

NM2 - 8

**CLOSURE
PLAN
&
APPROVAL
2011**



New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

Brett F. Woods, Ph.D.

Acting Cabinet Secretary

Daniel Sanchez

Acting Division Director

Oil Conservation Division



February 17, 2011

Ms. Kim Champlin
XTO Energy, Inc.
San Juan Division
382 Road 3100
Aztec, New Mexico 87410

RE: Facility Closure Plan Review

XTO Energy, Inc. - Centralized Surface Waste Management Facility

Centralized Evaporation Pond #1: Permit NM-2-008

Facility Location: Section 31, Township 32 North, Range 8 West, NMPM

San Juan County, New Mexico

Dear Ms. Champlin:

The Oil Conservation Division (OCD) has reviewed XTO Energy, Inc.'s (XTO) closure plan, dated February 15, 2011, for the centralized surface waste management facility, Centralized Evaporation Pond #1 Permit NM-2-008. Based on the information provided, the facility closure plan is **hereby approved** with the following understandings and conditions:

1. XTO shall comply with all applicable requirements of the Surface Waste Management Rule (19.15.36 NMAC), the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), and all conditions specified in this approval.
2. XTO shall ensure that the closure activities identified in the February 15, 2011 submittal are completed as proposed in the closure plan.
3. XTO shall ensure that any backfilling and contouring at the facility shall be completed in a manner to prevent erosion and ponding of water.
4. XTO shall remove all above and below grade equipment and materials from the permitted footprint of the facility. This shall include any items not associated with the permitted activities.

Oil Conservation Division

1220 South St. Francis Drive • Santa Fe, New Mexico 87505

Phone (505) 476-3440 • Fax (505) 476-3462 • www.emnrd.state.nm.us/OCD

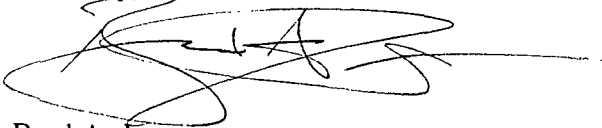


5. XTO shall excavate and removal any visual contamination within the permitted facility footprint. The contaminated soils shall be disposed at an OCD approved facility.
6. XTO shall submit a closure report at the completion of the closure activities that summarized the closure activities, including but not limited to, a final closure facility contour map; identification of material disposal facilities; sampling results; backfilling and contouring activities; re-vegetation seeding mixture and application rates; and photo documentation.

Please be advised that approval of this request does not relieve XTO of liability if its operations result in pollution of surface water, ground water, or the environment. Nor does approval relieve XTO of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a long horizontal line extending to the right.

Brad A. Jones
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec



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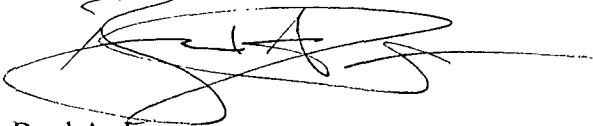


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Brad A. Jones
Environmental Engineer

BAJ/baj

cc: OCD District III Office, Aztec

Letter of Transmittal



RECEIVED OCD

Date: Tuesday, February 15, 2011

2011 FEB 17 P 12:40

To: Brad Jones
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

From: Kim Champlin
XTO Energy Inc.
San Juan Division
382 Road 3100
Aztec, NM 87410

Dear Brad,

Please find enclosed a final hard copy of XTO's closure pond for Pond #1. Please forward to us a signed copy of the approval. Thank you so much for your time and help in this effort.

SITE NAME:

**CENTRALIZED EVAPORATION POND #1
SECTION 31, TOWNSHIP 32N, RANGE 8W
SAN JUAN COUNTY, NEW MEXICO
OCD PERMIT NO. NM-02-0008**

SUBMITTED TO:

**MR. BRAD JONES
NEW MEXICO OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87505
(505) 476-3487**

SUBMITTED BY:

**XTO ENERGY, INC.
SAN JUAN DIVISION
382 ROAD 3100
AZTEC, NEW MEXICO 87410
(505) 333-3100**

FEBRUARY 15, 2011

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 iWATERS Data Sheet

INTRODUCTION

The Centralized Evaporation Pond #1 (Pond #1) was originally permitted by the New Mexico Oil Conservation Division (OCD) for Koch Exploration in July of 1998, OCD Permit No. NM-02-0008. The pond lease and permit was acquired by XTO Energy, Inc. (XTO) in 2009 from El Paso Exploration and Production Company, and approval to transfer the permit was issued in March of 2009. The evaporation pond was used to dispose of produced water from the Gardner C #2, Gardner C #3, Gardner C #4 and Gardner C #6 well sites by previous operators. These wells are now owned and operated by XTO, however Pond #1 has not been used for disposal by XTO. XTO notified OCD in April 2009 of plans for evaporating the fluid in the pond in order to clean and inspect the liner as part of our routine operations and maintenance program. During inspection and maintenance, obsolete, damaged and non-operational equipment was removed from the location. Based on completion of this process XTO has decided to close Pond #1.

Any reference in this plan to equipment or systems under the liner is based on the original submitted design plan. All above and below grade equipment associated with permitted activities onsite will be removed from the footprint of the facility and details of the removal will be included in the final closure report.

SCOPE OF CLOSURE ACTIVITIES

The purpose of this closure plan is to provide details of the closure activities proposed by XTO for Pond #1 located in Section 31, Township 32N, Range 8W. These activities include the area beneath the evaporation pond liner, pond sidewalls, liquids receiving and treatment area, leak detection sump area, and area outside the berm. Both the pond area and the leak detection sump area will be sampled in the same manner and analyzed for the same constituents.

- 1) XTO notified the division's environmental bureau on April 28, 2009 of the cessation of operations at Pond #1 as part of our plans for evaporating the fluid in the pond in order to clean and inspect the liner. This closure plan and proposed schedule is being submitted to the division for adequacy in accordance with Paragraph 1 of Subsection A of NMAC 19.15.36.18.
- 2) XTO is requesting an exception to Paragraph 2 of Subsection A of NMAC 19.15.36.18, the division's 60 days for notification of modifications of the closure plan and proposed schedule. XTO has already notified the division of cessation (Paragraph 1) and will be closing a second evaporation pond (Pond #2) per OCD approval (December 13, 2010). Closing both ponds at approximately the same time would be more efficient in scheduling personnel and contractors and provide a cost savings.
- 3) However, if the division does not notify XTO of additional closure requirements within 60 days as provided, the operator may proceed with closure in accordance with the approved closure plan; provided that the director, for good cause, extend the time for the

division's response for an additional period not to exceed 60 days by written notice to XTO in accordance with Paragraph 3 of Subsection A of NMAC 19.15.36.18.

- 4) XTO shall be entitled to a hearing concerning a modification or additional requirement the division seeks to impose if it files an application for a hearing within 10 days after receipt of written notice of the proposed modifications or additional requirements in accordance with Paragraph 4 of Subsection A of NMAC 19.15.36.18.
- 5) Closure shall proceed in accordance with the approved closure plan and schedule and modifications or additional requirements the division imposes. During closure operations XTO shall maintain the surface waste management facility to protect fresh water, public health, safety and the environment in accordance with Paragraph 5 of Subsection A of NMAC 19.15.36.18.
- 6) Upon completion of closure, XTO shall re-vegetate the site in accordance with the included Reclamation Plan. The surface owner of this site is the Bureau of Land Management (BLM) and the included Reclamation Plan conforms to BLM requirements and is in accordance with Paragraph 6 of Subsection A of NMAC 19.15.36.18.
- 7) All water and sediment in the pond has been removed and disposed of at an OCD permitted disposal facility in order to inspect the liner as per our agreement with OCD dated April 2009 and in accordance with Paragraph 1 Subsection E of NMAC 19.15.36.18.
- 8) All liners will be inspected for re-use in other Oil and Gas operations (with OCD approval). Portions of the liner that are deemed unusable and bedding (felt) material will be properly cleaned and disposed of per 19.15.35.8 NMAC at the Bondad Landfill, located in La Plata County, Colorado (due to location) or the San Juan County Landfill, located in San Juan County, New Mexico. Concrete used to make up the leak detection system sump will be broken up and screened for Naturally Occurring Radioactive Material before being hauled to the Bondad Landfill for disposal.
- 9) The soil beneath the evaporation pond liner, pond sidewalls, liquids receiving and treatment area, leak detection sump area, and area outside the berm will be sampled, by a third party contractor, in accordance with the procedures specified in Chapter Nine of EPA publication SW-846, "Test Methods for Evaluating Solid Waste", for BTEX via USEPA Method 8021B, total petroleum hydrocarbons (TPH) via USEPA Method 418.1, total chlorides, metals and other inorganics listed in Subsections A and B of 20.6.2.3103 NMAC, in accordance with a gridded plat outlined in Figure 3.

Background samples will be compared to all other location samples to determine if a release has occurred. If a release is determined, then pursuant to 19.15.36.18F NMAC "If there has been a release to the vadose zone or to groundwater" XTO will comply with the applicable requirements of 19.15.29 NMAC and 19.15.30 NMAC.

Individual grab samples will be obtained from any areas (beneath the evaporation pond liner, pond sidewalls, liquids receiving and treatment area, leak detection sump area, and area outside the berm) with visually obvious staining or moist soil. If the liner is obviously damaged, or there is any indication of a release, a subsurface investigation will be conducted.

- 10) Samples will be collected in accordance with the USEPA SW-846 protocols. Four (4) soil samples will be collected from beneath the liner including the bottom and sidewalls of the pond area. One composite sample will be collected from quadrant in a grid pattern. Each sample beneath the liner (sampling grids A, B, C and D,) will be a 10 point composite as shown in Figure 3. Each grid will measure approximately 160' x 160'. The evaporation pond is approximately 320' x 320'. A 5 point composite sample will be collected beneath the leak detection sump area, (sampling grid E) as shown on Figure 3. A 5 point composite sample will be collected beneath the liquids receiving and treatment area (sampling grid F) as shown on Figure 3. Four (4) additional 5 point composite samples will be collected from the bermed area outside the pond (sampling grids G, H, I and J) as show in Figure 3. All composite samples will be collected by obtaining equal amounts of material from each sampling point, and homogenizing them to obtain a uniform representation of all sampling points. One background sample of virgin, undisturbed soil will be collected and analyzed for comparative purposes. The sample results will be submitted to the OCD Santa Fe office in accordance with Paragraphs 4-5 of Subsection E of NMAC 19.15.36.18.
- 11) Once laboratory analysis indicates closure standards have been achieved for the site, the evaporation pond will be backfilled using non-waste containing, non-contaminated soil, and re-contoured and re-vegetated pursuant to the attached **Grading Plan** and **Reclamation Plan**. These plans conform to NMAC 19.15.36.18 and BLM requirements.
- 12) The post-closure care period for the evaporation pond closure shall be three years if XTO has achieved clean closure. During that period XTO or another responsible entity shall regularly inspect and maintain the required re-vegetation. If there has been a release to the vadose zone or to groundwater, then XTO shall comply with applicable requirements of 19.15.29 and 19.15.30 NMAC in accordance with Subsection F on NMAC 19.15.36.18.
- 13) Once all closure activities have been completed, a report detailing on-site activities and sampling results will be prepared and submitted to OCD environmental bureau in Santa Fe.

XTO proposes to begin closure activities immediately upon approval of this closure plan and attached documentation.

Supplemental to "Notes" Section of included Grading Plan

Note #4 reads "It is understood that the re-graded areas will be vegetated per BLM requirements."

Note #4 revised to read "It is understood that the re-graded areas will be vegetated per BLM and OCD requirements."

Note #5 reads "To minimize the potential for future noticeable settlement of the re-graded areas, it is recommended that the fill be placed in lifts no exceeding 1-foot in thickness and each lift be compacted to a minimum of 85% based on ASTM D698 standard proctor."

Note #5 revised to read "To minimize the potential for future noticeable settlement of the re-graded areas, it is recommended that the fill be placed in lifts not exceeding 6"-8" in thickness and each lift be compacted to a minimum of 85% based on ASTM D698 standard proctor."



0 200 400
Feet



FIGURE 2
SITE MAP
CORONADO POND #1
NENW SEC 31 T32N R8W
SAN JUAN COUNTY, NEW MEXICO
XTO ENERGY, INC.





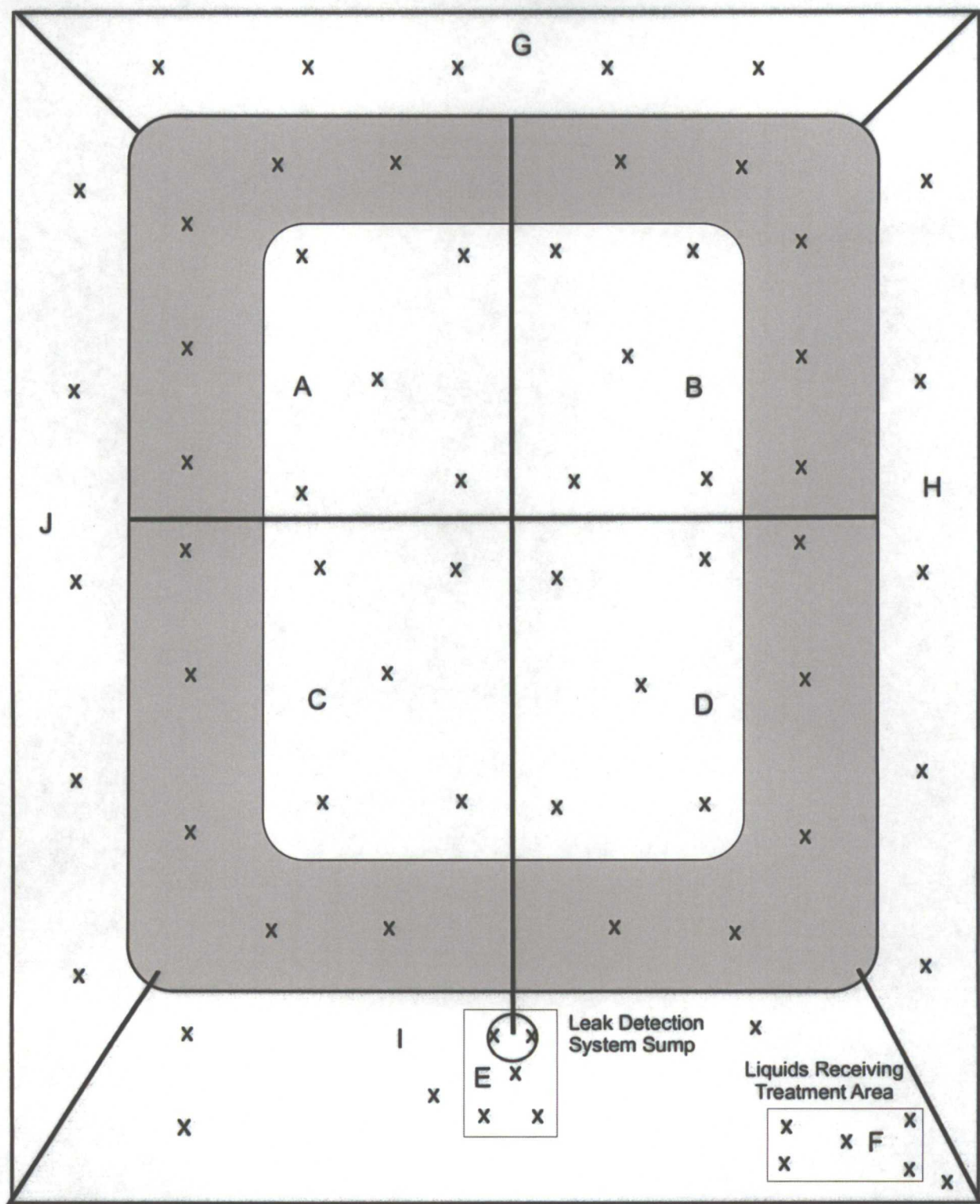
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www.delorme.com



Data Zoom 13-7



LEGEND
 X ALIQUOT SAMPLE LOCATION
 A-J COMPOSITE SAMPLE LOCATION

NOT TO SCALE

FIGURE 3
 SOIL SAMPLING LOCATIONS (SCHEMATIC)
 CORONADO PONDS
 XTO ENERGY, INC.

LEGEND

- EXISTING 1' CONTOURS
- EXISTING 5' CONTOURS
- PROPOSED 1' CONTOURS
- PROPOSED 5' CONTOURS
- EXISTING FENCE

NOTES:

1. THIS GRADING PLAN HAS BEEN DEVELOPED SUCH THAT NO STORMWATER WILL BE RETAINED IN THE NEWLY GRADED AREAS THE MINIMUM DRAINAGE GRADIENT IS APPROXIMATELY 3%.
2. ALL POND APPURTENANCES (FENCE, LINER, PIPING TANKS, RETAINING WALLS, ETC.) SHALL BE REMOVED FROM THE SITE PRIOR TO THE START OF EARTHWORK ACTIVITIES.
3. THE SITE SHALL BE RE-GRADED AS DEPICTED BY THE NEW CONTOURS IN SUCH A WAY AS TO BLEND NATURALLY INTO THE SURROUNDING TERRAIN.
4. IT IS UNDERSTOOD THAT THE RE-GRADED AREAS WILL BE VEGETATED PER BLM REQUIREMENTS.
5. TO MINIMIZE THE POTENTIAL FOR FUTURE NOTICEABLE SETTLEMENT OF THE RE-GRADED AREAS, IT IS RECOMMENDED THAT THE FILL BE PLACED IN LIFTS NOT EXCEEDING 1-FOOT IN THICKNESS AND EACH LIFT BE COMPACTED TO A MINIMUM OF 85% BASED ON AN ASTM D698 STANDARD PROCTOR.
6. EVALUATING THE EXISTING SOIL CONDITIONS WAS OUTSIDE THE SCOPE OF OUR SERVICES, HOWEVER, IT IS LOGICAL TO ASSUME THAT THE DEGREE OF COMPACTION OF THE SOILS IN THE EXISTING POND EMBANKMENTS IS AT LEAST 95% BASED ON AN ASTM D698 STANDARD PROCTOR.
7. DEVELOPING A HYDROLOGIC MODEL WAS OUTSIDE THE SCOPE OF OUR SERVICES. AS SUCH, WE ARE NOT AWARE OF THE QUANTITY OF RUNOFF THAT THE RE-GRADED AREA WILL GENERATE.
8. THE EXISTING TOPOGRAPHIC INFORMATION IS FROM A SURVEY PERFORMED ON 8/6/10 BY JOHNSON MAPPING AND SURVEYING, LLC.
9. DATUM IS NM STATE PLANE WEST ZONE, NAD83, US SURVEY FEET ELEVATIONS ARE GEOID09 PREDICTION OF NAVD88, US SURVEY FEET.

LOCAL BENCHMARK
#5 REBAR W/
PLASTIC CAP
NMLS14827
NORTHING=2164285.75
EASTING=2757216.27
ELEVATION=6655.27

0' 60' 120'
SCALE: 1" = 60'

CERTIFICATION STATEMENT

I, George A. Madrid, P.E., hereby certify that this drawing was reviewed by me and that the information shown is complete and accurate to the best of my knowledge.



GEOMAT
915 Main Avenue • Farmington, NM 87401 • (505) 327-7929

XTOENERGY
a subsidiary of ExxonMobil

POND 1 CLOSURE PLAN

GRADING PLAN

SHEET: 1 OF 1

SCALE: As Shown DRAWN BY: PR & BT DATE: AUGUST 26, 2010

RECLAMATION PLAN

The purpose of this reclamation plan is to provide a step-by-step list of the reclamation activities proposed by XTO Energy, Inc. for the Centralized Evaporation Pond #1 (Pond #1) located in Section 31, Township 32N, Range 8W, New Mexico Oil Conservation Division (OCD) Permit No. NM02-0008:

- 1) Once closure activities for Pond #1 have been completed pursuant to NMAC 19.15.36.18, the pond location will be backfilled using on-site material used to build the pond's structure upon its completion. During the pond's construction, native material was excavated to create the pond, and the native material was used to build the external structure of the evaporation pond. XTO proposes to use the existing, native soil to backfill the pond location, after closure sampling results demonstrate no contamination of the soil. XTO will supplement with Bureau of Land Management (BLM) approved outside sources of material, should enough native material not be available on site. All supplemental soil will be added to the top portion of the backfilled location, and will match the native soil type.
- 2) The site will be graded according to the attached *Grading Plan* prepared by Geomat, Inc. (Geomat). The grading plan was completed using survey points in and around the location of Pond #1 in order to match the natural grade of the surrounding area. This will be done in such a way as to minimize sheet and rill erosion as well as to prevent surface ponding in the reclamation area.
- 3) The site will be seeded using the prescribed certified seed mixture of the Farmington Field Office (FFO) of the BLM for the area in which the pond is located. Seeding will be re-completed after the second growing season if satisfactory cover is not achieved. XTO will provide signs and surface roughening in order to protect seed and seedling establishment.
- 4) XTO will inspect the site and maintain required re-vegetation in accordance with Subsection F on NMAC 19.15.36.18. In addition, excessive weeds will be removed as necessary, and progress photos will be collected. An annual report will be submitted to the BLM documenting the progress of the reclamation area for the first three (3) years, or until acceptable coverage has been obtained, whichever comes later. Acceptable coverage is considered 70 percent of the native coverage.

30-045-28011

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Operator Koch Exploration Company Location: Unit K Sec. 25 Twp. 32N Rng. 9W
Name of Well/Wells or Pipeline Serviced Gardner 4C

Elevation 6710 Completion Date 11-20-96 Total Depth 385' Land Type* F
Casing, Sizes, Types & Depths 10" sch 40 pvc @ 20'

If Casing is cemented, show amounts & types used 8 bags Portland

If Cement or Bentonite Plugs have been placed, show depths & amounts used
NA

Depths & thickness of water zones with description of water when possible:
Fresh, (Clear), Salty, Sulphur, Etc. 200' @ 1/2 gpm

Depths gas encountered: None

Type & amount of coke breeze used: 7500 lbs Loresco SC-2

Depths anodes placed: 370, 350, 320, 300, 270, 250, 220, 200

Depths vent pipes placed: 385' to Surface

Vent pipe perforations: 385' to 185' (1" sch 40 pvc)

Remarks: _____

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

RECEIVED
NOV 27 1996
OIL CON. DIST. 3



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 02726	SAN		SJ	2	4	1	35	32N	08W		264385	4091811*	300	300	0
SJ 02816	DOM		SJ	1	4	1	34	32N	08W		262609	4091861*	100		
SJ 02992	DOM		SJ	1	2	3	27	32N	08W		262631	4093068*	330	230	100
SJ 03250	DOM		SJ	4	3	4	27	32N	08W		263222	4092454*	400	375	25
SJ 03259	DOM		RA	3	2	1	34	32N	08W		262619	4092063*	550	500	50
SJ 03379	DOM		SJ	1	3	1	35	32N	08W		263899	4091901	710	510	200
SJ 03823 POD1	DOL		SJ	3	2	3	27	32N	08W		262567	4092875	380	250	130
SJ 03897 POD1	STK		SJ	4	4	2	34	32N	08W		263618	4091724	780	450	330

Average Depth to Water: 373 feet

Minimum Depth: 230 feet

Maximum Depth: 510 feet

Record Count: 8

PLSS Search:

Township: 32N

Range: 08W

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/19/10, 1:12 PM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER