, Tipperary sent you the results of last years results from monitoring fifty-one individual wells within the Bagley Field. What started six years ago as a series of single delineation wells at each pit site has grown in scope and size to a very significant quarterly expense. Part of this expense is the collection of data from wells that have either always had BTEX concentrations within the acceptance parameters of NMWQCC standards or wells whose concentrations have diminished over time to meet the standards for at least four consecutive quarters.

We've ten such wells we would like you to consider for omission within the 2nd quarter Tipperary sampling round described as follows:

**Iva COM**

MW-1 Twenty-three consecutive quarters of acceptable concentrations.

MW-2 Twenty-one consecutive quarters of acceptable concentrations.

**Bell**

MW-2 Ten consecutive quarters of acceptable results.

MW-4 Twelve consecutive quarters of acceptable concentrations.

**Mable**

MW-2 Nine consecutive quarters of acceptable results.

MW-3 Seven consecutive quarters of acceptable concentrations.

**NBF**

MW-4 Five consecutive quarters of acceptable results.

MW-5 Seven consecutive quarters of acceptable concentrations.

**Sohio 1**

MW-6 Five consecutive quarters of acceptable results.

MW-7 Five consecutive quarters of acceptable results.

All but the Iva wells have shown higher concentrations in the past. We request that we may be allowed to test them only once per year for BTEX only. If the analytical result for this annual sampling event comes back above the WQCC standards, the well will be immediately reverted to a quarterly sampling schedule.

At time of requested final closure, we propose that all wells within a pit group be tested for BTEX volatile & semi-volatile compounds, PAH's, cat and anions, hardness, etc. If ANY well from within the pit group exhibits concentrations in excess of NMWQCC standards, that well will be tested quarterly for the specific C of C in question. After four quarters of acceptable concentrations, each well within the group will again be subject to the full suite of tests. Closure would be granted ONLY when all wells show four quarters of acceptable concentrations for ALL C of C's.

Bill, I think this a reasonable and certainly more cost effective method of conducting our sampling program. We anticipate being out in Tatum within the next couple of weeks and

look forward to your earliest response.

Warmest regards,  
Mike Griffin  
Whole Earth Environmental, Inc.  
Phone: 281.394.2050  
FAX: 281.394.2051

---

This email has been scanned by the MessageLabs Email Security System.  
For more information please visit <http://www.messagelabs.com/email>

---

**Olson, William**

---

**From:** Mike Griffin [whearth@iamerica.net]  
**Sent:** Tuesday, May 06, 2003 9:27 PM  
**To:** Bill Olson  
**Cc:** Larry Sugano  
**Subject:** Tatum Pit Closure Project Your Letter of 4-21-03



Site Locations.jpg Plat Map - Bell State Plat Map - NBF.xls Plat Map - Sohio 1.xls Plat Map - Sohio A.xls



Good Morning, Bill:

I'm in receipt of your above letter and have a few questions or comments. It would probably be easiest for all concerned to go down your list in order.

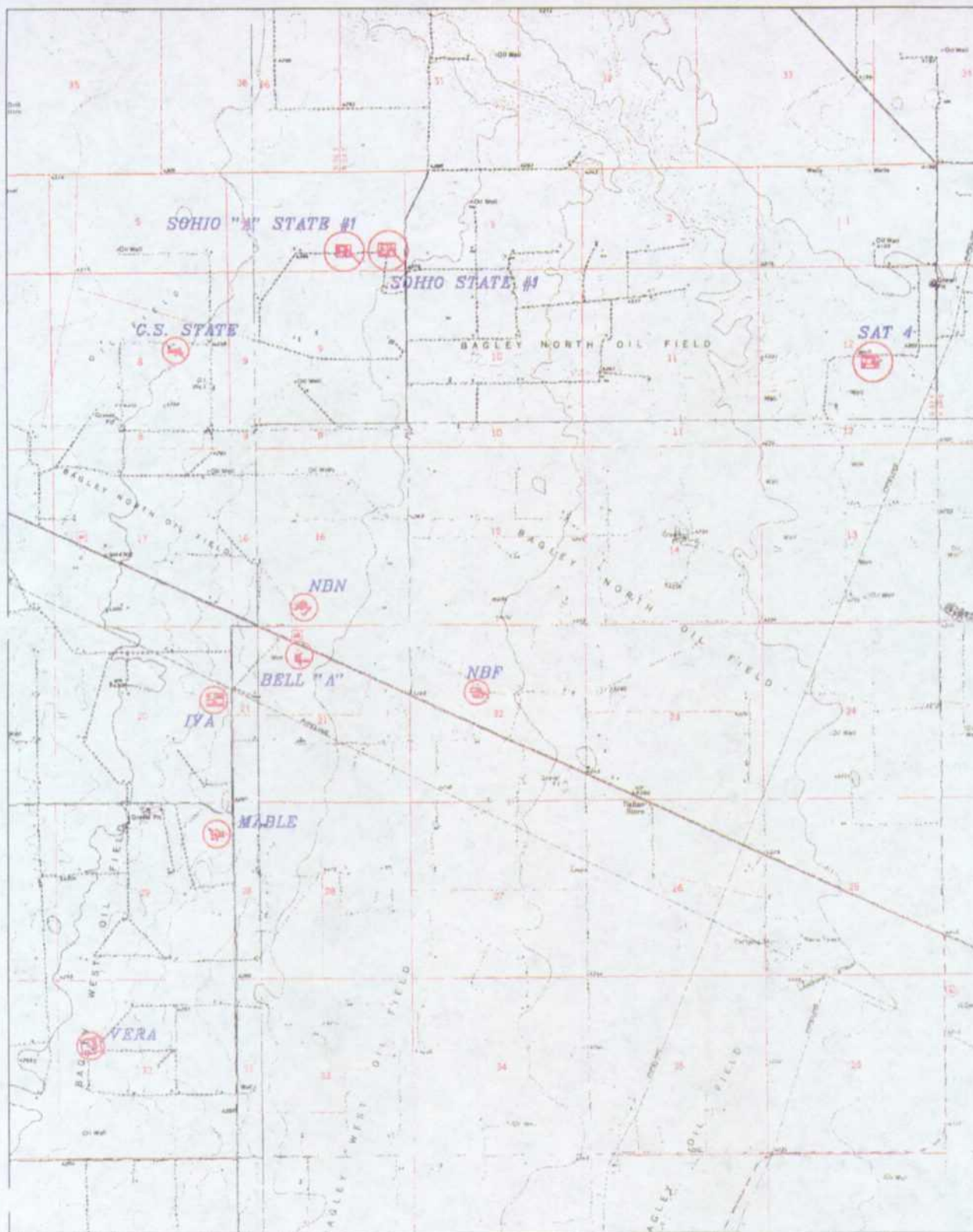
1. You requested that future filings have a contoured ground water potentiometric map. We've included the map within this submittal.
2. You requested that we analyze each well - each quarter for TDS and major cat and anions. These analyses were performed at the time each well was drilled and we've a good baseline of their concentrations. With the sole exception of the Collier site, the non-organics were found to be within limits. In order to receive closure for each site, we will be required to pass the full NMWQCC spectrum of contaminants of concern including these minerals. At the present time, our main concern in each Tatum site location is benzene, (indeed all of the other BTEX constituents are within limits in all wells).

I would ask that you consider allowing us to continue our existing program for BTEX only until time of final closure. (Though I'll willingly concede the prudence of testing Collier at least annually and even quarterly if the concentrations show any significant increase over the original baselines).

3. You requested that we measure the phase-separated hydrocarbons where present. We can do so on all but the recovery wells.
4. You requested that we conduct further delineation on Bell, Sohio A, Sohio 1 and NBF. We propose to comply as follows:
  - a. Attached, please find copies of the plat map for each well site in question marked up to include our proposed new well locations. The existing well locations are all shown along with the locations of the major equipment. Existing wells with acceptable concentrations are shown in blue, and the wells with benzene concentrations exceeding NMWQCC standards are in red.
  - b. The wells will be constructed as are all others within the field. Drilled 2" dia. with a minimum of 10' of screen into the table and 5" of screen above the table. The surface will be flush mounted with a bolted steel cap. No cuttings will be allowed into the hole.
  - c. We propose to sample each well - each quarter in accordance with the existing sampling plan. The initial testing will include BTEX, major cat and anions, and TDS. Assuming that the minerals are within acceptable limits, subsequent tests will be for BTEX only.
  - d. We propose to begin drilling on or about May 15th. And will submit a report within two weeks of the receipt of the laboratory analytical results.

Thank you in advance for what I know will be prompt response.

# WHOLE EARTH ENVIROMENTAL, INC.



4000 0 4000 8000

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



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

April 21, 2003

Mr. Larry G. Sugano  
Tipperary Corporation  
633 Seventeenth St., Suite 1550  
Denver, Colorado 80202

**RE: TATUM PIT CLOSURE PROJECT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Sugano:

The New Mexico Oil Conservation Division (OCD) has reviewed Tipperary Corporation's (TC) February 12, 2003 "PROGRESS REPORT FOR YEAR 2002, TATUM PIT CLOSURE PROJECT, LEA COUNTY, NEW MEXICO". This document contains the results of TC's 2002 ground water quality monitoring and additional investigations of the extent of ground water contamination at the Bell State "A" (Case #1R260), Gulf State #1 (Case #1R262), [REDACTED], Mabel Com #1 (Case #1R264), Sohio State #1 (Case # 1R267), Sohio State "A" (Case #1R268), State NBF #1 (Case #1R269) and Collier #1 (Case # AP-32) sites west of Tatum, New Mexico.

The OCD has the following comments and requirements concerning the above referenced documents:

1. The reports do not include a contoured ground water potentiometric map of each site, for each sampling event, showing the direction and magnitude of the hydraulic gradient. The OCD has required this information for all monitoring reports as a condition of approval of previous work plans. Please provide such a map for each site from the last monitoring event in calendar year 2002. In future reports, for each sampling event, TC shall include a contoured ground water potentiometric map of each site showing the direction and magnitude of the hydraulic gradient.
2. A review of site data shows that, at most of the sites, chloride and total dissolved solids (TDS) have been observed in ground water downgradient of the pits in concentrations in excess of New Mexico Water Quality Control Commission (WQCC) standards. Therefore, the OCD requires that all future ground water samples from each monitor well, during each sampling event, also be analyzed for concentrations of TDS and major cations and anions using EPA approved methods and quality assurance/quality control procedures.

Larry G. Sugano  
April 21, 2003  
Page 2

3. The reports note that phase-separated hydrocarbons (PSH) are present in some monitor wells, however, the OCD cannot evaluate the effectiveness of the recovery systems since the amount of PSH in each monitor or recovery well is not reported. In future reports please include tables showing the thickness of PSH, measured to the nearest 0.01 of a foot, in each monitor and recovery well during all past and present monitoring events.
4. A review of the analytical data shows that the lateral and/or downgradient extent of ground water contamination in excess of WQCC standards has still not been completely defined at the Bell State "A", Sohio State #1, Sohio State "A", and State NBF #1 sites. The OCD requires that TC submit work plans to complete the investigation of the extent of ground water contamination at these sites. The work plans shall include:
  - a. A map of each site showing proposed monitor well locations to accomplish the above task.
  - b. Proposed monitor well construction details.
  - c. A proposed ground water sampling plan.
  - d. A schedule for implementation of the plan and submission of an investigation report.

Please submit the information and work plans required in above items 1 and 4 to the OCD Santa Fe Office by June 21, 2003 with a copy provided to the OCD Hobbs District Office.

The investigation actions at the Collier #1 site are being conducted under an abatement plan pursuant to OCD Rule 19. The Stage 1 investigation proposal for the site is currently within a public comment period. The OCD reserves comment on the Collier #1 site until the public comment period for the Stage 1 investigation proposal has been completed.

If you have any questions, please call me at (505) 476-3491.

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office  
Mike Griffin, Whole Earth Environmental, Inc.





**Tipperary**  
CORPORATION

633 Seventeenth Street  
Suite 1550  
Denver, Colorado 80202-3622

February 12, 2003

VIA OVERNIGHT MAIL

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87504

**RE: Progress Report for Year 2002  
Tatum Pit Closure Project  
Lea County, NM**

Dear Mr. Olson:

Please find enclosed the 2002 results from our monitor wells in the subject project area. This report summarizes the results from water samples taken on February 16, April 3, June 7 and October 19, 2002. These results represent 21 quarters of monitoring. In general, we are continuing to observe decreasing levels of BTEX in the monitor wells.

The Executive Summary section contains the following:

- Discussion of results by location.
- Map of pit reclamation locations.
- Chart of monitor well gradients.
- Monitor well location maps.
- Wellbore logs of recently drilled monitor wells.

Detailed results are presented in tabular and graphical format for each monitor well. The monitor well data is grouped by site location in the report. The Exhibits Section contains the quarterly lab results and all associated quality control information. We will continue to sample the project quarterly and report the results to your office on an annual basis. If you have any questions, please call me at (303) 293-9379.

Very truly yours,

Larry G. Sugano  
Vice President - Engineering

cc: Mr. Paul Sheeley, NMOCD Hobbs Office

Enclosure



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Betty Rivera**

Acting Cabinet Secretary

**Lori Wrotenberg**

Director

**Oil Conservation Division**

February 13, 2002

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7001-1940-0004-3929-7143**

Mr. Larry G. Sugano  
Tipperary Corporation  
633 Seventeenth St., Suite 1550  
Denver, Colorado 80202

**RE: TATUM PIT CLOSURE PROJECT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Sugano:

On November 2, 2001, the New Mexico Oil Conservation Division (OCD) sent Tipperary Corporation (TC) correspondence stating that an OCD review of TC's April 19, 2001 correspondence, December 7, 2000 "PROGRESS REPORT FOR YEAR 2000, TATUM PIT CLOSURE PROJECT, LEA COUNTY, NEW MEXICO" and November 29, 1999 "JULY 1999 PROGRESS REPORT, OCTOBER 1999 PROGRESS REPORT, TATUM PIT CLOSURE PROJECT, LEA COUNTY, NEW MEXICO" shows that the downgradient extent of ground water contamination at the sites listed below had not been determined:

- Bell State "A" (Case #1R260)
- Gulf State #1 (Case #1R262)
- Iva Com #1 (Case #1R263)
- Mabel Com #1 (Case #1R264)
- Satellite #4 (Case #1R266)
- Sohio State #1 (Case # 1R267)
- Sohio State "A" (Case #1R268)
- State NBF #1 (Case #1R269)

The OCD's correspondence required that a work plan to complete the investigation of the extent of ground water contamination be submitted by December 7, 2001. On November 19, 2001, TC's consultant, Whole Earth Environmental, provided additional information and requested that TC not be required to install additional monitor wells at 3 of the sites. The OCD approved TC's request for 2 of the sites, the Iva Com #1 and Satellite #4 sites, on January 22, 2001. However, to date, the OCD has not received the required work plan.

Larry G. Sugano  
February 13, 2002  
Page 2

In order to correct this deficiency, the OCD requires that TC submit the work plan to complete the investigation of the extent of contamination at these sites to the OCD Santa Fe Office by March 1, 2002 with copy provided to the OCD Hobbs District Office. The work plan shall include:

1. A contoured ground water potentiometric map of each site showing proposed monitor well locations and the location of the former pit, excavated areas, existing monitor wells and other relevant site information.
2. Proposed monitor well construction details.
3. A proposed ground water sampling plan.
4. A schedule for implementation of the plan and submission of an investigation report.

If you have any questions, please call me at (505) 476-3491.

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office  
Mike Griffin, Whole Earth Environmental, Inc.

## Olson, William

---

**From:** Olson, William  
**Sent:** Tuesday, January 22, 2002 9:58 AM  
**To:** 'Mike @ Whole Earth'  
**Subject:** RE: November 2nd Instruction Letter



William Olson

The attached sampling results for the Iva Com #1 and Satellite #4 sites are acceptable for demonstrating containment of the ground water plumes and the OCD rescinds the November 2, 2001 requirement for additional monitoring wells at these sites.

The OCD's November 2, 2001 requirement for additional monitoring wells at the Bell State "A" is necessary because there are no ground water monitoring wells downgradient of monitor well MW-14 which has been well above New Mexico Water Quality Control Commission standards for benzene for a period of time. Therefore, the OCD continues to require that additional monitoring wells be placed at this site to completely define the extent of contamination as specified in the OCD's November 2, 2001 correspondence.

If you have any questions please contact me at (505) 476-3491.

-----Original Message-----

**From:** Mike @ Whole Earth [mailto:whearth@iamerica.net]  
**Sent:** Monday, November 19, 2001 6:52 AM  
**To:** Bill Olson  
**Cc:** Larry Sugano  
**Subject:** November 2nd Instruction Letter

Bill:

We are in receipt of your letter of November 2nd regarding the need to establish the lateral delineation of eight sites within the Tatum Pit Closure Project.

I've researched our findings and agree that five sites do need additional information to be submitted. We've one additional year's worth of information now on its way to you that we believe will demonstrate that we've adequately identified the down-gradient spread of three of the sites described as follows:

Iva COM (Case # 1R263) The attached spread sheets for monitor wells 1 & 2 show four quarters in which the outlying wells have criteria contaminant concentrations within NMWQCC standards.

Bell State "A" (Case # 1R260) The attached spread sheet for monitor well # 25 ( the furthest from the pit center) shows nine consecutive quarters with acceptable results.

Satellite 4 (Case # 1R266) The attached spread sheet for monitor well # 25 the furthest from the pit center) shows five consecutive quarters with acceptable results. We were going to submit a final closure on this site after the January 2002 sampling round.

We are preparing the work plan you requested and will have it out shortly after we know if these three sites must be included.

## Olson, William

---

**From:** Mike @ Whole Earth [whearth@iAmerica.net]  
**Sent:** Monday, November 19, 2001 6:52 AM  
**To:** Bill Olson  
**Cc:** Larry Sugano  
**Subject:** November 2nd Instruction Letter



MW # 1.xls



MW # 2.xls



MW 25.xls



MW # 24.xls

Bill:

We are in receipt of your letter of November 2nd regarding the need to establish the lateral delineation of eight sites within the Tatum Pit Closure Project.

I've researched our findings and agree that five sites do need additional information to be submitted. We've one additional year's worth of information now on its way to you that we believe will demonstrate that we've adequately identified the down-gradient spread of three of the sites described as follows:

Iva COM (Case # 1R263) The attached spread sheets for monitor wells 1 & 2 show four quarters in which the outlying wells have criteria contaminant concentrations within NMWQCC standards.

Bell State "A" (Case # 1R260) The attached spread sheet for monitor well # 25 (the furthest from the pit center) shows nine consecutive quarters with acceptable results.

Satellite 4 (Case # 1R266) The attached spread sheet for monitor well # 25 (the furthest from the pit center) shows five consecutive quarters with acceptable results. We were going to submit a final closure on this site after the January 2002 sampling round.

We are preparing the work plan you requested and will have it out shortly after we know if these three sites must be included.

Thanks in advance,

Mike Griffin

Monitor Well # 1  
Iva COM  
Sampling Results

Lab. #	12476	13182	14057	14657	15590	16596	20697	22767	25166	28439	31503	36133	38918	0101098-02	0101642-02
Sample Date	9/5/1997	12/3/1997	3/23/1998	6/25/1998	10/1/1998	1/6/1999	10/6/1999	1/8/2000	4/13/2000	7/20/2000	9/26/2000	1/5/2001	4/5/2005	7/7/2001	9/26/2001
Benzene	0.001	0.004	0.003	0.006	0.004	0.003	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Toluene	0.001	0.003	0.003	0.005	0.004	0.001	0.001	0.002	0.006	0.001	0.003	0.004	0.001	0.001	0.001
Ethylbenzene	0.001	0.001	0.001	0.002	0.002	0.001	0.001	0.001	0.005	0.004	0.006	0.006	0.001	0.003	0.001
m,p Xylene	0.002	0.009	0.007	0.008	0.006	0.002	0.001	0.003	0.015	0.018	0.020	0.014	0.001	0.008	0.003
o Xylene	0.007	0.008	0.008	0.009	0.007	0.004	0.001	0.002	0.007	0.008	0.008	0.007	0.001	0.002	0.001
Total Xylene	0.009	0.017	0.015	0.017	0.013	0.006	0.002	0.005	0.022	0.026	0.028	0.021	0.002	0.010	0.004
Total BTEX	0.012	0.025	0.022	0.030	0.023	0.011	0.005	0.010	0.034	0.032	0.038	0.032	0.005	0.015	0.007

Monitor Well # 2  
Iva COM  
Sampling Results

Lab. #	12476	13183	14058	15605	16596	20606	22789	25166	28436	31504	36134	38919	0101098-03	0101642-03
Sample Date	9/5/1997	12/3/1997	3/23/1998	10/1/1998	1/6/1999	10/6/1999	1/8/2000	4/13/2000	7/20/2000	9/26/2000	1/5/2001	4/5/2001	7/7/2001	9/26/2001
Benzene	0.001	0.002	0.002	0.003	0.004	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.004
Toluene	0.001	0.002	0.001	0.002	0.001	0.001	0.002	0.006	0.003	0.880	0.003	0.001	0.001	0.003
Ethylbenzene	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.002	0.001	0.005	0.001	0.002	0.001
m,p Xylene	0.001	0.006	0.005	0.003	0.003	0.001	0.004	0.015	0.006	0.072	0.011	0.001	0.006	0.006
o Xylene	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.007	0.003	0.019	0.005	0.001	0.001	0.004
Total Xylene	0.002	0.008	0.007	0.004	0.004	0.002	0.006	0.022	0.009	0.091	0.016	0.002	0.007	0.010
Total BTEX	0.005	0.013	0.011	0.010	0.010	0.005	0.011	0.034	0.015	0.973	0.025	0.005	0.011	0.018





# Tipperary CORPORATION

633 Seventeenth Street  
Suite 1550  
Denver, Colorado 80202

November 14, 2001

VIA OVERNIGHT MAIL

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Progress Report for Year 2001  
Tatum Pit Closure Project  
Lea County, NM**

**RECEIVED** *mt*

NOV 16 2001 → 2001

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Dear Mr. Olson:

Please find enclosed additional results from our monitor wells in the subject project area. This report summarizes the results from water samples taken on January 10, April 5, July 7, and September 26, 2001. These results represent the 17 quarters of monitoring. In general, we are continuing to observe decreasing levels of BTEX in the monitor wells.

The Executive Summary section contains the following:

- Summary of results by location.
- Procedure for obtaining water samples.
- Summary of water depths in each monitor well.
- Monitor well gradient chart.
- LNAPL depth chart.
- Maps of pit reclamation locations.
- Chain of custody records and lab results of the water samples by quarter.

Detailed results are presented in tabular and graphical format for each monitor well. The monitor well data is grouped by site location in the report. We will continue to sample the project quarterly and report the results to your office on an annual basis. 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



RECEIVED

SEP 10 1998

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

**Remediation Results  
One Year Review  
Iva COM**

**Remediation Summary**

The site was excavated to an approximate depth of 30' bgl. and a series of two monitor wells were installed down gradient from the pit center. A product recovery windmill was erected at the pit center and the fluids were collected in a covered tank immediately adjacent to the location. All recovered fluids are disposed of within the Burro Pipeline disposal system.

**Present Status**

The recovery well continues to remove free product from the aquifer at the approximate rate of .5 bbls. per week – down from approximately four bbls. per week at the beginning of the recovery process. The monitoring wells presently show BTEX concentrations below the WQCC acceptance standards however the concentrations within the recovery well are still well above closure requirements.

**Future Remediation Activities**

Since neither monitoring well has ever registered BTEX concentrations in excess of WQCC standards, we propose to reduce our testing frequency to an annual basis and begin quarterly monitoring of the source well.

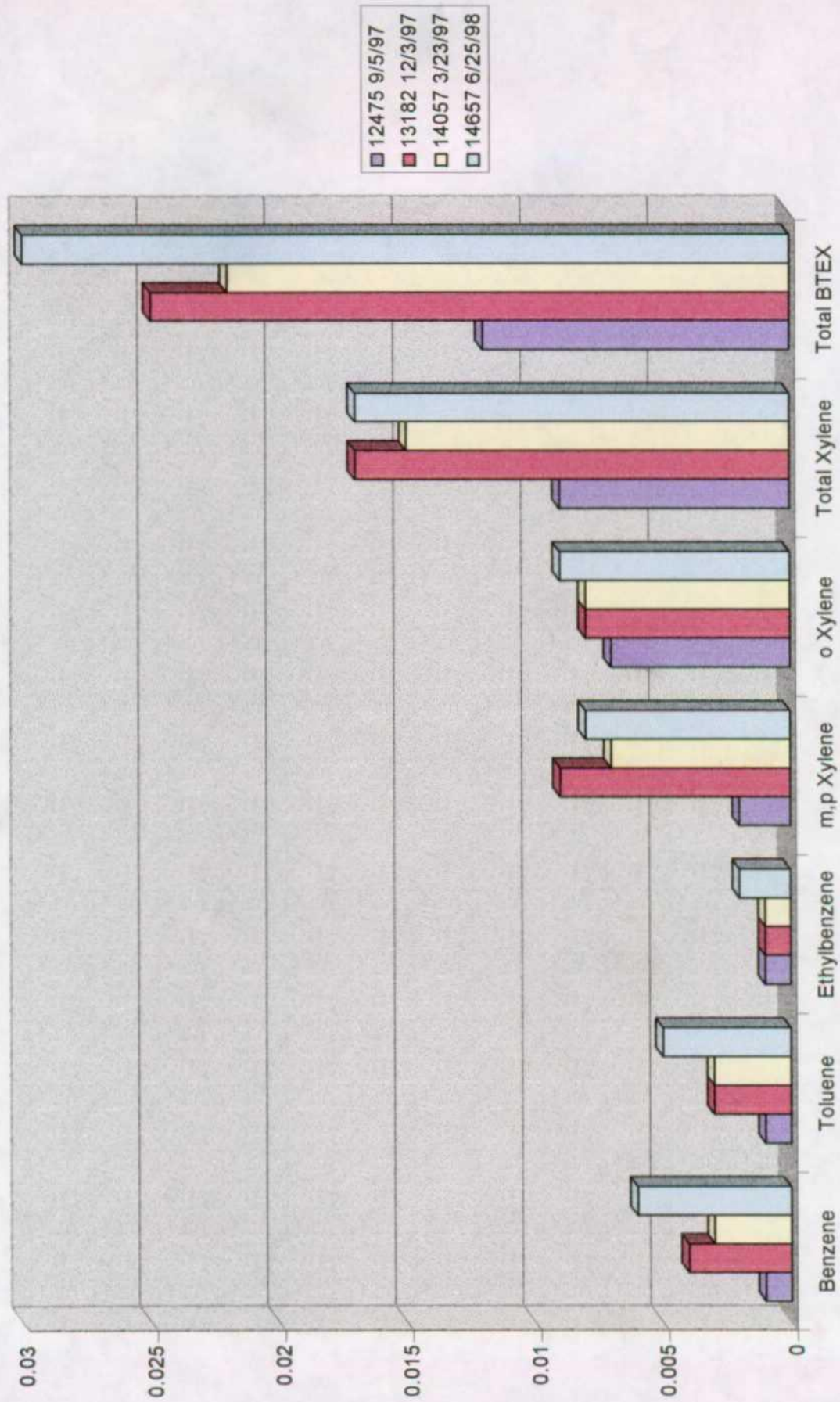
Monitor Well # 1

Iva COM

Sampling Results

Lab. #	12475	13182	14057	14657
Sample Date	9/5/97	12/3/97	3/23/97	6/25/98
Benzene	0.001	0.004	0.003	0.006
Toluene	0.001	0.003	0.003	0.005
Ethylbenzene	0.001	0.001	0.001	0.002
m,p Xylene	0.002	0.009	0.007	0.008
o Xylene	0.007	0.008	0.008	0.009
Total Xylene	0.009	0.017	0.015	0.017
Total BTEX	0.012	0.025	0.022	0.03

# Monitor Well # 1





STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

June 29, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-235-437-303**

Mr. Larry Sugano  
Tipperary Corporation  
633 Seventeenth St., Suite 1550  
Denver, Colorado 80202

**RE: TATUM PIT CLOSURES  
LEA COUNTY, NEW MEXICO**

Dear Mr. Sugano:

The New Mexico Oil Conservation Division (OCD) has reviewed Tipperary Corporation's (TC) April 2, 1998 "PROGRESS REPORT, TATUM PIT CLOSURE PROJECT, LEA COUNTY, NEW MEXICO" and December 11, 1997 "TATUM PIT CLOSURE PROJECT, CLOSURE REPORT". These documents contain the results of TC's investigation of ground water contamination related to the closure of 10 unlined pits west of Tatum, New Mexico.

A review of the above referenced documents shows that at the majority of the sites the extent of ground water contamination has not been completely defined. Therefore, the OCD requires that TC submit a work plan to completely define the extent of ground water contamination which is in excess of New Mexico Water Quality Control Commission (WQCC) ground water standards. The work plan will be submitted to the OCD Santa Fe Office by August 28, 1998 with a copy provided to the OCD Hobbs District Office.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Olson".

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Wayne Price, OCD Hobbs District Office  
Mike Matush, NM State Land Office  
Mike Griffin, Whole Earth Environmental, Inc.



State of New Mexico  
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT  
Santa Fe, New Mexico 87505

STATE OF  
NEW MEXICO  
OIL  
CONSERVATION  
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Personal	Time 1530	Date 9/22/97
---	-----------	--------------

Originating Party	Other Parties
Bill Olson - Environmental Bureau	Bob Fehlmenn - Tipperary Corp. (303) 293-9379

Subject

Tipperary Pit Closures - Tatum, NM

Discussion

Gave verbal approval of 9/22/97 fax from Mike Graftin with following conditions:

- 1.) Monitor well construction, water quality sampling and waste disposal will be conducted according to OCD June 4, 1997 approval conditions
- 2.) Wayne Price of OCD Hobbs will be contacted about the drilling and sampling schedule

Also expressed concern about source well located 60' from pit instead of directly adjacent to pit area as required in OCD's 6/4/97 approval

Conclusions or Agreements

I will fax copy of verbal approval to Tipperary at (303) 291-0398

Distribution

file  
Bob Fehlmenn - Tipperary (fax copy)  
Wayne Price - OCD Hobbs

Signed

Will Olson



Whole Earth  
Environmental

19606 S. Gabriel  
Houston, TX 77084  
Phone: (281) 492-7077  
Fax: (281) 646-8996

## FAX COVER PAGE

To: Bill Olsen

From: Mike Griffin

Company: NM OCD

Company: Whole Earth Environmental, Inc.

Fax No.: (505) 827-8177

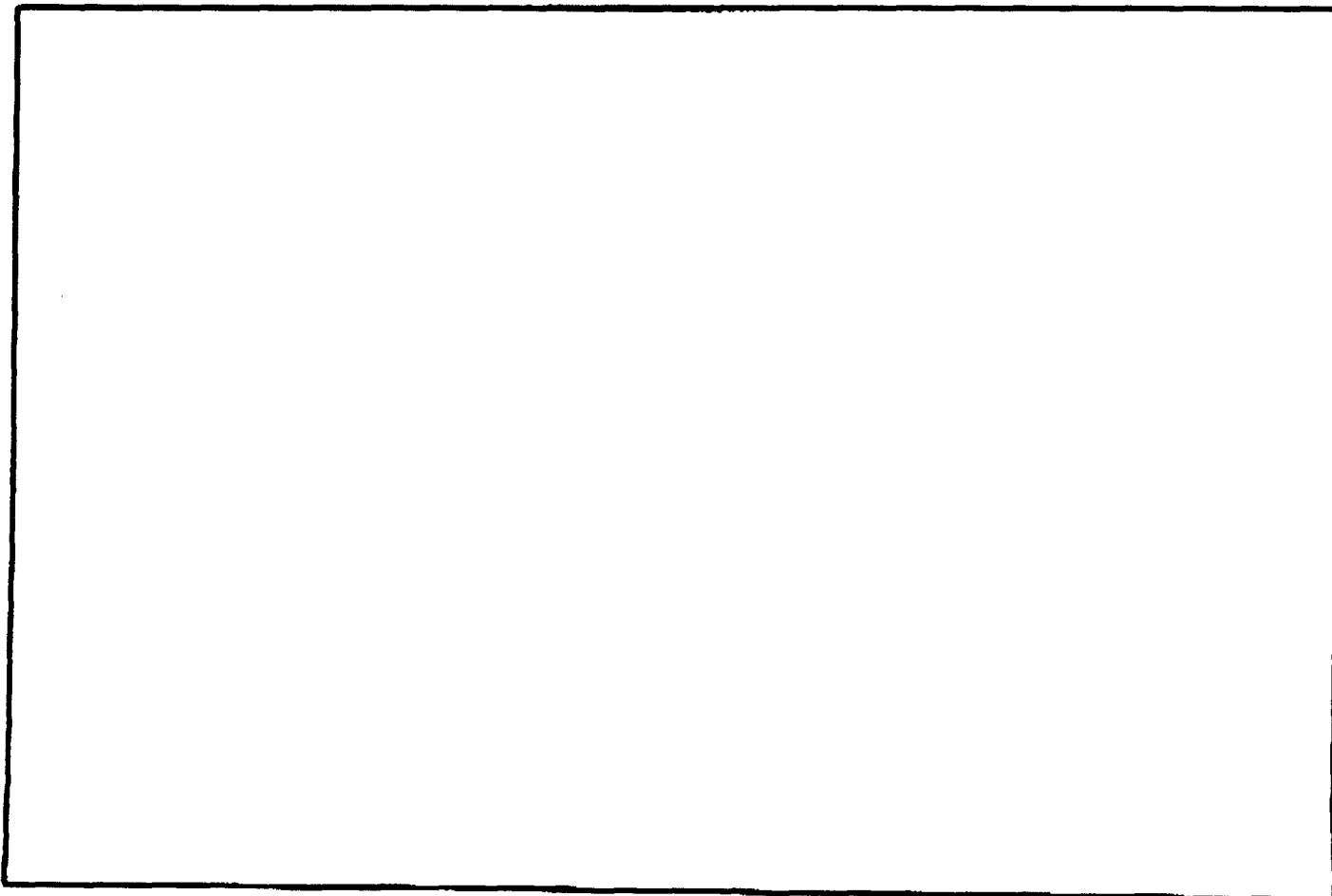
Pages including cover sheet: 3

Subject:

Extension Request

Message:

Date: 9/22/97





To: Bill Olsen

From: Mike Griffin

Date: September 9, 1997

Subject: Extension Request

Sent by FAX to: (505) 827-8177

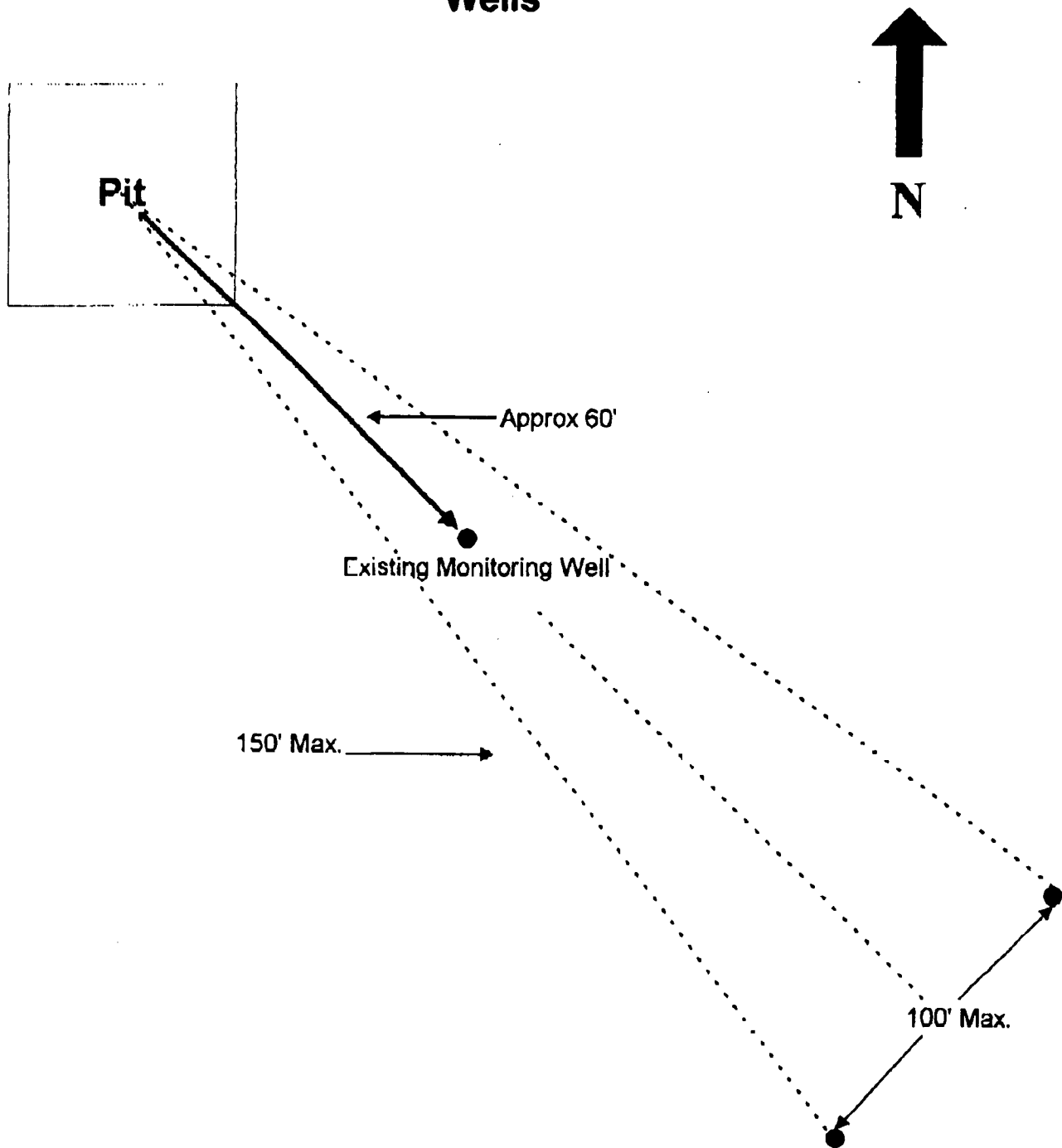
Bill, as you know we experienced an unforeseen delay in completing the Tipperary Tatum Pit Closure Project due to the discovery of detectable BTEX concentrations on five pit locations and the presence of free product in the G.S. State monitoring well. (Reference two letters Bob Fehlmann of Tipperary to you dated Sept. 11).

The new monitoring and recovery wells will be drilled beginning the morning of the 25<sup>th</sup> and will be sampled as soon as possible thereafter. We request an additional extension for project completion to the end of October.

By copy of this memorandum, I'm notifying Mr. Wayne Price of your Hobbs office as to the new schedule and will further advise him telephonically in advance of the final sampling events so as to allow him to witness.

Please advise if this causes any problems for you.

# Typical Location of Monitoring Wells

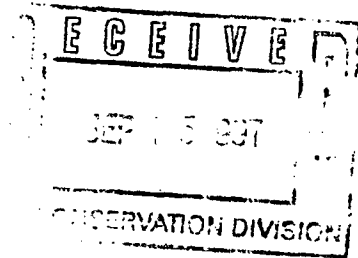






**Tipperary**  
CORPORATION

633 Seventeenth Street  
Suite 1550  
Denver, Colorado 80202



September 11, 1997

Mr. William C. Olson  
Hydrogeologist – Environmental Bureau  
New Mexico Energy And Natural Resources Dept.  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87504

**Subject: Tatum, New Mexico Area "Pit Closure Project".**

Dear Mr. Olson:

Enclosed is a copy of the laboratory analyses of the first water samples taken from the new monitoring wells at our Tatum, New Mexico "Pit Closure Project". The data indicates BTEX concentrations below allowable maximums for pit closures, but higher than maximums allowed for the more stringent WQCC standards that here apply to the Ogalla Aquifer. Pits with monitor well water samples exceeding the WQCC BTEX maximums include the: Bell State "A" #1, Sohio State "A", Sohio State #1, Satellite #4, and the State NBF#1.

We have already removed the BTEX source (pit sludge) at these locations, and believe that through time, the processes of natural attenuation will remediate the minor amounts detected. Therefore, as a continuation of our pit closure project, in an effort to establish the extent of the plume we intend to set one new monitor well 150 feet down the ground-water gradient from each of the pits listed above. Tipperary believes these new monitor wells will define the lateral extent of the BTEX at these sites. We intend to sample these wells quarterly.

Please indicate your approval of the above modification to Tipperary's pit closure plan so that we may proceed with the work. Let me know if you have questions or need more information.

Sincerely,

Robert H. Fehlmann  
Environmental Coordinator

WPWIN \ TIP \ LETTERS \ NMPClose.L09

Tipperary Oil & Gas Corporation

Burro Pipeline Corporation

Phone (303) 293-9379



Fax (303) 292-3428

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

WHOLE EARTH ENVIRONMENTAL  
ATTN: MR. MIKE GRIFFIN  
18606 SAN GABRIEL  
HOUSTON, TEXAS 77064  
FAX: 1-281-846-8986

Receiving Date: 08/08/97  
Sample Type: WATER  
Project: TIPPERARY  
Project Location: NONE GIVEN

Analysis Date: 08/09/97  
Sampling Date: 08/06/97, 08/06/97  
Sample Condition: Intact/ice

ELTW	FIELD CODE	BENZENE mg/l	TOLUENE mg/l	ETHYLBENZENE mg/l	m,p-XYLENE mg/l	o-XYLENE mg/l
12475	IVA COM MW#1	<.001	<.001	<.001	0.002	0.007
12476	IVA COM MW#2	<.001	<.001	<.001	<.001	<.001
12477	IVA COM SW	3.129	2.551	0.209	1.182	0.094
12478	GB #12	1.834	0.055	0.061	3.085	0.084
12481	BELL #0	0.687	0.013	0.024	0.060	0.006
12482	NBN #7	<.001	<.001	<.001	<.001	<.001
12483	SONIO 1 #10	2.558	1.148	0.243	1.257	0.081
12484	SONIO A #11	0.006	0.004	0.002	0.008	0.012
12485	SAT #10	0.092	0.010	0.015	0.082	0.002
12486	NBF #8	0.302	0.208	0.039	0.753	0.161
12487	VERA #0	0.003	0.003	0.003	0.021	0.029
12488	MABLE MW #3	0.010	0.008	0.031	0.139	0.012
12489	MABLE MW #4	0.015	0.002	0.002	0.010	0.002
% IA		111	111	112	111	113
% EA		113	112	114	112	111
BLANK		<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8020, 5030

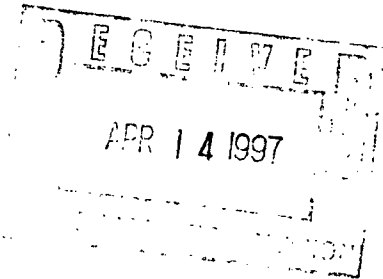
  
Michael R. Fowler

9-10-97  
Date



**Tipperary**  
CORPORATION

633 Seventeenth Street  
Suite 1550  
Denver, Colorado 80202



April 9, 1997

Mr. William C. Olson  
Hydrogeologist - Environmental Bureau  
New Mexico Energy and Natural Resources Dept.,  
Oil Conservation Division  
2040 Pacheco  
Santa Fe, New Mexico

**RE: PIT CLOSURES TATUM, NEW MEXICO**

Dear Mr. Olson:

Enclosed is a copy of Tipperary's work results to date, and a new proposed closure plan, for the production emergency upset pits at Tatum, New Mexico. I believe that this report includes all the information that you requested in your March 27, 1997 letter concerning Tipperary's progress with this project.

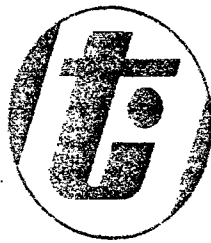
I have forwarded a copy of this report to Jerry Sexton, in the OCD's Hobbs, NM office. Let me know if you have any questions.

Sincerely,

Larry G. Sugano  
Vice President - Engineering

cc: Jerry Sexton, OCD Hobbs Office





Tipperary  
CORPORATION

## Tatum Pit Closure Project

*Report filed in  
N. Gaskey Field Pit file*

**RECEIVED**

APR 14 1997

Environmental Bureau  
Oil Conservation Division



Whole Earth Environmental  
19606 San Gabriel  
Houston, Tx. 77084