AP - 45

APPROVALS

YEAR(S):

2007-2006

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Friday, May 19, 2006 3:48 PM
To: 'Gilbert Van Deventer'
Cc: Carolyn Haynes; Kristin Farris Pope
Subject: RE: Suspension of BTEX at certain sites

OCD hereby approves of the request with the following condition:

1. If oil is present, or conditions change that BTEX may be found then the approval is rescinded.
2. This approval is included in all reports.

Please be advised that NMOCD 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, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Friday, May 19, 2006 3:33 PM
To: Price, Wayne, EMNRD
Cc: Carolyn Haynes; Kristin Farris Pope
Subject: Re: Suspension of BTEX at certain sites

The constituents of concern are chlorides and TDS.

Gilbert J. Van Deventer, PG, REM, NMCS
Trident Environmental
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

> ----- Original Message -----
> **From:** Price, Wayne, EMNRD
> **To:** gil@rthicksconsult.com
> **Cc:** Carolyn Haynes ; Kristin Farris Pope
> **Sent:** Friday, May 19, 2006 1:22 PM
> **Subject:** RE: Suspension of BTEX at certain sites
>
> What are the constituents of concern?

> **From:** Gil Van Deventer [mailto:gil@rthicksconsult.com]
> **Sent:** Friday, April 21, 2006 9:16 AM
> **To:** Price, Wayne, EMNRD
> **Cc:** Carolyn Haynes; Kristin Farris Pope
> **Subject:** Suspension of BTEX at certain sites
>
> Wayne, I just wanted to clarify an issue on some of these Stage 1 and 2 Abatement Plans where we

propose suspension of sampling and analyzing for BTEX.

In the NMOCD-approved Stage 1 and 2 Abatement Plan for the EME M-9 SWD site we proposed that *"Analysis for BTEX concentrations will be suspended, as each component of BTEX has been below the laboratory method detection limit of 0.001 mg/L since August 22, 2003 (10 consecutive quarters)."*

AP-45

The same goes for the EME P-6 Release site and its two montoring wells. In the approved Stage 1-2 plan we state: *"Analysis for BTEX concentrations should be suspended, as there has been no indication of dissolved hydrocarbons since the groundwater monitoring program began in January 2002 (13 consecutive quarters)."* My understanding that the local Hobbs Office is also reviewing this abatement plan.

The same situation *would* apply to the BD J-26 Junction Box site but we are still within the 30-day public comment period and plan approval by OCD will take a little time after that. In the Stage 1-2 abatement plan for J-26 we state that we will do the following:

- *Collect depth to water measurements and ground water samples for chloride and TDS analysis from the on site monitoring wells (MW-1, MW-2, MW-3) and area water wells (WW-1, WW-5, WW-8, WW-12, WW-19, WM #138, WM #220, and Wallach #914) on a quarterly frequency.*

With the J-26 site we don't specifically state that we will *"suspend BTEX analysis"* but that is the intention. Each component of BTEX has been below the laboratory method detection limit of 0.001 mg/L at this site since it began in 2002 (15 quarters).

Please confirm if you are in agreement with the suspension of BTEX sampling on any of these sites as we are about to initiate the second quarter sampling.

Thanks,
Gil

Gilbert J. Van Deventer

R. T. Hicks Consultants, Ltd.

1909 Brunson Ave, Midland TX 79701-6924

432-638-8740 (Office/Mobile) - 413-403-9968 (Fax) - 432-682-0727 (Home)

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Thursday, January 11, 2007 2:12 PM
To: 'Gilbert Van Deventer'; Kristin Pope
Cc: Carolyn Haynes; Price, Wayne, EMNRD
Subject: RE: EME P-6 (AP-45)

Dear Mr. Van Deventer and Ms. Pope:

The NMOCD has reviewed the submitted data for the above referenced site. The NMOCD hereby approves proceeding with the proposed backfilling activities as reference below.

Also, please be advised that NMOCD approval of these activities does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Tuesday, January 09, 2007 2:56 PM
To: Price, Wayne, EMNRD
Cc: Hansen, Edward J., EMNRD; Kristin Pope; Carolyn Haynes
Subject: Re: EME P-6 (AP-45)

Wayne

We have completed the excavation activities at the EME P-6 Line Leak Site (AP-45) in accordance with the Stage 1&2 Abatement plan and your conditions to the minor amendment as copied below. The final size of the excavation is approximately 26 ft wide by 26 ft long by 16 ft deep which resulted in a total of approximately 400 cubic yards of soil. Of that total, 156 cubic yards of the more highly impacted excavated soil was transported to Cell C-1 at the South Monument Landfarm. The remaining excavated soil was spread out on site and was later blended with clean topsoil (dune sand) imported from the South Monument Landfarm. I was told by Kena Kay Cooper that her topsoil is the same soil that was used for the new racetrack (Zia Park) in Hobbs. The sampling procedures for the wall and floor samples were conducted in a manner consistent with the compositing protocol used by Rice Operating for typical junction box closure sites. Laboratory analytical results are summarized in the table below.

Sample Identification	Sample Date	Amount (yd3)	OVM (ppm)	Chloride (ppm)	GRO (mg/kg)	DRO (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
Floor	12/27/06	N/A	141	656	213	1209	0.016	0.034	0.117	0.363
Four Walls	12/27/06	N/A	45	432	15	514	<0.005	<0.005	0.017	0.006
Excavated Soil	12/22/06	156	874	336	1401	4134	<0.020	1.66	4.2	15.64
Remediated Soil	12/29/06	400	10	64	<10	115	<0.005	<0.005	<0.005	<0.015

A diagram showing the North-South cross-sectional profile of the proposed backfill procedure is attached for your review. Various photos of the activities and lab reports are attached as well. We now seek your approval to begin backfilling with the remediated soil and overlay it with a clay layer and topsoil.

Thanks - Gil

Gilbert J. Van Deventer, PG, REM
Trident Environmental
www.trident-environmental.com
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

----- Original Message -----
From: Price, Wayne, EMNRD
To: Gilbert Van Deventer
Cc: Johnson, Larry, EMNRD
Sent: Wednesday, July 12, 2006 12:22 PM
Subject: RE: EME P-6 (AP-45)

OCD hereby approves of the Stage 1 & 2 plans with the following additional conditions:

1. One additional monitoring well named P6-5 shall be installed 200 feet due east of P-6-1.
2. Monitor wells P-1,2,3,4,5 and M5-1 shall be sampled and analyzed for BTEX and general chemistry. If BTEX is non-detect then OCD will considered eliminating this parameter in the future if no free oil is present.
3. All saturated or grossly contaminated soils and soils greater than 10,000 mg/kg shall be disposed of off-site at an OCD approved facility.
4. All soils remediated on site shall be in a maximum of 8 inch lifts, watered, properly tilled, amendments added if needed (fertilizer) and managed to prevent contamination run-off. Blending of soils will not be allowed until remedied soils demonstrate that the GRO component is essentially zero.
5. All remediated soils, remediated area soils, backfill soils, bottom hole and side wall soils shall be sampled and analyzed for TPH, BTEX and chlorides using approved EPA methods.
6. OCD shall review all analytical results and issue approval before excavated area is backfilled.
7. All soils used to backfill on top of the ET cap shall be clean native soils to support re-vegetation.
7. ROC shall submit an interim closure report to include the following:

   a. All groundwater and soil results, photos, plot plan with sample points indicated, groundwater gradient map, and any other pertinent information.
   b. Permission to backfill.
   c. A re-vegetation, groundwater monitoring and active restoration plan for OCD approval.

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

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Monday, July 10, 2006 2:26 PM
To: Price, Wayne, EMNRD
Subject: Fw: EME P-6 (AP-45)

We are scheduled to do some drilling at the N-5 and K-6 sites starting next week. Was hoping to hear your response and approval for the P-6 site as requested on June 27th so that we could use the same drillers to install 2 MWs at P-6. Otherwise it's real hard to schedule them until a much later date.

Thanks,
Gil

Gilbert J. Van Deventer, PG, REM, NMCS
R. T, Hicks Consulting, Ltd.
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727
----- Original Message -----
From: Gilbert Van Deventer
To: Price, Wayne, EMNRD
Sent: Tuesday, June 27, 2006 10:19 AM
Subject: Re: EME P-6 (AP-45)

Hello Wayne. Per your request and comments in your email on May 26, 2006, ROC proposes the following minor modifications to the P-6 Stage 1 Abatement Plan:

Stage 1 (investigation). ROC proposes to install additional monitoring wells at the P-6 Line Leak Site as follows:

- one upgradient (~165 ft NE of P6-1 monitoring well), and
- one downgradient (~220 ft south of P6-1 monitoring well)

Since there already is a monitoring well cluster at the M-5 SWD site located approximately 500 ft downgradient (southeast) of the P6-1 monitoring well we see no need for another downgradient well in that direction. Access for a drill rig in any other areas near this site is extremely difficult due to the presence of dunes and would be detrimental to the existing vegetation and landscape if an attempt were to be made. ROC has had bad experience moving heavy equipment in this area and has even had dozers get stuck in the sand. A site map is attached showing the proposed locations of the 2 monitoring wells. The additional wells as proposed, *and* the installation of monitoring wells for two nearby sites (K-6 and N-5) that are in the Stage 1 Abatement Plan process will provide the necessary data for full characterization.

Stage 2 (abatement). With regard to soil excavation, remediation, backfilling and disposal, ROC proposes the following:

Excavated soil with total TPH (GRO+DRO) greater than 10,000 mg/kg will be transported to an NMOCD-approved facility for disposal. Excavated soil with TPH above 1,000 mg/kg but less than 10,000 mg/kg) will be remediated on site by spreading on the surface no deeper than 18-inches thick to allow aeration and then blending them with native soil prior to use as backfill. After excavating the impacted area to a depth of 12 feet, soils with a total TPH (GRO + DRO) of less than 1,000 mg/kg and chloride concentrations less than 750 mg/kg will be used as backfill to a depth of no more than 5 feet below ground surface. Current field sampling results indicate chloride concentrations no greater than 750 mg/kg at 12 ft below ground surface. A 10-12 inch thick uncompacted clay layer, will be installed five feet below ground surface. An uncompacted clay layer is preferred over a compacted layer so as to promote a more efficient evapotransporation barrier. Above the clay layer, remediated soil with total TPH and chloride concentrations less than 1,000 mg/kg will be used as backfill and contoured to match the surrounding terrain.

On June 7th, ROC received approval from the BLM for site access and monitoring well installations at the nearby K-6 and N-5 sites so it would be convenient to include the P-6 investigation at the same time a drill rig is scheduled for all 3 sites (week of July 17th). With your concurrence of the actions proposed above ROC is ready to proceed. Please contact Kristin Pope at 505-393-9174 or myself at 432-638-8740, if you have any questions regarding this minor modification.

Sincerely,

Gilbert J. Van Deventer, PG, REM
R. T. Hicks Consultants Ltd.

Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

----- Original Message -----
From: Price, Wayne, EMNRD
To: Kristin Pope
Cc: gil@rthicksconsult.com ; Carolyn Haynes ; Johnson, Larry, EMNRD
Sent: Friday, May 26, 2006 4:04 PM
Subject: RE: EME P-6 (AP-45)

The Rice Operating Company (ROC) stage 1 & 2 plan dated July 12, 2005 for the EME P-6 line leak site is deficient in the following areas:

Stage 1 (investigation). There is only one on-site monitor well. Please submit a plan to have at least three more monitor wells installed that are closer to the site. One of the wells shall be located approximately 100 feet up-gradient of the original spill site. The previous information submitted shows a large variance in the area groundwater gradient. This may be due to the fact the wells proposed are to far apart. There were no local iso-concentration maps provided to identify the chloride(TDS) plume.

Stage 2 (abatement). The excavation plan section 7.1 page 9 does not provide definitive information on excavation and disposal. The last sentence reads 'Soil with GRO or DRO levels above 1000 mg/kg shall be hauled to an NMOCD-approved facility or remediated on site."
ROC did not provide a detail explanation of what soils will be disposed of off-site and what soils will be remediated. There is no explanation on how the soils will be remediated. On Page 10 one sentence reads " The backfill (above and below the clay liner) will be composed of blended or remediated soil that will support vegetation". ROC did not provide any documentation of what levels of constituents will be present in the soils above and below the liner.

Please submit a modified plan within 30 days and proof of public notice.

From: Kristin Pope [mailto:kpope@riceswd.com]
Sent: Wednesday, May 24, 2006 10:08 AM
To: Price, Wayne, EMNRD
Cc: gil@rthicksconsult.com; Carolyn Haynes
Subject: EME P-6 (AP-45)

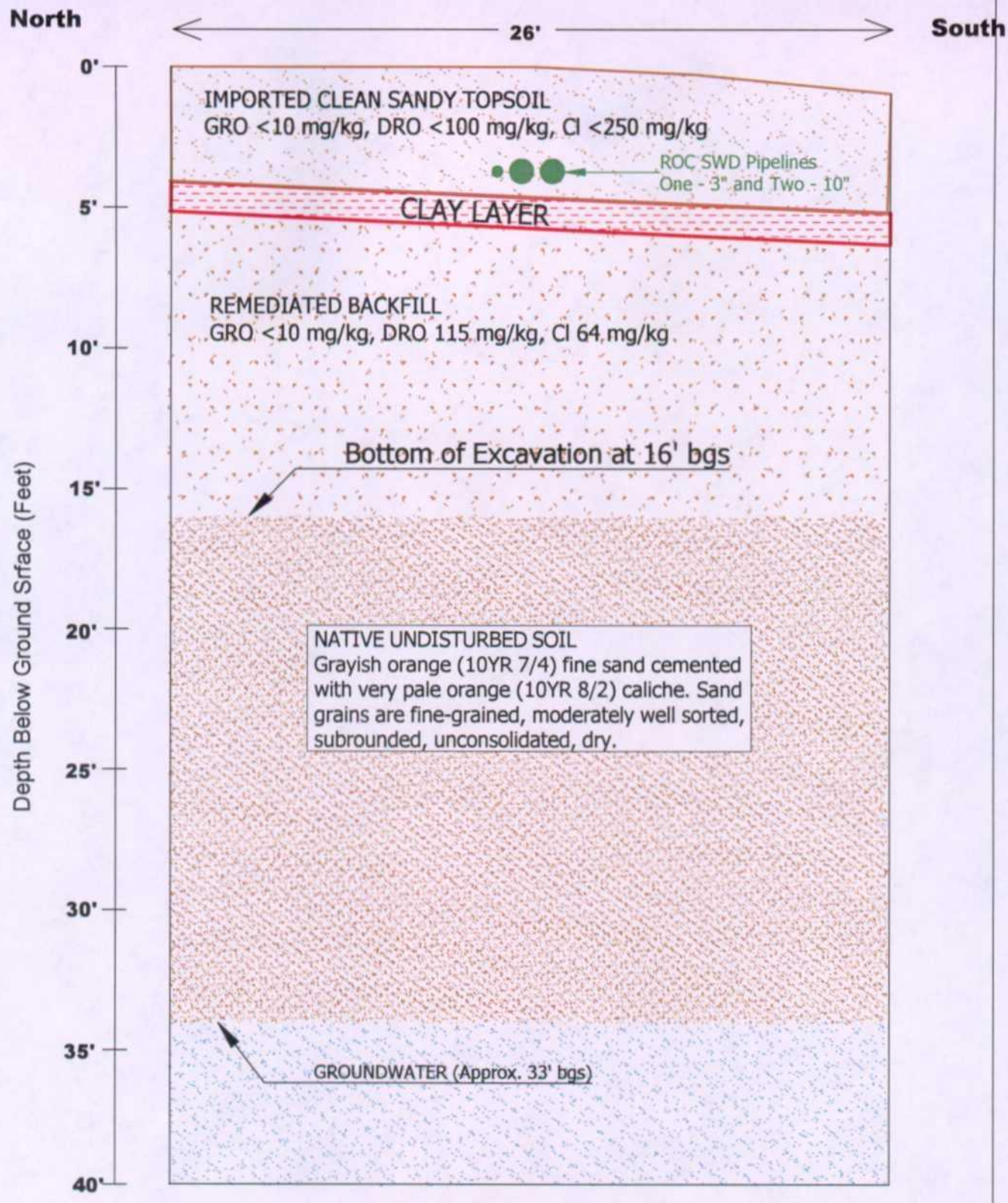
Wayne,

At our last meeting on March 30 in Hobbs, you reviewed the Stage 1&2 Abatement Plan for the EME P-6 Release Site (AP-45) submitted by Gil Van Deventer. At that meeting, you said that you'd like to review the submission in depth and also involve the District 1 office. Can you give us any feedback yet? Thanks.

Kristin Farris Pope
Project Scientist
RICE Operating Company
Hobbs, New Mexico
(505) 393-9174

prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

NORTH-SOUTH CROSS-SECTIONAL PROFILE



TRIDENT ENVIRONMENTAL	EME P-6 LINE LEAK SITE T20S - R37E - Section 6 - Unit P RICE Operating Company	PROPOSED BACKFILL DIAGRAM


12-27-06


12-22-06


01-05-2007

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name:	Rice Operating Company
Project Manager:	Kristin Pope
Address:	122 W. Taylor St.
City:	Hobbs State: NM Zip: 88240
Phone #:	505-393-9174 Fax #: 505-397-1471
Project #:	P-6 Line Leak Project Owner:
Project Name:	P-6 Line Leak
Project Location:	T20S-R37E - Section 6 - Unit P
Sampler Name:	Gil Van Deventer

BILL TO

P.O. #:	
Company:	Rice Operating Co.
Attn:	Kristin Pope
Address:	122 W. Taylor St
City:	Hobbs
State:	NM Zip: 88240
Phone #:	505-393-9174
Fax #:	505-397-1471

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	GRO / DRO (8015)	BTEX (8021B)	Chlorides								
H11956-1	Mixed Soil	C	1			✓					✓		12-29-06	1610	✓	✓	✓								

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 the client for the 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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 12-29-06	Received By:	
	Time: 1640		
Relinquished By:	Date:	Received By: (Lab Staff)	
	Time:		
Delivered By: (Circle One)	Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:			

Phone Result:	☒ Yes	☐ No	Add'l Phone #:
Fax Result:	☒ Yes	☐ No	Add'l Fax #:

REMARKS: email results to: Kpope@riceswd.com and gilbertvandeventer@cox.net

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN POPE
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 12/29/06
Reporting Date: 01/02/07
Project Number: P-6 LINE LEAK
Project Name: P-6 LINE LEAK
Project Location: T20S-R37E-SECTION 6-UNIT P

Sampling Date: 12/29/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM/BC

LAB NO.	SAMPLE ID	Cl* (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		01/02/07	12/29/06	12/29/06	12/29/06	12/29/06
H11956-1	MIXED SOIL	64	<0.005	<0.005	<0.005	<0.015
Quality Control		480	0.105	0.097	0.102	0.310
True Value QC		500	0.100	0.100	0.100	0.300
% Recovery		96.0	105	97.4	102	103
Relative Percent Difference		2.1	5.0	2.6	2.1	3.1

METHODS: Cl⁻ - Std. Methods 4500-Cl⁻B; BTEX - EPA SW-846-8020
*Analysis performed on a 1:4 w:v aqueous extract

Burgess J. A. Cooke, Ph. D.

1/2/07
Date

H11956B

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN POPE
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 12/29/06
Reporting Date: 01/02/07
Project Number: P-6 LINE LEAK
Project Name: P-6 LINE LEAK
Project Location: T20S-R37E-SECTION 6-UNIT P

Sampling Date: 12/29/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)
ANALYSIS DATE:		12/29/06	12/29/06
H11956-1	MIXED SOIL	<10.0	115
Quality Control		760	752
True Value QC		800	800
% Recovery		95.1	94.0
Relative Percent Difference		0.3	2.8

METHOD: SW-846 8015 M

Chemist

1/2/07
Date

H11956A

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: GILBERT VAN DEVENTER
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 12/26/06
Reporting Date: 12/27/06
Project Number: NOT GIVEN
Project Name: P-6 LINE LEAK
Project Location: T20S-R37E-SECTION 6-UNIT P

Sampling Date: 12/26/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: LB
Analyzed By: LB

LAB NO.	SAMPLE ID	GRO (C_6-C_{12}) (mg/Kg)	DRO (>C_{12}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		12/26/06	12/26/06	12/26/06	12/26/06	12/26/06	12/26/06
H11938-1	P-6 WALL COMPOSITE	15	514	<0.005	<0.005	0.017	0.006
H11938-2	P-6 FLOOR COMPOSITE	213	1209	0.016	0.034	0.117	0.363
Quality Control		921	899	0.089	0.092	0.095	0.309
True Value QC		1000	1000	0.100	0.100	0.100	0.300
% Recovery		92.1	89.9	89.9	92.0	95.0	103.0
Relative Percent Difference		9.4	4.9	6.0	4.8	5.7	6.3

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B.

Larry L. Bailey

12/27/06
Date

H11938A

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: GILBERT VAN DEVENTER
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 12/26/06
Reporting Date: 12/27/06
Project Number: NOT GIVEN
Project Name: P-6 LINE LEAK
Project Location: T20S-R37E-SECTION 6-UNIT P

Analysis Date: 12/27/06
Sampling Date: 12/26/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: LB
Analyzed By: LB

LAB NO.	SAMPLE ID	Cl^- (mg/Kg)
H11938-1	P-6 WALL COMPOSITE	432
H11938-2	P-6 FLOOR COMPOSITE	656
Quality Control		510
True Value QC		500
% Recovery		102
Relative Percent Difference		7.7

METHOD: Standard Methods	4500-ClB

NOTE: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

12/27/06
Date

H11938

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name:	Trident Environmental	**BILL TO** P.O. #:	
Project Manager:	Gilbert Van Deventer	Company:	Rice Operating Co
Address:		Attn:	Kristin Pope
City:	Midland State: Tx Zip: 79705	Address:	122 W Taylor
Phone #:	432-638-8740 Fax #:	City:	Hobbs
Project #:	Project Owner:	State:	NM Zip: 88240
Project Name:	P-6 Line Leak	Phone #:	505-393-9174
Project Location:	T20S-R37E-Section 6 - Unit P	Fax #:	505-397-1471
Sampler Name:	Gil Van Deventer		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	GRO/DRO (8015)	BTEX (8021B)	Chloride								
H11938-1	P-6 Wall Composite	C	1			✓					✓		12-26-06	1630	✓	✓	✓								
-2	P-6 Floor Composite	C	1			✓					✓		12-26-06	1645	✓	✓	✓								

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 the client for the 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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 12-26-06	Received By:	
Relinquished By:	Time: 1722	Received By: (Lab Staff)	
	Date:		
	Time:		

Phone Result: ☑ Yes ☐ No Add'l Phone #:
Fax Result: ☑ Yes ☐ No Add'l Fax #:
REMARKS:
Please email to kpope@ricesws.com and gilbertvandeventer@cox.net

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☑ Yes ☐ No	☑ Yes ☐ No	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: GILBERT VAN DEVENTER
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 12/22/06
Reporting Date: 12/27/06
Project Number: P-6 LINE LEAK
Project Name: NOT GIVEN
Project Location: T20S-R37E-SECTION 6-UNIT P

Sampling Date: 12/22/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: LB/AB

LAB NO.	SAMPLE ID	GRO (C_6-C_{12}) (mg/Kg)	DRO (>C_{12}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		12/26/06	12/26/06	12/26/06	12/26/06	12/26/06	12/26/06
H11935-1	EXCAVATED SOIL	1401	4134	<0.020	1.66	4.20	15.64
H11935-2	OVERBURDEN SOIL	221	1832	0.007	0.032	0.093	0.273
Quality Control		921	899	0.089	0.092	0.095	0.309
True Value QC		1000	1000	0.100	0.100	0.100	0.300
% Recovery		92.1	89.9	89.9	92.0	95.0	103.0
Relative Percent Difference		9.4	4.9	6.0	4.8	5.7	6.3

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B.

Larry L. Bailey

12/27/06
Date

H11935A

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: GILBERT VAN DEVENTER
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 12/22/06
Reporting Date: 12/27/06
Project Number: P-6 LINE LEAK
Project Name: NOT GIVEN
Project Location: T20S-R37E-SECTION 6-UNIT P

Analysis Date: 12/26/06
Sampling Date: 12/22/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: HM
Analyzed By: AB

LAB NO.	SAMPLE ID	Cl^- (mg/Kg)
H11935-1	EXCAVATED SOIL	336
H11935-2	OVERBURDEN SOIL	416
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		0.0

METHOD: Standard Methods	4500-ClB

NOTE: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

12-27-06
Date

H11935

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name: Trident Environmental	BILL TO
Project Manager: Gilbert Van Deventer	P.O. #:
Address:	Company: Rice Operating Co
City: Midland State: TX Zip:	Attn: Kristin Pope
Phone #: 432-638-8740 Fax #:	Address: 122 W Taylor St
Project #: P-6 Line Leak Project Owner:	City: Hobbs
Project Name:	State: NM Zip: 88240
Project Location: T20S-R37E - Section 6 - Unit P	Phone #: 505-397-1174
Sampler Name: Gil Van Deventer	Fax #: 505-397-1471

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: GRO/DRO (8015)	BTEX (8021B)	Chlorides
H11735-1	~~East Wall~~	C	1			✓					✓		~~12-22-06~~	~~1430~~	✓	✓	✓
-2	~~South Wall~~	C	1			✓					✓		12-22-06	1535	✓	✓	✓
-1	Excavated Soil	G	1			✓					✓		12-22-06	0850	✓	✓	✓
-2	Overburden Soil	G	1			✓					✓		12-22-06	1100	✓	✓	✓

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 the client for the 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 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 12-22-06	Received By:	
	Time: 2:05 pm		
Relinquished By:	Date: 12-22-06	Received By: (Lab Staff)	
	Time: 2:05		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☑ Yes ☐ No	☑ Yes ☐ No	

Phone Result:	☑ Yes	☐ No	Add'l Phone #:
Fax Result:	☐ Yes	☐ No	Add'l Fax #:

REMARKS: Email results to: kpope@ricenm.com & gilbertvandeventer@cs.com

Send report to Rice as per Gilbert 12-27-06 (HSM)

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Wednesday, July 12, 2006 3:46 PM
To: 'Gilbert Van Deventer'
Cc: Carolyn Haynes; Kristin Pope
Subject: RE: EME P-6 (AP-45)

Approved!

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Wednesday, July 12, 2006 3:11 PM
To: Price, Wayne, EMNRD
Cc: Carolyn Haynes; Kristin Pope
Subject: Re: EME P-6 (AP-45)

Wayne

Since it is on Jimmy Cooper property that additional monitoring well (P6-5 200 ft east) will require negotiation for access. To date Rice has had much trouble reaching agreement with Cooper and his attorneys for access on several sites. That area is also hard accessing due to deep sand. Per our conversation today we will proceed on a forward path and install the 2 MWs (P6-3 and P6-4) as proposed and we will update you as to the status of acquiring access for the subject well (P6-5) east of the site.

Proof of public notice was submitted on 01/30/06 and is attached.

Thank you,
Gil

Gilbert J. Van Deventer, PG, REM, NMCS
R. T. Hicks Consultanyts, Ltd.
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

> ----- Original Message -----
> **From:** Price, Wayne, EMNRD
> **To:** Price, Wayne, EMNRD ; Gilbert Van Deventer ; Kristin Farris Pope ; Carolyn Doran Haynes
> **Cc:** Johnson, Larry, EMNRD
> **Sent:** Wednesday, July 12, 2006 2:32 PM
> **Subject:** RE: EME P-6 (AP-45)
>
> Please note, OCD Santa Fe does not have a copy of the Public Notice for the P-6 Leak site. Please forward ASAP for out files.
>
> ---
>
> **From:** Price, Wayne, EMNRD
> **Sent:** Wednesday, July 12, 2006 12:23 PM
> **To:** 'Gilbert Van Deventer'
> **Cc:** Johnson, Larry, EMNRD
> **Subject:** RE: EME P-6 (AP-45)

OCD hereby approves of the Stage 1 & 2 plans with the following additional conditions:

1. One additional monitoring well named P6-5 shall be installed 200 feet due east of P-6-1.
2. Monitor wells P-1,2,3,4,5 and M5-1 shall be sampled and analyzed for BTEX and general chemistry. If BTEX is non-detect then OCD will considered eliminating this parameter in the future if no free oil is present.
3. All saturated or grossly contaminated soils and soils greater than 10,000 mg/kg shall be disposed of off-site at an OCD approved facility.
4. All soils remediated on site shall be in a maximum of 8 inch lifts, watered, properly tilled, amendments added if needed (fertilizer) and managed to prevent contamination run-off. Blending of soils will not be allowed until remedied soils demonstrate that the GRO component is essentially zero.
5. All remediated soils, remediated area soils, backfill soils, bottom hole and side wall soils shall be sampled and analyzed for TPH, BTEX and chlorides using approved EPA methods.
6. OCD shall review all analytical results and issue approval before excavated area is backfilled.
7. All soils used to backfill on top of the ET cap shall be clean native soils to support re-vegetation.
7. ROC shall submit an interim closure report to include the following:

   a. All groundwater and soil results, photos, plot plan with sample points indicated, groundwater gradient map, and any other pertinent information.
   b. Permission to backfill.
   c. A re-vegetation, groundwater monitoring and active restoration plan for OCD approval.

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

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Monday, July 10, 2006 2:26 PM
To: Price, Wayne, EMNRD
Subject: Fw: EME P-6 (AP-45)

We are scheduled to do some drilling at the N-5 and K-6 sites starting next week. Was hoping to hear your response and approval for the P-6 site as requested on June 27th so that we could use the same drillers to install 2 MWs at P-6. Otherwise it's real hard to schedule them until a much later date.

Thanks,
Gil

Gilbert J. Van Deventer, PG, REM, NMCS
R. T, Hicks Consulting, Ltd.
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727
----- Original Message -----
From: Gilbert Van Deventer
To: Price, Wayne, EMNRD
Sent: Tuesday, June 27, 2006 10:19 AM
Subject: Re: EME P-6 (AP-45)

Hello Wayne. Per your request and comments in your email on May 26, 2006, ROC proposes the following minor modifications to the P-6 Stage 1 Abatement Plan:

Stage 1 (investigation). ROC proposes to install additional monitoring wells at the P-6 Line Leak Site as follows:

- one upgradient (~165 ft NE of P6-1 monitoring well), and
- one downgradient (~220 ft south of P6-1 monitoring well)

Since there already is a monitoring well cluster at the M-5 SWD site located approximately 500 ft downgradient (southeast) of the P6-1 monitoring well we see no need for another downgradient well in that direction. Access for a drill rig in any other areas near this site is extremely difficult due to the presence of dunes and would be detrimental to the existing vegetation and landscape if an attempt were to be made. ROC has had bad experience moving heavy equipment in this area and has even had dozers get stuck in the sand. A site map is attached showing the proposed locations of the 2 monitoring wells. The additional wells as proposed, *and* the installation of monitoring wells for two nearby sites (K-6 and N-5) that are in the Stage 1 Abatement Plan process will provide the necessary data for full characterization.

Stage 2 (abatement). With regard to soil excavation, remediation, backfilling and disposal, ROC proposes the following:

Excavated soil with total TPH (GRO+DRO) greater than 10,000 mg/kg will be transported to an NMOCD-approved facility for disposal. Excavated soil with TPH above 1,000 mg/kg but less than 10,000 mg/kg) will be remediated on site by spreading on the surface no deeper than 18-inches thick to allow aeration and then blending them with native soil prior to use as backfill. After excavating the impacted area to a depth of 12 feet, soils with a total TPH (GRO + DRO) of less than 1,000 mg/kg and chloride concentrations less than 750 mg/kg will be used as backfill to a depth of no more than 5 feet below ground surface. Current field sampling results indicate chloride concentrations no greater than 750 mg/kg at 12 ft below ground surface. A 10-12 inch thick uncompacted clay layer, will be installed five feet below ground surface. An uncompacted clay layer is preferred over a compacted layer so as to promote a more efficient evapotransporation barrier. Above the clay layer, remediated soil with total TPH and chloride concentrations less than 1,000 mg/kg will be used as backfill and contoured to match the surrounding terrain.

On June 7th, ROC received approval from the BLM for site access and monitoring well installations at the nearby K-6 and N-5 sites so it would be convenient to include the P-6 investigation at the same time a drill rig is scheduled for all 3 sites (week of July 17th). With your concurrence of the actions proposed above ROC is ready to proceed. Please contact Kristin Pope at 505-393-9174 or myself at 432-638-8740, if you have any questions regarding this minor modification.

Sincerely,

Gilbert J. Van Deventer, PG, REM
R. T. Hicks Consultants Ltd.
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

----- Original Message -----
From: Price, Wayne, EMNRD
To: Kristin Pope
Cc: gil@rthicksconsult.com ; Carolyn Haynes ; Johnson, Larry, EMNRD
Sent: Friday, May 26, 2006 4:04 PM
Subject: RE: EME P-6 (AP-45)

The Rice Operating Company (ROC) stage 1 & 2 plan dated July 12, 2005 for the EME P-6 line leak site is deficient in the following areas:

Stage 1 (investigation). There is only one on-site monitor well. Please submit a plan to have at least three more monitor wells installed that are closer to the site. One of the wells shall be located approximately 100 feet up-gradient of the original spill site. The previous information submitted shows a large

variance in the area groundwater gradient. This may be due to the fact the wells proposed are to far apart. There were no local iso-concentration maps provided to identify the chloride(TDS) plume.

Stage 2 (abatement). The excavation plan section 7.1 page 9 does not provide definitive information on excavation and disposal. The last sentence reads 'Soil with GRO or DRO levels above 1000 mg/kg shall be hauled to an NMOCD-approved facility or remediated on site."
ROC did not provide a detail explanation of what soils will be disposed of off-site and what soils will be remediated. There is no explanation on how the soils will be remediated. On Page 10 one sentence reads " The backfill (above and below the clay liner) will be composed of blended or remediated soil that will support vegetation". ROC did not provide any documentation of what levels of constituents will be present in the soils above and below the liner.

Please submit a modified plan within 30 days and proof of public notice.

From: Kristin Pope [mailto:kpope@riceswd.com]
Sent: Wednesday, May 24, 2006 10:08 AM
To: Price, Wayne, EMNRD
Cc: gil@rthicksconsult.com; Carolyn Haynes
Subject: EME P-6 (AP-45)

Wayne,

At our last meeting on March 30 in Hobbs, you reviewed the Stage 1&2 Abatement Plan for the EME P-6 Release Site (AP-45) submitted by Gil Van Deventer. At that meeting, you said that you'd like to review the submission in depth and also involve the District 1 office. Can you give us any feedback yet? Thanks.

Kristin Farris Pope
Project Scientist
RICE Operating Company
Hobbs, New Mexico
(505) 393-9174

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Wednesday, July 12, 2006 1:32 PM
To: Price, Wayne, EMNRD; 'Gilbert Van Deventer'; Kristin Farris Pope; Carolyn Doran Haynes
Cc: Johnson, Larry, EMNRD
Subject: RE: EME P-6 (AP-45)

Please note, OCD Santa Fe does not have a copy of the Public Notice for the P-6 Leak site. Please forward ASAP for out files.

From: Price, Wayne, EMNRD
Sent: Wednesday, July 12, 2006 12:23 PM
To: 'Gilbert Van Deventer'
Cc: Johnson, Larry, EMNRD
Subject: RE: EME P-6 (AP-45)

OCD hereby approves of the Stage 1 & 2 plans with the following additional conditions:

1. One additional monitoring well named P6-5 shall be installed 200 feet due east of P-6-1.
2. Monitor wells P-1,2,3,4,5 and M5-1 shall be sampled and analyzed for BTEX and general chemistry. If BTEX is non-detect then OCD will considered eliminating this parameter in the future if no free oil is present.
3. All saturated or grossly contaminated soils and soils greater than 10,000 mg/kg shall be disposed of off-site at an OCD approved facility.
4. All soils remediated on site shall be in a maximum of 8 inch lifts, watered, properly tilled, amendments added if needed (fertilizer) and managed to prevent contamination run-off. Blending of soils will not be allowed until remedied soils demonstrate that the GRO component is essentially zero.
5. All remediated soils, remediated area soils, backfill soils, bottom hole and side wall soils shall be sampled and analyzed for TPH, BTEX and chlorides using approved EPA methods.
6. OCD shall review all analytical results and issue approval before excavated area is backfilled.
7. All soils used to backfill on top of the ET cap shall be clean native soils to support re-vegetation.
7. ROC shall submit an interim closure report to include the following:

    a. All groundwater and soil results, photos, plot plan with sample points indicated, groundwater gradient map, and any other pertinent information.
    b. Permission to backfill.
    c. A re-vegetation, groundwater monitoring and active restoration plan for OCD approval.

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

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Monday, July 10, 2006 2:26 PM
To: Price, Wayne, EMNRD
Subject: Fw: EME P-6 (AP-45)

We are scheduled to do some drilling at the N-5 and K-6 sites starting next week. Was hoping to hear your response and approval for the P-6 site as requested on June 27th so that we could use the same drillers to install 2 MWs at P-6. Otherwise it's real hard to schedule them until a much later date.

Thanks,
Gil

Gilbert J. Van Deventer, PG, REM, NMCS
R. T, Hicks Consulting, Ltd.
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727
----- Original Message -----
From: Gilbert Van Deventer
To: Price, Wayne, EMNRD
Sent: Tuesday, June 27, 2006 10:19 AM
Subject: Re: EME P-6 (AP-45)

Hello Wayne. Per your request and comments in your email on May 26, 2006, ROC proposes the following minor modifications to the P-6 Stage 1 Abatement Plan:

Stage 1 (investigation). ROC proposes to install additional monitoring wells at the P-6 Line Leak Site as follows:

- one upgradient (~165 ft NE of P6-1 monitoring well), and
- one downgradient (~220 ft south of P6-1 monitoring well)

Since there already is a monitoring well cluster at the M-5 SWD site located approximately 500 ft downgradient (southeast) of the P6-1 monitoring well we see no need for another downgradient well in that direction. Access for a drill rig in any other areas near this site is extremely difficult due to the presence of dunes and would be detrimental to the existing vegetation and landscape if an attempt were to be made. ROC has had bad experience moving heavy equipment in this area and has even had dozers get stuck in the sand. A site map is attached showing the proposed locations of the 2 monitoring wells. The additional wells as proposed, *and* the installation of monitoring wells for two nearby sites (K-6 and N-5) that are in the Stage 1 Abatement Plan process will provide the necessary data for full characterization.

Stage 2 (abatement). With regard to soil excavation, remediation, backfilling and disposal, ROC proposes the following:

Excavated soil with total TPH (GRO+DRO) greater than 10,000 mg/kg will be transported to an NMOCD-approved facility for disposal. Excavated soil with TPH above 1,000 mg/kg but less than 10,000 mg/kg) will be remediated on site by spreading on the surface no deeper than 18-inches thick to allow aeration and then blending them with native soil prior to use as backfill. After excavating the impacted area to a depth of 12 feet, soils with a total TPH (GRO + DRO) of less than 1,000 mg/kg and chloride concentrations less than 750 mg/kg will be used as backfill to a depth of no more than 5 feet below ground surface. Current field sampling results indicate chloride concentrations no greater than 750 mg/kg at 12 ft below ground surface. A 10-12 inch thick uncompacted clay layer, will be installed five feet below ground surface. An uncompacted clay layer is preferred over a compacted layer so as to promote a more efficient evapotransporation barrier. Above the clay layer, remediated soil with total TPH and chloride concentrations less than 1,000 mg/kg will be used as backfill and contoured to match the surrounding terrain.

On June 7th, ROC received approval from the BLM for site access and monitoring well installations at the nearby K-6 and N-5 sites so it would be convenient to include the P-6 investigation at the same time a drill rig is scheduled for all 3 sites (week of July 17th). With your concurrence of the actions proposed above ROC is ready to proceed. Please contact Kristin Pope at 505-393-9174 or myself at 432-638-8740, if you have any questions regarding this minor modification.

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Wednesday, July 12, 2006 12:23 PM
To: 'Gilbert Van Deventer'
Cc: Johnson, Larry, EMNRD
Subject: RE: EME P-6 (AP-45)

OCD hereby approves of the Stage 1 & 2 plans with the following additional conditions:

1. One additional monitoring well named P6-5 shall be installed 200 feet due east of P-6-1.
2. Monitor wells P-1,2,3,4,5 and M5-1 shall be sampled and analyzed for BTEX and general chemistry. If BTEX is non-detect then OCD will considered eliminating this parameter in the future if no free oil is present.
3. All saturated or grossly contaminated soils and soils greater than 10,000 mg/kg shall be disposed of off-site at an OCD approved facility.
4. All soils remediated on site shall be in a maximum of 8 inch lifts, watered, properly tilled, amendments added if needed (fertilizer) and managed to prevent contamination run-off. Blending of soils will not be allowed until remedied soils demonstrate that the GRO component is essentially zero.
5. All remediated soils, remediated area soils, backfill soils, bottom hole and side wall soils shall be sampled and analyzed for TPH, BTEX and chlorides using approved EPA methods.
6. OCD shall review all analytical results and issue approval before excavated area is backfilled.
7. All soils used to backfill on top of the ET cap shall be clean native soils to support re-vegetation.
7. ROC shall submit an interim closure report to include the following:

   a. All groundwater and soil results, photos, plot plan with sample points indicated, groundwater gradient map, and any other pertinent information.
   b. Permission to backfill.
   c. A re-vegetation, groundwater monitoring and active restoration plan for OCD approval.

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

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Monday, July 10, 2006 2:26 PM
To: Price, Wayne, EMNRD
Subject: Fw: EME P-6 (AP-45)

We are scheduled to do some drilling at the N-5 and K-6 sites starting next week. Was hoping to hear your response and approval for the P-6 site as requested on June 27th so that we could use the same drillers to install 2 MWs at P-6. Otherwise it's real hard to schedule them until a much later date.

Thanks,
Gil

Gilbert J. Van Deventer, PG, REM, NMCS
R. T, Hicks Consulting, Ltd.
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

----- Original Message -----
From: Gilbert Van Deventer
To: Price, Wayne, EMNRD
Sent: Tuesday, June 27, 2006 10:19 AM
Subject: Re: EME P-6 (AP-45)

Hello Wayne. Per your request and comments in your email on May 26, 2006, ROC proposes the following minor modifications to the P-6 Stage 1 Abatement Plan:

Stage 1 (investigation). ROC proposes to install additional monitoring wells at the P-6 Line Leak Site as follows:

- one upgradient (~165 ft NE of P6-1 monitoring well), and
- one downgradient (~220 ft south of P6-1 monitoring well)

Since there already is a monitoring well cluster at the M-5 SWD site located approximately 500 ft downgradient (southeast) of the P6-1 monitoring well we see no need for another downgradient well in that direction. Access for a drill rig in any other areas near this site is extremely difficult due to the presence of dunes and would be detrimental to the existing vegetation and landscape if an attempt were to be made. ROC has had bad experience moving heavy equipment in this area and has even had dozers get stuck in the sand. A site map is attached showing the proposed locations of the 2 monitoring wells. The additional wells as proposed, *and* the installation of monitoring wells for two nearby sites (K-6 and N-5) that are in the Stage 1 Abatement Plan process will provide the necessary data for full characterization.

Stage 2 (abatement). With regard to soil excavation, remediation, backfilling and disposal, ROC proposes the following:

Excavated soil with total TPH (GRO+DRO) greater than 10,000 mg/kg will be transported to an NMOCD-approved facility for disposal. Excavated soil with TPH above 1,000 mg/kg but less than 10,000 mg/kg) will be remediated on site by spreading on the surface no deeper than 18-inches thick to allow aeration and then blending them with native soil prior to use as backfill. After excavating the impacted area to a depth of 12 feet, soils with a total TPH (GRO + DRO) of less than 1,000 mg/kg and chloride concentrations less than 750 mg/kg will be used as backfill to a depth of no more than 5 feet below ground surface. Current field sampling results indicate chloride concentrations no greater than 750 mg/kg at 12 ft below ground surface. A 10-12 inch thick uncompacted clay layer, will be installed five feet below ground surface. An uncompacted clay layer is preferred over a compacted layer so as to promote a more efficient evapotransporation barrier. Above the clay layer, remediated soil with total TPH and chloride concentrations less than 1,000 mg/kg will be used as backfill and contoured to match the surrounding terrain.

On June 7th, ROC received approval from the BLM for site access and monitoring well installations at the nearby K-6 and N-5 sites so it would be convenient to include the P-6 investigation at the same time a drill rig is scheduled for all 3 sites (week of July 17th). With your concurrence of the actions proposed above ROC is ready to proceed. Please contact Kristin Pope at 505-393-9174 or myself at 432-638-8740, if you have any questions regarding this minor modification.

Sincerely,

Gilbert J. Van Deventer, PG, REM

Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

Cc: gil@rthicksconsult.com; Carolyn Haynes
Subject: EME P-6 (AP-45)

Wayne,

At our last meeting on March 30 in Hobbs, you reviewed the Stage 1&2 Abatement Plan for the EME P-6 Release Site (AP-45) submitted by Gil Van Deventer. At that meeting, you said that you'd like to review the submission in depth and also involve the District 1 office. Can you give us any feedback yet? Thanks.

Kristin Farris Pope
Project Scientist
RICE Operating Company
Hobbs, New Mexico
(505) 393-9174

R. T. HICKS CONSULTANTS, LTD.

P. O. Box 7624 • Midland, Texas 79708 • 432-638-8740 • Fax: 413-403-9968

June 27, 2006 **Via E-mail**

Wayne Price
NMOCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Rice Operating Company, EME P-6 (AP-45) Minor Modification to Stage 1 Abatement Plan

Dear Mr. Price,

Per your request and comments in your email on May 26, 2006, ROC proposes the following minor modifications to the P-6 Stage 1 Abatement Plan:

Stage 1 (investigation) - ROC proposes to install additional monitoring wells at the P-6 Line Leak Site as follows:

- one upgradient (~165 ft NE of P6-1 monitoring well), and
- one downgradient (~220 ft south of P6-1 monitoring well)

Since there already is a monitoring well cluster at the M-5 SWD site located approximately 500 ft downgradient (southeast) of the P6-1 monitoring well we see no need for another downgradient well in that direction. Access for a drill rig in any other areas near this site is extremely difficult due to the presence of dunes and would be detrimental to the existing vegetation and landscape if an attempt were to be made. ROC has had bad experience moving heavy equipment in this area and has even had dozers get stuck in the sand. A site map is attached showing the proposed locations of the 2 monitoring wells. The additional wells as proposed, and the installation of monitoring wells for two nearby sites (K-6 and N-5) that are in the Stage 1 Abatement Plan process will provide the necessary data for full characterization.

Stage 2 (abatement) - With regard to soil excavation, remediation, backfilling and disposal, ROC proposes the following:

Excavated soil with total TPH (GRO+DRO) greater than 10,000 mg/kg will be transported to an NMOCD-approved facility for disposal. Excavated soil with TPH above 1,000 mg/kg but less than 10,000 mg/kg) will be remediated on site by spreading on the surface no deeper than 18-inches thick to allow aeration and then blending them with native soil prior to use as backfill. After excavating the impacted area to a depth of 12 feet, soils with a total TPH (GRO + DRO) of less than 1,000 mg/kg and chloride concentrations less than 750 mg/kg will be used as backfill to a depth of no more than 5 feet below ground surface. Current field sampling results indicate chloride concentrations no greater than 750 mg/kg at 12 ft below ground surface. A 10-12 inch thick uncompacted clay layer, will be installed five feet below ground surface. An uncompacted clay layer is preferred over a compacted layer so as to promote a more efficient evapotransporation barrier. Above the clay layer, remediated soil with total TPH and chloride concentrations less than 1,000 mg/kg will be used as backfill and contoured to match the surrounding terrain.

R. T. HICKS CONSULTANTS, LTD.

P. O. Box 7624 • Midland, Texas 79708 • 432-638-8740 • Fax: 413-403-9968

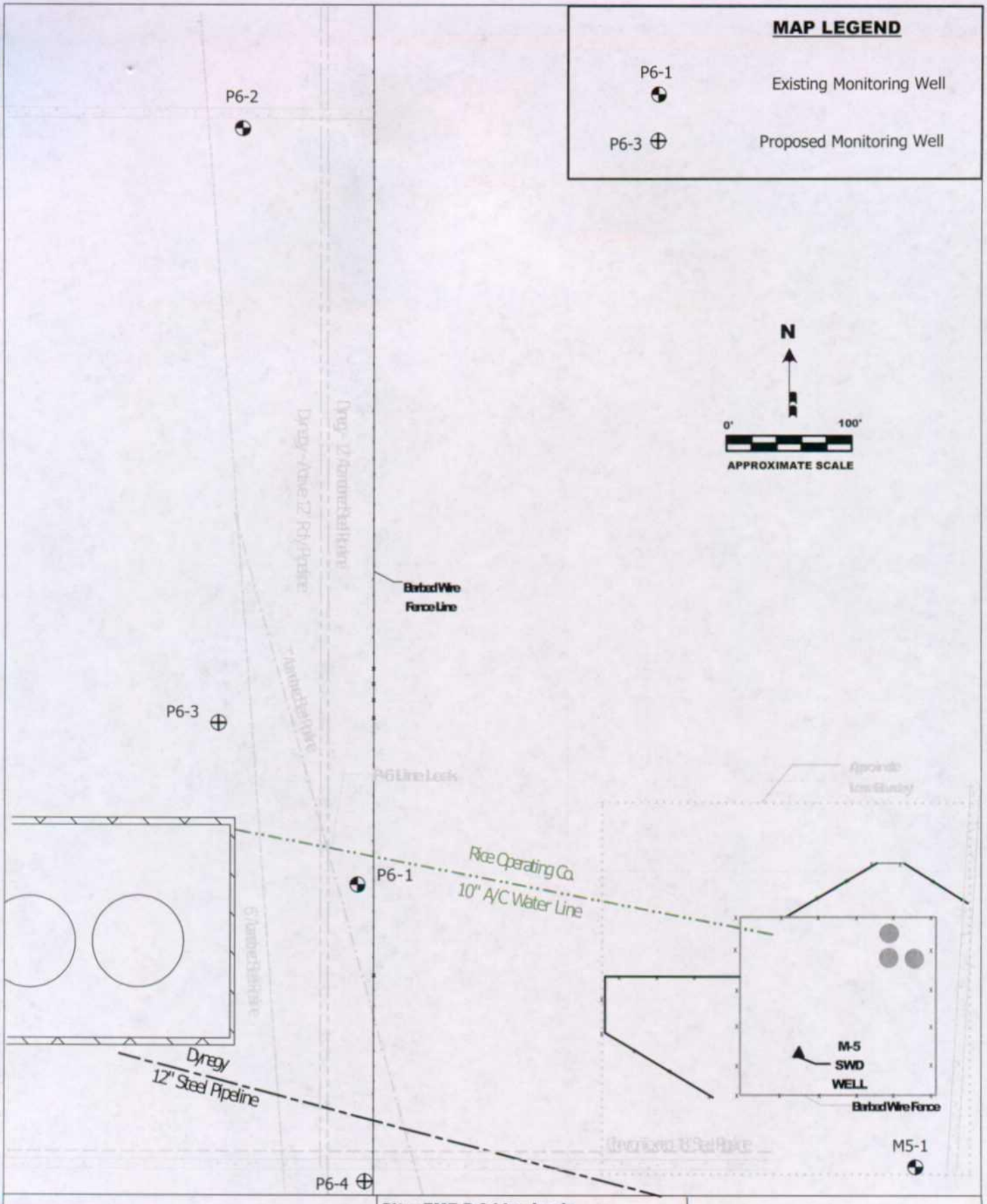
On June 7th, ROC received approval from the BLM for site access and monitoring well installations at the nearby K-6 and N-5 sites so it would be convenient to include the P-6 investigation at the same time a drill rig is scheduled for all 3 sites (week of July 17th). With your concurrence of the actions proposed above ROC is ready to proceed. Please contact Kristin Pope at 505-393-9174 or myself at 432-638-8740, if you have any questions regarding this minor modification.

Sincerely,
R.T. Hicks Consultants, Ltd.

Gilbert J. Van Deventer, PG, REM
Project Manager

Copy: Rice Operating Company

Attachments: map and photograph of proposed monitoring well locations



R. T. HICKS CONSULTANTS, LTD.
P. O. Box 7624
Midland, Texas 79708

Site: EME P-6 Line Leak	PROPOSED
Date: June 21, 2006	
Author: GJV	MONITORING WELLS
Approximate Scale: 1-inch = 100 feet	


06/14/2006

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Friday, May 19, 2006 3:48 PM
To: 'Gilbert Van Deventer'
Cc: Carolyn Haynes; Kristin Farris Pope
Subject: RE: Suspension of BTEX at certain sites

OCD hereby approves of the request with the following condition:

1. If oil is present, or conditions change that BTEX may be found then the approval is rescinded.
2. This approval is included in all reports.

Please be advised that NMOCD 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, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]
Sent: Friday, May 19, 2006 3:33 PM
To: Price, Wayne, EMNRD
Cc: Carolyn Haynes; Kristin Farris Pope
Subject: Re: Suspension of BTEX at certain sites

The constituents of concern are chlorides and TDS.

Gilbert J. Van Deventer, PG, REM, NMCS
Trident Environmental
Work/Mobile: 432-638-8740
Fax: 413-403-9968
Home: 432-682-0727

> ----- Original Message -----
> **From:** Price, Wayne, EMNRD
> **To:** gil@rthicksconsult.com
> **Cc:** Carolyn Haynes ; Kristin Farris Pope
> **Sent:** Friday, May 19, 2006 1:22 PM
> **Subject:** RE: Suspension of BTEX at certain sites
>
> What are the constituents of concern?

> **From:** Gil Van Deventer [mailto:gil@rthicksconsult.com]
> **Sent:** Friday, April 21, 2006 9:16 AM
> **To:** Price, Wayne, EMNRD
> **Cc:** Carolyn Haynes; Kristin Farris Pope
> **Subject:** Suspension of BTEX at certain sites
>
> Wayne, I just wanted to clarify an issue on some of these Stage 1 and 2 Abatement Plans where we

propose suspension of sampling and analyzing for BTEX.

In the NMOCD-approved Stage 1 and 2 Abatement Plan for the EME M-9 SWD site we proposed that *"Analysis for BTEX concentrations will be suspended, as each component of BTEX has been below the laboratory method detection limit of 0.001 mg/L since August 22, 2003 (10 consecutive quarters)."*

The same goes for the EME P-6 Release site and its two montoring wells. In the approved Stage 1-2 plan we state: *"Analysis for BTEX concentrations should be suspended, as there has been no indication of dissolved hydrocarbons since the groundwater monitoring program began in January 2002 (13 consecutive quarters)."* My understanding that the local Hobbs Office is also reviewing this abatement plan.

The same situation *would* apply to the BD J-26 Junction Box site but we are still within the 30-day public comment period and plan approval by OCD will take a little time after that. In the Stage 1-2 abatement plan for J-26 we state that we will do the following:

- *Collect depth to water measurements and ground water samples for chloride and TDS analysis from the on site monitoring wells (MW-1, MW-2, MW-3) and area water wells (WW-1, WW-5, WW-8, WW-12, WW-19, WM #138, WM #220, and Wallach #914) on a quarterly frequency.*

With the J-26 site we don't specifically state that we will *"suspend BTEX analysis"* but that is the intention. Each component of BTEX has been below the laboratory method detection limit of 0.001 mg/L at this site since it began in 2002 (15 quarters).

Please confirm if you are in agreement with the suspension of BTEX sampling on any of these sites as we are about to initiate the second quarter sampling.

Thanks,
Gil

Gilbert J. Van Deventer

R. T. Hicks Consultants, Ltd.

1909 Brunson Ave, Midland TX 79701-6924

432-638-8740 (Office/Mobile) - 413-403-9968 (Fax) - 432-682-0727 (Home)