

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Arice, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3466 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised November 14, 2012

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address COG Operating LLC 2208 West Main Street Artesia, NM 88210		² OGRID Number 229137 ³ API Number 30-015-42356
⁴ Property Code 40518	⁵ Property Name Cottonwood 2 State SWD	⁶ Well No 1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
O	2	26S	26E		400'	South	1400'	East	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
SWD: Devonian	96101

Additional Well Information

¹¹ Work Type New Well	¹² Well Type SWD	¹³ Cable/Rotary	¹⁴ Lease Type State	¹⁵ Ground Level Elevation 3298.8'
¹⁶ Multiple N	¹⁷ Proposed Depth 14600'	¹⁸ Formation Devonian	¹⁹ Contractor	²⁰ Spud Date 6/1/2014
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	26	20	94	300'	650	Surface
Intermd	17.5	13.375	54.5	1950'	2000	Surface
Production	12.25	9.625	40	8700'	2000	1500
Liner	8.75	7	29	13100'	800	8400
Disposal	6.125	OH		14600'		

Casing/Cement Program: Additional Comments

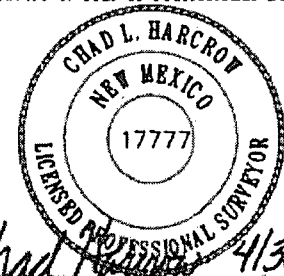
Plan to drill a 26" hole to 300' with Fresh Water. Run 20", 94#, H-40 csg and cmt to surface. Drill 17-1/2" hole to 1950' with Brine, and run 13-3/8", 54.5#, J-55 and cement to surface. Drill 12-1/4" hole to approximately 8700' with cut brine, and run 9-5/8", 40#, J-55/ P-110 csg and cement to 1500'. Drill 8-3/4" hole to approximately 13100' with cut brine, run & hang a 7", 29#, N80 liner and cement back to liner hanger. Drill 6-1/8" hole to approximately 14600' with cut brine, and leave it open hole for salt water disposal purposes.

22. Proposed Blowout Prevention Program

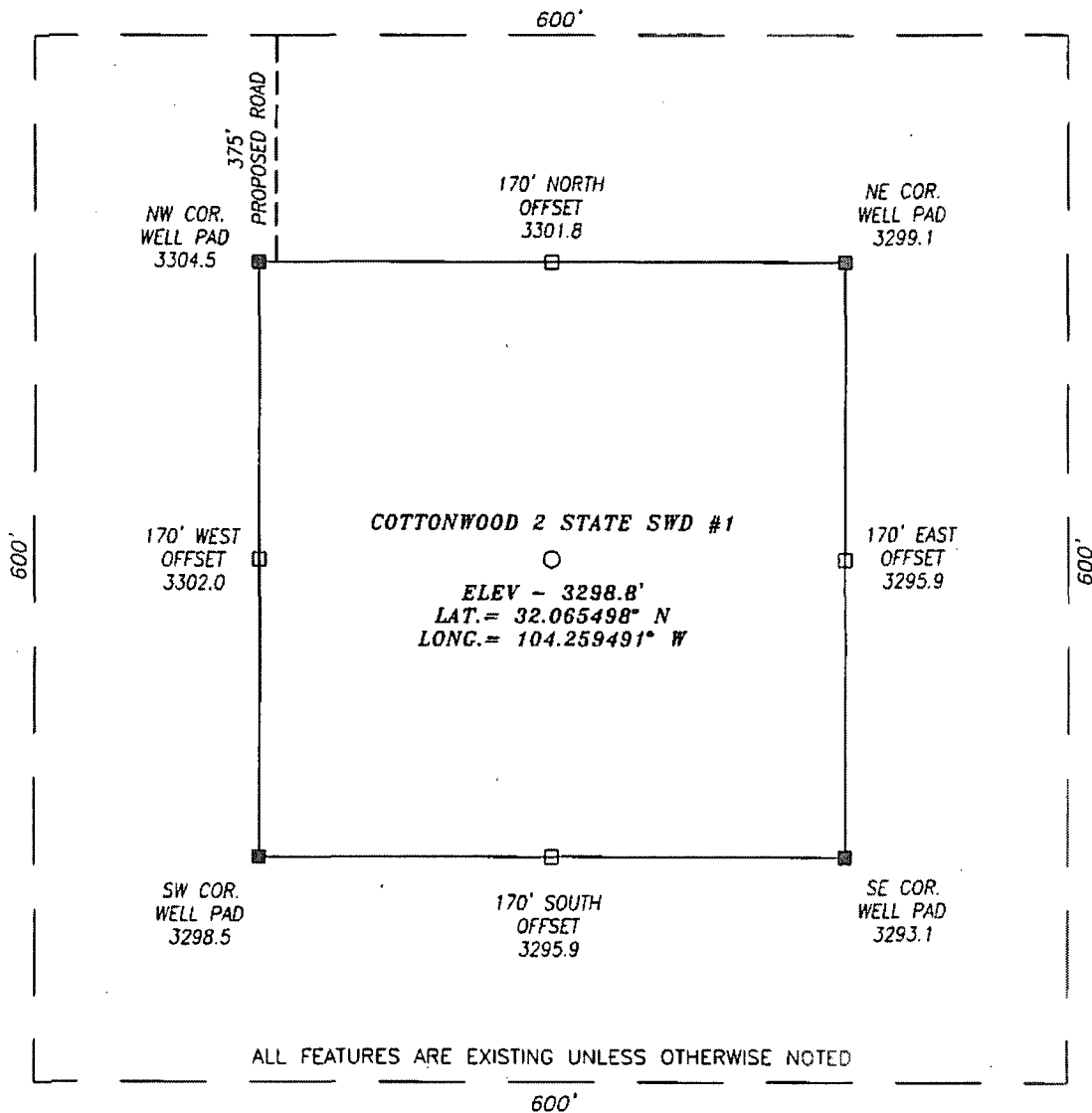
Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature: <i>Mayte Reyes</i>		OIL CONSERVATION DIVISION	
Printed name: Mayte Reyes		Approved By: <i>AR Dade</i>	
Title: Regulatory Analyst		Title: <i>Dist R Supervisor</i>	
E-mail Address: mreyes1@concho.com		Approved Date: <i>May 1 - 2014</i> Expiration Date: <i>May 1 2016</i>	
Date: 5/1/2014		SWD-1473	
Phone: 575-748-6945		Conditions of Approval Attached	

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

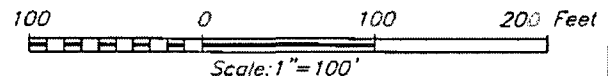
<div style="border: 1px dashed black; height: 400px; margin-bottom: 20px;"></div> <div style="text-align: center;"> <p>NAD 27</p> <p><u>SURFACE LOCATION</u></p> <p>Y=387560.8 N</p> <p>X=522874.4 E</p> <p>LAT.=32.065498° N</p> <p>LONG.=104.259491° W</p> </div> <div style="text-align: right; margin-top: 20px;"> <p>S.L.O. ————— 1400' —————→</p> <p>400' ↓</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">OPERATOR CERTIFICATION</p> <p style="font-size: small; margin: 0;">I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by this division.</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 80%;"> <p style="font-size: large; font-family: cursive;">Melanie J Parker</p> <p style="font-size: small;">Signature</p> </div> <div style="width: 15%;"> <p style="font-size: large;">5/1</p> <p style="font-size: small;">Date</p> </div> </div> <div style="margin-top: 10px;"> <p style="font-size: large;">Melanie J Parker</p> <p style="font-size: small;">Printed Name</p> <p style="font-size: large;">mparker@concho.com</p> <p style="font-size: small;">E-mail Address</p> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center; margin: 0;">SURVEYOR CERTIFICATION</p> <p style="font-size: small; margin: 0;">I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <div style="text-align: center; margin-top: 10px;"> <p style="font-size: large;">APRIL 28, 2014</p> <p style="font-size: small;">Date of Survey</p> </div> <div style="margin-top: 10px;"> <p style="font-size: small;">Signature & Seal of Professional Surveyor</p> <div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 60%;"> <p style="font-size: large; font-family: cursive;">Chad L. Harcrow</p> <p style="font-size: small;">Certificate No. CHAD HARCROW</p> <p style="font-size: small;">W.O. # 14-308</p> </div> <div style="width: 35%; text-align: right;"> <p style="font-size: large;">4/30/14</p> <p style="font-size: small;">DRAWN BY: AH</p> </div> </div> </div> </div>
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SECTION 2, TOWNSHIP 26 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CR #724 (WHITES CITY RD.) AND CR #742 (JOHN D FOREHAND RD.) GO APPROX. 0.5 MILE WEST ALONG CR #724 (WHITES CITY RD.); THEN PROPOSED WELL IS APPROX. 570 FEET SOUTHEAST.



HARCROW SURVEYING, LLC
2314 W. MAIN ST, ARTESIA, N.M. 88210
PH: (575) 513-2570 FAX: (575) 746-2158
chad_harcrow77@yahoo.com



COG OPERATING, LLC

COTTONWOOD 2 STATE SWD #1 WELL
LOCATED 400 FEET FROM THE SOUTH LINE
AND 1400 FEET FROM THE EAST LINE OF SECTION 2,
TOWNSHIP 26 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

SURVEY DATE: 4/28/2014

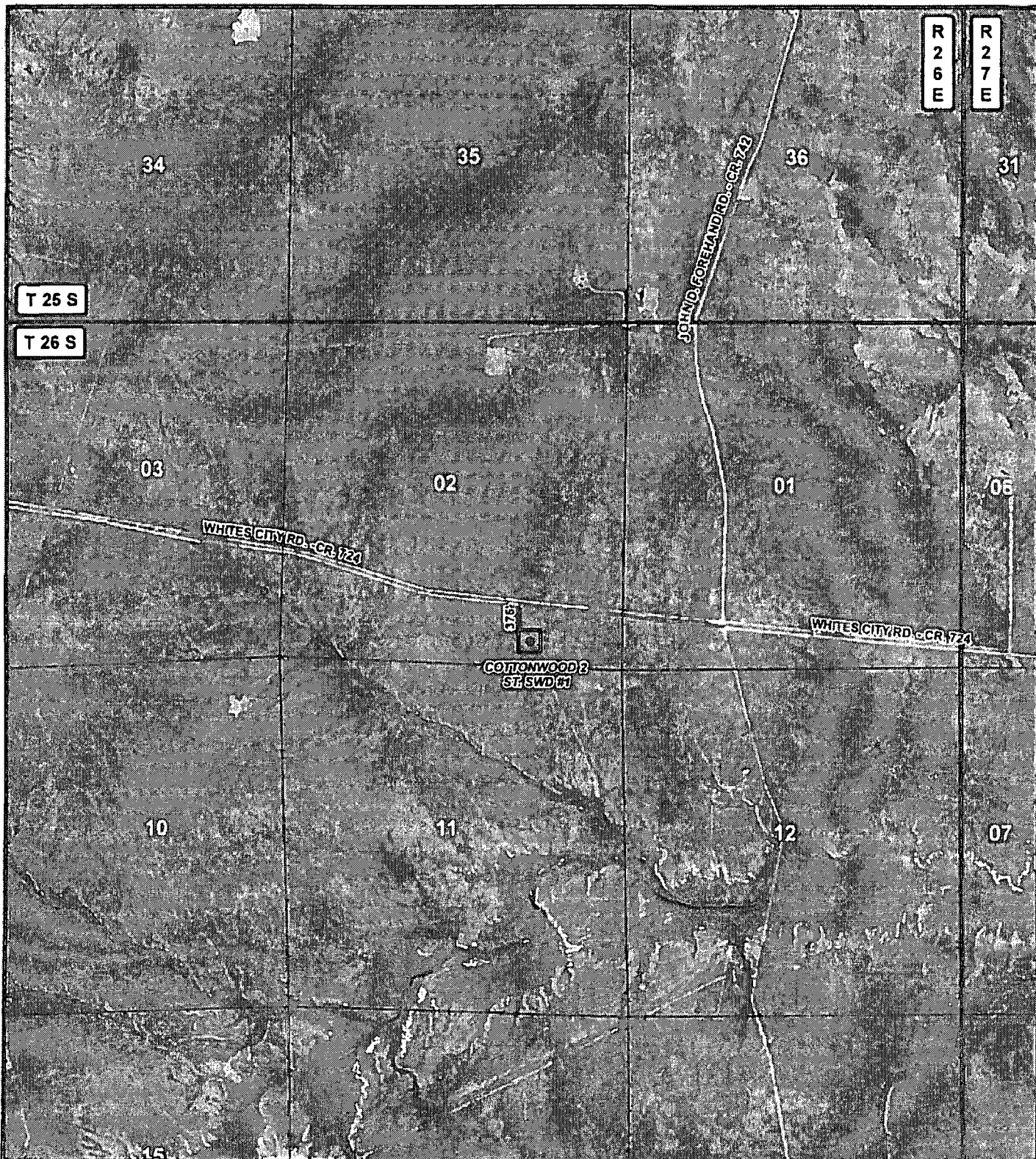
PAGE: 1 OF 1

DRAFTING DATE: 4/29/2014

APPROVED BY: CH

DRAWN BY: AM

FILE: 14-308

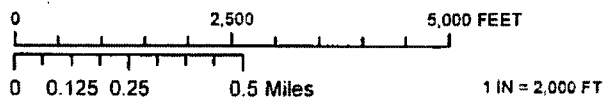


LEGEND

- WELL
- WELLPAD
- EXISTING ROAD
- PROPOSED ROAD

COTTONWOOD 2 ST. SWD #1

SEC: 2 TWP: 26 S. RGE: 26 E. ELEVATION: 3298.8'
 STATE: NEW MEXICO COUNTY: EDDY 400' FSL & 1400' FEL
 W.O. # 14-308 LEASE: COTTONWOOD 2 ST. SURVEY: N.M.P.M.



LOCATION MAP

IMAGERY

01/29/2014

SR

CONCHO
 COG OPERATING, LLC

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SURVEYING

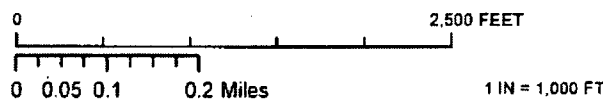


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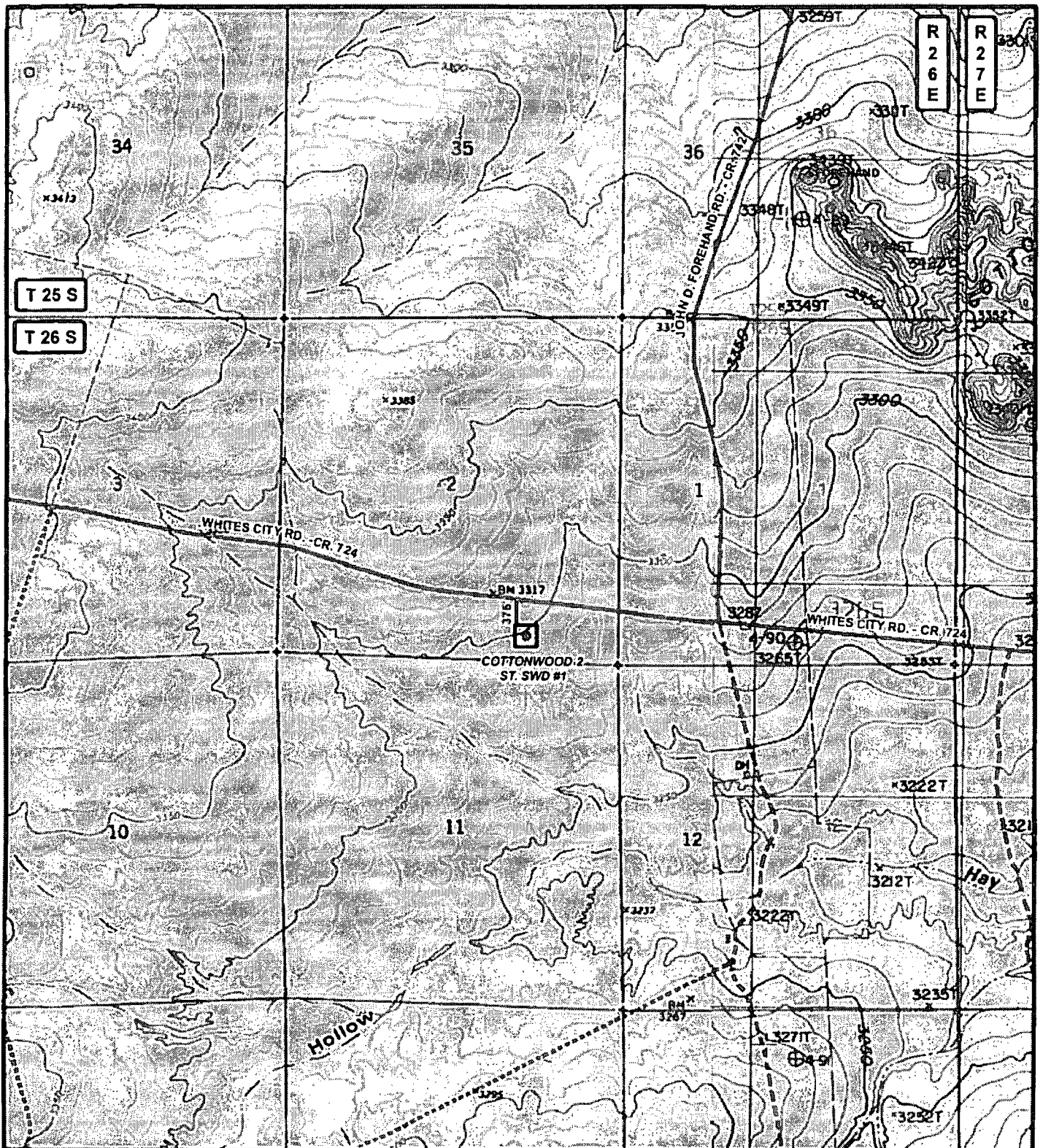
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ROAD MAP IMAGERY 01/29/2014 SE

CONCHO
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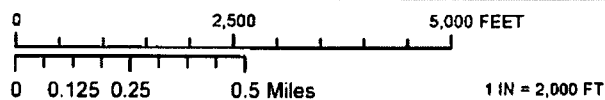


LEGEND

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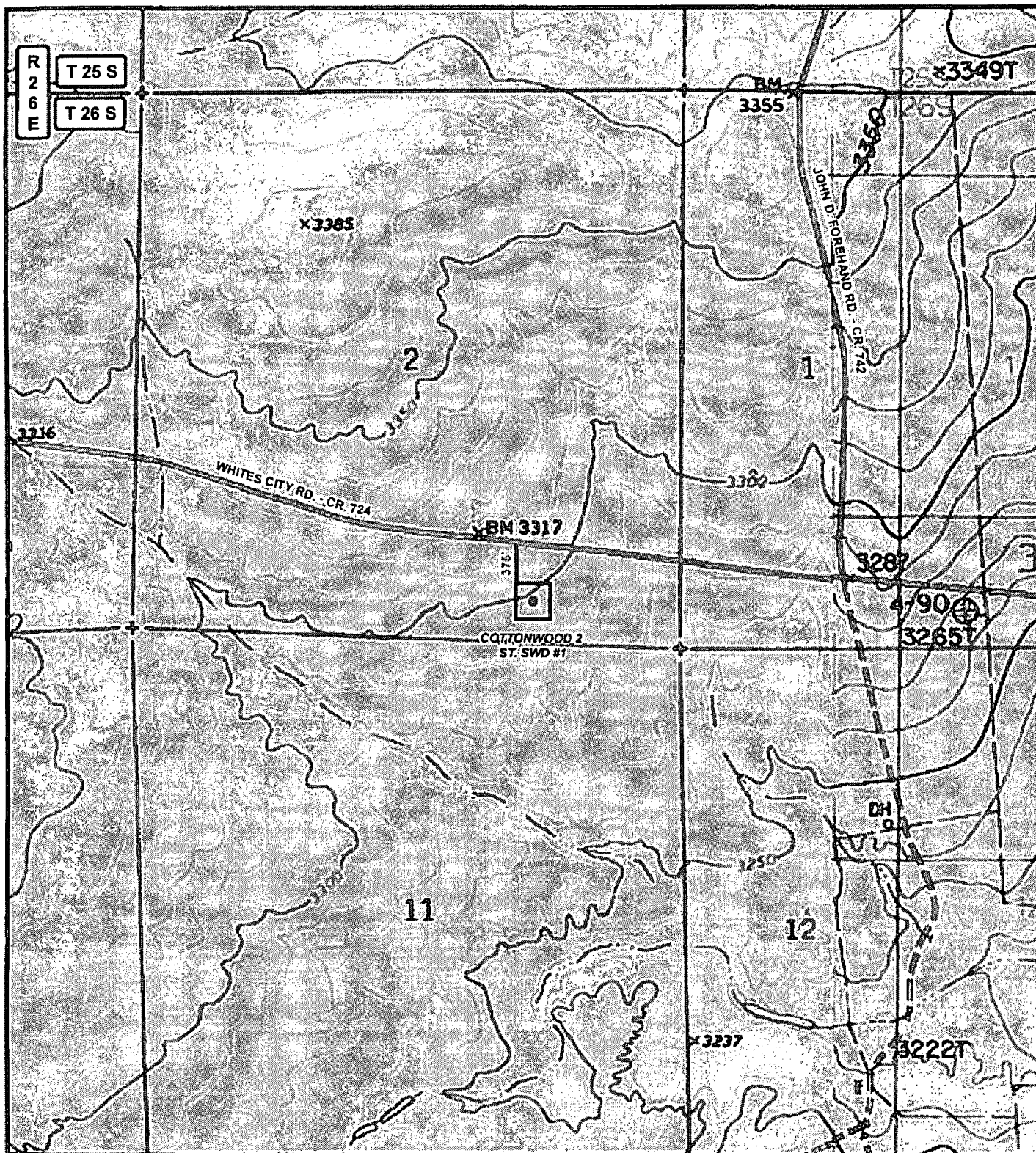
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LOCATION MAP TOPO 07/27/2011 SLP

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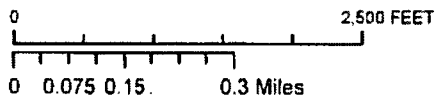


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1 IN = 1,250 FT

ROAD MAP

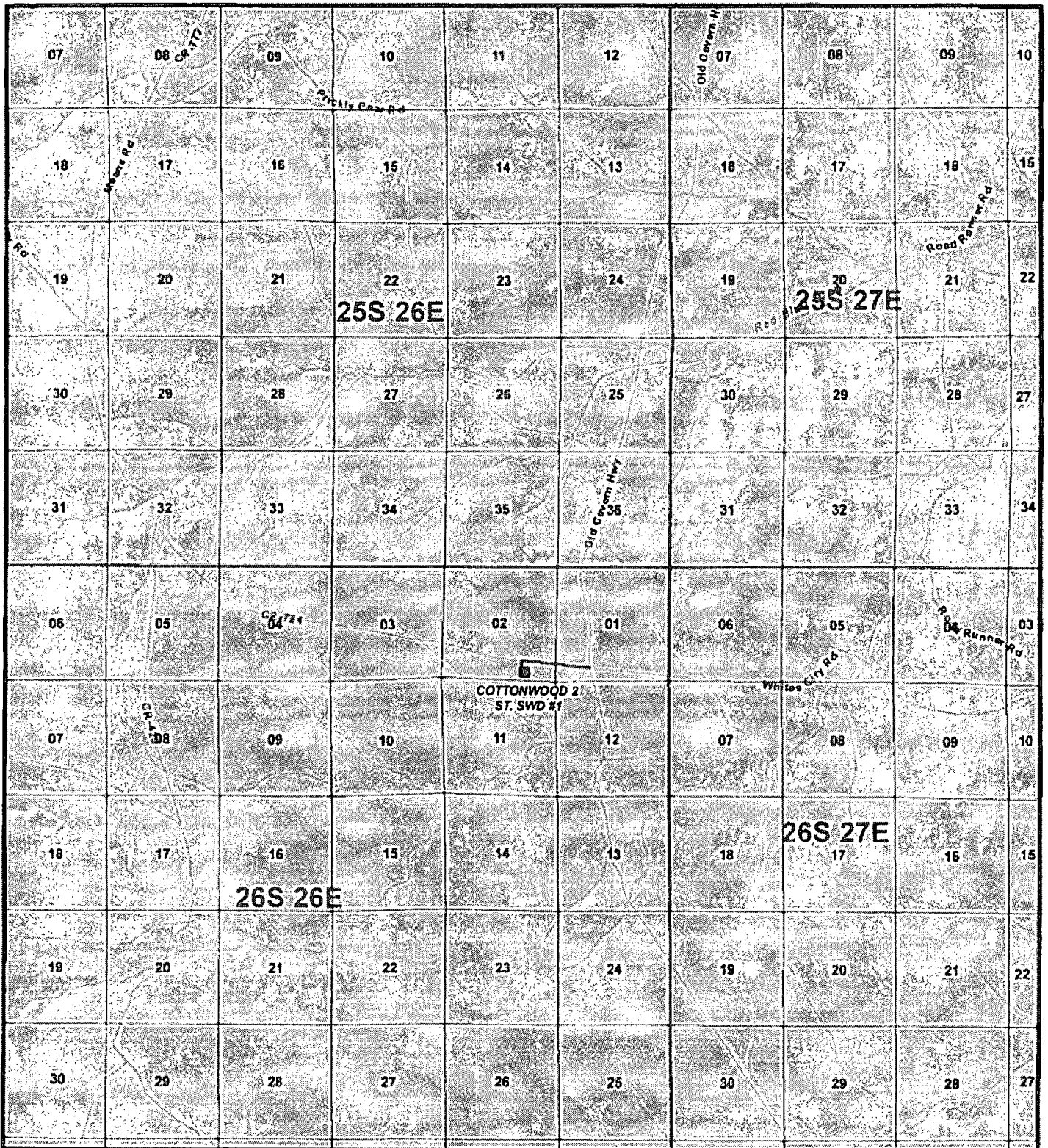
TOPO

04/29/2014

STL

CONCHO
 COG OPERATING, LLC

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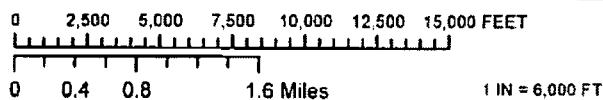


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 W.O. # 14-308 LEASE: COTTONWOOD 2 ST. SURVEY: N.M.P.M.



VICINITY MAP

01/26/2011

S.P.

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 SURVEYING

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



Administrative Order SWD-1473
April 10, 2014

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division Rule 19.15.26.8B, NMAC, COG Operating, LLC (the "operator") seeks an administrative order for its proposed Cottonwood 2 State SWD Well No. 1 with a location of 400 feet from the South line and 1400 feet from the East line, Unit letter O of Section 2, Township 26 South, Range 26 East, NMPM, Eddy County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of 19.15.26.8B, NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, COG Operating, LLC (OGRID 229137), is hereby authorized to utilize its Cottonwood 2 State SWD Well No. 1 (API 30-015-Pending) with a location of 400 feet from the South line and 1400 feet from the East line, Unit letter O of Section 2, Township 26 South, Range 26 East, NMPM, Eddy County, for disposal of oil field produced water (UIC Class II only) through open hole into an interval consisting of the Devonian, Silurian, and Ordovician formations from approximately 13100 feet to approximately 14600 feet. *If the upper contact of the Ordovician Ellenburger formation is encountered prior to the lower limit of the approved injection interval at 14600 feet, then the total depth of the well (and injection interval) shall be reduced to include only the upper 100 feet of Ellenburger formation.* Injection will occur through internally-coated, 4 1/2-inch or smaller tubing and a packer set within 100 feet of the permitted interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the well construction proposed and described in the application.

The operator shall supply the Division with a copy of a mudlog over the permitted

disposal interval and an estimated insitu water salinity based on open-hole logs. If significant hydrocarbon shows occur while drilling, the operator shall notify the Division's district II and the operator shall be required to receive written permission prior to commencing disposal.

The operator shall also include a cement bond log (or equivalent) showing final top of cement for the 7-inch liner and 9 5/8-inch casing.

The operator shall also provide a summary of depths (picks) for formation tops in the injection interval to the Division's district II office prior to commencing disposal.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to no more than 2620 psig. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's district II office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district II office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.


The injection authority granted under this order is not transferable except upon division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.


JAMI BAILEY
Director

JB/prg

cc: Oil Conservation Division – Artesia District Office
State Land Office – Oil, Gas and Minerals Division

[Administrative Application No. pMAM1404958721]