AP- 83

ANNUAL MONITORING REPORT

YEAR(S): 2007

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2008 APR 7 PM 3 32

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March 31st, 2008

Mr. Edward Hansen

L. Peter Galusky, Jr. Ph.D., P.G.

New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Drive Santa Fe, New Mexico 87504

RE: Annual Report

Rice Operating Company –EME SWD System C-16(1) Leak – OCD Case No. 1R0476 UL-C, Sec 16 T20S R37E AP-83

Sent via E-mail and U.S. Certified Mail: No. 7006 0100 0001 2438 3883

Dear Mr. Hansen:

This letter summarizes the results of investigative work completed by Texerra and Rice Operating Company (ROC) over the course of the past year in accordance with the Investigation and Characterization Plan and the subsequent Corrective Action Plan, both of which were approved by NMOCD.

ROC discovered an accidental discharge of an estimated 35 bbls of produced water at the referenced location (Figure 1) on October 12th, 2005. The surface area affected by this release was approximately 3,700 sq ft (less than 1/10th of an acre). Soil sampling undertaken by ROC on October 25th, 2005 encompassed the area of the release. Approximately 120 cu yds of chloride-contaminated soil material from the upper 6 inches of the affected area was subsequently removed and taken to the Sundance Disposal facility in Eunice, NM in February, 2006. The site was re-graded to original contours using clean soil material as backfill.

Near source and down gradient monitor wells were drilled in December, 2006 and October, 2007 (Figure 2). Soil cuttings indicated moderately elevated (640 ppm) chloride levels at the water table surface. Groundwater chloride concentrations in the near-source monitor well (MW-1) have persisted above 8,000 ppm since December, 2006 and have measured above 7,000 ppm in down gradient (MW-2) and up gradient (MW-3) monitor wells (Figure 3).

ROC submitted a Stage I Abatement Plan to NMOCD for this site on May 25th, 2007 (Figure 4) in response to NMOCD's request of March 26th (Figure 5). The key component of the proposed Plan is to evaluate the efficacy of reducing groundwater chloride mass through the limited extraction of water from the near-source monitor well, as is presently being done at Rice's Vacuum N-6-1 project (NMOCD Case No. 1R0470)

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near Buckeye, New Mexico (Figure 7). In the meantime ROC continues to monitor groundwater chloride and BTEX levels at the EME C16(1) site on a quarterly basis.

We look forward to NMOCD's review of the previously submitted Stage I Abatement Plan so that we may move forward with this measure.

Please contact either myself or Kristin Pope of ROC if you have any questions or would like to discuss any aspect of this project.

Thank you.

Sincerely,

L. Peter Galusky, Jr. Ph.D. Principal

Encl: Site maps, soil and groundwater data, OCD correspondence

Copy: Kristin Pope, Rice Operating Company

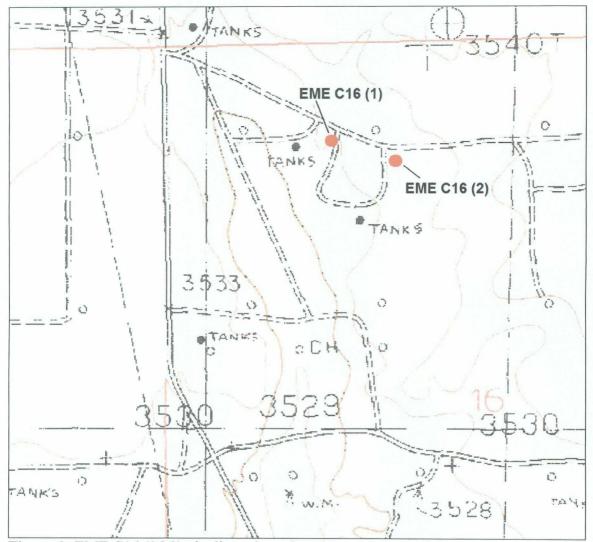


Figure 1- EME C16 (1&2) pipeline release locations. Not to scale.

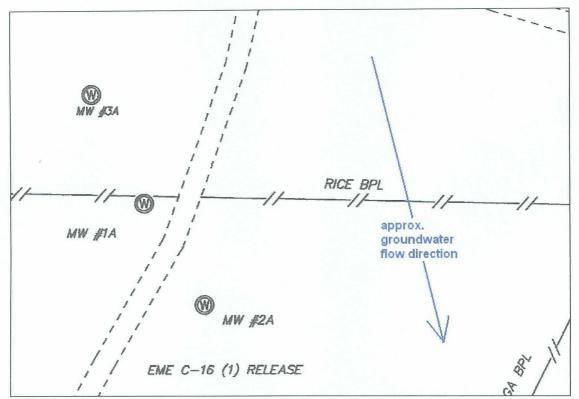


Figure 2 – EME C16(1) pipeline release monitor well locations. Not to scale.

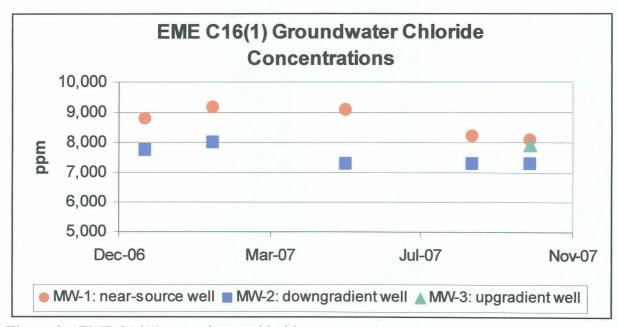


Figure 3 – EME C16(1) groundwater chloride concentrations.

Figure 4 – Record of submittal of Stage I Abatement Plan to OCD.

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                            Fri. 25 May 2007 14:13:20 -0700 (PDT)
    Date:
                            "L. Peter Galusky, Jr. P.E." 
    From:
    Subject: Rice Operating Company - Submittal of Stage I Abatement Plans
    To:
                             "Edward J. Hansen" <edwardj.hansen@state.nm.us>
    CC:
                            "Kristin Pope" <kpope@riceswd.com>, "Carolyn Haynes" <chaynes@riceswd.com>
  Dear Edward.
  Please find attached, in .pdf format, Stage I Abatement Plans for two Rice Operating Company projects: EME
  C16(1) and EME C16(2).
  I will forward hard copies of these in the mail next week.
  Thank you for your consideration.
 Sincerely,
  Pete G.
   L. Peter Galusky, Jr. Ph.D.
  Principal
   Texerra
  Energy Square
  505 N. Big Spring, Suite 404
Midland, Texas 79701
  E-mail: lpg@texerra.com
   Web: www.texerra.com
  Office Telephone/Fax: 877-534-9001
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    Anachments
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           EME_C_16_2__Stage_I_Abatement_Plan_submittal_letter_05_25__.pdf (44k)
           EME_C16_2_Stage_1_Abatement_Plan.pdf (1.6M8)
http://b4.mail.yahoo.com/ym/texerra.com/ShowLetter?box=Sent&Msgld=7600_0_304929..._3/13/2008
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Figure 5 – Record of OCD request for Stage I Abatement Plan.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL, RUJHARDSON Greens Joseph Prokop Colent Jamesy Marta E. Fesniste, P.E. Lineator Cil Consumulion Divition

CERTIFIED MAIL. RETURN RECEIPT NO: 3929 4432

Mauch 26, 2007

Kristin Farris Pape Kisa Opa ating Company 122 West Taylor Haldis, New Mexica 88340

RE: REQUIREMENT TO SUBMIT ABATEMENT PLAN

Dear Ms. Pope:

The New Mexico Oii Conservation Division (OCD) has determined after naviewing some Notification of Groundwater Impact for each of the following six substi-

- Rice EME Sarch Phillips EOL Unit E. Section 33, T198, B37E Lex Grany, New Mexico OCD Case #1R0427-17
- Ricc EME A.Z.
 Unit A. Section 2, T26S, RASE.
 Let County, New Mexico.
 OCD Case #1R0#27-62
- Base EMB Stat. A-2-1
 Unit A. Seption 2, T30S, R36E
 Lea County, New Mexico
 OCD Case #1R0427-177
- 4) Rice BD K-4 Unit E, Scotten A, T188, RISE Les County, New Maximo Callo Case # 4805-0

Cil Corsa value Division # 1920 Sano 3. France Otice * Saria Fe. New Mexico 87305 Phone (363) 476-8440 — Pro (363) 476-7467 * http://www.commission.com/

Kristin Pame Papa Nasch 26, 2007 Paga 1

- Rice FME C-16 (1)
 Unit C. Section 16, 1205, R37E
 Lea County, New Mexico
 OCD Case #1, P0176
- 6) Rice EMB C-16 (2) Unit C. Seetkin 16, T208, R37E Lea Chizary, New Mexico OCD Case #1R0477

that the Rice Operating Company (ROC) mast submit for each of the six sites a separate Stage I Abatement Plan in accordance with OCD Rule 19 (19.15.1.19 NMAC) to investigate the greatel water contourieshour trade of lose size. The Stage I Abatement Plans must be solomitted to the OCD Bonsa Pa Office with a copy provided to the OCD Hobbs District Office and mast meet of all the requirements specified in OCD Rule 19 (19.15, 1.19 NMAC), including, but not limited to the public better and participation requirements specified in Rule 19G. The Stage I Abatement Plan is the sixty (SU) days from the receipt by ROC of this written retrice.

ROC's Stage I Abatement Plans must specifically meet all of the requirements specified in OCD Rule 1913, including, but not limited at, a site investigation work plan and menitoring program that will enable it to characterize the release using an appropriate number of isoconcentration maps and cross sections that depict the contamination dust has been released from the sites and to provide the data accessory to select and design an effective algebraic propriate [ROC may, if it characters, communically subure a Stage 2 Abatement Plan that add essess appropriate proterive abatement options.

ROC should submit one paper copy and an electronic copy on CD for crelt of the Plans and for all future weakplans and/or reports for each of the Plans. Figure be source include the our ear corresponding OCD Case # on each of the responding Alexanderi Plans. An Abstenced Plan # will be assigned as each of the Plans are submitted to the OCD. If you have any questions, phase contact lidward I, blance of my stall at (505) 476-5439 or guide described as # (505) 476-5439 or # (505) 476-5439.

Sincerety.

Wayne Price

Environmental Bureau Chief

WP.EJH.ajh

co: Chris Williams, GCD Hobbs T/snict Supervised

Larry Johnson, CCD Hobbs

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Figure 6- Solar powered groundwater recovery system at Rice Vacuum SWD N-6-1 location.

¹ Recovered groundwater is used for Rice Operating Company SWD system maintenance.