

1R - 263

APPROVALS

YEAR(S):

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Thursday, February 28, 2008 12:42 PM
To: Mike Griffin
Cc: Williams, Chris, EMNRD; Johnson, Larry, EMNRD
Subject: Bagely Feild Projects

Dear Mike,

OCD is in receipt of the January 17, 2008 groundwater remediation reports for the following facilities:

frmOrdMaster				
Order No.	Amd #	Applicant	Facility Name	Facility Type
GW-260	0	Whole Earth Environmental Inc.	BELL STATE "A"	Tank Battery
GW-261	0	Whole Earth Environmental Inc.	COLLIER #1	Tank Battery
GW-262	0	Whole Earth Environmental Inc.	GULF STATE #1	Tank Battery
GW-263	0	Whole Earth Environmental Inc.	IVA COM #1	Tank Battery
GW-264	0	Whole Earth Environmental Inc.	MABEL COM #1	Tank Battery
GW-265	0	Whole Earth Environmental Inc.	NORTH BAGLEY FIELD PITS	Pit
GW-267	0	Whole Earth Environmental Inc.	SOHIO STATE #1	Tank Battery
GW-268	0	Whole Earth Environmental Inc.	SOHIO STATE "A"	Tank Battery

OCD hereby approves of the activities to enhance groundwater remediation and further investigation. Please submit all information in the next annual report and make sure the GW order numbers are included. Also this plan is approved with the stipulation that if groundwater exceeds the standards of any monitor well that had not exceeded the standards previously then an action plan must be submitted to the OCD within 30 days of discovery.

Please be advised that OCD approval of this plan does not relieve the owner/operator of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Environmental Bureau Chief
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3490
Fax: 505-476-3462

2/28/2008



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

May 21, 2003

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

**RE: BELL STATE "A" PIT – CASE # 1R260
SOHIO STATE #1 PIT – CASE #1R267
SOHIO STATE "A" PIT – CASE #1R268
STATE NBF #1 PIT – CASE #1R269
LEA COUNTY, NEW MEXICO**

Dear Mr. Sugano:

The New Mexico Oil Conservation Division (OCD) has reviewed Tipperary Corporation's (TC) May 6, 2003 "TATUM PIT CLOSURE PROJECT YOUR LETTER OF 4-21-03" which was submitted on behalf of TC by their consultant Whole Earth Environmental. This document contains TC's response to the OCD's April 21, 2003 correspondence and TC's work plan for installation of additional ground water monitoring wells to further delineate the extent of contamination related to the closure of unlined pits at the above listed sites west of Tatum, New Mexico.

The above-referenced work plan is approved with the following conditions:

1. At the Sohio State #1 site, proposed monitor well MW-43 shall be relocated and an additional ground water monitoring well shall be installed at the locations shown on the attached figure #1.
2. At the Sohio State "A" site, an additional ground water monitoring well shall be installed at the location shown on the attached figure #2.
3. All monitor wells shall be constructed and completed as follows:
 - a. A minimum of 15 feet of well screen shall be installed with 5 feet of well screen placed above the water table and 10 feet of well screen placed below the water table.
 - b. An appropriately sized gravel pack shall be set in the annulus around the well screen from the bottom of the hole to 2-3 feet above the top of the well screen.

Mr. Larry G. Sugano
May 21, 2003
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- c. A 2-3 foot bentonite plug shall be placed above the gravel pack.
 - d. The remainder of the hole shall be grouted to the surface with cement containing 3-5% bentonite.
 - e. A concrete pad and locking well cover shall be placed at the surface.
 - f. The well shall be developed after construction using EPA approved procedures.
4. No less than 24 hours after the wells are developed, ground water from all site monitor wells at each site shall be purged, sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX) using EPA approved methods and quality assurance/quality control procedures (QA/QC).
5. All monitor wells shall be surveyed to determine their locations in reference to the former pits, tanks, other site monitor and recovery wells and any other pertinent site features.
6. In order to resolve the issue of chloride and total dissolved solids (TDS) contamination at TC's remaining pit closure sites, during one of the 2003 sampling events TC shall sample and analyze ground water from all monitor wells at the Bell State "A", Gulf State #1 (Case #1R262), ~~Wm. Conn #1 (Case #1R263)~~, Mabel Com #1 (Case #1R264), Sohio State #1, Sohio State "A", and State NBF #1 sites for concentrations of TDS and major cations and anions using EPA approved methods and QA/QC.
7. All wastes generated during the investigation shall be disposed of at an OCD approved facility.
8. TC will submit the results the investigation and sampling activities to the OCD in the subsequent annual report for each site which is due on April 1, 2004. The report will present the investigation and sampling work for each site as a separate case report. Each case report will contain the following information:
- a. A description of the investigation activities which occurred including conclusions and recommendations.
 - b. A geologic/lithologic log and well completion diagram for each newly installed monitor well.
 - c. A contoured ground water potentiometric map of each site, for each sampling event, showing the direction and magnitude of the hydraulic gradient, the location of the pits, tanks, monitor wells, recovery wells and any other pertinent site features.

Mr. Larry G. Sugano
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- d. Summary tables of all past and present ground water quality sampling results and copies of all recent laboratory analytical data sheets and associated QA/QC data.
- e. If ground water recovery is occurring at the site, the volume of ground water and volume of product recovered to date.
- f. The disposition of all wastes generated.

Please be advised that OCD approval does not limit TC to the proposed work plan if the plan fails to adequately determine the extent of contamination or if contamination exists which is outside the scope of the plan. In addition, OCD 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 call me at (505) 476-3491.

Sincerely,



William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office
Cody Morrow, NM State Land Office
Mike Griffin, Whole Earth Environmental, Inc.

Olson, William

From: Olson, William
Sent: Monday, March 04, 2002 9:59 AM
To: 'Mike Griffin'
Cc: Johnson, Larry; Sheeley, Paul
Subject: RE: Tipperary Bagley Field

The below-referenced extension request is approved. If you have any questions, please contact me.

Sincerely,

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

-----Original Message-----
From: Mike Griffin [mailto:whearth@iamerica.net]
Sent: Thursday, February 28, 2002 7:47 AM
To: bill olson
Cc: larry sugano
Subject: Tipperary Bagley Field

Bill:

We are now preparing the field platmaps showing both contours and the proposed location of the new wells. It should be ready early next week. Could you please extend our deadline to March 15?

Mike Griffin



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87506
(505) 827-7131

March 29, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-638

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

RE: TATUM PIT CLOSURES

Dear Mr. Sugano:

The New Mexico Oil Conservation Division (OCD) has reviewed Tipperary Corporation's (TC) February 16, 1999 "January 1999 PROGRESS REPORT, TATUM PIT CLOSURE PROJECT, LEA COUNTY, NEW MEXICO". This document contains the results of TC's monitoring of ground water contamination related to the closure of 10 unlined pits west of Tatum, New Mexico and requests final closure of the remedial actions related to unlined pits at the Iva Com #1, Mable Com #1, State NBN #1 and Vera #1 sites. The document also requests an extension of the deadline for submission of a report on ground water investigations from April 1 to May 1, 1999.

The above referenced deadline extension request is approved.

In order to complete a review of the above referenced closure requests, the OCD requires that TC submit a water table potentiometric map for each of the 10 sites which shows the location of the pit and excavated areas, the surveyed locations of all monitor wells and recovery wells and any other pertinent site features as well as the direction and magnitude of the hydraulic gradient created using the water table elevation in each monitor well.

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

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, 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

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

January 15, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-592

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) September 8, 1998 "WORK PLAN & 6/98 PROGRESS REPORT, TATUM PIT CLOSURE PROJECT, LEA COUNTY, NEW MEXICO". This document contains the results of TC's monitoring of ground water contamination related to the closure of 10 unlined pits west of Tatum, New Mexico. The document also contains TC's work plan for additional investigations through installation of monitor wells and ground water sampling.

The above referenced work plan is approved with the following conditions:

1. A sufficient number of monitor wells will be installed to determine the downgradient and lateral extent of ground water contamination at each site with either downgradient monitor wells which show ground water contamination in excess of standards or with evidence of contaminants migrating as a slug through the monitoring system.
2. Each monitor well will be constructed and completed as follows:
 - a. A minimum of 15 feet of well screen will be installed with 5 feet of well screen placed above the water table and 10 feet of well screen placed below the water table.
 - b. An appropriately sized gravel pack will be set in the annulus around the well screen from the bottom of the hole to 2-3 feet above the top of the well screen.

Mr. Larry G. Sugano
January 15, 1999
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- c. A 2-3 foot bentonite plug will be placed above the gravel pack.
 - d. The remainder of the hole will be grouted to the surface with cement containing 3-5% bentonite.
 - e. A concrete pad and locking well cover will be placed at the surface.
 - f. The well will be developed after construction using EPA approved procedures.
3. No less than 48 hours after the wells are developed, ground water from all monitor wells at each site will be purged, sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX) major cations and anions, total dissolved solids (TDS), and New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods and quality assurance/quality control (QA/QC).
4. All wastes generated during the investigation will be disposed of at an OCD approved facility.
5. TC will submit a report on the investigations to the OCD by April 1, 1999. The report will be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office. The report will present the investigation work for each site as a separate case report. Each case report will contain the following information:
- a. A description of the investigation activities which occurred including conclusions and recommendations.
 - b. A geologic/lithologic log and well completion diagram for each monitor well.
 - c. A water table map showing the location of the pit, monitor wells, recovery wells and any other pertinent site features as well as the direction and magnitude of the hydraulic gradient created using the water table elevation from each monitor well.
 - d. Summary tables of all past and present ground water quality sampling results and copies of all recent laboratory analytical data sheets and associated QA/QC data.
 - e. If ground water recovery is occurring at the site, the volume of ground water and volume of product recovered to date.
 - f. The disposition of all wastes generated.

Mr. Larry G. Sugano
January 15, 1999
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Please be advised that OCD approval does not limit TC to the proposed work if the plan fails to adequately determine the extent of contamination or if contamination exists which is outside the scope of the plan. In addition, OCD 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 call me at (505) 827-7154.

Sincerely,



William C. Olson
Hydrologist
Environmental Bureau

xc: Chris Williams, 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

OIL CONSERVATION DIVISION

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

June 4, 1997

CERTIFIED MAIL

RETURN RECEIPT NO. P-410-431-177

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

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

Dear Mr. Sugano:

The New Mexico Oil Conservation Division (OCD) has reviewed Tipperary Corporation's (TC) April 9, 1997 "PIT CLOSURES TATUM, NEW MEXICO" and TC's undated "TATUM PIT CLOSURE PROJECT". This document contains the results of soil investigations and remedial action plans for field production pits at the following TC locations in the North Bagley Oil Field near Tatum, New Mexico:

- Bell State "A"	Unit C, Sec 21, T11S, R33E
- G.S. State #1	Unit G, Sec 08, T11S, R33E
- Iva Com #1	Unit H, Sec 20, T11S, R33E
- Mabel Com #1	Unit D, Sec 29, T11S, R33E
- Satellite #4	Unit I, Sec 12, T11S, R33E
- Sohio State "A"	Unit P, Sec 04, T11S, R33E
- State NBF #1	Unit N, Sec 22, T11S, R33E
- State NBN #1	Unit N, Sec 16, T11S, R33E
- Vera #1	Unit E, Sec 32, T11S, R33E

The remedial action work plan, as contained in the above referenced documents, is approved with the following conditions:

1. All soil samples from the excavations and remediated soils will be taken and analyzed for total petroleum hydrocarbons (TPH); benzene, toluene, ethylbenzene and xylene (BTEX) using EPA approved methods and quality assurance/quality control procedures.

NOTE:

The proposed BTEX soil analytical method QP-19 is not an EPA approved method for analysis of soils. In fact, the QP-19 procedure does not measure BTEX in soils but actually measures the concentrations of BTEX in vapors emanating from the soil in an enclosed headspace. This method is not acceptable for a final determination of the

Mr. Larry G. Sugano
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remaining concentrations of BTEX in soils. EPA approved methods must be used.

In addition, the TPH analytical data sheets for the initial surveys do not contain the EPA method QA/QC data such as duplicates, spikes, etc. for each site nor do they contain the signature of the analyst. The soil TPH analyses from the excavations and remediated soils must include appropriate QA/QC data for the EPA method TPH soil analysis and a data sheet signed by the analyst.

2. Upon completion of the soil remedial actions at the Vera #1, State NBN #1, State NBF #1, Bell State "A" and G.S. State #1, TC will install a monitor well directly adjacent to and downgradient of the pit at each site.
3. At the Mabel Com #1 and Iva Com #1, TC will define the full extent of free phase and dissolved phase hydrocarbon contaminants in ground water which are in excess of New Mexico Water Quality Control Commission (WQCC) standards. During the initial ground water investigations at least 2 monitor wells will be installed in a radial pattern downgradient of each site recovery well such that the direction of the local ground water gradient can be determined.
4. At the Mabel Com #1 and Iva Com #1, the recovery wells will be installed directly adjacent to the excavated pit such that the well bore does not pierce the liners in the excavated pit areas.
5. All monitor wells and recovery wells will be constructed and completed as set out below:
 - a. A minimum of fifteen feet of well screen will be installed, with at least five feet of well screen above the water table and ten feet of well screen below the water table.
 - b. An appropriately sized gravel pack will be set around the well screen from the bottom of the hole to 2-3 feet above the top of the well screen.
 - c. A 2-3 foot bentonite plug will be placed above the gravel pack.
 - d. The remainder of the hole will be grouted to the surface with cement containing 5 % bentonite.
 - e. Each well will be developed after construction using EPA approved procedures.

6. Ground water from all monitor wells and recovery wells will be initially sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), major cations and anions, WQCC metals and polynuclear aromatic hydrocarbons using EPA approved methods and QA/QC procedures.
7. All wastes generated during the investigative and remedial actions will be disposed of at an OCD approved facility.

NOTE: The OCD permitted Gandy/Marley Landfarm is not allowed to accept liquids. This landfarm is only permitted to accept contaminated soils and sludges. If liquids are recovered during the remedial actions they will need to be disposed of at an alternate OCD approved facility which is permitted for those types of wastes.

8. TC will submit a report on the investigations and remedial actions to the OCD by September 5, 1997. The report will contain:
 - a. A description of all activities which occurred during the investigations and remedial actions including the final excavated size of each pit, the volume of material remediated as well as conclusions and recommendations.
 - b. A completed OCD "PIT REMEDIATION AND CLOSURE REPORT" form for each site for which final pit closure approval is sought.
 - c. A summary of all laboratory analytic results of soil and water quality sampling for each site including copies of all laboratory analytical data sheets and associated QA/QC data.
 - d. A water table elevation map for the Mable Com #1 and Iva Com #1 sites using the water table elevation of the ground water in all site monitor wells.
 - e. A geologic log and as built well completion diagram for each monitor well and recovery well.
9. The OCD defers comment on the long term ground water monitoring plan for the Mabel Com #1 and Iva Com #1 until the full extent of contamination has been determined.
10. TC will notify the OCD at least one week in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

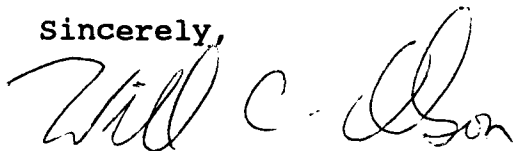
Mr. Larry G. Sugano
June 4, 1997
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11. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not relieve TC of liability if contamination exists which is beyond the scope of the work plan or if the activities fail to adequately determine the extent of or adequately remediate contamination related to TC's activities. In addition, OCD approval does not relieve TC of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,



William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price , OCD Hobbs Office
Linda Freedman, NM State Land Office
Mike Griffin, Whole Earth Environmental, Inc.