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December 10, 2013

VIA HAND DELIVERY

Ms. Jami Bailey Oil Conservation Commission New Mexico Energy, Minerals and Natural Resources Department 1220 South Saint Francis Drive Santa Fe, New Mexico 87505

Cupe 15073

Re: DCP Midstream, LP's Application for Authorization to Inject Acid Gas, Lea County, New Mexico.

Dear Ms. Bailey:

DCP Midstream, LP ("DCP"), hereby requests that the Oil Conservation Commission place DCP's enclosed application for authorization to inject pursuant to NMAC 19.15.26 on the February 13th, 2014, hearing docket, or the next available hearing docket immediately thereafter. Also enclosed is a proposed hearing notice.

Your attention to this request is appreciated.

Sincerely.

Adam G. Rankin Associate



Enclosures

cc: Ms. Florene Davidson, Commission Clerk Richard Ezeanyim, w/o encs. Gabriel Wade, w/o encs.





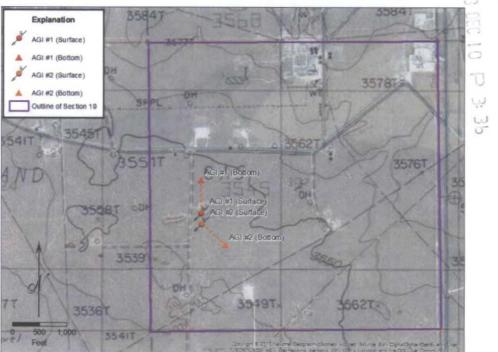
C-108 Application for Authority to Inject

DCP Midstream LP

Zia AGI#1

Zia AGI #2

2100' FSL & 950' FWL BHL 2580' & FNL, 950' FWL Section 19, T19S, R32E Lea County, New Mexico 1900'FSL & 950' FWL / BHL 1950' FSL & 1400' FWL Section 19, T19S, R32E Lea County, New Mexico



December 10, 2013

Prepared For:

DCP Midstream LP 370 17th Street, Suite 2500 Denver, Colorado 80202 Prepared By:

Geolex, Inc. 500 Marquette Avenue, NW, Suite 1350 Albuquerque, New Mexico 87102 (505)-842-8000

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? Yes X No
II.	OPERATOR: <u>DCP Midstream, LP.</u> ADDRESS: <u>370 17th St, Suite 2500, Denver CO 80208-5406</u> CONTACT PARTY: <u>Alberto A. Gutierrez, R.G GEOLEX, INC.</u> PHONE: <u>(505)-842-8000</u>
HI.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary. <u>A CROSS REFERENCE TO THE APPLICABLE SECTIONS OR</u> <u>APPENDICES IN THE ATTACHED C108 APPLICATION FOR EACH ROMAN NUMERAL BELOW IS SPECIFIED BY</u> <u>SECTION AND/OR APPENDIX NUMBERS.</u>
IV.	Is this an expansion of an existing project?YesX_No If yes, give the Division order number authorizing the project: <u>N/A</u>
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. SECTIONS 5 and 6; APPENDICES A and B.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. SECTION 5: APPENDIX A.
VII.	Attach data on the proposed operation, including:
	 Proposed average and maximum daily rate and volume of fluids to be injected; <u>SECTIONS 1, 2, and 3</u> Whether the system is open or closed; <u>SECTIONS 1, 2, 4 and 7</u> Proposed average and maximum injection pressure; <u>SECTIONS 1 and 3</u> Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, <u>SECTIONS 3 and 4</u> If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). <u>SECTIONS 3 and 4</u>
*VIII.	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. <u>SECTIONS 4 and 5 and APPENDIX A</u>
IX.	Describe the proposed stimulation program, if any. <u>N/A</u>
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). WELLS ARE NOT YET DRILLED
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. SECTION 4.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water. SECTION 7
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form. APPENDIX B
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: <u>Alberto A. Gutierrez, C.P.G.</u> TITLE: <u>President, Geolex, Inc.[®]; Consultant to DCP Midstream LP</u>
	SIGNATURE:DATE:12/9/2013

E-MAIL ADDRESS: <u>aag@geolex.com</u> If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: <u>SEE ATTACHED APPLICATION</u> *

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section. Township and Range; and footage location within the section.

AGI #1 Surface: 2100' FSL, 950' FWL Section 19, T19S, R32 E, - <u>SECTIONS 1, 3 and 4.</u> (Inclined Well) AGI #1 Bottom Hole: 2,580' FNL, 950' FWL Section 19, T19S, R32 E, - <u>SECTIONS 1, 3 and 4.</u>

AGI #2 Surface: 1900' FSL, 950' FWL Section 19, T19S, R32 E, - <u>SECTIONS 1, 3 and 4. (Inclined Well)</u> AGI #2 Bottom Hole: 1950' FSL, 1400' FWL Section 19, T19S, R32 E, - <u>SECTIONS 1, 3 and 4.</u>

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined. <u>SEE</u> <u>SECTION 3 FOR PROPOSED WELL DESIGNS. FINAL DESIGNS WILL BE SUBMITTED WHEN PROPOSED WELLS ARE</u> <u>DRILLED AND COMPLETED.</u>

(3) A description of the tubing to be used including its size, lining material, and setting depth. <u>SECTION 3 AND FIGURES 6a/6b_FOR</u> <u>PROPOSED_WELL DESIGNS</u>

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used. SECTION 3

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name. SECTIONS 1 and 4
 - (2) The injection interval and whether it is perforated or open-hole. SECTION 3
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well. <u>N/A- WELLS NOT YET DRILLED</u>
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations. N/A
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any. <u>SECTIONS 4 and 5</u>; <u>APPENDICES A and B</u>

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location. <u>SECTION 5; APPENDIX B</u> <u>WE WILL NOTIFY OPERATORS AND LEASEHOLD OWNERS AND SURFACE OWNERS WITHIN THE AREA OF REVIEW</u> <u>PURSUANT TO NMOCD REGULATIONS AND WE WILL SUBMIT AFFIDAVITS OF PUBLICATION OF NOTICE AND</u> <u>CERTIFIED MAIL RETURN RECEIPTS AT HEARING.</u>

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include: <u>SEE</u> <u>APPENDIX BFOR DRAFT OF PUBLIC NOTICE – AFFIDAVIT OF PUBLICATION OF NOTICE FROM NEWSPAPER WILL BE</u> <u>SUBMITTED AT HEARING.</u>

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

TABLE OF CONTENTS

2.0 INTRODUCTION AND ORGANIZATION OF THIS C-108 APPLICATION
3.0 PROPOSED CONSTRUCTION AND OPERATION OF DCP AGI WELLS
3.1 CALCULATED MAXIMUM INJECTION PRESSURE
3.2 INJECTION VOLUME CALCULATIONS ϵ
3.3 WELL DESIGN
4.0 REGIONAL AND LOCAL GEOLOGY AND HYDROGEOLOGY11
4.1 GENERAL GEOLOGIC SETTING/SURFICIAL GEOLOGY11
4.2 BEDROCK GEOLOGY11
4.3 LITHOLOGIC AND RESERVOIR CHARACTERISTICS OF THE CHERRY CANYON AND
BRUSHY CANYON FORMATIONS 11
4.4 INJECTIVITY OF THE CHERRY CANYON FORMATION 12
4.5 FORMATION FLUID CHEMISTRY
4.6 GROUNDWATER HYDROLOGY IN THE VICINITY OF THE PROPOSED INJECTION
WELL
5.0 OIL AND GAS WELLS IN THE DCP ZIA AGI AREA OF REVIEW AND VICINITY
6.0 IDENTIFICATION AND REQUIRED NOTIFICATION OF OPERATORS SUBSURFACE
LESSEES AND SURFACE OWNERS WITHIN THE AREA OF REVIEW
7.0 AFFIRMATIVE STATEMENT OF LACK OF HYDRAULIC CONNECTION BETWEEN
PROPOSED INJECTION ZONE AND KNOWN SOURCES OF DRINKING WATER
8.0 REFERENCES

LIST OF TABLES (Embedded in text)

- Table 1:
 Reservoir Injection Pressure and Volume Calculations
- Table 2:Water Wells Identified by the New Mexico State Engineer's Files within One Mile of
the Proposed Zia AGI Wells
- Table 3:Wells Penetrating the injection Zone Within One Half Mile of the Proposed AGI Wells

LIST OF FIGURES

- Figure 1: Location of the Proposed DCP Zia Gas Plant and AGI Wells
- Figure 2: Proposed Surface Locations for DCP Zia AGI #1 and #2
- Figure 3: Structural Features of the Permian Basin During the Late Permian
- Figure 4: Map Showing Surface and Bottom Hole Locations of Proposed Wells Zia AGI #1 and AGI #2
- Figure 5: Schematic of Injection Well and Surface Equipment System
- Figure 6: Schematic Well Design, Zia AGI Wells
- Figure 7: Calculated 30-Year Radii of Injection from DCP Zia Wells AGI #1 and AGI #2
- Figure 8: Cross Section Showing General Stratigraphy Around Proposed Zia Gas Plant
- Figure 9: Stratigraphy and Lithology of Producing Zones Above and Below Proposed Injection Zone
- Figure 10: Wells Penetrating Injection Zone Within One Mile of Proposed Wells Zia AGI #1 and Zia AGI #2
- Figure 11: Locations of Cross-Sections ZP-1 and ZP-2
- Figure 12: Northwest-Southeast Cross Section through Delaware Mountain Group in Proposed Injection Area
- Figure 13: West-East Cross Section through Delaware Mountain Group in Proposed Injection Area
- Figure 14: Contour Map Showing Structure on Top of Brushy Canyon
- Figure 15: Composite Log Showing Proposed Injection Zone
- Figure 16: Net Sandstone with Porosity >10%, Lower 200 Feet Of The Cherry Canyon
- Figure 17: Net Sandstone with Porosity >10%, Upper 400 Feet Of The Brushy Canyon
- Figure 18: Bottom Hole Pressure Trends
- Figure 19: Water Wells Identified by the New Mexico State Engineer's Files within One Mile of the Proposed Zia AGI Wells
- Figure 20: Wells identified within One Mile Radius of Zia AGI #1 and AGI #2
- Figure 21: Wells Penetrating the Injection Zone Located Within One Half Mile of the Proposed AGI Wells
- Figure 22: Lusk Deep Unit A 005 Schematic
- Figure 23: Lusk Deep Unit 006 Schematic
- Figure 24: Gulf Federal 003 Schematic
- Figure 25: Lusk Deep unit A 014 Schematic
- Figure 26: Lusk Deep Unit A 021Schematic
- Figure 27: Lusk Deep Unit 008 Schematic
- Figure 28: Delhi Federal 001 Schematic
- Figure 29: SL Deep Federal 003 Schematic
- Figure 30: Lusk Deep Unit A 024Schematic

LIST OF APPENDICES

Appendix A: Information on Oil and Gas Wells within One Mile of Proposed Zia AGI #1 and AGI #2

Appendix B: Land Information on Tracts within One Mile of Proposed Zia AGI #1 and AGI #2

1.0 EXECUTIVE SUMMARY

On behalf of DCP Midstream LP (DCP), Geolex[®], Inc. (Geolex) has prepared and is hereby submitting a revised complete C-108 application for approval to drill, complete and operate an AGI system comprised of two combined acid gas injection (AGI) and CO₂ sequestration wells at the proposed DCP Zia Gas Plant in Section 19, T19S, R32E approximately 35 miles west of Hobbs in Lea County, New Mexico (Figure 1).

The original application was submitted on November 18, 2013, however discussions with the Bureau of Land Management (BLM) and the New Mexico Oil Conservation Division (NMOCD) District Office have resulted in some design modifications covered in this revised application. Also the surface locations have been modified to better fit the configurations and safety requirements of the proposed Zia gas plant.

All of the fundamental designs aspects of the wells' systems remain unchanged from the original application (such as the injection zone, anticipated injection fluid characteristics, volumes and general locations); however some design specifications of the proposed wells and the surface locations have been modified.

Both the proposed DCP Zia AG1 #1 and DCP Zia AGI #1 wells (Figure 2) are anticipated to have a total vertical depth of approximately 6,100 feet in the Brushy Canyon and Cherry Canyon Formations of the Delaware Basin (Permian) and will be deviated from their surface locations to provide good separation between the injection points.

The Zia AGI #1 will be drilled at 2100' from the south line (FSL) and 950 feet from the west line (FWL) of Section 19. The Zia AGI #2 will be drilled at 1,900 feet from the south line (FSL) and 950 feet FWL of Section 19. Well AGI #1 will deviated approximately 27° to the north of the surface location to reach the bottom hole approximately 600 feet north of the surface location, placing the injection zone location at 2,580' FNL and 950' FWL in Section 19 (Figure 2). Well AGI #2 will be deviated approximately 27° southeast from the surface location to reach the injection zone approximately 600 feet southeast of the surface location, placing the bottom hole at approximately 1400' FWL and 1,590' FSL. The surface and bottom hole locations of both proposed wells, as well as the gas plant facility, will be located within lands owned or leased by DCP.

The proposed injection zone will be within two porous sandstone units of the lower Cherry Canyon, lying between approximate depths of 5,470 to 5,670 feet, and three porous sandstone units in the upper Brushy Canyon at depths of 5,670 to 6,070 feet. Analysis of the reservoir characteristics of these units confirms that they act as excellent closed-system reservoirs that should easily accommodate the future needs of DCP for disposal of acid gas and sequestration of CO_2 from the Zia Plant.

DCP needs to safely inject up to a maximum of 15 million standard cubic feet per day (MMSCFD) of treated acid gas (TAG) for 30 years. Under normal operations the TAG will be injected into both AGI wells simultaneously, at approximately equal rates (7.5 MMSCFD per well). During scheduled or unanticipated maintenance, the ratio between the wells may be modified. Geologic studies conducted for the selection of this location demonstrate that the proposed injection zone is readily capable of accepting and containing the proposed acid gas and CO_2 injection volumes well within NMOCD's recommended maximum injection pressures.

In preparing this C-108 application, Geolex conducted a detailed examination of all of the elements required to be evaluated in order to prepare and obtain approval for this application for injection. The elements of this evaluation included:

- Identification and characterization of all hydrocarbon-producing zones of wells that surround and are present on the proposed plant site;
- The depths of perforated pay intervals in those wells relative to the depth of the target injection zones (Cherry Canyon and Brushy Canyon);
- The past and current uses of the proposed injection interval;
- Total feet of net porosity in the proposed Cherry Canyon and Brushy Canyon injection interval;
- The stratigraphic and structural setting of the targeted zones relative to any nearby active or plugged wells, and other wells penetrating the intervals;
- The identification of and sample notification letter that will be sent to all surface owners within a one-mile radius of the proposed injection wells;
- The identification of all wells within a two-mile radius and of all operators, lessees and surface owners within a one-mile area of review of the proposed injection well;
- Identification and characterization of all active and plugged wells within the one-mile area of review of the proposed injection well;
- The details of the proposed injection operation, including general well design and average and maximum daily rates of injection and injection pressures;
- Sources and predicted composition of injection fluid and compatibility with the formation fluid of the injection zone
- Location and identification of any fresh water bearing zones in the area; the depth and quality of available groundwater in the vicinity of the proposed well, including a determination that there are no structures which could possibly communicate the disposal zone with any known sources of drinking water;
- Since the final design and construction of the Zia Gas Plant is contingent on successful permitting of the proposed AGI wells, no Rule 11 Plan has yet been prepared for the facility. Once approval has been granted for the AGI wells, the plant design will be finalized and a Rule 11 Plan will be prepared. The Rule 11 Plan will be submitted for NMOCD review and approval prior to commencement of TAG injection into the Zia AGI #1 well.

Based upon this detailed evaluation, as summarized in this application, DCP has determined that the proposed AGI wells are a safe and environmentally-sound project for the disposal of acid gas. Furthermore, the project provides additional environmental benefit by permanently sequestering a significant volume of CO_2 which would otherwise be released to the atmosphere if H_2S was flared or if a sulfur reduction unit (SRU) was operated at the Plant.

Our research has identified five sandstone units in the lower Cherry Canyon and upper Brushy Canyon Formations, located approximately 5,470 to 6,070 feet below the plant. These formations were deposited on the slopes of the Northwest Shelf of the Permian Basin (Figure 3). These units are effectively sealed above and below by the much less permeable adjacent facies within the overlying Bell Canyon and the underlying lower Brushy Canyon Formations.

At the anticipated reservoir conditions of 120° F and 2,400 psi, each million standard cubic feet per day (MMSCFD) of TAG will occupy a volume of 2,636 cubic feet (470 barrels). At the anticipated maximum operational capacity of 15 MMSCFD, the compressed TAG will occupy 7,050 barrels per day. After 30 years of operation, the TAG will occupy an area of approximately 280 acres, or a radius of 1,966 feet (0.37 miles) from a single well. Partitioned between two wells at 7.5 MMSCFD, the injected TAG would occupy 140 acres per well, at a radius of 1,390 feet (0.26 miles).

Forty six wells were identified in the one-mile radius of the proposed AGI location, of which 29 penetrate the injection zone. There is no current production in the proposed injection zone in this area. Of the 29

wells penetrating the injection zone, 17 are active and 12 are plugged and abandoned. Within the onehalf mile radius of interest, there are only 9 wells, of which 7 are active and 2 are plugged and abandoned penetrate the injection zone. A review of the plugging and completion reports indicates that the injection zone is properly isolated by all of the plugged wells within 0.37 mile calculated radius of injection of the proposed AGI wells, including a 100% volume safety factor (see plugged and active well information included in Appendix A).

Active leases in the one-mile area are operated by Chisos, Ltd., Cimarex Energy, COG Operating, Devon Energy, Lynx Petroleum Consultants, OXY USA, Tandem Energy and Tom R. Cone. All oil and gas mineral rights in this area are owned by the United States of America (managed by the Bureau of Land Management). All surface owners and operators within a one-mile radius of the proposed injection well will be notified and provided with a copy of this application at least 20 days prior to the NMOCC hearing pursuant to the requirements of NMOCC. Details on all operators, lessees and surface owners are included in Appendix B.

There is no permanent body of surface water within several miles of the plant. A search of the New Mexico State Engineer's files shows three exploratory water wells within one mile of the proposed AGI. Data from these wells show that groundwater occurs at a depth of approximately 100-350 feet, and is hosted by alluvium and the Santa Rosa Formation. Groundwater from the Rustler formation (1,245 to 1,600 ft depth) has total dissolved solids generally exceeding 9,000 mg/L in many parts of southeastern New Mexico (Lambert, 1992).

2.0 INTRODUCTION AND ORGANIZATION OF THIS C-108 APPLICATION

The completed NMOCD Form C-108 is included before the Table of Contents of this document and references appropriate sections where data required to be submitted are included herein.

This application organizes and details all of the information required by NMOCD and NMOCC to evaluate and approve the submitted Form C-108 – Application for Authorization to Inject. This information is presented in the following categories:

- A detailed description of the location, construction and operation of the proposed injection wells (Section 3.0)
- A summary of the regional and local geology, the hydrogeology, and the location of drinking water wells within the area of review (Section 4.0)
- The identification, location, status, production zones, and other relevant information on oil and gas wells within the area of review (Section 5.0)
- The identification and required notification for operators and surface land owners that are located within the area of review (Section 6.0)
- An affirmative statement, based on the analysis of geological conditions at the site, that there is no hydraulic connection between the proposed injection zone and any known sources of drinking water (Section 7.0), and

In addition, this application includes the following supporting information:

- Appendix A: Spreadsheets showing all active, temporarily abandoned, abandoned and plugged oil and gas wells included within the one-mile area of review and associated plugging reports.
- Appendix B: Maps and spreadsheets showing operators, lessees, and surface owners in the one-mile radius area of review; copy of the notification letter that will be sent out to them at least 20 days prior to the NMOCC hearing; and a draft public notice.

We would like to have this application scheduled for January 2014.

3.0 PROPOSED CONSTRUCTION AND OPERATION OF DCP AGI WELLS

The Zia AGI #1 will be drilled at 2100' from the south line (FSL) and 950 feet from the west line (FWL) of Section 19. The Zia AGI #2 will be drilled at 1,900 feet from the south line (FSL) and 950 feet FWL of Section 19. Well AGI #1 will deviated to the north of the surface location to reach the injection zones approximately 600 feet north of the surface location, placing the bottom hole location at 2,580' FNL and 950' FWL in Section 19 (Figure 2). Well AGI #2 will be deviated southeast from the surface location to reach the injection zone approximately 600 feet southeast of the surface location, placing the bottom hole at approximately 1400' FWL and 1,590' FSL. These locations are plotted on a topographic map in Figure 4.

TAG from the plant's sweeteners will be routed to a central compressor facility, located east of the well heads. Compressed TAG will then be routed to the wells via high-pressure rated lines. Figure 5 is a schematic of the proposed new AGI facilities.

Figure 6 summarizes the well design elements that will be used for both wells. Design details are provided in Section 3.3 below.

3.1 CALCULATED MAXIMUM INJECTION PRESSURE

The well will be designed and constructed such that it will serve as the injection conduit for a mixed stream of treated acid gas. The treated acid gas stream (TAG) will be approximately of the following composition:

- 89% CO₂
- $11\% H_2S$
- Trace Components of $C_1 C_6$ and Nitrogen

The maximum total volume of TAG to be injected daily will be approximately 15 MMSCFD, although this volume will not be reached until several years after plant start up. Pressure reduction valves will be incorporated to assure that maximum surface injection pressure allowed by NMOCD will not be exceeded.

The specific gravity of TAG is dependent on the temperature and pressure conditions and the composition of the fluid mixture. It is most accurately calculated using a modification of the Peng-Robinson (PR) equation of state (EOS) model (Boyle and Carroll, 2002). We have calculated the specific gravity of the supercritical TAG phase for the proposed Zia injection stream using the AQUAlibrium 3.1 software which employs the modified PR EOS model (Table 1).

We have modeled the proposed maximum daily injection 15 MMSCF TAG composed of 89 mol % CO₂ and 11 mol % H₂S. Specific gravities of TAG were determined for the conditions at the well head (pressure = 1,200 psi, temperature = 100°F) and the bottom of the well (pressure = 2,400 psi, temperature = 120°F). The specific gravity of TAG at equilibrium with the reservoir (pressure = 2,400 psi, temperature = 120°F) was also determined to evaluate the area expected to be affected by injection in the reservoir (see Section 4.4).

The calculated maximum allowable injection pressure would be approximately 2,233 psi (depending on specific gravity of final TAG stream). We have used the following method approved by NMOCD to calculate the preliminary proposed maximum injection pressure. The final maximum permitted surface injection pressure should be based on the final specific gravity of the injection stream according to the following formula:

$IP_{max} = PG(D_{top})$	where:	IP_{max} = maximum surface injection pressure (psi)
		PG = pressure gradient of injection fluid (psi/ft)
		D_{top} = depth at top of perforated interval of injection zone (ft)

and $PG = 0.2 + 0.433 (1.04 - SG_{tag})$ where:

 SG_{tag} = average specific gravity of treated acid gas in the tubing (SG_{tag} at top = 0.484 and SG_{tag} at bottom hole = 0.726; see Table 1)

For the maximum requested injection volume, case it is assumed that:

 $SG_{tag} = 0.605$ (Average of 0.484 and 0.726) $D_{top} = 5750$ ft

Therefore:

PG = 0.2 + 0.433 (1.04 - 0.605) = 0.3884 psi/ft $IP_{max} = PG (D_{top}) = 0.3884 * 5750 = 2,233 \text{ psi}$

3.2 INJECTION VOLUME CALCULATIONS

Using the safety factor of 100%, the anticipated injection rate of 15 MMSCFD was increased to 30 MMSCFD. However, since the TAG injection will be partitioned between the two wells, the safety factor calculation for each will be 15 MMSCFD. Table 1 summarizes the reservoir injection pressure and volume calculations for either DCP Zia AGI #1 and #2. These calculations indicate that, with a 100% safety factor, the area of injection from each well will not exceed 0.37 miles from the injection point of each well.

Figure 7 shows the locations and calculated areas occupied by the TAG injected from both wells at the anticipated average injection volume after 30 years. In addition to the predicted 30-year extent of the AGI in the reservoir, the Figure 7 also shows the extent of a 100% volume safety factor (equivalent to 30 MMSCFD for 30 years.

Below is a tabulation of calculated areas and radii of injected TAG after 30 years of operation for various injection rates:

Injection Rate (MMSCFD)	Radius of AGI Plume after 30	Area Occupied (Acres)
	Years (Feet)	
7.5	1390	139
15	1966	279
30	2781	558

Table 1 - Reservoir Injection Pressure and Volume Calculations

PROPOSED INJECTION STREAM CHARACTERISTICS

TAG	H,S'	. co.	H,S	co, -	TAG
→Gās vol `'	rconc. I	· conc.	inject rate	inject rate	inject rate
MMSCFD -	mól %	mol %	lb/day	łb/day	Ib/day
15	11	8 9	156622	1636394	1793016

CONDITIONS AT WELL HEAD

1	'Well Head	Conditions					TAG			
	Temp	Pressure	√Gasi vol	Comp	Inject Rate	Density'	SG ¹ ►	density	volume	volume
	Ë,	psi .	MMSCFD	100 (H.S.	ib/dáy	kg/m		⊡ib/gai	tt ^a .	bol.
	100	1200	*15	89:11	1793016	689.00	0.48	5,75	41666	7421

CONDITIONS AT BOTTOM OF WELL

	Inju	ction Zone Con	ditions		TAG				
Temp F.	Pressure", psi	Depth _{ap} ft	Depth _{arther}	Thickness" It	Density' ka/m	561	density Tib/gai	tr ^y vo¦um e	volume bbi
.120	3315	5500	• 5903	403	\$25.00	0.33	6,90	347551	6190

CONDITIONS IN RESERVOIR AT EQUILIBRIUM

:	Inject	ion Reservoir Co	addioes:				TAG		
i Temp" (Pressure	Ave. Porosity ⁴	Swr	Porosity"	Density	SG ³	density '	volume	volume
∂ f	psiv-	%		ħ	ka/m'		15/gai	ħ*	601
120	2400	15.0	0.41	33,6655	726.00	0.73	6.05	39542	· 7043 ·

CONSTANTS

	SCF/moi	
Molar volume at STD	0.7915	
	g/mol	ib/mol
Molar weight of H ₂ S	34.0809	0.0751
Molar weight of CO	44.0096	0.0970
Molar weight of H ₁ O	18.015	0.0397

1 Density calculated using ACUAlibrium software

* Specific gravity calculated assuming a constant density

for water .

⁹ PP, is extrapolated using successful Drill Stem Tests at nearby wells ⁴ Thickness is the average total thickness of coarse sand units in the reservoir zone ⁵ Receivair temp, is extrapolated from bottomhole temp, measured at?

nearby wells

*Porosev is estimated using geophysical logs from nearby wells-

CALCULATION OF MAXIMUM INJECTION PRESSURE LIMITATION

SGTAD	-	0.66
PG = 0.2 + 0.433 (1.04-5G ₁₄₁)		0.367 pu/ft
IP, = PG *Depth		2017, psi

Where: SG_{4a} is specific gravity of TAG; PG is calculated pressure gradient; and (P_{na}) is calculated mailmum injection pressure:

CALCULATION OF 30 YEAR AREA OF INJECTION

 Cubic Feet/day
 39542 ft²/day

 Cubic Feet/day
 39542 ft²/day

 Cubic Feet/30 years
 433282411 ft²/30 years

 Area = V/Ner Porosity (ft)
 12148502 ft²/30 years

 Àrea = V/Ner Porosity (ft)
 13560 ft²/scre},

 Area = V/Ner Porosity (ft)
 143560 ft²/scre},

 Area = V/Net Porosity (ft)
 143560 ft²/scre},

 Area = V/Net Porosity (ft)
 143560 ft²/scre},

 Radius =
 0.37 miles

3.3 WELL DESIGN

The AGI facilities and wells are integrated components of the proposed Zia Gas Plant design. The schematic of the AGI facilities and tie-in to the proposed Zia Gas Plant are shown in Figure 5, and the preliminary well designs for the injection wells are shown on Figure 6. Both of the wells (AGI #1) and (AGI #2) will be constructed using the same materials as shown in Figure 6. The intermediate casing of each well will be advanced to approximately 4,600 feet to assure the protection of the Capitan Aquifer and the upper Delaware Group.

The two proposed wells will be essentially identical in drilling, casing and completion, and will differ only in their locations and the direction and location of their bottom hole points.

The final design for the compression facilities and associated piping and layout of H₂S alarms and other safety equipment will be submitted for NMOCD review prior to commencement of injection operations as part of a complete Rule 11 Plan.

Both wells will be spudded on DCP's Zia Gas Plant site and drilled to a final total vertical depth of approximately 6,100 feet, and a total drilled depth of approximately 6,400 feet. The well will have each string of the telescoping casing cemented to the surface and will include a subsurface safety valve on the production tubing to assure that fluid cannot flow back out of the well in the event of a failure of the injection equipment. In addition, the annular space between the projection tubing and the well bore will be filled with an inert fluid (diesel fuel) as a further safety measure which is consistent with injection well designs which have been previously approved by NMOCD for acid gas injection.

Both wells will be advanced vertically to approximately 4,650 feet (approximately 50 feet below the depth of the base of the intermediate casing at 4,600 feet). The well will then be deviated at approximately 25 degrees from vertical. Each well will be completed at a true vertical depth of approximately 6,100 feet, after reaching an overall total depth of approximately 6,400 feet. The bottom hole locations will land approximately 600 feet north of the AGI #1 surface location, and approximately 600 feet southeast of the surface location of AGI #2.

Design and materials considerations include: placement of SSSV and the packer, triple casing through freshwater resources (Ogallala and Santa Rosa Formations – groundwater, Rustler – saline groundwater), characterization of the zone of injection, and a total depth (TD) ensuring identification of the reservoir. All casing strings will be cemented to the surface and the cement jobs will be verified by pressure testing. Radial 360° cement bond logs will be conducted for all casing strings as well. The three casing strings are detailed in Figure 6:

- 1. Surface casing to the Magenta Dolomite Member of the Rustler Formation, approximately 700 feet depth, to protect fresh water in the Ogallala and Santa Rosa Formations.
- 2. Intermediate casing through the Salado and Castile Formations, and below the Capitan Aquifer, to approximately 4,600 feet, to protect all known aquifers in the area.
- 3. Production casing extending down to the final total depth (TVD 6,100 feet). Following logging and analysis, the injection intervals will be determined, and the final depth of the long string, perforation zones and packer location will be selected.
- 4. A suitable drilling rig will be chosen for the job that will include a 5,000 psi blowout preventer (minimum) and choke manifold for any unforeseen pressures encountered. The borehole for the surface casing will be drilled with a 17 ½-inch bit to a depth of approximately 700 feet (above the uppermost salt beds), and 13 ³/₈-inch, 48.0 ppf, H40, STC casing will be installed and cemented to the surface with approximately 600 sacks of cement (or amount adequate to circulate the cement to the surface). The intermediate hole will be drilled with a 12 ¼-inch bit to a depth of approximately 3,800 feet. There an 9 ⁵/₈-inch, 40.0 ppf, J55, LTC surface casing string will be run and cemented to surface with approximately 2,500 sacks of cement. To protect the Capitan Aquifer, a Diverter Valve or packer stage tool will be placed at approximately 2,800 feet to allow a specific and special cement stage through the aquifer interval. Visual inspections of cement returns to the surface will be noted in both the conductor and surface pipe casing jobs. Casing and cement integrity will be demonstrated by pressure-testing and 360-degree cement bond logging after each cement job.

After verifying the intermediate casing, the vertical well (Zia AGI #1) well will be drilled to the projected TVD of 6,100 feet using an 8 ³/₄-inch bit. The proposed open hole logging suite for the TD run consists of a Dual Induction, Density-Neutron-Gamma Ray Porosity and Fracture Matrix Identification (FMI) log in the Bell Canyon and the Cherry Canyon. Sidewall cores will be collected from the tight zone near the base of the Bell Canyon and in the upper Cherry Canyon target reservoir sands. Representative core samples will be analyzed in the laboratory to determine caprock and reservoir permeabilities and porosity.

After the logs have been evaluated, the production casing consisting of approximately 6,400 TD and will be run using approximately 5,500 feet of 7-inch, 26.0 ppf, L80 Premium casing grade, a 250-foot section of Corrosive Resistant Alloy (CRA) material, and 7-inch 26.0 ppf, SM-2550 Premium casing to total depth. The CRA material will be inserted into the string at the packer setting depth to provide a corrosion resistant seat for the packer later in the job. The cementing of the long string will be accomplished in two stages. The first stage will seal the annular space from total depth (approximately 6,100 feet) to a level well above the CRA joint. This stage will employ acid-resistant cement (CORROSACEMTM or equivalent). For the second stage, a DV Tool previously inserted in the casing (at approximately 3,000) feet will be used to pump the remaining cement to the surface.

Once the cement has set up, the tubing adaptor for the wellhead will be welded on the wellhead and the rig will be released. A casing integrity (pressure test) will be performed to test the casing just prior to releasing the rig. After a successful test and the drilling rig released, a work-over rig will be mobilized to location and a cement bond log will be run to ascertain the quality of the cement bond of the production casing. It is important that a good bond be established around the injection interval as well as below the CRA joint to minimize any chances that acid gases mixed with formation water do not travel up the outside of the casing and negatively impact the integrity of the casing job.

Once the integrity of the cement job has been determined, the selected injection intervals will be perforated with approximately four shots per foot. At this location a total of approximately 175 feet of target areas may be perforated. A temporary string of removable packer and tubing will be run, and injection tests (step tests) will be performed to determine the final injection pressures and volumes. Once the reservoirs have been tested, the final tubing string including a permanent packer, approximately 5,900 feet of 3 ½-inch 9.3 ppf, L80 VAM top premium thread tubing, lined with fiberglass or other corrosion-resistant lining. A Subsurface Safety Valve (SSV) will be run into the well at a depth of approximately 250 feet. A ¼-inch Inconel line will connect the SSV to a hydraulic panel at the surface.

The National Association of Corrosion Engineers (NACE) issues guidelines for metals exposed to various corrosive gases like the ones in this well. For a H_2S/CO_2 stream of acid gas that is de-watered at the surface through successive stages of compression, downhole components such as the SSV, (subsurface safety valve), and packer need to be constructed of Inconel 925. The CRA joints will be constructed of a similar alloy from a manufacturer such as Sumitomo. A product like SM2550 (with 50% nickel content) will likely be used. The gates, bonnets and valve stems within the Christmas trees will be nickel coated as well.

The rest of the Christmas trees will be made of standard carbon steel components and outfitted with annular pressure gauges that report operating pressure conditions in real time to a gas control center located remotely from the wellhead. In the case of abnormal pressures or any other situation requiring immediate action, the acid gas injection process can be stopped at the compressor and the wellhead shutin using a hydraulically operated wing valve on the Christmas trees. The SSV provides a redundant safety feature to shut in the well in case the wing valve does not close properly.

After the AGI well is drilled and tested to assure that it will be able to accept the volume of injection fluid (without using acid gas), it will be completed with the approved injection equipment for the acid gas stream.

Since the Zia Gas Plant has not yet been constructed, no Rule 11 Plan has yet been prepared. Once approval has been granted for this AGI well, the plant design will be finalized and construction undertaken. A Rule 11 Plan will be prepared following the model previously approved and submitted for NMOCD review and approval prior to commencement of TAG injection into the DCP Zia AGI #1 and AGI #2 wells.

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4.0 REGIONAL AND LOCAL GEOLOGY AND HYDROGEOLOGY

4.1 GENERAL GEOLOGIC SETTING/SURFICIAL GEOLOGY

The proposed Zia Gas Plant will be located in Section 19, T 19 S, R 32 E, in Lea County, New Mexico, about 35 miles west of Hobbs (Figure 1). The plant location is within a portion of the Pecos River basin referred to as the Querecho Plains reach (Nicholson & Clebsch, 1961). This area is relatively flat and largely covered by sand dunes underlain by a hard caliche surface. The dune sands are locally stabilized with shin oak, mesquite and some burr-grass. There are no natural surface bodies of water or groundwater discharge sites within one mile of the Plant and where drainages exist in interdunal areas, they are ephemeral, discontinuous, dry washes. The proposed plant site is underlain by Quaternary alluvium overlying the Triassic redbeds of the Santa Rosa Formation (Dockum Group), both of which are local sources of groundwater. The thick sequences of Permian rocks that underlie these deposits are described generally below.

4.2 BEDROCK GEOLOGY

The well is located in the Delaware Basin, a sub-basin of the larger, encompassing Permian Basin (Figures 3 and 8). The Delaware Basin began to form by the Middle Mississippian, and was subsequently deepened by deformation during the Hercynian orogeny of the Pennsylvanian through Early Permian. Following the orogeny, the Delaware Basin was structurally stable and gradually was filled by large quantities of clastic sediments while carbonates were deposited on the surrounding shelves.

The Permian rocks found in the Delaware Basin are divided into four series, the Ochoa (most recent), Guadalupe, Leonard, and Wolfcamp (oldest). Numerous oil and gas pools have been identified in these rocks. In the area of the proposed Zia well, the rocks consist predominately of clastic rocks – primarily sands, and shales with lesser carbonates. Producing reservoirs are concentrated in the high porosity sands. Figure 9 is a generalized stratigraphic column showing the formations that underlie the well site. Local oil production is largely restricted to the Delaware Sands pool (overlying the proposed injection zone), and gas production is dispersed through the deeper Bone Springs (the "Avalon"), Wolfcamp, and Morrow, with smaller amounts from the Atoka and Devonian (Figure 9).

There have been no commercially significant deposits of oil or gas found in Cherry Canyon or the Brushy Canyon (the proposed injection zone), in the vicinity of the well. Adjacent wells have shown that these formations are "wet", and there is no current or foreseeable production at these depths within the one-mile radius (Figure 10) of review.

4.3 LITHOLOGIC AND RESERVOIR CHARACTERISTICS OF THE CHERRY CANYON AND BRUSHY CANYON FORMATIONS

Based on the geologic analyses of the subsurface at the proposed Zia Gas Plant, we recommend acid gas injection and CO_2 sequestration in the lower Cherry Canyon and upper Brushy Canyon Formations. The proposed injection interval includes five high porosity sandstone units and has excellent caps above, below and between the individual sandstone units. There is no local production in the overlying Delaware Sands pool of Bell Canyon Formation (Figure 9). There are no structural features or faults that would serve as potential vertical conduits. The high net porosity of the proposed injection zone indicates that the injected H_2S and CO_2 will be easily contained close to the injection well.

Figure 11shows the locations of Figures 12 and Figure 13, which present cross-sections showing the proposed injection zones and the continuous, thick cap rocks that overlie a the lower Cherry Canyon and underlie the upper Brushy Canyon. These logs clearly show that there are numerous, continuous low-

permeability beds between the base of the Brushy Canyon and the deeper Lusk West Delaware field, lying approximately 400 feet below the Brushy Canyon.

The available geophysical logs were examined for all wells penetrating the lower Cherry Canyon and upper Brushy Canyon Formations within a three-mile radius of the proposed DCP Zia AGI #1 well. Using the formation tops from more than 70 wells, a contour map was constructed for the top of the Brushy Canyon Formation (Figure 14) in the vicinity of the well. This map reveals an approximate 1.0° dip to the southeast, with no visible faulting or offsets that might influence fluid migration, suggesting that injected fluid would spread radially from the point of injection with a small elliptical component to the south. This interpretation is supported by cross-sections of the overlying stratigraphy that reveal relatively horizontal contacts between the units (Figures 12 and 13). Local heterogeneities in permeability and porosity will exercise significant control over fluid migration and the overall three-dimensional shape of the injected gas plume.

Geolex's geological analyses confirm that the lower Cherry Canyon and upper Brushy Canyon Formations are the most promising injection zones in the vicinity of the DCP Zia Plant. This preliminary analysis is confirmed by Geolex's detailed geological analysis, including the analysis of the geophysical logs collected from nearby wells. The zone has the requisite high porosity and permeability and is bounded by tight limestones, shales, and calcic siltstones rocks in the Bell Canyon above the Cherry Canyon and the rocks below the upper Brushy Canyon. These are ideal H₂S and CO₂ sequestration conditions.

The porosity of the units in the area was evaluated using geophysical logs collected from nearby wells penetrating the Cherry Canyon Formation. Figure 15 shows the Resistivity (Res) and Thermal Neutron Porosity (TNPH) logs from 5,050 feet to 6,650 feet and includes the proposed injection interval. Five clean sands (>10% porosity and <60 API gamma units) separated by limestone beds mapable units demonstrating lateral continuity of units. The sand units exhibit an average porosity of about 18.9%; taken over the average thickness of the clean sand units within ½ mile of the proposed DCP Zia AG1 #1 of 177 feet (Figures 16 and 17) and irreducible water (S_{wir}) of 0.54 (see Table 1). This results in an effective porosity of approximately 15.4 feet after considering S_{wir}. The overlying Bell Canyon Formation has 900 feet of sands and intervening tight limestones, shales, and calcitic siltstones with porosities as low as 4%, consistent with an effective seal on the top of the injection zone. The proposed injection interval is located more than 2,650 feet above the Bone Spring Formation (Avalon zone), which is the first possible pay below the injection zone in the area.

4.4 INJECTIVITY OF THE CHERRY CANYON FORMATION

No direct measurements have been made of the injection zone porosity or permeability. However, satisfactory injectivity of the injection zone can be inferred from the porosity logs described above. The zone will be logged and cored in the AGI wells to obtain site-specific porosity and permeability data.

A maximum allowable surface injection pressure was calculated for the proposed AGI well following the NMOCD approved formula: $IP_{max} = PG (D_{top})$, where IP_{max} is the maximum allowed surface injection pressure (psi), PG is the pressure gradient of the injected fluid (psi/ft), and D_{top} is the depth to the top of the perforated zone (ft). Using the proposed depth to the center of the perforated zone in the proposed AGI wells (5,750 ft) and TAG as the injection fluid, the maximum allowable injection pressure would be approximately 2,233 psi (Section 3.1).

The reservoir pressure and temperature have been estimated by plotting data from nearby wells. A plot of bottom hole pressures (Figure 18) reveals a consistent trend with depth, indicating that the reservoir temperature in the proposed well would be approximately 120° F. A plot of reservoir pressures using

successful Drill Stem Tests (DSTs) show some scatter, but indicates that the reservoir pressure in the proposed well would be about 2,400 psi.

Using the total porosity determined from well logs, combined with an allowance for S_{wir} of 0.54 (Table 1), it is possible to estimate the area of injection over a 30-year life span for each AGI well at the proposed Zia Gas Plant. Using the 100% safety factor, a maximum per-well injection rate of 15 MMSCFD (7,421 bbl/day) of compressed TAG at well head conditions equates to approximately 7,043 bbl/day at reservoir conditions, see Table 1). The injected acid gas would spread to cover an area of approximately 279 acres or a circle with a radius of approximately 0.37 miles (Figure 7).

4.5 FORMATION FLUID CHEMISTRY

There is little available public information on the formation fluids in the Cherry Canyon and Brushy Canyon Formations. One report (Powers, *et. al.*, 1978) notes that the waters in these units have chloride levels ranging from 50,000 to 150,000 milligrams per liter. An attempt will be made to sample formation fluids during drilling or completion of the well to provide site-specific fluid properties

4.6 GROUNDWATER HYDROLOGY IN THE VICINITY OF THE PROPOSED INJECTION WELL

Based on the New Mexico Water Rights Database from the New Mexico Office of the State Engineer, there are four freshwater wells located within a one mile radius of the DCP Zia AGI wells; the closest water well is located 0.6 miles away (Figure 19; Table 2). All wells within the one mile radius are shallow, collecting water from about 250 to 350 feet depth, in the Triassic redbeds. These wells were drilled for exploratory purposes by Phillips Petroleum in 1982, and do not produce any consumed water. The shallow freshwater aquifer is protected by the surface and intermediate casing in the proposed DCP Zia AGI #1 and #2 wells, which extend to 700 feet and 2,700 feet, respectively.

The area surrounding the proposed injection wells is arid and there are no bodies of surface water within a five mile radius.

POD Number	Owner	Use	UTME	UTMN	Distance (m)	Depth Well (ft)	Depth Water (ft)
CP 00642 EXPL	PHILIP PETROLEUM COMPANY	Exploration	611025	3611657	973	250	
CP 00640 EXPL	PHILIP PETROLEUM COMPANY	Exploration	612621	3613280	1342	260	102
CP 00639 EXPL	PHILIP PETROLEUM COMPANY	Exploration	613029	3612880	1540	350	345
CP 00563 EXPL	PHILIP PETROLEUM COMPANY	Exploration	612118	3613376	1064		

Table 2: Water Wells Identified by the New Mexico State Engineer's Files within One Mile of the Proposed Zia AGI Wells

5.0 OIL AND GAS WELLS IN THE DCP ZIA AGI AREA OF REVIEW AND VICINITY

Forty six wells were identified in the one-mile radius of the proposed AGI location, of which 29 penetrate the injection zone. There is no current production in the proposed injection zone in this area. Of the 29 wells penetrating the injection zone, 17 are active and 12 are plugged and abandoned.

All of the wells identified are listed in Table A-1 in Appendix A, which includes the locations, depths, status, operators and distances of the wells from the AGI well locations. Table A-2 in Appendix A identifies all wells penetrating the proposed injection zone, and Table A-3 in Appendix A identifies the wells within one-half mile of the proposed AGI well. The locations of all wells are shown in Figure 20.

Within the one-half mile radius of interest, there are only 9 wells, of which 7 are active and 2 are plugged and abandoned. Completed records for these wells are included in Appendix A. A review of the plugging and completion reports indicates that the injection zone is properly isolated by all of the plugged wells within 0.37 mile calculated radius of injection of the proposed AGI wells (see plugged and active well information included in Appendix A).

Figure 21 shows the locations of the 9 wells within the area of interest, and Table 3 below summarizes the relevant information for those wells. As seen in Figure 21, only 5 wells are within the calculated areas of injection for the two proposed AGI wells, and 4 wells lie outside this area.

API #	Operator	Well Name	TVD	Spud Date	Plug Date	Туре	Status
3002520122	COG OPERATING LLC	LUSK DEEP UNIT A 005	12554	4/16/1963		G	Active
3002520247	EL PASO NATURAL GAS	LUSK DEEP UNIT 006	11432	12/16/1963	10/25/1975	0	Plugged
3002520876	TOM R CONE	GULF FEDERAL 003	11223	11/6/1964		0	Active
3002534573	COG OPERATING LLC	LUSK DEEP UNIT A 014	12540	12/17/1999		G	Active
3002535291	COG OPERATING LLC	LUSK DEEP UNIT A 021	12718	4/24/2001		G	Active
	PHILLIPS PETROLEUM						
3001510382		LUSK DEEP UNIT 008	11540	4/26/1964	10/17/1994	0	Plugged
3002520025	CHISOS, LTD	DELHI FEDERAL 001	11286	2/2/1963		0	Active
3002539441	COG OPERATING LLC	SL DEEP FEDERAL 003	9580	9/15/2009		0	Active
3002540863	COG OPERATING LLC	LUSK DEEP UNIT A 024H	13660	12/19/2012		0	Active

TABLE 3: Wells Penetrating the Injection Zone Within One Half Mile of the Proposed AGI Wells

Wells within the 30-Year Calculated Injection Area Using 100% Safety Factor

For the purposes of this evaluation, the calculated areas of injection influence (0.37 mile radius) are based on the highly conservative injection rate of two times the base design rate over 30 years.

Active well 3002520122 (Figure 22) was completed in the Strawn and Morrow in February 1963. The surface casing (850') and the intermediate casing (4,506') were cemented to the surface. The production casing's top of cement was measured at 9,800'. This well lies just inside the east boundary of the outer edge of the calculated 100% safety-factor injection area of Zia AGI #2, and should not be influenced by any anticipated injection activities.

Plugged well 3002520247 (Figure 23) was drilled in 1963 and completed in the Strawn at 12,554'. This well is inside the inner (7.5 MMSCFD 30-year radius) area. In October 1971 the well was plugged back to 8,819' and was perforated from 8,822 to 8,824 to test the Bone Springs. The test was unsuccessful, and the well was plugged and abandoned in October 1971. The injection zone is protected, since the well bore is plugged with cement plugs at 6,600' and 4,364'.

Well 3002520876 (Figure 24) is also an active well, and lies inside the inner (7.5 MMSCFD 30-year radius) area. Originally completed in the Strawn in 1961, the well was plugged and abandoned in October 1971. The well was re-entered in June of 1981 and completed in the Yates. As seen in Figure 22, the injection zone is isolated by cement plugs set at 3,760' and 7,560'.

Well 3002534573 (Figure 25) is an active well inside the inner (7.5 MMSCFD 30-year radius) area. The proposed injection zone (5,500' to 6,100') is well protected because the 5 $\frac{1}{2}$ " production casing is cemented from the total depth (12,540') to a depth of 4,200'. This places the top of the cement at 300' below the base (4,500') of the intermediate casing. The intermediate casing and the surface casing (830') are cemented to the surface.

Active well 3002535291 (Figure 26) inside the inner (7.5 MMSCFD 30-year radius) area also protects the injection zone because the 5 $\frac{1}{2}$ " production casing was cemented from total depth (12,718') to the surface.

Wells outside the 30-Year Calculated Injection Area Using 100% Safety Factor

Plugged well 3001510382 (Figure 27) was completed in the Strawn in 1964. The well was plugged and abandoned in October 1994. This well lies approximately 300' west of the outer edge of the calculated injection area of Zia AGI #2. The injection zone is further protected by cement plugs in the well bore at 6,908' and 4,325'.

Active well 3002520025 (Figure 28) was completed in the Strawn in February 1963 at a total depth of 11,400 feet. Its location is approximately 300 feet south of the outside the safety-factor area. Surface casing (507') was cemented to the surface, as was the intermediate casing (4,050'). The production casing was cemented to 8,300 feet, and was later squeezed at 6,058 feet.

Active well 3002539411 (Figure 29) was completed in the Bone Springs at 9,580 feet in June 2009. The well is located approximately 400 feet south of the calculated injection area of Zia AGI #2. The surface casing (839') was cemented to the surface, and the intermediate casing (4,158') was cemented to 100 feet. The intermediate casing was cemented to 1,800 feet, well inside the intermediate.

Active well 3002540863 (Figure 30) is a horizontal well completed in the Bone Springs. The well was drilled vertically to approximately 8,700 feet, and then achieved a horizontal path at approximately 9,700'. As seen in Figure 21, the subsurface path of the well trends north-south for approximately 4,600', passing under the injection zone. The surface, intermediate and production casing strings were cemented to the surface, protecting the injection zone. The production zone of the well is at approximately 9,300', over 3,000' below the proposed injection zone.

6.0 IDENTIFICATION AND REQUIRED NOTIFICATION OF OPERATORS SUBSURFACE LESSEES AND SURFACE OWNERS WITHIN THE AREA OF REVIEW

Geolex contracted with MBF Land Services in Roswell, New Mexico to research land records in Lea and Eddy Counties to obtain a listing of all operators, oil, gas and mineral lessees, and surface owners within a one-mile radius of the proposed AGI well. Appendix B includes the results from that search.

Table B-1 provides the surface and mineral owners in the one-mile area of review. Table B-2 is the list of operators and Table B-3 is a list of mineral leasehold owners. These Tables comprise the universe of persons that must be notified 20 days prior to the NMOCC hearing.

Table B-4 is a full summary of the land status by Tract. Figures B-1 and B-2 include maps showing surface, mineral and leasehold ownership by tract in the area of review. The original land status reports from MBF are also included in Appendix B.

7.0 AFFIRMATIVE STATEMENT OF LACK OF HYDRAULIC CONNECTION BETWEEN PROPOSED INJECTION ZONE AND KNOWN SOURCES OF DRINKING WATER

As part of the work performed to support this application, a detailed investigation of the structure, stratigraphy and hydrogeology of the area surrounding the proposed DCP Zia AGI #1 and AGI #2 wells has been performed. The investigation included the analysis of available geologic data and hydrogeologic data from wells and literature identified in Sections 3, 4 and 5 above including related appendices. Based on this investigation and analysis of these date, it is clear that there are no open fractures, faults or other structures which could potentially result in the communication of proposed injection zone with any known sources of drinking water in the vicinity as described above in Sections 4 and 5 of this application.

8.0 REFERENCES

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Figures

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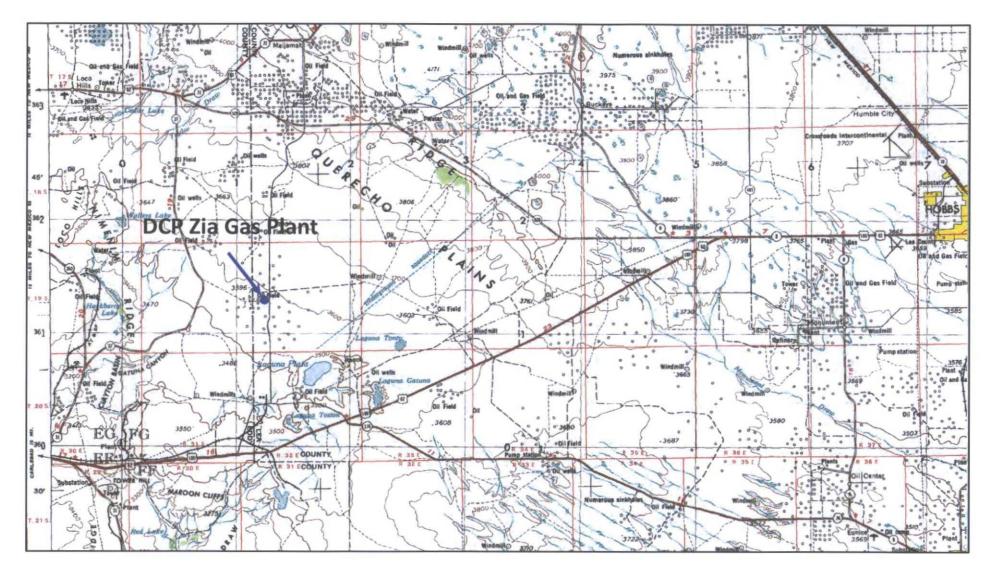


Figure 1: Location of the Proposed DCP Zia Gas Plant and AGI Wells. (USGS 1:250,000)

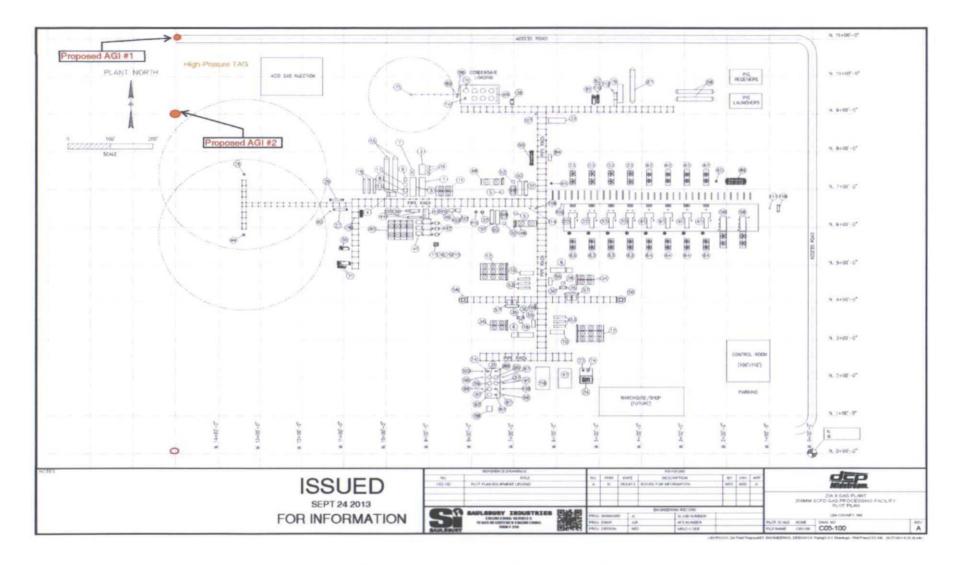


Figure 2: Proposed Surface Locations for DCP Zia AGI #1 and #2

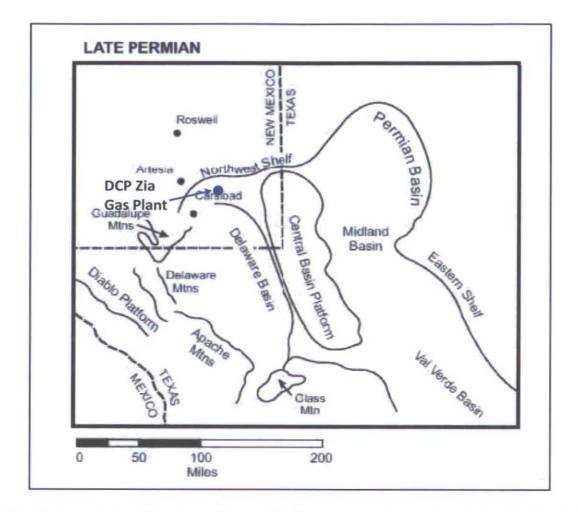


Figure 3: Structural Features of the Permian Basin During the Late Permian (Modified from Ward, et al (1968)).

Location of the proposed DCP Zia Gas Plant is Shown by the Blue Arrow.

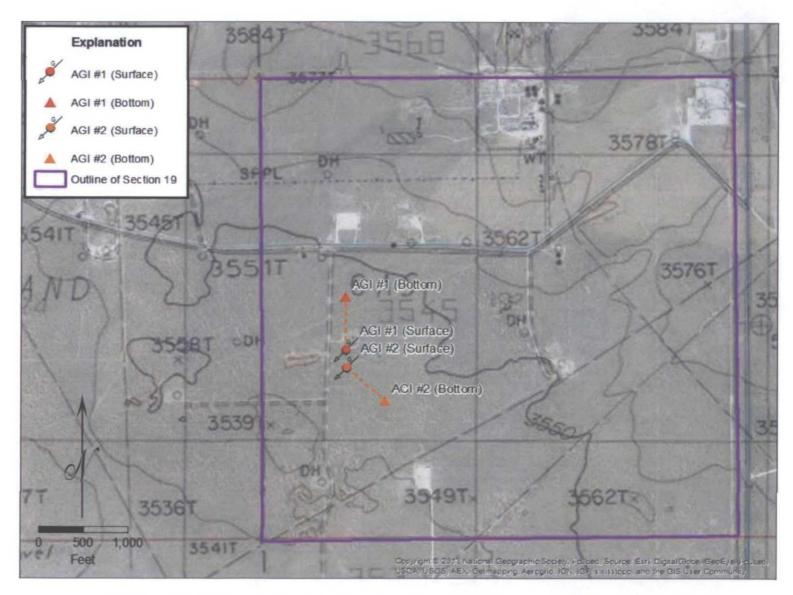


Figure 4: Map Showing Surface and Bottom Hole Locations of Proposed Wells Zia AGI #1 and AGI #2

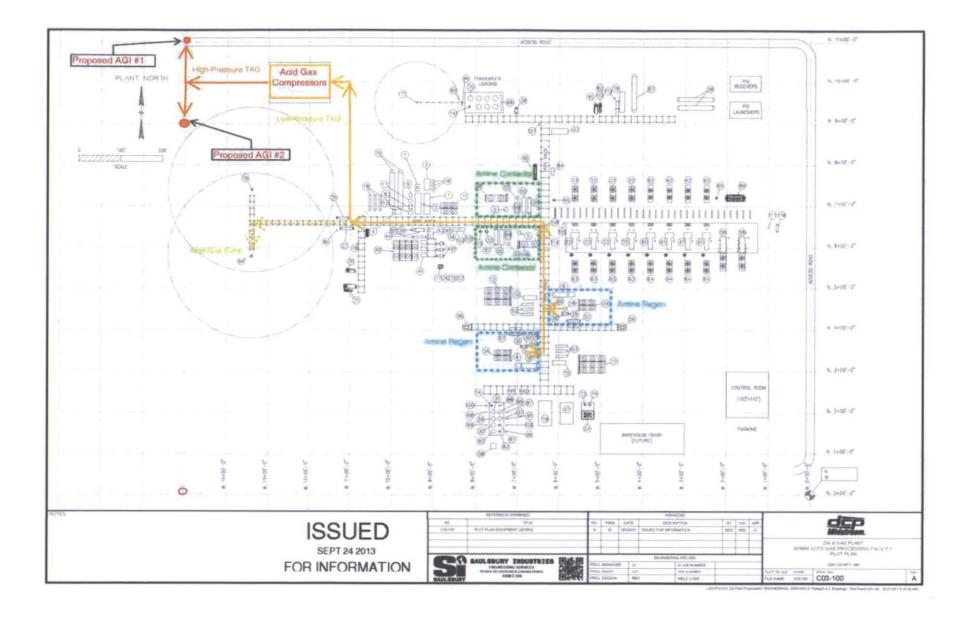


Figure 5: Schematic of Injection Well and Surface Equipment System

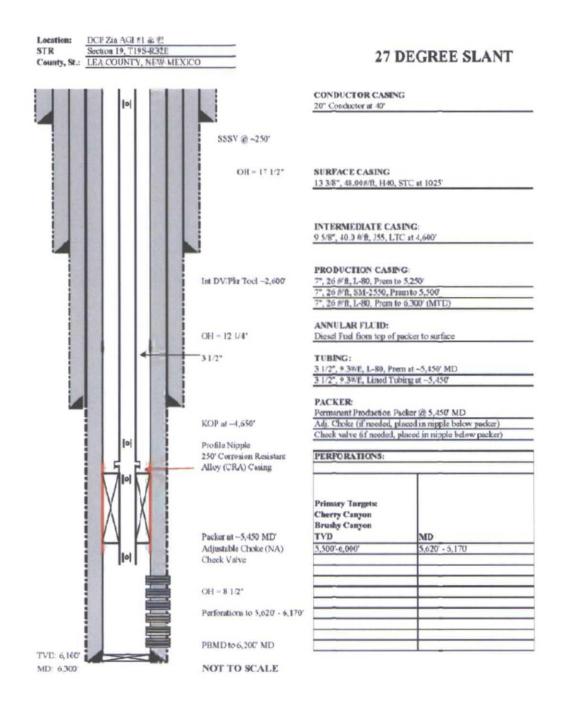


Figure 6 : Schematic Well Design, Zia AGI Wells

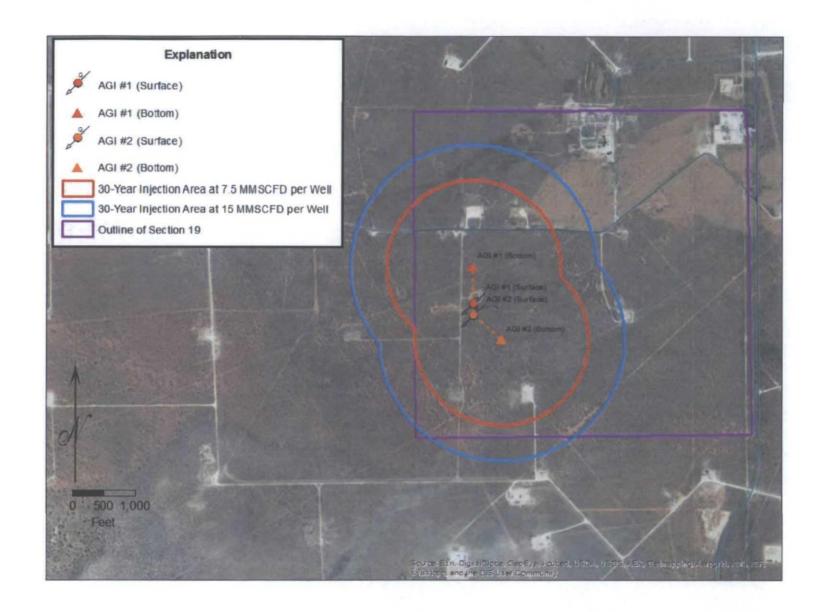


Figure 7: Calculated 30-Year Radii of Injection from DCP Zia Wells AGI #1 and AGI #2 (Circles Show Anticipated Rate of 7.5 MMSCFD and 100% Safety Factor Injection Rate 15 MMSCFD)

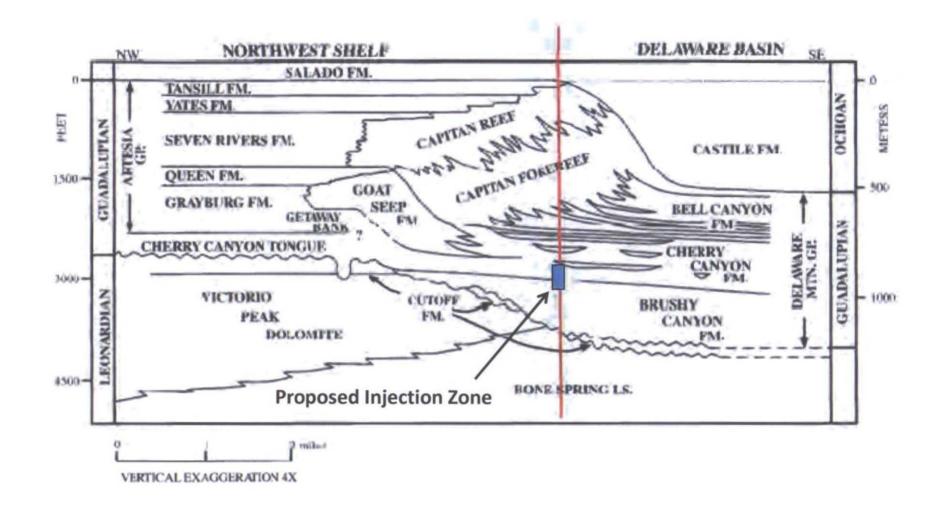
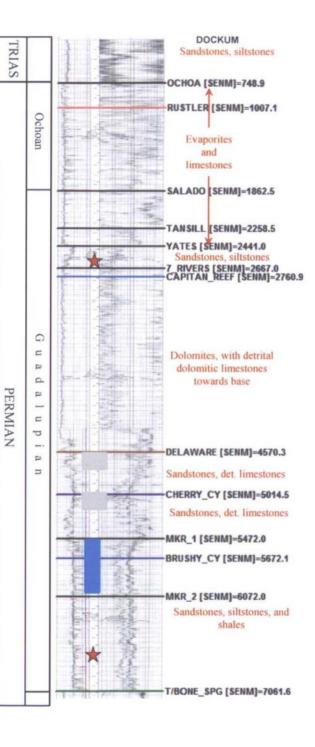
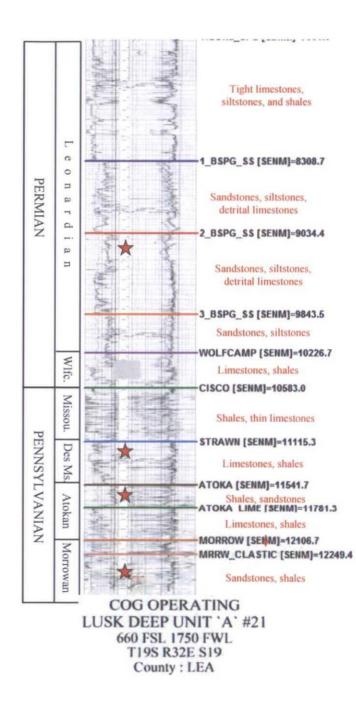


Figure 8: Cross Section Showing General Stratigraphy Around Proposed Zia Gas Plant Generalized upper Permian stratigraphy around the proposed Zia Plant. We have an upper Permian section here that passes from the Yates, to a thin section of Seven Rivers, and down into the Capitan reef and fore-reef. The Delaware is represented by transitional Bell and Cherry Canyon limes and sands, and the underlying Brushy Canyon sand member. The Brushy Canyon is underlain by the Bone Spring. The proposed AGI zone is approximated by the blue

Figure 9: Stratigraphy and Lithology of Producing Zones Above and Below Proposed Injection Zone

Stratigraphy and generalized lithology of the subsurface formations underlying the proposed Zia AGI sites. Zones with active pay within the radii of investigation are shown by the red stars. Other than the Delaware Mountain Group, none of the other formations present under the site contain reservoirs with enough porosity and areal extent to support the AGI needs of the proposed Plant. The Delaware Group, specifically the interval shown by the blue bar, is the only formation with laterallyextensive reservoirs and are sufficiently isolated from active pay zones either above or below.





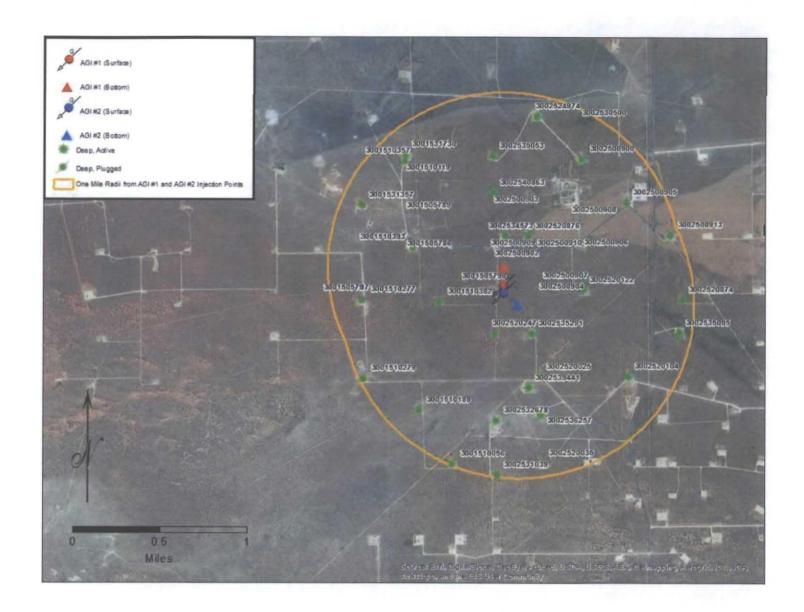


Figure 10: Wells Penetrating Injection Zone Within One Mile of Proposed Wells Zia AGI #1 and Zia AGI #2

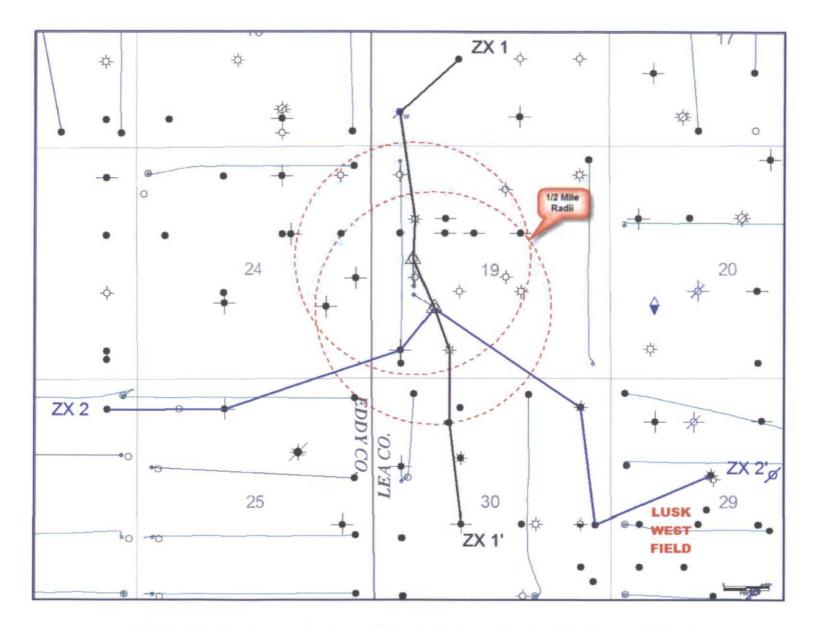


Figure 11: Locations of Cross-Sections ZP-1 and ZP-2

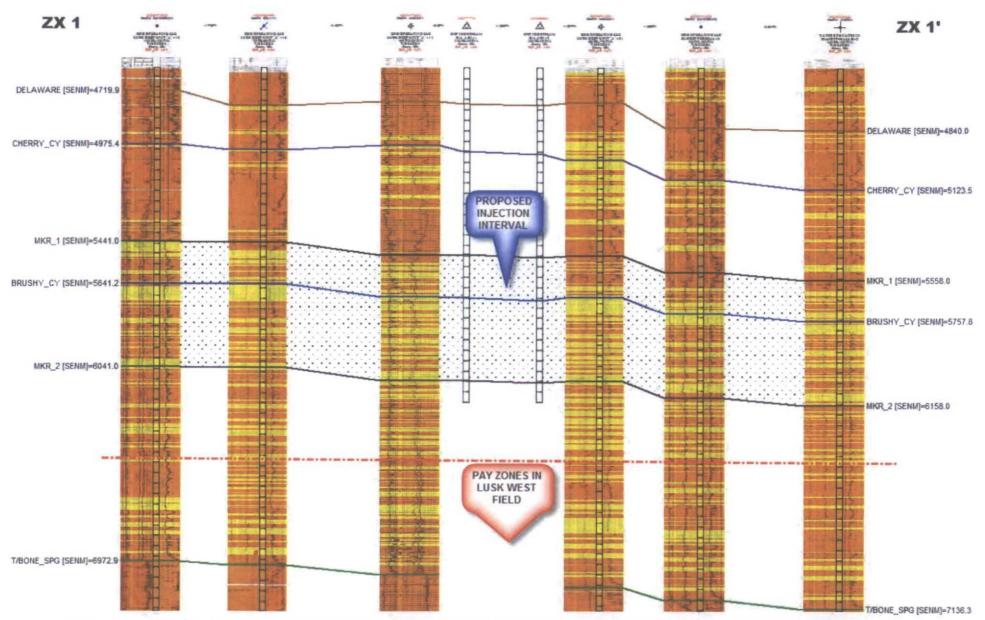


Figure 12: Northwest-Southeast Cross Section Through Delaware Mountain Group in Proposed Injection Area N-S structure section through the Delaware Mountain Group across the area of the proposed injection zone. Yellow shading denotes sandstone porosity in excess of 10%, and brown shading shows tight facies. There are very thick sections of tight rock above the proposed injection interval that will prevent upward migration of fluids into shallower (Yates) pay zones, and even shallower groundwater zones. There are also alternating tight and sandy facies between the injection interval and lower Brushy Canyon pay zones in the nearby Lusk West Field.

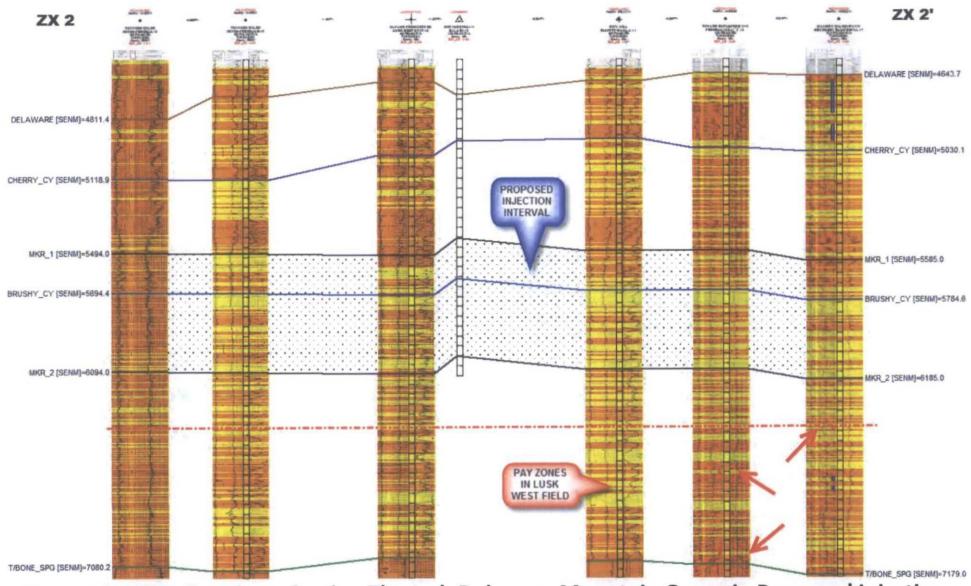


Figure 13: West-East Cross Section Through Delaware Mountain Group in Proposed Injection

Area

The W-E structure section shows the caprock relationship above the proposed injection interval, and the intervening tight facies below that would isolate the injection interval from any remaining pay zones in the lower Brushy Canyon. The Lusk West Field produces from several confined, thinner-bedded channel sands that are encased in tight facies.

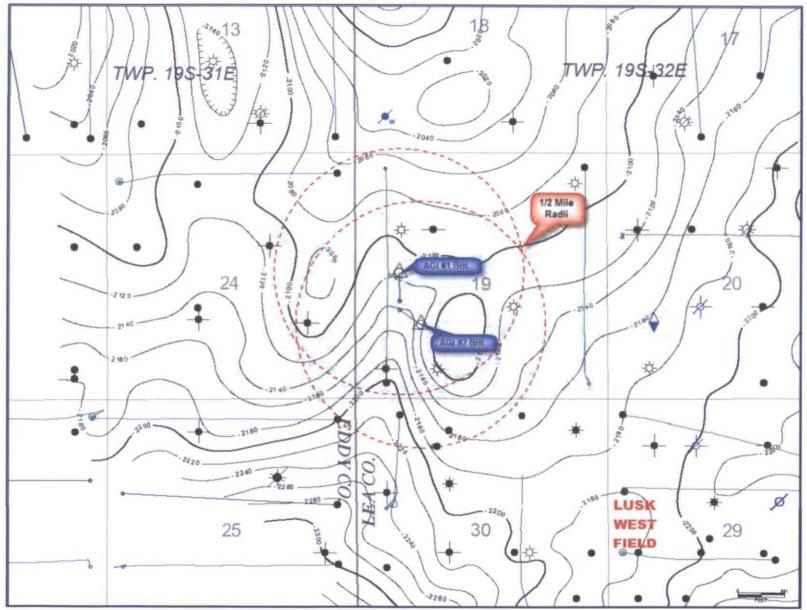


Figure 14: Contour Map Showing Structure on Top of Brushy Canyon

Structure, top of Brushy Canyon, Contour Interval = 20 feet. Only wells that penetrate through the proposed AGI interval are shown. Many of the lower Brushy Canyon wells in Lusk West Field have been plugged or temporarily abandoned.

Figure 15: Composite Log Showing Proposed Injection Zone

The well log composite through the proposed injection interval and the lower Brushy Canyon pay zone in the active well shows a typical Delaware sequence of sands (yellow shading) and intercalated tight shales and silts (brown shading). The sands vary in porosity and generally have low permeability. The base of the proposed injection zone is nearly 300 feet above the active pay zone, separated from it by medium-bedded tight facies and interbedded sands.

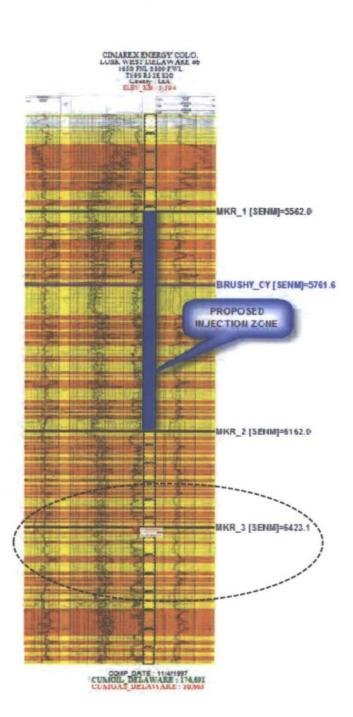


Figure 16: Net Sandstone With Porosity >10%, Lower 200 Feet Of The Cherry Canyon (Contour Interval = 5 Feet)

Only wells that penetrate through the proposed AGI interval are shown. <u>The</u> <u>average net sand within</u> <u>the 1/2-mile radii is</u> <u>estimated at 102 feet</u> based on a regular grid of data points that include the wells inside each radius.

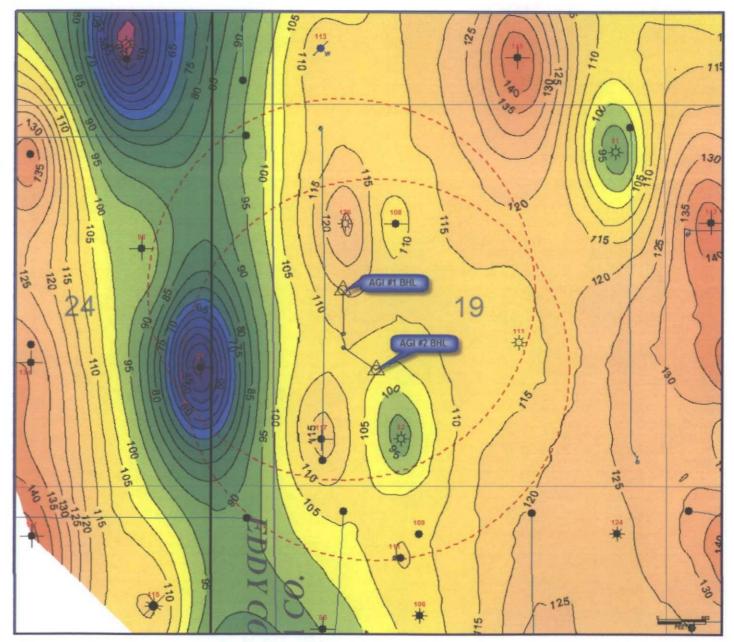
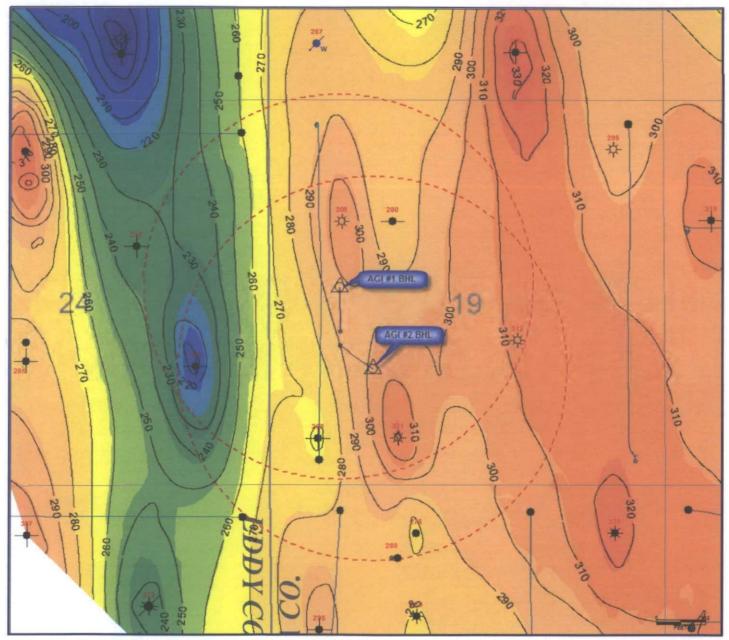


Figure 17: Net Sandstone With Porosity >10%, Upper 400 Feet Of The Brushy Canyon (Contour Interval = 10 Feet)

Only wells that penetrate through the proposed AGI interval are shown. <u>The average</u> <u>net sand within the 1/2-</u> <u>mile radii is estimated at</u> <u>267 feet</u>, based on a regular grid of data points that include the wells inside each radius.



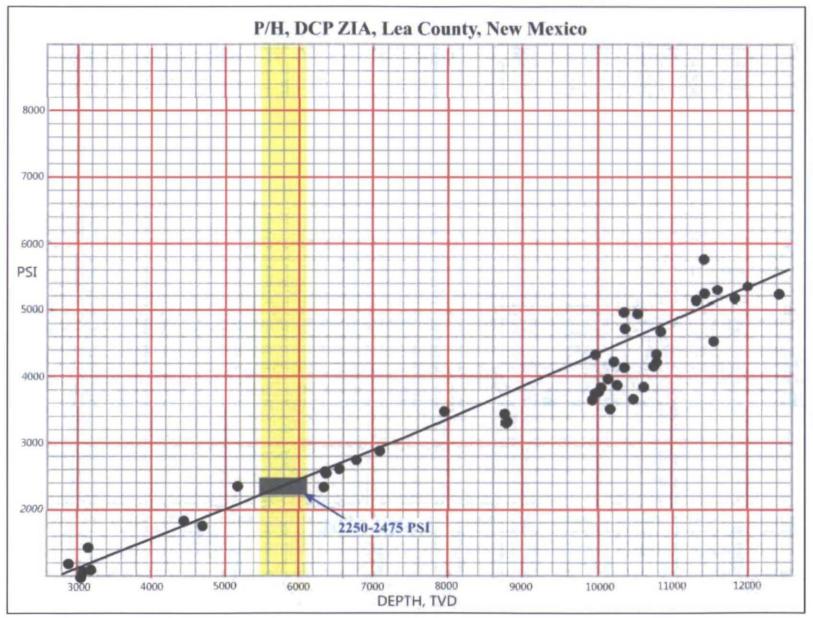


Figure 18: Bottom Hole Pressure Trends

Pressure-depth curve from qualified drillstem test pressure data in the area. The P-H curve shown above gives a pressure gradient of 0.45 psi/ft, which is close to the "normal" hydrostatic gradient of 0.433 psi/ft. The deepest part of the upper Brushy Canyon proposed AGI interval will be around 2475 psi bottom hole pressure.

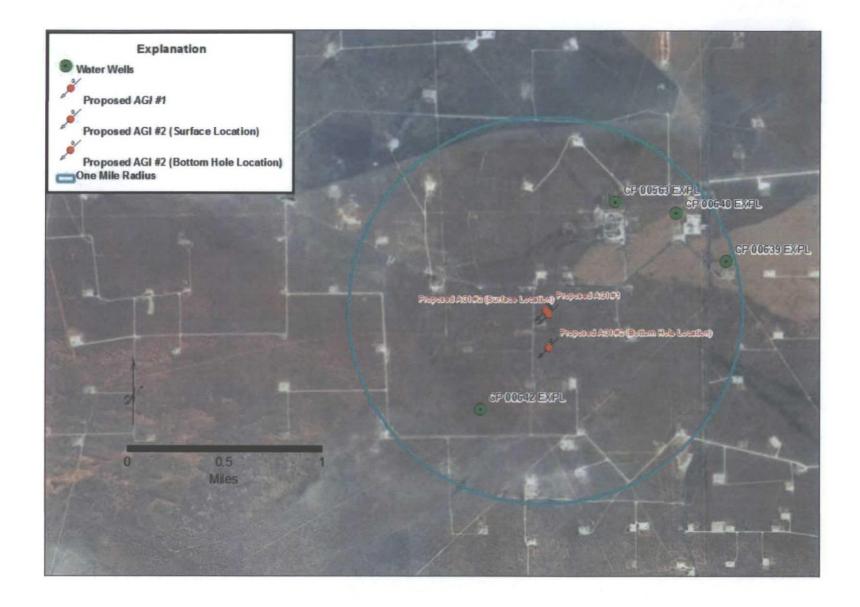


Figure 19: Water Wells Identified by the New Mexico State Engineer's Files within One Mile of the Proposed Zia AGI Wells

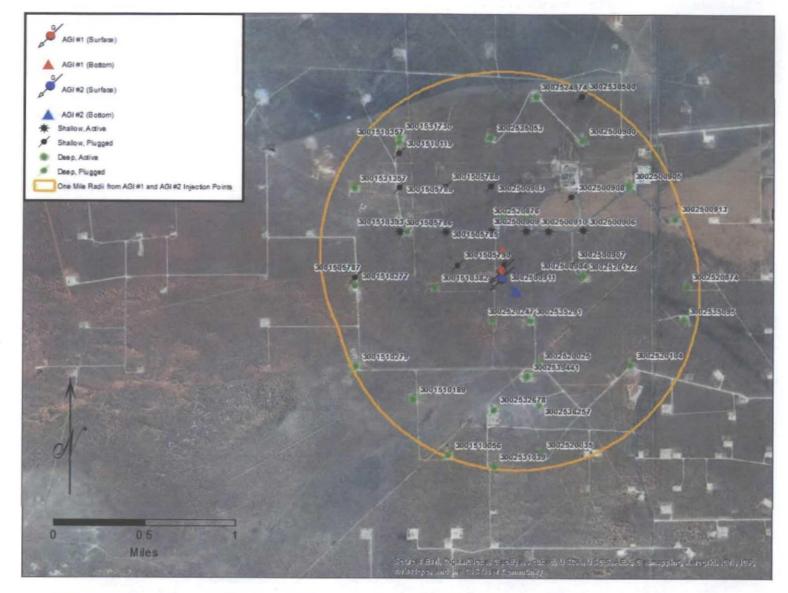


Figure 20: Wells identified within One Mile Radius of Zia AGI #1 and AGI #2

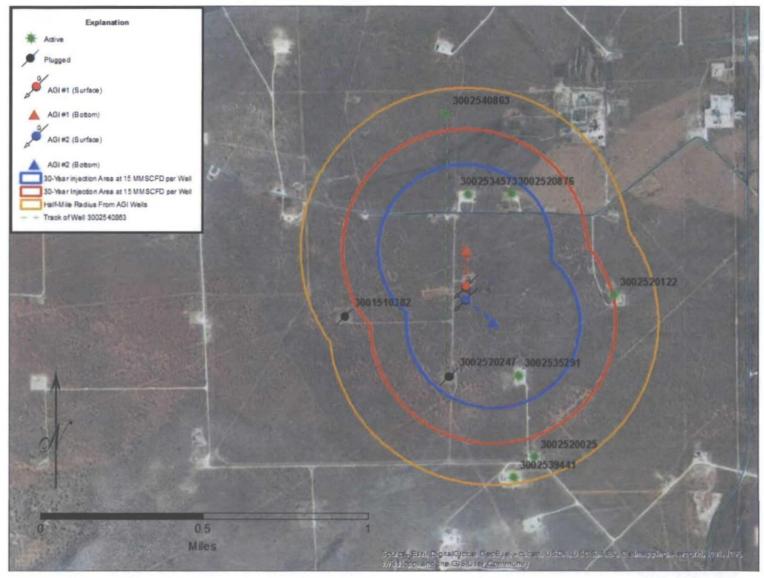


Figure 21: Wells Penetrating the Injection Zone Located Within One Half Mile of the Proposed AGI Wells

(Circles Show Anticipated Rate of 7.5 MMSCFD and 100% Safety Factor Injection Rate 15.0 MMSCFD)

GEOLEX

LUSK DEEP UNIT A 005 (3002520122) WELL SCHEMATIC



 Location:
 1980° FSL & 1980° FEL

 STR
 \$19-T198-R32E

 County, St.:
 LEA COUNTY, NEW MEXICO

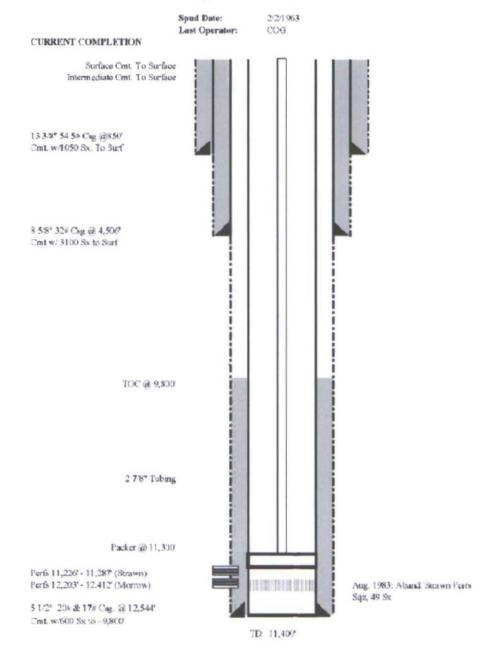


Figure 22: Lusk Deep Unit A 005 Schematic

GEOLEX

LUSK DEEP UNIT 006 (3002520247) PLUGGING SCHEMATIC



Location: 660' FSL & 660' FWL STR \$19-T19S-R32E County, St.: LEA COUNTY, NEW MEXICO Spud Date: 12/16/1963 Plug Date: 10/25/1971 Last Operator: El Paso Products INITIAL COMPLETION FINAL PLUGGING Spot 10 Sx @ Surf Surface Csg. TOC Surf 13 3/8" 48# Csg @766' Cmt. w/2600 Sx. To Surf Spot 25 Sx @700' - 800' Intermediate Csg TOC 668' Spot 25 Sx @ 2,400' - 2,500' 8 5/8" 32# Csg @ 4,369 Spot 35 Sx @ 4,346 Cmt w/ 2800 Sx Calculated TOC~5,400' Spot 25 Sx on 4 1/2" stub @ 6,660' 1971: Perf 8,822 - 8,824 Spot 25 Sx @ 8,819 - 8,829 Spot 10 Sx on CIBP 1971: CIBP @ 11,000' Perfs 11,325' - 11,371' (Strawn) 4 1/2" 11.6#Csg. @ 11,432' 800 Sx TD: 11.432'

Figure 23: Lusk Deep Unit 006 Schematic

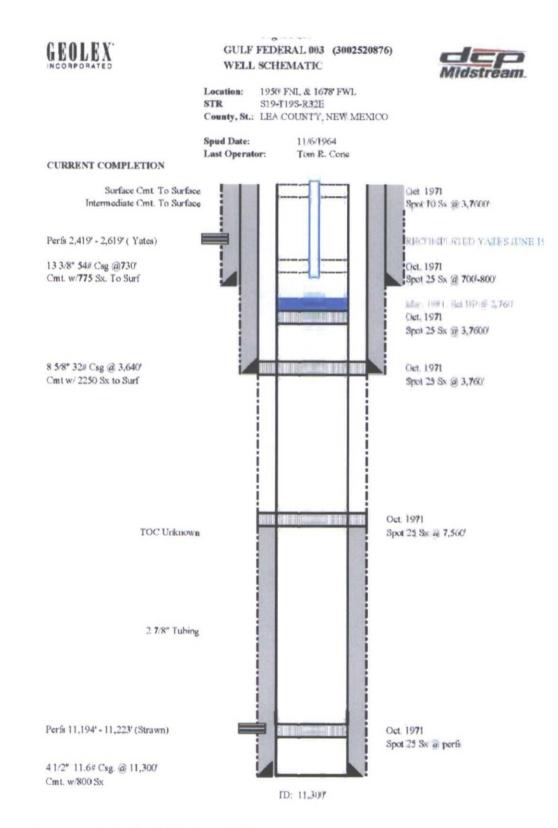


Figure 24: Gulf Federal 003 Schematic

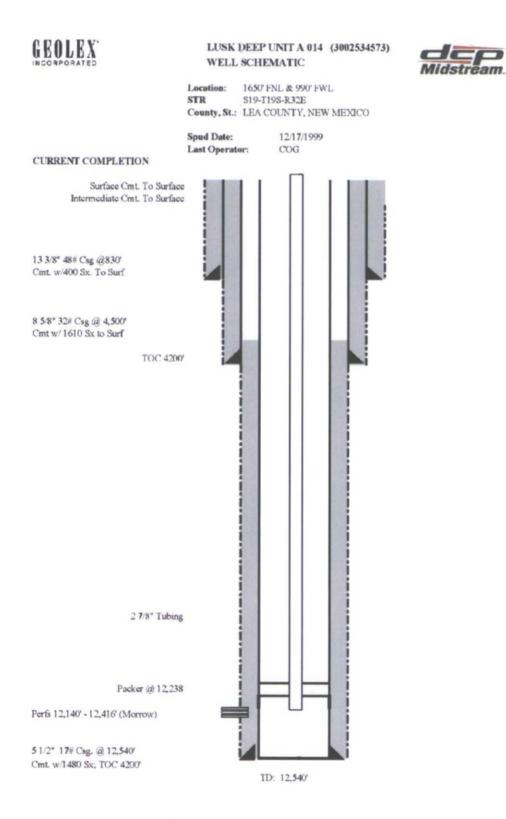


Figure 25: Lusk Deep Unit A 014 Schematic

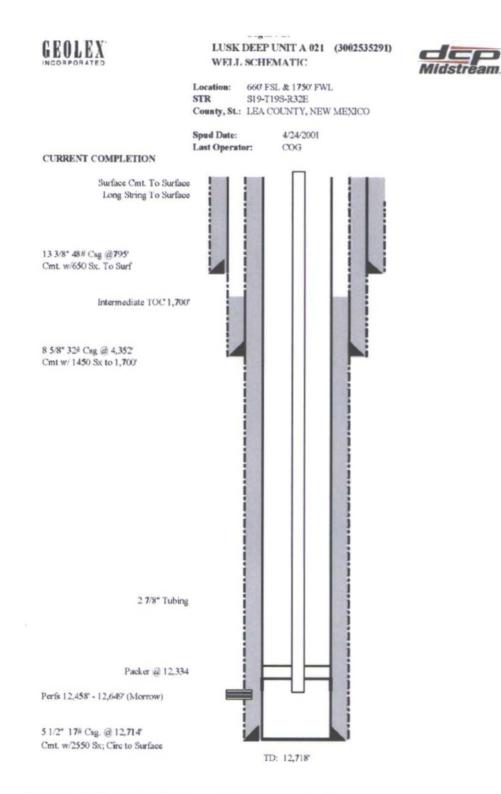


Figure 26: Lusk Deep Unit A 021 Schematic

GEULEX

LUSK DEEP UNIT 008 (3001510382) PLUGGING SCHEMATIC



Location:	1650' FSL & 990' FFL
STR	\$24-T198-R31E
County, St.:	EDDY COUNTY, NEW MEXICO

Spud Date: Plug Date: Last. Operator:

4/26/1964 10/17/1994 Phillips Petroleum

roleum

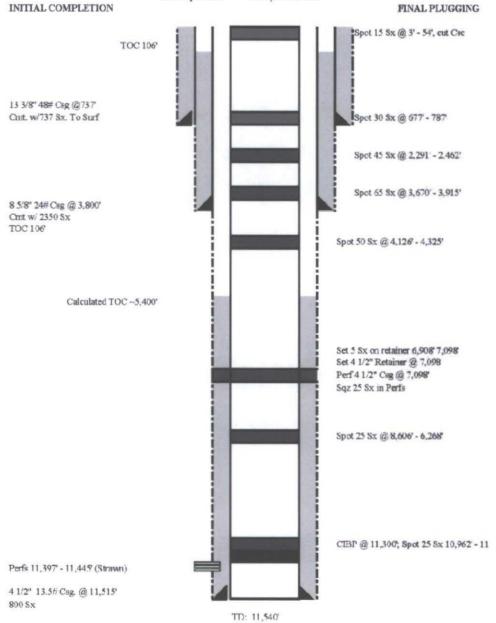


Figure 27: Lusk Deep Unit 008 Schematic

DELHI FEDERAL 001 (3002520025) WELL SCHEMATIC

Location:	660' FSL & 1980' FEL
STR	\$30-T198-R32E
County, St.:	LEA COUNTY, NEW MEXICO

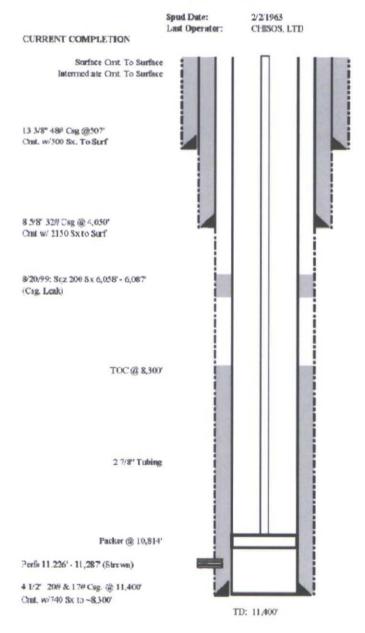


Figure 28: Delhi Federal 001 Schematic

SL DEEP FEDERAL 003 (3002539411) WELL SCHEMATIC

 Location:
 990' FNL & 1650' FWL

 STR
 \$30-T198-R32E

 County, St.:
 LEA COUNTY, NEW MEXICO

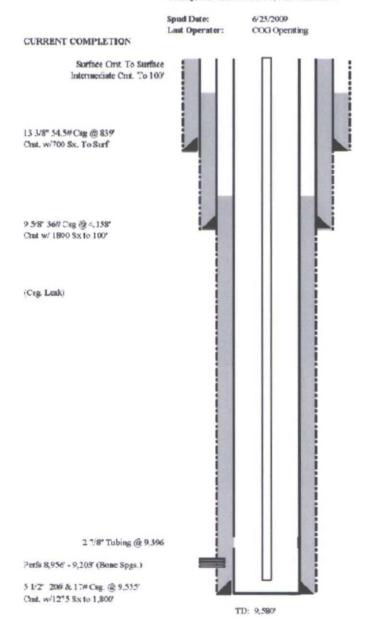


Figure 29: SL Deep Federal 003 Schematic

GEOLEX

LUSK DEEP UNIT A 024H (3002540863) WELL SCHEMATIC

 Surf. Location:
 330 FNL & 66C FWL

 BH Location
 330 FSL & 660 FWL



	STR County, St.:	S19-T198-R32E LEA COUNTY, NEW	MEXICO
CURRENT COMPLETION	Spod Date: Last Operator:	04/24/2001 COG	
CORRENTCOMPLETION			
Surface Cmt. To Surface Intermediate Cmt. To Surface Production To Surface			
13 3/8" 54 5# 0sg @770' Omt. w/675 Sz. To Surf			
8 5.8* 36# Csg @ 4,455' Cmt w/ 1575 Sx to Sarf			
			Vertical Hole to 8,705
			Horizontal @ - 9,300*
2 7/8" Tubin	3		
Packer @ 8,553	,		
Perfs 9,400 - 3,570' (Bone Springs)			
5 1.2* 17# Csg. @ 13,660' Cmt. w/2250 Sx; Surface		TD: 13,6600' TVD: 9,274'	

Figure 30: Lusk Deep Unit A 024H Schematic

APPENDIX A

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Information on Oil and Gas Wells within One Mile of Proposed Zia AGI #1 and AGI #2

		Table A1: All Ident	ified Wells W	ithin One M	lile of Pr	oposed Zia /	AGI Wells			_	-	
API	OPERATOR	WELLNAME	SPUDDATE	PLUGDATE	RANGE	TOWNSHIP	SECTION	TVDDEPTH	DepthType	WELLTYPE	COMPLISTATUS	PRODUCING POOL
3002500911	SIMMS & REESE OIL CO	GULF 001	12/13/1959	12/30/1959	32E	19.0S	19		Shallow	0	Plugged	YATES-SEVEN RIVERS
3002500902	TANDEM ENERGY CORPORATION	MILLER FEDERAL 001	10/12/1942	· · ·	32E	19.05	19	2634	Shallow	0	Active	YATES-SEVEN RIVERS
3002500909	TOM R CONE	GULF FEDERAL 001	8/31/1958	1	32É	19.0S	19	2490	Shallow	0	Active	YATES-SEVEN RIVERS
3002534573	COG OPERATING LLC	LUSK DEEP UNIT A 014	12/17/1999		32E	19.05	19	12540	Deep	G	Active	LUSK;MORROW (GAS)
3002500904	CARPER DRILLING CO	MILLER 002	12/19/1942	3/1/1943	32E	19.05	19		Shallow	0	Plugged	YATES-SEVEN RIVERS
3002520876	TOM R CONE	GULF FEDERAL 003	11/6/1964		32E	19.05	19	11223	Deep	0	Active	YATES-SEVEN RIVERS
3002500910	TOM R CONE	GULF FEDERAL 002	8/3/1961		32E	19.0S	19		Shallow	0	Active	YATES-SEVEN RIVERS
3001505790	PLAINS PROD CO	JONES 007	11/26/1945	9/20/1947	31E	19.05	24	2876	Shallow	0	Plugged	YATES-SEVEN RIVERS
3001505785	TANDEM ENERGY CORPORATION	OHIO JONES 001	10/8/1941		31E	19.0S	24		Shallow	0	Active	YATES-SEVEN RIVERS
3002500907	KELLY G STOUT	SOUTHERN CALIFORNIA 002	10/1/1957	3/24/1958	32E	19.0S	19	2552	Shallow	0	Plugged	YATES-SEVEN RIVERS
3002500903	CARPER DRILLING CO	MILLER 001	1/20/1943	3/15/1943	32E	19.0S	19	2710	Shallow	0	Plugged	YATES-SEVEN RIVERS
3002520247	EL PASO NATURAL GAS	LUSK DEEP UNIT 006	12/16/1963	1/2/1900	32E	19.05	19	11432	Deep	0	Plugged	LUSK;MORROW (GAS)
3002535291	COG OPERATING LLC	LUSK DEEP UNIT A 021	4/24/2001		32E	19.05	19	12718		G	Active	LUSK;MORROW (GAS)
3001510382	PHILLIPS PETROLEUM CO	LUSK DEEP UNIT 008	4/26/1964	10/17/1994	31E	19.0S	24	11540		0	Plugged	LUSK;MORROW (GAS)
3002540863	COG OPERATING LLC	LUSK DEEP UNIT A 024H	12/19/2012		32É	19.05	19	13660		0	Active	LUSK;MORROW (GAS)
3002500906	TOM R CONE	SOUTHERN CALIFORNIA PET FEDERAL 001	1/2/1957		32E	19.0S	19		Shallow	0	Active	YATES-SEVEN RIVERS
3002520122	COG OPERATING LLC	LUSK DEEP UNIT A 005	4/16/1963		32E	19.05	19	12554		G	Active	LUSK;MORROW (GAS)
3002500908	KELLY G STOUT	SOUTHERN CALIFORNIA 003	2/7/1961	3/7/1961	32E	19.05	19		Shallow	0	Plugged	YATES-SEVEN RIVERS
3001505788	PLAINS PROD CO	JONES 005	1/2/1900	1/1/1901	31E	19,05	24	0	Shallow	0	Plugged	NOT SPECIFIED
3001510393	FINA OIL & CHEMICAL	JONES G FED COM 001	10/17/1964	11/19/1992	31E	19.05	24	11515		0	Plugged	LUSK;MORROW (GAS)
3001505786	TANDEM ENERGY CORPORATION	OHIO JONES 002	3/1/1942		31E	19.05	24	2654	Shallow	0	Active	YATES-SEVEN RIVERS
3002535053	COG OPERATING LLC	LUSK DEEP UNIT A 016	6/15/2000		32E	19.05	18	12780		5	Active	LUSK;MORROW (GAS)
3002520025	CHISOS, LTD	DELHI FEDERAL 001	2/2/1963		3ZÉ	19.05	30	11286	Deep	0	Active	LUSK:STRAWN
3001505789	MACK ENERGY CORP	OHIO JONES FED 006	11/26/1942	8/20/1991	31E	19.05	24	2556	Shallow	0	Plugged	YATES-SEVEN RIVERS
3002539441	COG OPERATING LLC	SL DEEP FEDERAL 003	9/15/2009		32E	19.05	30	9580	Deep	0	Active	LUSK;MORROW (GAS)
3002500900	EL PASO NATURAL GAS	LUSK DEEP UNIT 002	11/16/1960	9/9/1971	32E	19.05	18	13974	Deep	ō	Plugged	LUSK;MORROW (GAS)
3002500905	COG OPERATING LLC	LUSK DEEP UNIT A 001	5/21/1975		32E	19.05	19	12453	Deep	G	Active	LUSK; MORROW (GAS)
3001510119	H N SWEENY	MALONE FED 001	3/24/1963	5/2/1963	31E	19.0S	13	680	Shallow	0	Plugged	YATES-SEVEN RIVERS
3001505787	PLAINS PROD CO	JONES 003	1/2/1900	1/1/1901	31E	19.05	24	0	Shallow	0	Plugged	NOT SPECIFIED
3001510277	DOWDCO INC	JONES C FEDERAL 001	4/20/1964	1/27/2006	31E	19.0S	24	11530	Deep	0	Plugged	LUSK; MORROW (GAS)
3001510357	PHILUPS PETROLEUM CO	SIMON A 001	2/16/1965	8/19/1994	31E	19.05	13	11600	Deep	0	Plugged	LUSK; MORROW (GAS)
3002536257	COG OPERATING LLC	SL DEEP FEDERAL 002	4/29/2003		32E	19.0S	30	12640	Deep	G	Active	LUSK; MORROW (GAS)
3001531730	COG OPERATING LLC	MARGARET 13 FEDERAL 001	8/26/2001		31E	19.05	13	12725	Deep	0	Active	LUSK; MORROW (GAS)
3002532678	OXY USA INC	GECKO FEDERAL 001	10/8/1994	3/20/2012	32E	19.05	30	7280	Deep	0	Plugged	YATES-SEVEN RIVERS
3002524974	COG OPERATING LLC	LUSK DEEP UNIT A 013	4/14/1975		32E	19.05	18	12520	Deep	G	Active	LUSK;BONE SPRING
3001531357	DEVON ENERGY PRODUCTION COMPANY, LP	RADAR 24 FEDERAL 001	10/4/2000		31E	19.05	24	12750	Deep	0	Active	LUSK;BONE SPRING, WEST
3002520104	OXY USA INC	ELLIOTT HALL A 001	9/28/1962		32E	19.05	30	12475	Deep	0	Active	LUSK;STRAWN
3002500913	EL PASO NATURAL GAS	LUSK DEEP UNIT 003	7/22/1961	1/2/1900	32E	19.0S	20	12621	Deep	o	Plugged	LUSK;MORROW (GAS)
3001510189	FINA OIL & CHEMICAL	JONES FEDERAL 002	4/2/1963	1/10/1994	31E	19.0S	25	12775	Deep	0	Plugged	LUSK;MORROW (GAS)
3002530500	FRED POOL DRLG INC	LUSK FEDERAL 001	11/10/1988	4/2/1989	32E	19.05	18	2820	Shallow	0	Plugged	YATES-SEVEN RIVERS
3002520874	CIMAREX ENERGY CO. OF COLORADO	LUSK WEST DELAWARE UNIT 012	2/11/1964		32E	19.05	20	11467	Deep	w	Active	WSW;DELAWARE
3001510279	DOWDCO INC	JONES B FEDERAL 002	3/10/1964	2/26/2006	31E	19.05	25	11550	Deep	0	Plugged	LUSK;MORROW (GAS)
3002535095	COG OPERATING LLC	LUSK DEEP UNIT A 017	9/15/2000		32E	19.05	20	12750	Deep	G	Active	LUSK;STRAWN
3002520035	OXY USA INC	ELLIOTT HALL B 002	3/15/2012	3/14/2012	32E	19.05	30	11325	Deep	0	Plugged	LUSK;DELAWARE, WEST
3001510056	LYNX PETROLEUM CONSULTANTS INC	JONES B FEDERAL 001	5/7/1997	5/7/1997	31E	19.05	25	11535	Deep	0	Plugged	LUSK;MORROW (GAS)
3002531039	OXY USA INC	FEDERAL 30 001	11/17/1990		32E	19.05	30	7300	Deep	0	Active	LUSK;DELAWARE, WEST

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Active Well

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Plugged Well

Well with missing NMOCD online files

		Table A2: All Identified Wells Pene	trating Prop	osed Injectio	on Zone	Within One	Mile of Pr	oposed Zia	AGI Wells			
API	OPERATOR	WELLNAME	SPUDDATE	PLUGDATE	RANGE	TOWNSHIP	SECTION	TVDDEPTH	DepthType	WELLTYPE	COMPLETATUS	PRODUCING POOL
3002534573	COG OPERATING LLC	LUSK DEEP UNIT A 014	12/17/1999		32E	19.0S	19	12540	Deep	G	Active	LUSK;MORROW (GAS)
3002520876	TOM R CONE	GULF FEDERAL 003	11/6/1964		32E	19.05	19	11223	Deep	0	Active	YATES-SEVEN RIVERS
3002520247	EL PASO NATURAL GAS	LUSK DEEP UNIT 006	12/16/1963	1/2/1900	32E	19.05	19	11432	Deep	0	Plugged	LUSK;MORROW (GAS)
3002535291	COG OPERATING LLC	LUSK DEEP UNIT A 021	4/24/2001		32E	19.05	19	12718	Deep	G	Active	LUSK; MORROW (GAS)
3001510382	PHILLIPS PETROLEUM CO	LUSK DEEP UNIT 008	4/26/1964	10/17/1994	31E	19.05	24	11540	Deep	0	Plugged	LUSK; MORROW (GAS)
3002540863	COG OPERATING LLC	LUSK DEEP UNIT A 024H	12/19/2012		32E	19.05	19	13660	Deep	0	Active	LUSK;MORROW (GAS)
3002520122	COG OPERATING LLC	LUSK DEEP UNIT A 005	4/16/1963		32E	19.05	19	12554	Deep	G	Active	LUSK;MORROW (GAS)
3001510393	FINA OIL & CHEMICAL	JONES G FED COM 001	10/17/1964	11/19/1992	31E	19.05	24	11515	Deep	0	Plugged	LUSK;MORROW (GAS)
3002535053	COG OPERATING LLC	LUSK DEEP UNIT A 016	6/15/2000		32E	19.05	18	12780	Deep	S	Active	LUSK;MORROW (GAS)
3002520025	CHISOS, LTD	DELHI FEDERAL 001	2/2/1963		32E	19.05	30	11286	Deep	0	Active	LUSK;STRAWN
3002539441	COG OPERATING LLC	SL DEEP FEDERAL 003	9/15/2009		32E	19.05	30	9580	Deep	0	Active	LUSK; MORROW (GAS)
3002500900	EL PASO NATURAL GAS	LUSK DEEP UNIT 002	11/16/1960	9/ 9/1971	32E	19.05	18	13974	Deep	0	Plugged	LUSK;MORROW (GAS)
3002500905	COG OPERATING LLC	LUSK DEEP UNIT A 001	5/21/1975		32E	19.05	19	12453	Deep	G	Active	LUSK;MORROW (GAS)
3001510277	DOWDCO INC	JONES C FEDERAL 001	4/20/1964	1/27/2006	31E	19.05	24	11530	Deep	0	Plugged	LUSK;MORROW (GAS)
3001510357	PHILLIPS PETROLEUM CO	SIMON A 001	2/16/1965	8/19/1994	31E	19.05	13	11600	Deep	0	Plugged	LUSK;MORROW (GAS)
3002536257	COG OPERATING LLC	SL DEEP FEDERAL 002	4/29/2003		32E	19.0S	30	12640	Deep	G	Active	LUSK; MORROW (GAS)
3001531730	COG OPERATING LLC	MARGARET 13 FEDERAL 001	8/26/2001		31E	19.05	13	12725	Deep	0	Active	LUSK; MORROW (GAS)
3002532678	OXY USA INC	GECKO FEDERAL 001	10/8/1994	3/20/2012	32E	19.05	30	7280	Deep	0	Plugged	YATES-SEVEN RIVERS
3002524974	COG OPERATING LLC	LUSK DEEP UNIT A 013	4/14/1975		32E	19.05	18	12520	Deep	G	Active	LUSK; BONE SPRING
3001531357	DEVON ENERGY PRODUCTION COMPANY, LP	RADAR 24 FEDERAL 001	10/4/2000		31£	19.05	24	12750	Deep	0	Active	LUSK;BONE SPRING, WEST
30025201.04	OXY USA INC	ELLIOTT HALL A 001	9/28/1962		32E	19.05	30	12475	Deep	0	Active	LUSK;STRAWN
3002500913	EL PASO NATURAL GAS	LUSK DEEP UNIT 003	7/22/1961	1/2/1900	32E	19.05	20	12621	Deep	0	Plugged	LUSK;MORROW (GAS)
3001510189	FINA OIL & CHEMICAL	JONES FEDERAL 002	4/2/1963	1/10/1994	31E	19.05	25	12775	Deep	0	Plugged	LUSK;MORROW (GAS)
3002520874	CIMAREX ENERGY CO. OF COLORADO	LUSK WEST DELAWARE UNIT 012	2/11/1964		32E	19.05	20	11467	Deep	W	Active	WSW;DELAWARE
3001510279	DOWDCO INC	JONES B FEDERAL 002	3/10/1964	2/26/2006	31E	19.05	25	11550	Deep	0	Plugged	LUSK; MORROW (GAS)
3002535095	COG OPERATING LLC	LUSK DEEP UNIT A 017	9/15/2000		32E	19.05	20	12750	Deep	G	Active	LUSK;STRAWN
3002520035	OXY USA INC	ELLIOTT HALL B 002	3/15/2012	3/14/2012	32E	19.05	30	11325	Deep	0	Plugged	LUSK;DELAWARE, WEST
3001510056	LYNX PETROLEUM CONSULTANTS INC	JONES B FEDERAL 001	5/7/1997	5/7/1997	31E	19.05	25	11535	Deep	0	Plugged	LUSK;MORROW (GAS)
3002531039	OXY USA INC	FEDERAL 30 001	11/17/1990		32E	19.05	30	7300	Deep	0	Active	LUSK;DELAWARE, WEST

Active Well

Plugged Well

		Table A3: All Wells P	enetrating Pr	oposed Inje	ction Zo	ne within O	ne Half Mi	ile of Propos	sed Zia AGI	#1 and #2		
ΑΡΙ	OPERATOR					TOWNSHIP	1				COMPLETATUS	PRODUCING POOL
3002534573	COG OPERATING LLC	LUSK DEEP UNIT A 014	12/17/1999		32E	19.05	19	12540	Deep	G	Active	LUSK;MORROW (GAS)
3002520876	TOM R CONE	GULF FEDERAL 003	11/6/1964		32E	19.05	19	11223	Deep	0	Active	YATES-SEVEN RIVERS
3002520247	EL PASO NATURAL GAS	LUSK DEEP UNIT 006	12/16/1963	1/2/1900	32E	19.05	19	11432	Deep	0	Plugged	LUSK;MORROW (GAS)
3002535291	COG OPERATING LLC	LUSK DEEP UNIT A 021	4/24/2001		32E	19.0S	19	12718	Deep	G	Active	LUSK;MORROW (GAS)
3001510382	PHILLIPS PETROLEUM CO	LUSK DEEP UNIT 008	4/26/1964	10/17/1994	31E ⁻	19.0S	24	11540	Deep	0	Plugged	LUSK;MORROW (GAS)
3002540863	COG OPERATING LLC	LUSK DEEP UNIT A 024H	12/19/2012		32E	19.05	19	13660	Deep	0	Active	LUSK;MORROW (GAS)
3002520122	COG OPERATING LLC	LUSK DEEP UNIT A 005	4/16/1963		32E	19.05	19	12554	Deep	G	Active	LUSK;MORROW (GAS)
3002520025	CHISOS, LTD	DELHI FEDERAL 001	2/2/1963		32E	19.05	30	11286	Deep	0	Active	LUSK;STRAWN
3002539441	COG OPERATING LLC	SL DEEP FEDERAL 003	9/15/2009		32E	19.05	30	9580	Deep	0	Active	LUSK;MORROW (GAS)

.

Active Well

Plugged Well

LUSK DEEP UNIT A 005 (3002520122)

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ny Bl or Tract o 5 on 1980 ne inform	Lusk Sec. 19 ft. $\begin{bmatrix} N \\ S \end{bmatrix}$ of S ation given h	r al Gas (Unit T 195 R	Company	GE GOF (Addree	DIL OR G	AS W		•
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ny Bl or Tract o 5 on 1980 ne inform	Paso Natur Lusk Sec. 19 ft. $\begin{bmatrix} N \\ St \end{bmatrix}$ of S ation given h	r al Gas (Unit T 195 R	Company	Addres			VELL	•
ny Bl or Tract o 5 on 1980 ne inform	Paso Natur Lusk Sec. 19 ft. $\begin{bmatrix} N \\ St \end{bmatrix}$ of S ation given h	r al Gas (Unit T 195 R	Company	Addres				-
or Tract o 5 on 1980 ne inform	Lusk Sec. 19 ft. $\begin{bmatrix} N \\ S \end{bmatrix}$ of S ation given h	Unit T. 195 R			ss			
o. 5 on 1980 ne inform	Sec. 19 ft. <mark>R.</mark> of S . ation given h	T. 195 R		$\mathbf{F}_{old}\mathbf{I}$		492, KI I	Paso 99	
on 1980 ne inform	ft. $\left\{ \begin{matrix} \mathbf{N} \\ \mathbf{X} \end{matrix} \right\}$ of S . ation given h		200 14.	I ICIU -	.usk-Strawn-M	orrowate	New	M
ne inform	ation given h	Line a			NMP.M Cou			
ne inform	ation given h		nd 1980 ft	R . W. ofE.	Line of Section	<u>n 19</u>	Eleva	tio
		erewith is	s a comple	ete and correc	ct record of the w	ell and all		
				igned	- A.C.			
•	y.1, 1963				TitleSu	pt. Pet		
enced dril	llingA	pril 16	, 19	9 63 Finisl	hed drilling	June 11		
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from 1	1, 207	to 11				te	`	
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			*******	No. 4	, from			
Weight	Threads per	Make	Amount	Kind of shoe				
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a company of the second		Sveng	850		Cut and pulled from	Perfor	rated	S
		Syang.		Howco	Cut and pulled from	From	<u>To-</u>	S
32					Cut and pulled from	From	<u>To-</u> 11, 221	SP
32- 20-17	8-Butt.	CP1	4506		Cut and pulled from	From	<u>To-</u>	SP
32	-8-Butt.	Young	4506	Howco		From- 11, 207. 11, 221	<u>To-</u> 11,221 11,240	SP
- 20-17	· · · · · · · · · · · · · · · · · · ·	Young MUDI	4506 12,554 DING AN	Howco"	ING RECORD	From- 11, 207 11, 221 12, 400	<u>To-</u> 11, 221 11, 240 12, 412	S P P P
- 20-17	· · · · · · · · · · · · · · · · · · ·	MUD	4506 12,554 DING AN	Howco		From- 11, 207 11, 221 12, 400	<u>To-</u> 11,221 11,240	S P P P
- 20-17	· · · · · · · · · · · · · · · · · · ·	Young MUDI	4506 12,554 DING AN	Howco"	ING RECORD	From- 11, 207 11, 221 12, 400	<u>To-</u> 11, 221 11, 240 12, 412	PP
	from from from from from	enced drilling A from	enced drilling April 16 or from to from to	enced drilling April 16 11 OIL OR GA from to 11,221 from to 12,224 from to 12,412 (G) IMPORTA from to from to 12,412 (G) IMPORTA from to from to 12,412 (G) IMPORTA	enced drilling April 16 , 1963 Finish OIL OR CAS SANDS ((Denote gas by G) from 11,207 to 11,221 No. 4 from 11,224 No. 5 No. 5 from 12,412 (G) No. 6 IMPORTANT WATEL No. 3 from to No. 4 from 12,412 (G) No. 6 IMPORTANT WATEL No. 3 from to No. 4 from to No. 4 from 12,412 (G) No. 6 IMPORTANT WATEL No. 4 from to No. 4	OIL OR GAS SANDS OR ZONES (Denote gas by G) from 11,207 to 11,221 No. 4, from from 11,224 No. 5, from	enced drilling April 16 1963 Finished drilling June 11 OIL OR GAS SANDS OR ZONES (Denote gas by G) from 11,207 to 11,221 No. 4, from to from 11,224 No. 5, from to to 11,224 No. 6, from to from 12,412 (G) No. 6, from to to to to to IMPORTANT WATER SANDS from to No. 3, from to from to No. 4, from to	enced drilling April 16 1963 Finished drilling June 11 OIL OR GAS SANDS OR ZONES (Denote gas by G) from 11,207 to 11,221 No. 4, from to from 11,224 No. 5, from to to from 12,412 (G) No. 6, from to to IMPORTANT WATER SANDS No. 3, from to to

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TOOLS	USED

Form 5-831A	•			uresu No. 42-R358.4. proved.
(Feb. 1951)	(SUBMIT IN TRIPLICATE)	Land (Office	New Mexico
	UNITED STATES DEPARTMENT OF THE INTERIOR		11.	025566 Lusk Unit
X	GEOLOGICAL SURVEY	5	NA.	8:16

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY
NOTICE OF INTENTION TO ABANDON WELL	-
	.

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

		•••••	July 2	, 19.63
Lusk Unit Well No5 is located	1980 ft. from	{ N line and198	0. ft. from $\left\{ \begin{matrix} \mathbf{E} \\ \mathbf{W} \end{matrix} \right\}$ line of	sec. 19
SE/4 19 (1/4 Sec. and Sec. No.)	19 S	32 E NM	/PM	
(1/ Sec. and Sec. No.)	(Twp.)	(Range) (M	(eridian)	
Lusk Deep - Strawn-Morrow	I	.ea	New Mexico	
(Field)	(County o	r Subdivision)	(State or Territory)	

The elevation of the derrick floor above sea level is .3550 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cement-ing points, and all other important proposed work)

SPUD DATE: 4/16/63

On 4/18/63 ran 28 jts., 13 3/8" OD, 54.5# J-55 casing set at 850' w/1050 sacks regular cement and 2% calcium chloride. Cement circulated to surface. Tested casing 1000# for 30 minutes. WOC 24 hours.

i understar	d that this plan of work must receive approval in writing	g by the Geological Sur	vey before operations may be commenced.
Company .	El Paso Natural Gas Company		,
Address	P. O. Box 1492		ADIONIAL CIONED DV
	El Paso 99, Texas	Ву	CRIGNAL SIGNED BY
	Att: Drilling Dept.	Title	

		Budget Bureau No. 42-R358.4, Form Approved.
Form 9-381 a (Feb. 1951)	(SUBMIT IN TRIPLICATE)	Land Office New Mexico
	UNITED STATES	IN 8 16
	GEOLOGICAL SURVEY	

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY
NOTICE OF INTENTION TO ABANDON WELL	
	· · · · · · · · · · · · · · · · · · ·

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

July 1

19 63

Lusk Unit Well No5. is located	1980. ft.		1980. ft. from		,
SE/4 19 (% Sec. and Sec. No.)	19 S	32 E	NMPM		
		(Range)	(Meridian)		
Lusk Deep-Strawn-Morrow (Field)		Lea	N	ew Mexico	
(Field)	(County or Subdivision)	(St	ate or Territory)	

The elevation of the derrick floor above sea level is 3550 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

On 5/1/63: T.D. 4506. Ran 141 jts. 8 5/8" OD 32# J-55 casing set at 4506. Cemented in two stages with stage tool at 2445'. First stage 600 sks. 50-50 Pozmix and 4% GEL plus 100 sks. regular cement and 2% calcium Chloride. 2nd stage 2300 sks. 50-50 Pozmix and 8% GEL Salt Saturated plus 100 sks. regular cement and 2% calcium chloride. Cement circulated to surface. Tested casing w/1000# for 30 minutes

I understaa	id that this plan of work must receive approval in writing by t	he Geological Su	vey before operations may be commenced.
Company	El Paso Natural Gas Company	·	
Address	P. O. Box 1492		ORIGINAL SIGNED BY
	El Paso 99, Texas	Ву	E. J. COEL
	Att: Drilling Department	Title	

Form 9-331a	/ Budget Bureau No. 42-R358.4. Form Approved.
(Feb. 1951)	(SUBMIT IN TRIPLICATE) UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY 1011 B 16 1011 B 16 1011 B 16 1011 B 16 1011 B 16 1011 B 10 1011 B 10 10

SUNDRY NOTICES AND REPORTS ON WELLS

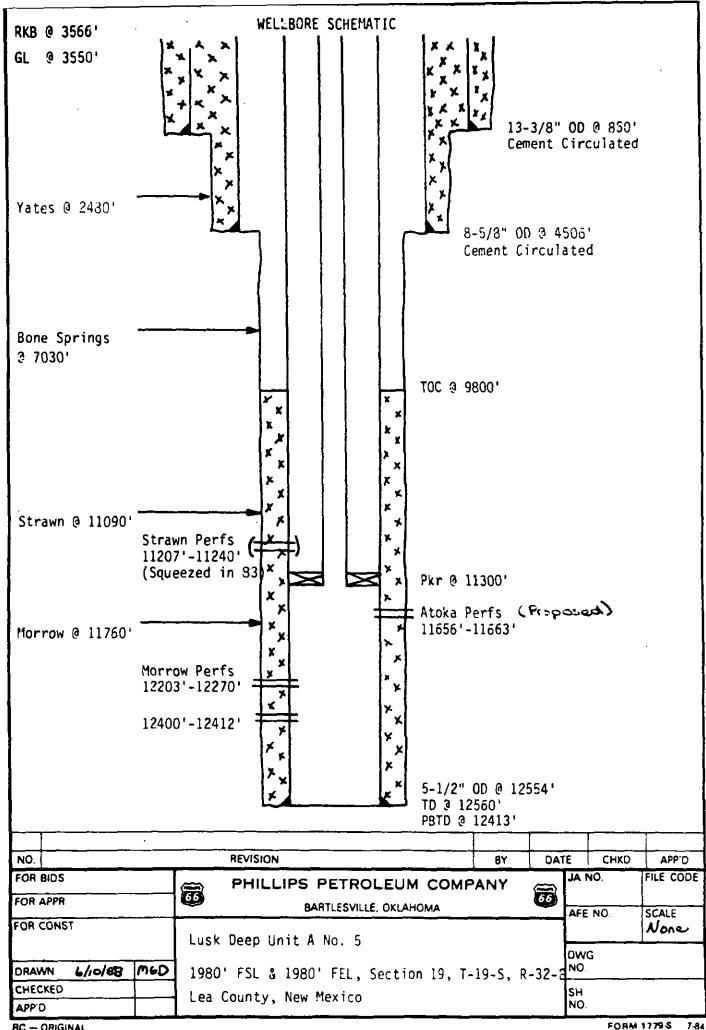
NOTICE OF INTENTION TO DRILL	1	SUDGEOUGNT DEPODT OF	ATED CHUT AFF	X
	1		ATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLAN	i	SUBSEQUENT REPORT OF S	HOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER	SHUT-OFF		LTERING CASING.	
NOTICE OF INTENTION TO RE-DRILL OR	REPAIR WELL	SUBSEQUENT REPORT OF R	E-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR AC	IDIZE	SUBSEQUENT REPORT OF A	BANDONMENT	
NOTICE OF INTENTION TO PULL OR ALT	ER CASING		TORY	
NOTICE OF INTENTION TO ABANDON WE	_L			
	:	n		1
(INDICATE)	BOVE BY CHECK MARK NA	TURE OF REPORT, NOTICE, OR	DTHER DATA)	<u></u>
(INDICATE /		TURE OF REPORT, NOTICE, OR		
			July 2	•
Lusk Unit Well No is located	<u>1980</u> ft. from	[N] S] line and _1980_f	$\frac{\text{July 2}}{\text{t. from } \left\{ \begin{matrix} \mathbf{E} \\ \mathbf{W} \end{matrix} \right\} \text{ line of } $	•
	<u>1980</u> ft. from	[N] S] line and _1980_f	$\frac{\text{July 2}}{\text{t. from } \left\{ \begin{matrix} \mathbf{E} \\ \mathbf{W} \end{matrix} \right\} \text{ line of } $	•
Lusk Unit Well No is located	<u>1980</u> ft. from. <u>19 S</u> 3: (Twp.) (R	S line and 1980 f	$\frac{\text{July 2}}{\text{t. from } \left\{ \frac{\mathbf{E}}{\mathbf{W}} \right\} \text{ line of } $	•

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cement-ing points, and all other important proposed work)

On 6/12/63: T.D. 12,560'. Ran 303 jts. of 5 1/2" OD casing as follows: 3102' of 20# N-80, 5554' of 17# N-80, 3901' of 17# N-80 Buttress set at 12,554' w/600 sks. Trinity Lite-Wate and 0.75% CFR-2. Good circulation throughout running casing and cementing. Top cement on bond log 9800'. Casing tested 1500 psi for 30 minutes.

l understa	nd that this plan of work must receive approval in writing	y the Geological Survey before operations may be c	ommenced.
Company	El Paso Natural Gas Company		
Address	P. O. Box 1492	ORIGINAL SIGNED B	Ŷ
•••••	El Paso 99, Texas	By <u>E. J. COEL</u>	
*****	Att: Drilling Department	Title	



RC - ORIGINAL

		JOF LAND MA	HE TINC	RHUR	#1 FUF1 in	na on	4025566	UN AND BERIAL NO.
In. TYPE OF WELL:	IPLETION OR			The Bar	CO 88240	N	1-025566	
In. TYPE OF WELL:	IPLETION OR				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	(*		
In. TYPE OF WELL:			710				NDIAN, ALLOY	THE OR TRIBE NAME
			TION K		IND LOG	-		
A TYPE OF COMPL	WRLL	KERTE A	DEY 🗌 (lher		7. 000	T AGREEMENT	NAME
WRITE D	ETION:		і ру . Януя. 🔲 — С	Other	-720	L	usk Deep	Unit A
2. PAME OF OPERATOR	· · · · · · · · · · · · · · · · · · ·					L	usk Deep	Unit A
Phillips Pe	etroleum Comp	any				5		
4001 Penhra	mk Street	Odessa Tex	ac 7976	2				a Gas
4001 Penbro 4. LOCATION OF WELL AL SUITAGE Unit	(Report location cle t J, 1980' FS	(State require	menta)*	. <u> </u>	usk Morr	A GAS
	val reported below	same				0	K ARTA	
At total depth	same					10		-45
		14.	PERMIT NO.		ATE ISBUED		9 10.5	
		30	-025-20	1	PB 4-12-89	74	ea.	NM
PB-3-14-89	16. DATE T.D. REACH				ELEVATIONS (DP	······································		ELEY, CABINGHRAD
1-16-63	7-11-63	_ reperf'd	5-18-89		מעם י/נא			
10-10-05 1	TVD 21. PLUG. BAC	X T.D., ND & TVD	22. 17 NULT	IPLE CONFL.	23. INTE		RT TOOLS	CABLE TOOLS
12.554'	1 12.4	13'	downhole	e commine	led	► 0-Т	'n	1
4. PRODUCING INTERV.	AL(\$), OF TRIS CONS	LETION-TOP, BOTTO	M. NAME (N	D AND TYD)*	<u> </u>			5. WAR DIRSCTIONAL
11,656'-11	,663' - Atoka	1						QUEALL MUDE
12.203'-12	.412' - Morro	w.						No
12,203'-12 6. TEPE BLECTRIC AN	D OTHER LOCE AT'N						22	TAR WELL COLID
GR-CCL							ł	No
		CASING RI	CORD (Rep.	ort all strings	set in wril)			
CARING RILL	WEIGRT, LB./FT.	DEPTH BET (ND) 40		CEM	ENTING RECORD		ANOUNT PULLED
13-3/8"	54.5	850	1	7-1/2"	1050 sx.	Circ to	surface	
8-5/8''	32#	4506*		2-1/4"		Circ to		
5-1/2"	20# & 17#	12,554'		7-7/8"		TOC @ 98		
	<u> </u>							
19.	LINI	R RECORD	_ <u>_</u>		30.	TUBING	G RECOBL	<u> </u>
III	TOP (ND) BOT	TOM (MD) BACK	стит.	SCREEN (NI			*** (11)	PACEEL SOT (MD)
					2-778	<u> </u>	00	211,300
3. PRAPORATION RECO		1		<u> </u>				Baker A5-2
Perf'd w/2-1		•	~	<u>\$2.</u>				TERSE, ETC. I'I
	11,656'-11,0			DEPTH INT	ERVAL (MD)	ANOUNT A	ND EIND OF	NATERIAL USED
•								
12,203'-12,4	12							<u>c5</u>
				}				
3.*			PROI	DUCTION				
ATE FIRST PRODUCTIO	N PRODUCTIO	H METHOD (Flowin	0. 004 14/1, pi	mping-size	and type of pum	·p)		un (Producing or
7-03-89	1	Flowing					Prodi	ucing
ATE OF TEST	HOURS TESTED	CHOKE ATER 70	OD'H. POR	OIL-BEL.	GAR	P	ER-#8L.	UAB-OIL BATIO
6-13-89	24	18/64''	>	42.1		CAOF		ļ
LOW. TUBINO PRES.	CASING PRESSURE	CALCULATED (1)	L	GAB	NCF	WATER	016	GRAVITT-API (COLB.)
2149	1		(0	DRIG. SCI	D.) DAVIDI	R. GLASS]	55.7
I4. DISPOSITION OF QA	a (Beld, used for fuel	, venled, etc.)			7.31		WITNESSE	
Sold					· /	L.	. Hawkin	s ·
S. LIST OF ATTACHM	EXTA							
			CA	21387.0	SHILL MEX			
C-122								
	that the foregoing ar	d attached informs				ed from all av	allable record	ia
C-122	that the foregoing as	id attached informi	tion le comp	lete and corr			DATE 8	

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any factorizations or fraudulent statements of constructions and the statement of the statements of t LUSK DEEP UNIT 006 (3002520247)

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Well No. 6. Sec. 19 T. 19 - S R. 32 - E Meridian MMPM. County Lea Location .660 ft. 660 ft. 60 ft. ft. ft. of Meess Line of Sec. 19 Elevation The information given herewith is a complete and correct record of the well and all work done so far as can be determined from all available records. 0, E Signed 0, E Date						GEOI	OGICAL SURV	EY		
LOCATE WELL CORRECTLY Company Southern New Mexico 011 Corporation Box 1659 Midland, Texas Lessor or Tract_Lusk Daep - Stravn Field_Lusk Strawn State New Mex Well No .6 Sec_19T.19-S R.32-E Meridian NMPM County Les Location .660 ft No .6 Sec_19T.19-S R.32-E Meridian NMPM County Les Location .660 ft No .6 Southern and .660ft Elevation County Les Location .660 ft No .6 Southern and .660ft Elevation County Les Location .660 ft No .6 Southern and .660ft Elevation County Les Location .660 ft Isso .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 Must Add Control of the well and all work done .6 </th <th> </th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th> <th></th>	 					-				
LOCATE WELL CORRECTLY Company Southern New Mexico 011 Corporation Hidress Box 1659 Midland, Texas Lessor or Tract_Lusk Daep - Stravn Field Lusk Strawn State Meridian Meridian NMP Company Southern New Mexico 011 Corporation Hidress Box 1659 Midland, Texas Lessor or Tract_Lusk Daep - Stravn Field Lusk Strawn County Lea County Lea Location .660. ft [N] Of Southine and .660ft [E] Of Meast Line of Sac. 19 Elevation The information given herewith is a complete and correct record of the well and all work done so far as can be determined from all available records. Signed										
Southern New Mexico 011 Corporation didress Box 1559 Midland, Texas Lessor or Tract Lusk Daep Strawn Field Lusk Strawn State Mew Mex Well No. 6 Sec. 19 T. 13 - S R. 32 - E Meridian NNPM County Lea Location 660. ft. No of Southine and .660ft. E of West Line of Sac. 19 Elevation The information given herewith is a complete and correct record of the well and all work done so far as can be determined from all available records. 0. E Or. Elevation The information given herewith is a complete and correct record of the well and all work done so far as can be determined from all available records. 0. Elevation 0. Elevation The summary on this page is for the condition of the well at above date. Commenced drilling 2/9				I	200	G OF O	IL OR G	AS W	ELI	
Lessor or Tract Lusk Daep Strawn Field Lusk State Mew. Mex. Well No. 60 ft. No. of Southine and 660ft. E. of West Line of State Mew. Mex. Location 660 ft. No. of Southine and 660ft. E. of West Line of State Mew. Mex. Location 660 ft. No. ft. of West Line of State Mew. Mex. Location 660 ft. No. ft.	LOC	ATE WELL	CORRECTLY	r						
Location .660. ft. N. of .Southine and .660ft. E. of West Line of	Compar	y Sout	hern New	Mexico Oil C	orpoi	ation Address	Box 1659	Midlan	d, Te	xas
Signed O. B Date	Lessor (or Tract	Lusk Dag	p - Strawn		Field	usk Strawn	State .	New	Nex
The information given herewith is a complete and correct record of the well and all work done is so far as can be determined from all available records. Signed								•		
The information given herewith is a complete and correct record of the well and all work done is so far as can be determined from all available records. Signed	Locatio	n .660 :	ft. $\begin{bmatrix} \mathbf{N} \\ \mathbf{S} \end{bmatrix}$ of \mathbf{S}	outhine and6	60ft.	E. of West	Line of Sec.	19	. Eleva	ation
Signed O. B Date	Th	e informa	tion given h	nerewith is a co	mplet	e and correct				
The summary on this page is for the condition of the well at above date. Commenced drilling 12/16 1963 Finished drilling 2/9 , OIL OR GAS SANDS OR ZONES (Denote gas by G) No. 1, from 11,325 to 11,321 No. 4, from to No. 2, from to 11,321 No. 4, from to No. 2, from to No. 5, from to No. 3, from to No. 6, from to No. 6, from No. 1, from No. 4, from to No. 3, from to No. 4, from to No. 4, from to No. 4, from to No. 4, from to CASING RECORD Multiple from Perforated Perforated Pomo Promo To O C. 6, FT Multiple from Perforated Perforated Multiple from Perforated Perforated Perforated<	so far a	s can be d	letermined f	from all availab	le recc Sig	ned	HE GUSCO			0. H
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OIL OR GAS SANDS OR ZONES (Denote gas by G) No. 1, from	\mathbf{Th}	e summar	ry on this pa	age is for the co	nditio	n of the well	at above date.			
(Denote gas by G) No. 1, from	Comme	nced drill	ing	12/16	, 194	63 Finishe	d drilling	2/9		·,
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	GEOLOGICAL SUR		LC 06586	3
	Y NOTICES AND REPO	ORTS ON WELLS a or plug back to a different reservoir. for such proposals.)	6. IFTINDIAN, ALLO	OTTEE OR THIBE NAME
			7. UNIT AGREEMEN	TNAME
WELL WELL	OTHER Drilling Hill		8. FABM OR LEASE	NAME
-	serico Cil Corporation	D	Lusk Unit	
3. ADDRESS OF OPERATOR			9. WELL NO.	
····	t Contor, Ballas L, Ti t location clearly and in accordance		10, FIELD AND POC	L, OR WILDCAT
	th and West Lines of . Sea County, New Yexi.		LUSK Deep- 11. BEC., T., R., M., SURVEY OR	OR BLE. AND
- 12-12 142. 1	es control her sext		Sec 19. 1-	-19-3-R-32-8
14. PERMIT NO.	15. ELEVATIONS (Show	whether DF, RT, GR, etc.)	12. COUNTY OR PA	
	<u>3536 g</u>	.R.	Lea	New Maxico
16.	Check Appropriate Box To Ir	dicate Nature of Notice, Report	, or Other Data	
	CE OF INTENTION TO ;		UBSEQUENT REPORT OF:	
	FULL OR ALTER CASING			
TEST WATER SHUT-OFF	MULTIPLE COMPLETE	WATER SHUT-OFF FRACTURE TREATMENT	<u></u> !	ING WELL
SHOOT OF ACIDIZE	ABANDON*	SHOUTING OR ACIDIZIS		NMENT.
REPAR WELL	CHANGE PLANS	(Other)		
(Other)		NorE : Report Completion or B	results of multiple comple accompletion Report and La	tion on Well og form.)
H-40, 430 cast 2% ca cly plus The comment clu	ing was comented at 7 s 150 sacks encor cea	130 if (ecenter 16, 196) 761 with 500 acks of 5 ent. The plan was down ours a pressure of 850 au produing anop.	of cornix, Ef ge at 2:30 AF Dece	al, mber 19.
•				
18. I hereby certify that the	foregoing is true and correct			
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(This space for Federal	or State office use)	AF ST		<u></u>
		от Г'	·	
APPROVED BY CONDITIONS OF APPR		THE	DATE	
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*See Instructions on Reverse Side Lander

(May 1963)	DEPAR	U" TED STA TML [OF TH GEOLOGICAL S	E INTERIC	SUBMIT IN TRI (Other instructio verse side)	TE•	Form approve Budget Bures LEASE DESIGNATION	u No. 42-R1424.
		TICES AND R	EPORTS O	N WELLS ck to a different reservoir oposais.)		IF INDIAN, ALLOTTEN	E OR TRIBE NAME
1. OIL GAE WELL WE	LL OTHER	prilling	g Heil	<u>.</u>	7.	UNIT AGREEMENT NA	ME
2. NAME OF OPERATO	DR				8.	FARM OR LEASE NAS	4E
	Southern	New Mexico G	il Corpora	LL OD		Lusk Deep -	Strawn
3. ADDRESS OF OPER					9.	WELL NO.	
	3108 South	land Canter, i	vallas I,	Icas		6	
4. LOCATION OF WEL See also space 17	t. (Report location below.)	n clearly and in accord	lance with any S	state requirements.*	1	. FIELD AND FOOL, U	B WILDCAT
At surface	660	from South an	ng West 11	mes of these ly.			
At surface	-			lnes of Sec. 19,	11	SUSVEY OR AREA	BLK. AND
At surface	-	from South an ee County, Ner		ibes of Sec. 19,	11	SEC., T., R., M., OR I SURVEY OR AREA C. 19,T-19-	
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At surface I-19-5, 8-32-	L, NNPM. L	ee County, Net	w Maxico Show whether of, 36 Gr.		11 • •	SUBVEY OR AREA ec. 19,T-19. COUNTY OR PARISE	5, R-32-5
At surface T-19-5, 8-32- 14. PERMIT NO.	L, NNPM. L	Appropriate Box T	w Maxico Show whether of, 36 Gr.	RT, GR, etc)	rt, or Othe	SUBVEY OR AREA ec. 19,T-19. COUNTY OR PARISE	5, R-32-5
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set at 2470' and 700 sacks of encore cament plus 100 sacks neat was pumped out the shoe of Stage 1. Atter-d-mss., 1900 sacks of Trinty Lite wate plus 100 sacks encore neat was pumped out the second stage. Top of the cament was found (6668' or 88' up the 13 3/8" casing for a tie in. After 24 hrs. a pressure of 2000 psi was applied at the surface for 30 min. There was no pressure drop.

18. I hereby certify that the foregoing is true and correct SICNED	TITLE	Vice President	DATE 1/7/64
(This space for Federal or State office use) APPROVED BY	TITLE	<u> </u>	DATE
CONDITIONS OF APPROVAL, IF ANY:		ACTION ON ENDER 1 C. GORDON 1 C. GORDON	

*See Instructions on Reverse Side

The instance of the instance from from preases town on provided to the from the section of the instance from from preases town on provided to the from the section from	Form 9-381 C (May 1963)	~~ III	UT ED STATES			PLICATE	Form approved. Budget Bureau No. 42-R1425.		
GEOLOGICAL SURVEY LC 065863 APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK I. C 065863 I. C 065863 DRILL DEEPEN PLUG BACK C 0. DEEPEN MULT DEEPEN DIT Colspan="2">C 0. DEEPEN MULT DEEPEN				reverse side					
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK 6. IF INDIAN, ALLOTTEE OR TRIBE NAME 1s. TYPE OF WORK DRILL DEEPEN PLUG BACK 7. UNIT AGREEMENT NAME 1s. TYPE OF WORK OTHER SINGLE PLUG BACK 7. UNIT AGREEMENT NAME 0. IF INDIAN, ALLOTTEE OR TRIBE NAME OTHER SINGLE MULTIPLE 0. WILL TOLE 0. IF INDIAN, ALLOTTEE OR TRIBE NAME OTHER SINGLE MULTIPLE 0. WILL NAME 2. NAME OF OFERATOR OTHER SINGLE MULTIPLE 0. WILL NO. 0. WILL NO. 3. ADDRESS OF OFERATOR 0. BOX 3986, Odessa, Texas 79760 0. 0. WILL NO. 0. WILL NO. 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) 1. LUSK STRAWN 1. LUSK STRAWN 14. DISTANCE FROM PROPORED* Sec. 19, T19S, R32E NMPM 1. M. OR BURKT OR AGREA Sec. 19-T19S-R32E NMPM 14. DISTANCE FROM PROPORED* 16. NO. OF ACRES IN LEASE 17. NO. OF ACRES ASSIGNED N.M. 14. DISTANCE FROM PROPORED* 16. NO. OF ACRES IN LEASE 17. NO. OF ACRES ASSIGNED N.M. 14. DISTANCE FROM PROPORED* 16. NO. OF ACRES IN LEASE 17. NO. OF ACRES ASSIGNED N.M. 15. DOTARCE FROM P		5. LEASE DESIGNATION AND SERIAL NO.							
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The Lusk Deep Unit #6 Strawn zone is dead and not capable of producing. It is our proposal prior to plugging and abandoning to perforate, treat, and test the Bone Springs zone 8820-8850.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. BIGNED Duill P HOPACE	CONCERISO	TITLE	-	DATE 4/28/71	
(This space for Federal or	State office use)				
PBBM (T NO			ROVAL DATE	WED	
APPROVED BY		TITLE	TADDKY	porte A	
CONDITIONS OF APPROVAL, IF	ANY :		MAY 3 Refere Sinte TriUR /WF	1971 B BROWN	
	*See I	nstructions Or	Referse Sinte THUK	TENCINCER	
Distribution: 3/	USGS-Roswell, 2/USG	S-Hobbs, 1	/WF DISTRIC	¢*	

LUSK UNIT NO. 6 Well Workover Report

- 5-11-71 Rigged up X-pert Well Service. Pulled out of hole laying down 82 joints of tubing. Shut down for night.
- 5-12-71 Rigged up McCullough, set Baker Mercury C.I. bridge plug at 11,000' WL measurement. Ran Gamma Ray correlation log and perforated 8819-8822, 8824-8827 with ten .42" jet shots. Ran tubing and repaired Baker Model 'R' packer and landed at 8818'. Swabbed well down. Shut down for night.
- 5-13-71 Went in hole with swab, fluid level 1500' from surface. No shut in pressure. Swabbed well down to 8300'. Pumped in 500 gallons 20% HCL. Loaded back side, pressured up to 200# on casing. Started hesitation squeeze acid into perforations. Maximum pressure 2750, treating pressure 2000# at 1/2-1 barrel per minute. ISIP 1300#, 5 min, 1000#. Shut in one hour. Well on vacuum. Started swabbing. Fluid level standing at 4800' making small trace of oil and no gas. Shut down for night.
- 5-14-71 12 hour SIP 25#. Went in hole with swab. Fluid level 1800'. Swabbed well down to 5000' making water with small trace of oil and no gas. Shut down at 3:00 pm. Suspended operation. Released rig.

Water Analysis (Bone Springs #6)

Sp. Gr. 1.100 @ 76° F Chloride 87,500 Bicarbonate 488 Sulfate 2100 Sulfide Nil Total Hardness 17,000 pH 6.8 Calcium 4400 Magnesium 1,440 Total Iron Strong Trace Sodium 50,048 Total Dissolved Solids 145,976

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1.			7. UNIT AGREEMENT NAME
WELL GAS WELL OTHER			Lusk Deep Unit
2. NAME OF OPERATOR			6. FARM OR LEASE NAME
El Paso Pro	ducts		Lusk Deep
			9. WELL NO.
c/o Hobbs Pipe & S	clearly and in accordance with any	State requirements.*	10 6 10. FIELD AND POOL OF WILDCAT
See also space 17 below.) At surface	•		4 1 th
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16. Check A	Appropriate Box To Indicate 1	Nature of Notice, Report.	or Other Data
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FRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTEBING CASING
SHOOT OF ACIDIES	ABANDON*	SHOOTING OD ACIDIZING	
BEPAIR WELL	CHANGE PLANE	(Other)	
(Other)		(NOTE: Report re Completion or Re	completion Report and Log form.)
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2011 - 2011 - 100

GULF FEDERAL 003 (3002520876)

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LL,204), (. dyna jet. Ton producti Na Hours TESTED	II, 209 - 1. ON METHOD (Flow EWE AL ELOW CHOE'E SIZE 15/64 CALCULATED	PROI cing, gas lift, pu PROD'N. FOR	DEPTH INTERV 1 , 1 , 1 ; 4 - UCTION imping—size and OILBBL.	AL (MD) 11,223 Type of pump) 6AS-MCF. 1151	SUU gallo SUU gallo SUU gall WELL E shut WATER-BBL. U	TATUS (Producing or in) Froducing GAS-OIL RATIO
LL,204), (dyna jet. ION PRODUCTI Na HOURS TESTED 24 CASING PRESSURE 1750	ON METHOD (Flow CHOILE HIZE 15/64 CALCULATED 24-HOUE BATE	PROI cing, gas lift, pu PROD'N. FOR TEST PERIOD	DEPTH INTERV L , 174 - DUCTION simping—size and OILBBL. ;22,	AL (MD) 11,223 Type of pump) GAS-MCF. 1151 WATH	SUU gallo SUU gallo SUU gall WELL E shut WATER-BBL. U	ns and acid TATUS (Producing or in) Producing GAS-OIL RATIO 2200
II,204), (. dyna jet. TON PRODUCTI Na HOURS TESTED 24 CASING PRESSURE	ON METHOD (Flow CHOILE HIZE 15/64 CALCULATED 24-HOUE BATE	PROI ring, gas lift, pu PROD'N. FOR TEST PERIOD OILBBL.	DEPTH INTERV <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	AL (MD) 11,223 Type of pump) GAS-MCF. 1151 WATH	SUU gallo SUU gallo SUU gall well e ahut water-BBL U LRRBL	DS BUG ACIG TATUS (Producing or in) ITOGUCIDE GAS-OIL RATIO 22UU OIL GRAVITT-API (COBE.) 47
IL, 204), (dyna jet. TON PRODUCTI Na HOURS TESTED 24 CASING PRESSURE 1750 TAB (Sold, used for fue	ON METHOD (Flow CHOILE HIZE 15/64 CALCULATED 24-HOUE BATE	PROI ring, gas lift, pu PROD'N. FOR TEST PERIOD OILBBL.	DEPTH INTERV <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	AL (MD) 11,223 Type of pump) GAS-MCF. 1151 WATH	500 gallo 5000 gall well a ahul water-bbl. j j	AB BIG ACIG CDA acid CDA acid COBA. COBA acid COBA.
LL, 204), (dyna jet. ION PRODUCTI Na HOURS TESTED 24 CASING PRESSURE 1750 IAB (Sold, used for fue MENTS	ON METHOD (Flow CHOPE SIZE 15/64 CALCULATED 24-HOUE BATE 	PROI ring, gas lift, pu PROD'N. FOR TEST PERIOD OIL.—BBL. 5.25	DEPTH INTERV <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u> <u>1</u>	AL (MD) 11,223 Type of pump) GAS-MCF. 1151 WATH	SUU gallo SUU gallo SUU gallo WELL shut water-BBL i LR-WBL J TEST WITNES	AB BIG ACIG CDA acid CDA acid COBA. COBA acid COBA.
L1,204), (dyna jet. TON PRODUCTI Na HOURS TESTED 24 CASING PRESSURE 1750 TAB (Sold, used for fue MENTS LOW FIGESUG	ON METHOD (Flow CHORE SIZE 15/64 CALCULATED 24-HOUR BATE 	PROD'N. FOR TEST PERIOD OUL-BBL. 5.15	DEPTH INTERV <u>11,174 -</u> DUCTION UCTION Umping—size and OILBBL. <u>22.5</u> GAS—MCW <u>11.5</u>	AL (MD) 11,223 Type of pump) GAS-MCF. 1451 . WATS 1	SUU gallo SUU gallo SUU gall WELL s ohut WATER-BBL U U LR-BBL J TEST WITNES HOWARD C	AE BIG ACIG CDA acid DTATUS (Producing or in) Froducing GAS-OIL RATIO 2200 OIL GRAVITY-API (COBE.) 47 SED BI 1499001
LL, 204), (dyna jet. ION PRODUCTI Na HOURS TESTED 24 CASING PRESSURE 1750 IAB (Sold, used for fue MENTS	II, .: U9 - 1. ON METHOD (Flow EURAL LIOW CHOER SIZE 15/64 CALCULATED 24-HOUR BATE 	PROI ring, gas lift, pu PROD'N. FOR TEST PERIOD OIL.—BBL. 5.25 E mation is comp	DEPTH INTERV <u>11,174 -</u> DUCTION UCTION Umping—size and OILBBL. <u>22.5</u> GAS—MCW <u>11.5</u>	AL (MD) 11,223 Type of pump) GAS-MCF. 1451 . WATS 1	SUU gallo SUU gallo SUU gall well a ohut water-bbl. U TEST WITNES HOWATC C	AE BIG ACIG CDA acid DTATUS (Producing or in) Froducing GAS-OIL RATIO 2200 OIL GRAVITY-API (COBE.) 47 SED BI 1499001
	L: OIL WEIL D PLETION: WORK DEEP- OVER EN- OVER EN- DEEP- OVER EN- DEEP- OVER EN- DEEP- OVER EN- DEEP- OVER EN- DEEP- OVER EN- DEEP- OVER EN- DEEP- OVER EN- DEEP- OVER EN- EN- DEEP- OVER EN- EN- DEEP- EN- OVER EN- EN- OVER EN- EN- OVER EN- EN- OVER EN- EN- OVER EN- EN- OVER EN- EN- OVER EN- DEEP- EN- OVER EN- DEEP- EN- OVER EN- EN- OVER EN- EN- OVER EN- OVER EN- DEEP- OVER EN- OVER EN- OV	Li OIL WELL GAS PLETION: WWELL WELL PLEG PLETION: DEEP- PLEG WORK EN DEEP- PLEG DACK EN DACK OR EN DEEP- PLEG MICLANG EN PLEG DACK NATOR EN DEEP- PLEG Mack EN DACK DACK IATOR Hidland, Texas Texas LATOR Hidland, Texas Texas SQUE Itom Charts Texas SQUE Itom Charts Texas SQUE Itom Charts Herein SQUE Itom Charts Itom Charts SQUE Itom Charts Itom Charts	Image: Construction of the second	Git GAS DRY Other PLETION: WELL DRY Other WORK DEEP- PLEG DIFF. Other OR DEEP- BACK RESVR. Other DOR DACK RESVR. Other DOR DEEP- BACK Other Other DOR DEEP- BACK Other Other DOR DEP- BACK If (ST) Other L (Report location clearly and is accurdance with any State requireme SUB SUB Signe If (Report location clearly and is accurdance with any State requireme SUB Signe If (Report location clearly and is accurdance with any State requireme SUB Signe If (Report location clearly and is accurdance with any State requireme SUB Signe If (Report location clearly and is accurdance with any State requireme SUB Signe If (Ready to prod.) IS IS If (State with any to po	WELL L. DRY Other OVER DEEP OVER EN DRY DEEP DEEP DEEP DACK RESVER. Other Other DACK RESVER. Other Other Date EN Date DEEP Deep Deep	MPLETION OR RECOMPLETION REPORT AND LOG* 7. UNIT AGREE 1: 016. 018. 018. VERIL 018. 018. 018. PLETION: 018. 018. 018. VORA 018. 018. 018. VORA 018. 018. 018. VORA 01. 01. 018. VORA 01. 01. 018. VORA 01. 01. 01. VORA 01. 01. 01. NOTA 01. 01. 01. NOTA 01. 01. 01. 16.9 Midland. Texas 10. 10. 10. 10. 10. 10. 10. 10. 10. 11. 11. 11. 11. 11. 12. 13. 14. 97. 15. 12. 12. 11. 11. 11. 11. 11. 12. 13

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^{*(}See Instructions and Spaces for Additional Data on Reverse Side)

Form 9-331 (May 1963) DEF	UNITED STATES PARTMENT THE INTERIC	SUBMIT IN TRIPLICATE (Other instructions or verse side)	Form appro Budget Bur 5. LEASE DENIGNATION LC 06801	eau No. 42-R1424. N AND BEBIAL NO.
	GEOLOGICAL SURVEY		6. IF INDIAN. ALLOIT	
•••	NOTICES AND REPORTS O or proposals to drill or to deepen or plug ba APPLICATION FOR PERMIT-" for such pro			-
			7. TNIT AGREEMENT N	
WELL X WELL C	THER		B. FABM OB LEASE NA	
-	co Oil Corporation			
3. ADDRESS OF OPERATOR			9. WELL NO.	
Box 1659 Midland	, Texas ocation clearly and in accordance with any S	14.4.4	10	
 At surface 	Callon Clearly and in accordance with any o	cate requirements.*	10. FIELD AND FOOL, Lusk Stray	
	North Line and 1,678' from 19-S, R-32-E, NMPM.	the West Line	11. SEC. T. S., M., OB BURVEY OF AND Sec 19; T-19	BLE. AND
14. PERMIT NO.	15. ELEVATIONS (Show whether DF.	RT. GR. etc.)	12. COUNTY OF PARIS	
	3553.5 Gr		Lea	New Mexico
16. Ch	eck Appropriate Box To Indicate No	sture of Notice, Report, or (Other Data	•
NOTICE	OF INTENTION TO :	Qasto B	GENT REPORT OF :	
TEST WATER SHUT-OFF FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL (Other)	PELL OR ALTER CABING MULTIPLE COMPLETE ABANDON* CHANGE PLANS	WATER SHUT-OFF FRACTURE TREATMENT SHOOTING OR ACIDIZING (Other) (NOTE: Report result (NOTE: Report result)	BEPAIRING ALTERING ABANDONM s of multiple completion letion Report and Log f	CABINO
17. DESCRIBE PROPOSED OR COMPL	ETED OPERATIONS (Clearly state all pertinent	details, and give pertinent dates	, including estimated di	ate of starting any
nent to this work.) *	a directionally drilled, give subsurface locati			-
Well #10 was spud	ded November 6, 1964 at 9	p.m. 709" of 13 3/8	3" of new H-40	casing
	th 775 sacks of cement at		-	
			the surface.	There
	24 hours a pressure of 80	o roi was spplied at		
was no pressure d	rop.			
was no pressure d Drilling was resu	rop. med to 3,640' where on Nov	ember 13, 3,620' of	8 5*8 - 32# ca	Ŧ
was no pressure d Drilling was resu cemented at 3,640	rop. med to 3,640' where on Nov '. A. D. U. packer tool w	ember 13, 3,620' of as set at 2,391'. 6	8 5'8 - 32# ca 600 sacks of ca	ement were
was no pressure d Drilling was resu cemented at 3,640	rop. med to 3,640' where on Nov	ember 13, 3,620' of as set at 2,391'. 6	8 5'8 - 32# ca 600 sacks of ca	ement were
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir	rop. med to 3,640' where on Nov '. A. D. U. packer tool w	ember 13, 3,620' of as set at 2,391'. 6 91'. 1650 sacks of	8 5'8 - 32# ca 500 sacks of ca Litewate cemen	ement were
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir pumped in the sec	med to 3,640' where on Nov '. A. D. U. packer tool w st stage from 3,640 to 2,3	ember 13, 3,620' of as set at 2,391'. 6 91'. 1650 sacks of rculated. Plug ged d	8 5'8 - 32# ca 500 sacks of ca Litewate cemen lown at 1:30 a	ement were nt were .m. After
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir pumped in the sec	med to 3,640' where on Nov ". A. D. U. packer tool w st stage from 3,640 to 2,3 ond stage. Both stages ci	ember 13, 3,620' of as set at 2,391'. 6 91'. 1650 sacks of rculated. Plug ged d	8 5'8 - 32# ca 500 sacks of ca Litewate cemen lown at 1:30 a	ement were nt were .m. After
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir pumped in the sec 24 hours a pressu	med to 3,640' where on Nov ". A. D. U. packer tool w st stage from 3,640 to 2,3 ond stage. Both stages ci re of 1,200 PSI was applie	ember 13, 3,620' of as set at 2,391'. 6 91'. 1650 sacks of rculated. Plug ged d	8 5'8 - 32# ca 500 sacks of ca Litewate cemen lown at 1:30 a	ement were nt were .m. After
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir pumped in the sec 24 hours a pressu loss.	med to 3,640' where on Nov ". A. D. U. packer tool w st stage from 3,640 to 2,3 ond stage. Both stages ci re of 1,200 PSI was applie resumed.	ember 13, 3,620' of as set at 2,391'. 6 91'. 1650 sacks of rculated. Plug ged d	8 5'8 - 32# ca 500 sacks of ca Litewate cemen lown at 1:30 a	ement were nt were .m. After
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir pumped in the sec 24 hours a pressu loss. Drilling will be	rop. med to 3,640' where on Nov '. A. D. U. packer tool w st stage from 3,640 to 2,3 ond stage. Both stages ci re of 1,200 PSI was applie resumed.	ember 13, 3,620' of as set at 2,391'. 6 91'. 1650 sacks of rculated. Plug ged d d at the surface. 7	8 5'8 - 32# ca 500 sacks of ca Litewate cemen lown at 1:30 a Chere was no pr	ement were nt were .m. After
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir pumped in the sec 24 hours a pressu loss. Drilling will be	rop. med to 3,640' where on Nov '. A. D. U. packer tool w st stage from 3,640 to 2,3 ond stage. Both stages ci re of 1,200 PSI was applie resumed. regoing is true and correct <u>O. H. Crews</u>	ember 13, 3,620' of as set at 2,391'. 6 91'. 1650 sacks of rculated. Plug ged d d at the surface. 7	8 5'8 - 32# ca 500 sacks of ca Litewate cemen lown at 1:30 a Chere was no pr	ement were nt were .m. After ressure 10
was no pressure d Drilling was resu cemented at 3,640 pumped in the fir pumped in the sec 24 hours a pressu loss. Drilling will be 18. I hereby certify that the for SIGNED	rop. med to 3,640' where on Nov ". A. D. U. packer tool w st stage from 3,640 to 2,3 ond stage. Both stages ci re of 1,200 PSI was applie resumed. regoing is true and correct <u>O. H. Crews</u>	ember 13, 3,620' of as set at 2,391'. (91'. 1650 sacks of rculated. Plug ged d d at the surface. T	8 5'8 - 32# ca 500 sacks of ca Litewate cemen lown at 1:30 a Chere was no pr	ement were nt were .m. After ressure _ >

*See Instructions on Reverse Side Contract Bird The State

DEPAR	UN TED STATES TML. OF THE INTER GEOLOGICAL SURVEY	(Other Incompation	TES Budget Bureau No. 43-R1424. 5. LEASE DESIGNATION AND SELIAL BO. LC 068019
	OTICES AND REPORTS openals to drill or to deepen or plug LICATION FOR PERMIT-" for such		6. IF INDIAN, ALLOTTES OR THIRD MANS
OIL CAS THE WELL OTHE	B		1. UNTY AGREENENT NAME Lusk Deep Unit 8. TARM OF LEASE NAME
El Paso Products	Company		B. WELL NO.
C/O HObbs Pipe &	Supply Co., Box 2	010 Hobbs, N. M	10 10. FILLD AND POOL OR WILDCAT
At surface	+ 1678/34		11. BING, T., B., M., OR RUE, AND BURNEY OR AREA 19-195-32E
4. PREMIT NO.	15. REFVATIONS (Show whether t UK	09. 27. CR. etc.)	12. COUNTY OR PARISH 18. S.ATE Lea N. M.
a. Check	Appropriate Box To Indicate	Nature of Notice, Report,	or Other Data
TEAT WATER SHUT-OFF	PULL OR ALTER CARING MULTIPLE COMPLETE ABANDON* CHANGE PLANS	Completion or Be	BEPAIEING WELL ALTERING CABING ABANDONMENT [®] ABANDONMENT [®] ABANDONMENT [®] X completion Report and Log form.) dates, including estimated date of starting any regitted depths for all markets and some perti-
3 - Spotted a 2 4 - spotted a 2	5 sk cement plug a 5 sk cement plug a 5 sk cement plug a	t base of $8^{-}5/8$	" csg. 3760'
6 - spotted a l 7 - Hole was lo	5 sk cement plug a 0 sk cement plug a aded with mud-lade ugged and abandone	t top. n fluids and a	en active to a figura of a filler product of a state of the state of t
6 - spotted a l 7 - Hole was lo	0 sk cement plug a baded with mud-lade ugged and abandone	t top. n fluids and a	4" Sreg a marker erected A a standard and the second standard and the sec
6 - spotted a 1 7 - Hole was lo 8 - Well was pl 8.1 hereby cerus/that the foregol SIGNED	O sk cement plug a baded with mud-lade ugged and abandone	t top. n fluids and a	4" Sreg a marker erected A a standard and the second standard and the sec
6 - spotted a 1 7 - Hole was lo 8 - Well was pl 18. 1 hereby certify/that the foregol	O sk cement plug a baded with mud-lade ugged and abandone ugged and abandone true and correct TITLE	at top. en fluids and a ed on 10/20/71	a marking to approve to approve of the provident of the p

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Form 9-330 (Rev. 5-63)		UND S	PY TO O		מ דו	- DUPLICA	I E	orm approved.
		MENT OF		FRIOF	2	(See other	10- 05	ludget Bureau No. 42-R355.5.
		EOLOGICAL			`	reverse sid-	* /	SIGNATION AND BERIAL NO.
					<u> </u>			068019 ALLOTTRE OR TRIBE NAME
	ompletion (LETION I	REPORT	AND	D LOG*	_	
1a. TYPE OF WE	LL: OIL WELL		DRY	Other		·	7. UNIT AGE	EMENT NAME
b. TYPE OF CON		ריין אינטיק ריין	DIFF.				·	
WELL	OVER A EN	L DACK	RESVE.	Other			S. FARM OL	
2. NAME OF OPERA				JUL	12		Gulf	Federal
Jack P			r		_ 			3
Box 38	5, Artesia, 1	New Mexico 8	8210 :::		•• •		10. FIELD AN	D POUL, DR WILDCAT
4. LOCATION OF W	ELL (Report location	clearly and in account	r-lance with an				Lusk	
At surface	1650' from No	orth, 1678'	from West	, Sec 19	9, T-	-19, R-32	11. SEC., T., I OR AREA	R., M., OR BLOCK AND BURVEY
	aterval reported below							
At total depth							19-19-	-32
		i	14. PERMIT NO.		DATE	58UED	12. COUSTE	08 13, STATE
		ļ		1			PARIBE	N-m
15. DATE SPUDDED	16. DATE T.D. REA	CHED 17. PATE CO	MPL. (Ready t)	o prod.) 18	ELEVA	TIONS (DF. RE	B, RT. GB, ETC.)*	19. ELSV. CASINGHEAD
		1-15	-81	ł				
20. TOTAL DEPTH. MI		BACK T.D., MD & TVD	22. IF MUL HOW M	TIPLE COMPL.	·• [23. INTERVAL DRILLED E		LA CABLA TOOLS
11223	270	· · ·				`	<u> </u>	
24. PRODUCING INT	ERVAL(S), OF THIS C	SMPLETION- TOP, IN	ITTOM, NAME (A	AD AND TVD)	•			25. WAS DISECTIONAL SCRVET MADE
								D FOR RECORD
26. TIPE ELECTRIC	AND OTHER LOGS HU	x					PEILK	27. WAS WELL COBED
Gamma	Ray Neutron						JUI	L 2 4 1981
28.			RECORD (Rep		a set in			
CARING RIZE	WEIGHT, LB./FT		M(b)HO	I.F. SIZE	.	CEMENTI	NG RECOST GEOL	OGICALSURVEYLLE
8 5/8	24	4000			C1	Irculated	L to BOSWELI	L, NEW MEXICO
			·····	······································	-			
					-\			·
29	L	INER RECORD				30,	TUBING RECO	DRD
R17.E	Тор (Мр)	NOTTOM (MD) SA	CKS CENEST*	SCREEN (M	10)	8127	DEPTH BET (M	D) PACKER BET (MD)
	<u> </u>	··				2 7/8	2550	
31 PERFORATION R	Kong (Interval, site	and number)						
		nots per foo	+	DEPTH IN				D OF MATEBIAL CHED
-010	2011 2 01	lots per 100	ι,					0% mud acid
2419' -	- 2510' 1 st	ot per foot						add deza
				1				<u></u>
BATE FIRST PRODUC	TION PRODUC	TION METHOD (Flow		DUCTION	and tu	De of Dump)	(WELL	BTATUS (Producing or
1-15-8								it-m) 7
I-ATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	011 BBL.	·	GAS-MCF.	WATER-BU	GAS-OIL BATIO
1-15-8	1 48		>	2		0	0	0
FLOW, TUBING PRESS	. CANING PRESSURE	CALCULATED 24-HOUR BATE	011BUL.	648-	- MCF.	WAT	LA-BBI.,	OIL GRAVITY-API (CORR.)
	CAS (Sold, used for f							
	cas (sola, usen jos j	uri, i chicu, cic.j					TEST WITNE	BBED BT
None 35. LIST OF ATTAC	HMENTS					- <u>-</u>		
36. I hereby certifi	fy that the foregoing	and attached Infor	mation is com	piete and cor	rect au	determined fr	om all available i	records
	Dark	t'			A			- Iu 20 1001
signed	jung	reg-	TITLE		<u>ngen</u>	<u> </u>	DATI	E June 30, 1981
	(See	Instructions and	Spaces for A	Additional	Data	on Reverse	Side)	

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LUSK DEEP UNIT A 014 (3002534573)

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			דעב ואידר		, n. – ternar	L L H	Expires' Fel	bruary 28, 1995
					5 N. Fr enc 58, NM=88	15 011		ION AND SERIAL NO
							LC-0	65863
WELL CO	MPLETION	OR RECC	MPLETIO	N REPOR	TAND LO	G* : 6. IF INC	DIAN, ALLOT	TEE OR TRIBE NAME
a. TYPE OF WELL:	C	DIL - GAS		·····				-
b. TYPE OF COMPL	ETION:					7. UNIT	AGREEMEN	TNAME EEP UNIT
	WORK - D	EEP PLUG N BACK	DIFF RESVR	Other				NAME, WELL NO.
NAME OF OPERAT								NAME, WELL NO.
	RGY CORPOR	ATION					VELL NO.	
ADDRESS AND TE		00040 505 74	0 0000			_,		5-34573
	ARTESIA, NM					10. FIEL	D AND POOL	L, OR WILDCAT
At surface 1650 FNL 9	LL (Report location c	leany and in accord	ance with any State	requirements f		LL	USK MO	RROW (GAS)
	al reported below						AREA	IN BEOON AND SUR
SAME							SEC. 19-	-T19S-R32E
At total depth			14. PERMIT N	VO .	DATE ISSUED	12. COU	NTY OR PAR	ISH 13. STATE
SAME			i		<u> </u>	i	LEA	NM
5. DATE SPUDDED 12/17/99	16. DATE T.D. RI 01/22/00		TE COMPL. (Ready /15/00	r to prod.) 18	ELEVATIONS (DF, 3556	RKB, RT, GE, ETC 5' GR	:.)* 19. I	ELEV. CASINGHEAD
0. TOTAL DEPTH, N 12540'	ID & TVD 21. PLU	IG, BACK T.D., MD & 12495'	STVD 22. IF MU HOW I	LTIPLE COMPL., MANY*	23. INTER DRILL	ED OV -	12540'	CABLE TOOLS
4. PRODUCING INT	ERVAL(S), OF THIS C	OMPLETION-TOP,	BOTTOM, NAME (M	D AND TVD)*			2	S. WAS DIRECTION
12140-12416	MORRÓW						;	SURVEY MADE No
26. TYPE ELECTRIC	AND OTHER LOGS R	RUN					. 27. 1	NAS WELL CORED
26. TYPE ELECTRIC DLL, DSNL	AND OTHER LOGS R	RUN .					· 27. V	NAS WELL CORED NO
	AND OTHER LOGS R	· · · · · · · · · · · · · · · · · · ·	SING RECORD (F	Report all strings	s set in well)		. 27. v	+ · · ·
DLL, DSNL	DE WEIGHT, LB.A	CA FT. DEPTH S	ET (MD) H	HOLE SIZE	TOP OF CEME	NT, CEMENTING	. <u></u>	
DLL, DSNL 28. CASING SIZE/GRAI 13 3/8"	DE <u>WEIGHT, LB./1</u> <u>48</u> #	CA FT. DEPTH S 8	ET (MD) 30'	HOLE SIZE	TOP OF CEME CMTD W/400	SX	. <u></u>	NO AMOUNT PULL CIRC 155 S
DLL, DSNL 28. CASING SIZE/GRAD 13 3/8" 8 5/8", J-55	DE WEIGHT, LB.1 48# 24#	CA FT. DEPTH S 83 45	ET (MD) H 30' 500'	HOLE SIZE 17 1/2" 12 1/4"	TOP OF CEME CMTD W/400 CMTD W/161	SX 0 SX	. <u></u>	No AMOUNT PULL CIRC 155 S CIRC 316 S
DLL, DSNL 28. CASING SIZE/GRAI 13 3/8"	DE <u>WEIGHT, LB./1</u> <u>48</u> #	CA FT. DEPTH S 83 45	ET (MD) 30'	HOLE SIZE	TOP OF CEME CMTD W/400	SX 0 SX	. <u></u>	No AMOUNT PULL CIRC 155 S CIRC 316 S
DLL, DSNL 28. CASING SIZE/GRAD 13 3/8" 8 5/8", J-55	DE WEIGHT, LB.1 48# 24#	CA FT. DEPTH S 83 45	ET (MD) 1 30' 500' 540'	HOLE SIZE 17 1/2" 12 1/4"	TOP OF CEME CMTD W/400 CMTD W/161	0 SX 0 SX 0 SX	. <u></u>	No AMOUNT PULL CIRC 155 S CIRC 316 S
DLL, DSNL 28. CASING SIZE/GRAI 13 3/8" 8 5/8", J-55 5 1/2", J-55	DE WEIGHT, LB.1 48# 24#	CA FT. DEPTH S 83 45 123	ET (MD) 1 30' 500' 540'	HOLE SIZE 17 1/2" 12 1/4" 7 7/8"	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148	0 SX 0 SX 0 SX	RECORD	+
DLL, DSNL 28. CASING SIZE/GRAU 13 3/8" 8 5/8", J-55 5 1/2", J-55 1/2", J-55	DE WEIGHT, LB.A 48# 24# 17#	CA FT. DEPTH S 83 45 123 LINER RECOR	ET (MD) 1 30' 500' 540' D	HOLE SIZE 17 1/2" 12 1/4" 7 7/8"	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148	0 SX 0 SX 0 SX TUBING DEPTH S	RECORD	No AMOUNT PULL CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 19. SIZE	DE WEIGHT, LB./ 48# 24# 17# TOP (MD)	CA T. DEPTH S 8 45 12: LINER RECOR BOTTOM (MD)	ET (MD) 1 30' 500' 540' D	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T* SCREEN (M	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8"	SX 0 SX 0 SX TUBING DEPTH S 124	RECORD RECORD ET (MD) 426'	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 19. SIZE	DE WEIGHT, LB.A 48# 24# 17#	CA T. DEPTH S 8 45 12: LINER RECOR BOTTOM (MD)	ET (MD) 1 30' 500' 540' D	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T SCREEN (M 32.	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I	SX 0 SX 0 SX DEPTH S 124 RACTURE, CEM	RECORD RECORD ET (MD) 426' MENT SQUE	NO AMOUNT PULL CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAD 13 3/8" 8 5/8", J-55 5 1/2", J-55 5 1/2", J-55 5 1/2", J-55 29. SIZE	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) RECORD (Interval, siz	CA T. DEPTH S 8 45 12: LINER RECOR BOTTOM (MD)	ET (MD) 1 30' 500' 540' D	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T SCREEN (M 32. DEPTH IN	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD)	SX 0 SX 0 SX DEPTH S 124 RACTURE, CEM	RECORD RECORD ET (MD) 126' IENT SQUE	NO AMOUNT PULL CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 19. SIZE	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) RECORD (Interval, siz	CA T. DEPTH S 8 45 12: LINER RECOR BOTTOM (MD)	ET (MD) 1 30' 500' 540' D	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T SCREEN (M 32. DEPTH IN	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD)	SX 0 SX 0 SX DEPTH S 124 RACTURE, CEN	RECORD RECORD ET (MD) 126' IENT SQUE	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAD 13 3/8" 8 5/8", J-55 5 1/2", J-55 5 1/2", J-55 5 1/2", J-55 29. SIZE	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) RECORD (Interval, siz	CA T. DEPTH S 8 45 12: LINER RECOR BOTTOM (MD)	ET (MD) 1 30' 500' 540' D	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T SCREEN (M 32. DEPTH IN	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD)	SX 0 SX 0 SX DEPTH S 124 RACTURE, CEN	RECORD RECORD ET (MD) 126' IENT SQUE	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAD 13 3/8" 8 5/8", J-55 5 1/2", J-55 5 1/2", J-55 5 1/2", J-55 29. SIZE	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) RECORD (Interval, siz	CA T. DEPTH S 8 45 12: LINER RECOR BOTTOM (MD)	ET (MD) 1 30' 500' 540' 0 5ACKS CEMENT	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T* SCREEN (M 32. DEPTH IN 1214	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD)	SX 0 SX 0 SX DEPTH S 124 RACTURE, CEN	RECORD RECORD ET (MD) 126' IENT SQUE	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 9. SIZE 12140-12416' 3 DATE FIRST PRODUC	DE WEIGHT, LB./ 48# 24# 17# TOP (MD) EECORD (Interval, siz 6 HOLES	CA T. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) 2: te and number)	ET (MD) 1 30' 500' 540' 0 5ACKS CEMENT	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T SCREEN (M 32. DEPTH IN 1214 DDUCTION	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416'	SX 0 SX 0 SX DEPTH S 124 RACTURE, CEM AMOUNT AN 750 GALS AC	RECORD RECORD ET (MD) 426' MENT SQUE ND KIND OF I	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 19. SIZE 12140-12416' 3 33. *	DE WEIGHT, LB./ 48# 24# 17# TOP (MD) EECORD (Interval, siz 6 HOLES	CA FT. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) EE and number) EE and number) DUCTION METHOD WING	ET (MD) 30' 30' 540' D SACKS CEMENT PRO (Flowing, gas lift, p PROD'N FOR	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T SCREEN (M 32. DEPTH IN 1214 DUCTION sumping-size and OIL—BBL.	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416'	SX 0 SX 0 SX DEPTH SI 124 RACTURE, CEN AMOUNT AN 750 GALS AC	RECORD RECORD ET (MD) 426' AENT SQUE AD KIND OF I ID VELL STATU shut-in)	No AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200 PACKER SET (N EZE, ETC. MATERIAL USED S (Producing or
DLL, DSNL 28. CASING SIZE/GRAI 13 3/8" 8 5/8", J-55 5 1/2", J-55 29. SIZE 31. PERFORATION F 12140-12416' 3 33. * DATE FIRST PRODUC 02/16/00	DE WEIGHT, LB.// 48# 24# 17# TOP (MD) TOP (MD) EECORD (Interval, siz 06 HOLES	CA FT. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) EE and number) EE and number) DUCTION METHOD WING	ET (MD) 1 30' 500' 540' D 5ACKS CEMENT PRO (Flowing, gas lift, p	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T SCREEN (M 32. DEPTH IN 1214 DUCTION sumping-size and OIL—BBL.	TOP OF CEME CMTD W/100 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416'	SX 0 SX 0 SX DEPTH SI 124 RACTURE, CEN AMOUNT AN 750 GALS AC	RECORD RECORD ET (MD) 426' AENT SQUE AD KIND OF I ID VELL STATU shut-in)	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200 PACKER SET (N EZE, ETC. MATERIAL USED S (Producing or PROD
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 12", J-55 12", J-55 12", J-55 13. 12 140-12416' 3 12 140-12416' 3 13. DATE FIRST PRODUC 02/16/00 DATE OF TEST	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) RECORD (Interval, siz 06 HOLES CTION PROD FLO HOURS TESTED 24	CA T. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) E and number) E and number) DUCTION METHOD WING CHOKE SIZE 35/64"	ET (MD) 30' 30' 540' D SACKS CEMENT SACKS CEMENT PROD'N FOR TEST PERIOC D OILBBL-	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T* SCREEN (M 32. DEPTH IN 1214 DDUCTION sumping-size and OIL—BBL 18	TOP OF CEME CMTD W/400 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416' type of pump) GAS-MCI 241	SX 0 SX 0 SX DEPTH SI 124 RACTURE, CEN AMOUNT AN 750 GALS AC	RECORD RECORD ET (MD) 426' MENT SQUE ND KIND OF (ID VELL STATU shut-in) 	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200 PACKER SET (N EZZE, ETC. MATERIAL USED S (Producing or PROD GAS-OIL RATIO
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 12", J-55 12", J-55 12", J-55 12", J-55 12", J-55 12", J-55 12", J-55 12", J-55 12", J-55 13. 12", J-55 12", J-55 12", J-55 13. 12", J-55 12", J-55 13. 12", J-55 12", J-55 12	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) RECORD (Interval, siz 06 HOLES CTION PROD FLO HOURS TESTED 24	CA T. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) E and number) CHOKE SIZE 35/64" RE CALCULATE 24-HOUR RA	ET (MD) 30' 30' 540' D SACKS CEMENT SACKS CEMENT PROD'N FOR TEST PERIOC D OILBBL-	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T* SCREEN (M 32. DEPTH IN 1214 DDUCTION sumping-size and OIL—BBL 18	TOP OF CEME CMTD W/161 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416' Type of pump) GAS-MCI 241	SX 0 SX 0 SX 0 SX 0 EPTH SI 124 RACTURE, CEN AMOUNT AN 750 GALS AC V V S. WATER 5	RECORD RECORD ET (MD) 426' MENT SQUE ND KIND OF I ID VELL STATU shut-in) 	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200 PACKER SET (N EZE, ETC. MATERIAL USED S (Producing or PROD GAS-OIL RATIO SRAVITY-API (CORR
DLL, DSNL 28. CASING SIZE/GRAN 13 3/8" 8 5/8", J-55 5 1/2", J-55 5 1/2", J-55 19. SIZE 12140-12416' 3 12140-12416' 3 DATE FIRST PRODUC 02/16/00 DATE OF TEST 02/19/00 FLOW. TUBING PRESS 500 14. DISPOSITION OF	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) TOP (MD) RECORD (Interval, siz 06 HOLES CTION PROD FLO HOURS TESTED 24 CASING PRESSU GAS (Sold, used for	CA T. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) E and number) CHOKE SIZE 35/64" RE CALCULATE 24-HOUR RA	ET (MD) 30' 30' 540' D SACKS CEMENT SACKS CEMENT PROD'N FOR TEST PERIOC D OILBBL-	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T* SCREEN (M 32. DEPTH IN 1214 DDUCTION sumping-size and OIL—BBL 18	TOP OF CEME CMTD W/161 CMTD W/161 CMTD W/148 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416' Type of pump) GAS-MCI 241	SX 0 SX 0 SX TUBING DEPTH SI 124 RACTURE, CEN AMOUNT AN 750 GALS AC V S WATER 5 (ATER-BBL. 1 TEST WI	RECORD RECORD ET (MD) 426' MENT SQUE ND KIND OF I ID VELL STATU shut-in) 	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200 PACKER SET (N EZE, ETC. MATERIAL USED S (Producing or PROD GAS-OIL RATIO SRAVITY-API (CORR
DLL, DSNL 28. CASING SIZE/GRAI 13 3/8" 8 5/8", J-55 5 1/2", J-55 5 1/2", J-55 19. SIZE 31. PERFORATION F 12140-12416' 3 DATE FIRST PRODUC 02/16/00 DATE OF TEST 02/19/00 FLOW. TUBING PRESS 500 14. DISPOSITION OF SOLD 15. LIST OF ATTACH LOGS, DEVIAT	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) TOP (MD) RECORD (Interval, siz 06 HOLES 06 HOLES CTION PROD FLO HOURS TESTED 24 CASING PRESSU GAS (Sold, used for MENT\$ TON SURVEY	CA T. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) Ete and number) DUCTION METHOD WING CHOKE SIZE 35/64" RE CALCULATEI 24-HOUR RA' 1uei, vented, etc.)	ET (MD) 30' 30' 540' D SACKS CEMENT SACKS CEMENT PROD (Flowing, gas lift, p PROD'N FOR TEST PERIOC D OILBBL A C	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T* SCREEN (M 32. DEPTH IN 1214 DEPTH	TOP OF CEME CMTD W/400 CMTD W/161 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416' CMCF. GAS-MCI 241 MCF. C	SX 0 SX 0 SX 0 SX DEPTH SI 122 RACTURE, CEN AMOUNT AN 750 GALS AC V WATER 5 V SHANI	RECORD RECORD ET (MD) 426' MENT SQUE ND KIND OF I ID VELL STATU shut-in) 	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200 PACKER SET (N EZE, ETC. MATERIAL USED S (Producing or PROD GAS-OIL RATIO SRAVITY-API (CORR
DLL, DSNL 28. CASING SIZE/GRAI 13 3/8" 8 5/8", J-55 5 1/2", J-55 5 1/2", J-55 19. SIZE 31. PERFORATION F 12140-12416' 3 DATE FIRST PRODUC 02/16/00 DATE OF TEST 02/19/00 FLOW. TUBING PRESS 500 14. DISPOSITION OF SOLD 15. LIST OF ATTACH LOGS, DEVIAT	DE WEIGHT, LB.A 48# 24# 17# TOP (MD) TOP	CA T. DEPTH S 8: 45 12: LINER RECOR BOTTOM (MD) Ete and number) DUCTION METHOD WING CHOKE SIZE 35/64" RE CALCULATEI 24-HOUR RA' 1uei, vented, etc.)	ET (MD) 30' 30' 540' D SACKS CEMENT SACKS CEMENT PROD (Flowing, gas lift, p PROD'N FOR TEST PERIOC D OILBBL A C	HOLE SIZE 17 1/2" 12 1/4" 7 7/8" T* SCREEN (M 32. DEPTH IN 1214 DEPTH	TOP OF CEME CMTD W/400 CMTD W/161 30. D) SIZE 2 3/8" ACID, SHOT, I TERVAL (MD) 0-12416' CMCF. GAS-MCI 241 MCF. CMCF.	SX 0 SX 0 SX 0 SX DEPTH SI 122 RACTURE, CEN AMOUNT AN 750 GALS AC V WATER 5 V SHANI	RECORD RECORD ET (MD) 426' MENT SQUE ND KIND OF I ID VELL STATU shut-in) 	NO AMOUNT PULLI CIRC 155 S CIRC 316 S TOC 4200 PACKER SET (N EZE, ETC. MATERIAL USED S (Producing or PROD GAS-OIL RATIO SRAVITY-API (CORR

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Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitous or fraudulent statements or representations as to any matter within its jurisdiction.

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LUSK DEEP UNIT A 021 (3002535291)

Form 3160-4 (July 1992)		UNITE RTMENT IREAU OF I		IE INTER	RIOR		N. Frení		APPROVED 1004-0137 1007 28, 1995 TION AND SERIAL NO. 068947
WELL COM	PLETIO		ECOMP				}s,`NM ⊪8)G*	8240.0	JOO947 TTEE OR TRIBE NAME
1a. TYPE OF WELL:				DRY	Other		7 1111	T AGREEMEN	
b. TYPE OF COMPLETIO		DEEP-	PLUG	DIFF.	0.00		7. UM		
	WORK OVER	EN	BACK	RESVR.	Other		8, FAI		NAME, WELL NO.
2. NAME OF OPERATOR		DATION							P UNIT "A" #21
MARBOB ENERG 3. ADDRESS AND TELEPI	=	RATION					9. API	WELL NO.	
PO BOX 227, AR		88210 50	5-748-3303	3				30-02	25-35291 <i>0051</i>
4. LOCATION OF WELL (quirements)		10. Fi		DL, OR WILDCAT
Atsurface	•	-			•				RROW (GAS)
660 FSL 1750 At top prod. interval re	•							AREA	OR BLOCK AND SURVEY
SAME At total depth									-T19S-R32E
SAME				14. PERMIT NO		DATE ISSUED	12. CO	LEA	RISH 13. STATE NM
15. DATE SPUDDED 1 04/24/01	16. DATE T.D 06/03/01	REACHED	17. DATE CO 07/21/0		o prod.) 18	B. ELEVATIONS (DI 353	ғ, кк в, кт, <mark>се</mark> , е 39' GR	FC.}* 19.	ELEV. CASINGHEAD
20. TOTAL DEPTH, MD & 12718'	TVD 21. I	PLUG, BACK T. 1263		22. IF MULT HOW M	TIPLE COMPL., ANY	23. INTE DRIL	I EA BY	RY TOOLS 0-12718	CABLE TOOLS
24. PRODUCING INTERV	AL(\$), OF TH	S COMPLETIO	N-TOP, BOTTO	DM, NAME (MD	AND TVD)*			;	25. WAS DIRECTIONAL SURVEY MADE
12458' - 12469' M	ORROW C								No
26. TYPE ELECTRIC AND DLL, CSNG	O OTHER LOG	IS RUN						27.	WAS WELL CORED
28.			CASING	RECORD (Re	port all string:	s set in well)			
CASING SIZE/GRADE	WEIGHT, L	B./FT. D	EPTH SET (MI		DLE SIZE	•	IENT, CEMENTIN	G RECORD	AMOUNT PULLED
13 3/8", H-40	48	¥ .	7,95'		17 1/2"		50 SX, CIRC 2	48 SX	NONE
8 5/8", J-55	32		4352		12 1/4"	CMTD W/ 1			NONE
5 1/2", M95-110	17	# .	12714'	1	7 7/8"	CMTD W/2	250, CIRC 65	SX	NONE
29.		LINER R	ECORD			30.	TUBIN	G RECORD	
SIZE TO	OP (MD)	BOTTOM	(MD) SA	CKS CEMENT	SCREEN (M	ID) SIZE 2 3/8		SET (MD) 2334'	PACKER SET (MD)
31. PERFORATION RECO	SPD (Interval	size and oum	veri		32.		, FRACTURE, CI		
••••	ono (interval		~,			NTERVAL (MD)			MATERIAL USED
12458' - 12469'					•	8' - 12469'	750 GAL 7 1		
					· •				
							\$		
33. *				PROD					
DATE FIRST PRODUCTIO			ethod (<i>Flow</i>	ing, gas lift, pu	mpingsize and	type of pump)		WELL STATI shut-in)	US (Producing or PROD
DATE OF TEST 07/23/01	HOURS TES				01LBBL. 22		CF. WATE 131	ER BBL . 2	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRES		ULATED	01 <u>BBL.</u>	GAS	MCF.	WATERBBL	OIL	GRAVITY-API (CORR.)
			►		PTED FO.	R RECORD			
34. DISPOSITION OF GAS	S (Sold, used	for fuel, vente	l, etc.)			·	TEST	NITNESSED B	34
35. LIST OF ATTACHMEN	ITS			1 I		VID R. GLA			
LOGS, DEVIATIO		ę.			AUG 8	201			
36. I hereby certify that th	<u>۱</u>	~	formation is c	omplete and co	orrect as determi	ined from all availa	ble records		
SIGNED	nay	. Lar	non	TITLE	ROLEUME	ASSALXST NGINEER		DATE 0	8/07/01
	*(s	ee Instruc	tions and	l Spaces f	or Additio	nal Data on I	Reverse Sid	e)	-

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Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitous or fraudulent statements or representations as to any matter within its jurisdiction.

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New Mexico (201)

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UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

 Type of Well Oil Well X Well Other
 Name of Operator MARBOB ENERGY CORPORATION
 Address and Telephone No. P.O. BOX 227, ARTESIA, NM 88210 505-748-3303
 Location of Well (Footage, Sec., T., R., M., or Survey Description) 660 FSL 1750 FWL, SEC. 19-T19S-R32E UNIT N

Form 3160-5

(June 1990)

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

5. Lease Designation and Serial No. LC-068947

6. If Indian, Allottee or Tribe Name

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7. If Unit or CA, Agreement Designation

LUSK DEEP UNIT

8. Well Name and No.

LUSK DEEP UNIT A #21

9. API Well No. 30-025-35291 10. Field and Pool, or Exploratory Area

LUSK MORROW GAS

11. County or Parish, State

Lea CO., NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

Notice of Intent

X Subsequent Report

Final Abandonment Notice

TYPE OF ACTION

Abandonment Recompletion Plugging Back Casing Repair Altering Casing X Other SPUD, CMT CSG Change of Plans New Construction

Non-Routine Fracturing

Water Shut-Off

Conversion to Injection

Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form)

13. Describe Proposed or Completed Operations (Clearly state all pertinet details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markders and zones pertinent to this work.)*

SPUD WELL @ 5:30 A.M. 4/24/01. DRLD 17 1/2" HOLE TO 795', RAN 18 JTS 13 3/8" 48# H-40 CSG TO 795', CMTD W/ 400 SX HALL LITE & 250 SX PREM PLUS, PLUG DOWN @ 8:30 A.M. 4/27/01, CIRC 248 SX TO SURF. WOC 18 HRS, TSTD CSG TO 600# FOR 20 MINUTES - HELD OK.

	ACCEPTED FUN RECORD (ORIG. SGD.) DAVID F. GLASS MAY I 2001	
14. I hereby cartify that the foregoing is true and corr Signed HOOM CCCMU (This space for Federal or State office use)	Title PRODUCTION ANALYST	_{Date} 04/30/01
Approved by Conditions of approval, if any:	Title	Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



*See Instruction on Reverse Side

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Form 3160-5 (June 1990)	UNITED STAT DEPARTMENT OF TH BUREAU OF LAND MA	E INTERIOR		
Do not use this form for p	DRY NOTICES AND REI proposals to drill or to de PLICATION FOR PERN	epen or reenti	y to a different reserv	 If Indian, Allottee or Tribe Name OIF.
	SUBMIT IN TRIP	LICATE		7. If Unit or CA, Agreement Designation
1. Type of Well				LUSK DEEP UNIT
2. Name of Operator	ner	• • •	-	8. Well Name and No. LUSK DEEP UNIT A #21
MARBOB ENERGY CORPO 3. Address and Telephone No.				9. API Well No. 30-025-35291
P.O. BOX 227, ARTESIA, N 4. Location of Well (Footage, Sec., T.				10. Field and Pool, or Exploratory Area LUSK MORROW GAS
660 FSL 1750 FWL, SEC. 1	9-T19S-R32E UNIT N			11. County or Parish. State
				LEA CO., NM
12. CHECK APPRO	PRIATE BOX(s) TO INDI	CATE NATURE	OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMI	SSION		TYPE OF ACTION	N
Notice of Intent		Abandonm		Change of Plans
X Subsequent Repo	n	Recomplet Plugging B		New Construction Non-Routine Fracturing
		Casing Re	pair	Water Shut-Off
Final Abandonme	nt Notice	Altering Ca X Other IN	ISING ITERMEDIATE CSG, CM	Conversion to Injection Dispose Water (Note Report results of multiple completion on Well Completion of Recompletion Report and Log form.)
directionally drilled, give subsurfa	ce locations and measured and true	vertical depths for all 5/8" 32# CSG TO	markders and zones pertinent to 4352', CMTD W/ 1200 SX	date of starting any proposed work. If well is this work.)* PP, TAIL IN W/ 250 SX PREM NEAT, 1500# FOR 30 MINUTES - HELD OK.
		·		AVID R. GLASS
14. I hereby cartify that the foregoing Signed HODUM (This space for Federal or State offic	chain 1	itle PRODUCTIC	N ANALYST	Date 05/08/01
Approved by Conditions of approval, if any:	т		Contraction	Date [™] ★ ∠UUį́

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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*See Instruction on Reverse Side

	N-M. Oil Cons. Division
Form 3160-5 UNITED STATES (June 1990) DEPARTMENT OF THE INTERIOR	HODDS, NM BECRM APPROVED Expires: March 31, 1993
BUREAU OF LAND MANAGEMENT	5. Lease Designation and Serial No. LC-068947
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different Use "APPLICATION FOR PERMIT-" for such proposals	6. If Indian, Allottee or Tribe Name RESERVOIT.
SUBMIT IN TRIPLICATE	7. If Unit or CA, Agreement Designation
1. Type of Well	LUSK DEEP UNIT
Oil Gas Well X Well Other 2. Name of Operator	8. Well Name and No. LUSK DEEP UNIT A #21
MARBOB ENERGY CORPORATION 3. Address and Telephone No.	9. API Well No. 30-025-35291
P.O. BOX 227, ARTESIA, NM 88210 505-748-3303 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	10. Field and Pool, or Exploratory Area LUSK MORROW GAS
660 FSL 1750 FWL, SEC. 19-T19S-R32E_UNIT N	11. County or Parish, State
	LEA CO., NM
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, F	· · · · · · · · ·
	FACTION
Notice of Intent Abandonment Recompletion	Change of Plans New Construction
X Subsequent Report Plugging Back	Non-Routine Fracturing
Casing Repair	Water Shut-Off
Final Abandonment Notice Altering Casing	Conversion to Injection
X Other TD, CMT CSG	Dispose Water (Note Report results of inuffape completion on Wet Completion or Recompletion Report and Log form.)
13. Describe Proposed or Completed Operations (Clearly state all pertinet details, and give pertinent dates, including directionally drilled, give subsurface locations and measured and true vertical depths for all markders and zones p	
	estimated date of starting any proposed work. If well is ertinent to this work.)*
TD WELL @ 1:30 AM 6/3/01. DRLD 7 7/8" HOLE TO 12718', RAN 311 JTS 5 1/2" 17# CS0 SUPER H, PLUG DOWN & 2:15 PM 6/7/01, CIRC W/ 65 SX OFF D/V TOOL, CMTD 2ND S SUPER H, LANDED PLUG @ 9:00 PM 6/7/01, CIRC NO SX TO SURF. WOC 18 HRS, TS OK.	ertinent to this work.)* S TO 12714', CMTD 1ST STAGE W/ 550 SX TAGE W/ 1600 SX H/L, TAILED IN W/ 100 SX
SUPER H, PLUG DOWN & 2:15 PM 6/7/01, CIRC W/ 65 SX OFF D/V TOOL, CMTD 2ND S SUPER H, LANDED PLUG @ 9:00 PM 6/7/01, CIRC NO SX TO SURF. WOC 18 HRS, TS	ertinent to this work.)* S TO 12714', CMTD 1ST STAGE W/ 550 SX TAGE W/ 1600 SX H/L, TAILED IN W/ 100 SX

A.			ener merinen er en er er	· · · ·	14 · · ·	· ·
- T'V (fy that the folloging is the and correct Λ		PRODUCTION ANALYST		- 06/12/04	
Signed	www.j. www.		I NODOGNON ANALISI	· · ·	Date 06/13/01	· · ·
	CCEPTED FOR RECOR	כ				
Approved by		Title			Date	· •
	offici.°SGD.) DAVID R. GI	LADD				
1X V25	JUN 2 6 2001					
Title 18 U.S.C. S	ection 1001, makes it a crime for any per	son knowingly and	willfully to make to any department or	agency of the United Sta	ates any false, fictitious	or fraudulent
statements or rep	resentations as to any matter within its ju	irisdiction.	· · · · ·			
	DAVID R. GLASS	1			, ,	* N
	DETROLEUM ENGINEER	*See	Instruction on Reverse Side			

LUSK DEEP UNIT 008 (3001510382)

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Form \$-330		-		. •	20	1.2.			
(Rev. 5-63)			STATES	*	IN DUPLIS	.,E* other in	. I	Form ap Budget B	proved. Sureau No. 42R355.5.
	DEPART	MENT O	F THE IN	TEBIOR	(See struc	tions on	. 5. LEASE DE	SIGNATIO	ON AND SERIAL NO.
	GI	EOLOGIC	AL SURVEY	REL	- E I V ⁻		1°-01	2935	8
	MPLETION C		MPLETION	REPORTUR	18D-498	Ģ *	6. IF INDIAN	, ALLOT	TEE OR TRIBS NAME
18. TYPE OF WEI	LL: OIL. WELL	WELL		Other			7. UNIT ACE	LEMENT	NAME
b. TYPE OF COM	WORK DEEP-	PLC C	- DIFF. []		. C. C.		Lesk	Deep	
NEW WELL	OVER EN	DACK L	L RESVE	Other ARTE	BIA, OFFIC		S. FARM OR	LEASE >	(AMB
	outberg Hew I	textco OL	L Corporati				9. WELL NO.		<u> </u>
3. ADDRESS OF OPE								· 1	B
	LL (Report location)			v State requirem	amis) •		10. FIELD AN	Stta	
	50' from Soul	•			•				R BLOCK AND BURVEY
	terval reported below	Sec	. 24	7 · ·				SE/4	of Sec. 24
At total depth			· · · · · · · · · · · · · · · · · · ·	·			1-19-8,		
			14. PERMIT NO.		TE ISSUED		12. COUNTY (PARISH Lea	ола,	13. STATE New Mexico
15. DATE SPUDDED 4/26/64	16. DATE T.D. REAC 5/29/64	l l	е сомрі. (<i>Ready t</i> / 1/64	o prod.) 18. E	LEVATIONA (I 3551		T, GR, ETC.)*	19. EI	EV. CABINGHEAD
20. TOTAL DEPTH, MD		SACK T.D., MD &	TVD 22. IF MUL HOW M	TIPLE COMPL., ANY	23. INTI	ERVALS	BOTARY TOO	LS	CABLE TOOLS
11,540	BYAL(S), OF THIS CO	1,454	HOTTON NAME (1		<u> </u>	<u>→ </u>	A11		WAS DIRECTIONAL
	7-11445)	Strawa	, BUILOR, NAME (ED AND IND,-			•	40.	
26. TYPE ELECTRIC	AND OTHER LOGS RUN							27. WA	S WELL CORD
			Soule (ianna Ray					. ,
28.		CASI	NG RECORD (Rep	ort all strings se	et in well)			<u> </u>	
CASING SIZE	WEIGHT, LB./FT.	DEPTH SE	T (MD) HO	LE SIZE	CEX	ENTING I	RECORD		AMOUNT PULLED
13 3/8	48		737	17		Sack			Hone
8 5/8 4 1/2	24		1515	12	2350	Secks Secks			Rope Rope
		NER RECORD	I		30.		UBING RECO		
BIZE	TOP (MB) BO	OTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE		EPTH BET (M		PACKER BET (MD)
					2"		11400		· · · ·
DESTON ATION DE	COBD (Interval, size (and number)							· · · · · · · · · · · · · · · · · · ·
		ana <i>namoti j</i>		82.			JRE, CEMENT		EZE, ETC.
(11397-114	03), (11415-	11445)		11397-1		100			
							CP-	and	
						R	5	Lola -	IL I
3.*			PROT	UCTION			- MA	<u>6-1-5</u>	All
ATE FIRST PRODUCT	ION PRODUCT	ION METHOD (F	lowing, gas lift, pi		d type of pun	n p)	CE VELLS	UNTUE	(Producing or
6/1/64		Hat	ural Flow			<i>v</i> .	S. CIAM	(-191)	Shut In
ATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL-BBL.	GAS-MO	CF.	WATER-BBL	. <u>c</u>	AB-OIL BATIO
6/3/64	4	15/64		131.2	249		0		1900 to 1
LOW. TURING PRESS.	CASING PRESSURE	CALCULATED		GAS-MC	. 1	WATER-	BBL.		VITT-API (COBR.)
900 4. DISPOSITION OF G	AS (Sold, used for fu	el, vented, etc.)	787	149	4		TEST WITNES		<u>.</u>
Gas sold t	o Phillips P	et. Co. (avaiting co	maecticos)		•		test Western 1
5. LIST OF ATTACH	MENTS						<u> </u>		······
6. I hereby certify	that the foregoing a	and attached in	formation is comp	lete and correct	as determine	ed from s	all available re	ecords	
SIGNED	allow	(>		A #	ent		DATE		/4/64
									· · · · · · · · · · · · · · · · · · ·
	با ممک)≁	attructions or	d Spaces for A	dditional De	ta an Rava	wea Sida	.1		

(See Instructions and Spaces for Additional Data on Keverse Side)

	ARTMENT OF THE IN	IERIOR verse side)	structions on	5. LEASE		AND SEBIAL NO
	GEOLOGICAL SURV				29358	OR THIBE NAM
	NOTICES AND REPO proposals to drill or to deepen PPLICATION FOR PERMIT—" for			0. 10 111		ergy
OIL GAS WELL OT	HEE Drilling Well	** * *		7. UNIT	AGREEMENT NA	ME /
NAME OF OPEBATOR	ra New Mexico Oil Co			8. PARM	OR LEASE NAM	1
ADDRESS OF OPERATOR				9. WHLL		<u>.</u>
2. 0	. Sox 1659, Midland,	Texas			8	
. LOCATION OF WELL (Report loc See also space 17 below.)	ation clearly and in accordance v	with any Stats requiremen	its.•	10. PHL	AND POOL O	N WILDCAT
At surface 16.	50° from the South I	l ns & 990' fra	n che	11 010	k Straw	
64	st Line of Sec. 24			80	T., B., M., OR E RVET OR ABEA	· · · · ·
				T-19	f 56/4 c	iz sec. Z
4. PERMIT NO.	15. ELEVATIONS (Show w	hether DF, BT, GB, etc.)			TY OR PARISH	.13. STATE
		3551' G.R.		Bdi	¥	Bert Hex
B. Che	ck Appropriate Box To Ind	icate Nature of Noti	ce, Report, o	or Other Dat	8	: <u>.</u>
NOTICE OF	FINTENTION TO :	1	80B	BEQUENT BEPOS	TOP:	•
TEST WATER SHUT-OFF	PULL OB ALTER CASING	WATER SI	90 1-0FF	X	REPAIRING V	VELL
FRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE	TREATMENT		ALTERING CA	BING
SHOOT OR ACIDIZE	ABANDON•	SHOOTING	OR ACIDIZING	∟.	ABANDONME	TT+
REPAIR WELL	CHANGE PLANS	(Other) .	TE : Report res	ults of multip	e completion	on Well
(Other) . DESCRIBE PROPOSED OR COMPLET proposed work. If well is nent to this work.) *	TED OPEBATIONS (Clearly state all directionally drilled, give subsurf	pertinent details, and gi	ve pertinent da	tes, including rtical depths f	estimated dat or all markers	e of starting : and zones pe
7. DESCRIBE PROPOSED OR COMPLET proposed work. If well is nent to this work.) *	directionally drilled, give subsurf	pertinent details, and gi- ace locations and measur	ve pertinent da ed and true ve	tes, iacluding rtical depths (or all markers	and zones pe
DESCRIBE PROPOSED OR COMPLET proposed work. If well is nent to this work.)* The Luck De of H-40, 13 3/8" 40 plus 21 CACL_2. The	directionally drilled, give subsurf	pertinent details, and gi- ace locations and measur lded 4/25/64 at ted at 737' viti 7:00 AM. The co	tre pertinent da ed and true ver 1:00 AM. 5 775 Back	tes, including: rtical depths (On Apri ks of reg culated,	al markers 1 26 718 Jular com After 2	and zones pe
The Luck De of H-40, 13 3/8" 40 plus 21 CACL2.	directionally drilled, give subsurf sep Unit #8 was spud of casing was coment a plug was down at 2	pertinent details, and give locations and measure locations and measure located 4/25/64 at ted at 737' vitil 7:00 AM. The co	tre pertinent da ed and true ver 1:00 AM. 5 775 Back	tes, including: rtical depths (On Apri ks of reg culated,	al markers 1 26 718 Jular com After 2	and zones pe
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Form 9-331 (May 1963)				
	ITED STATES	SUBMIT IN T. JICATI		oved. reau No. 4:
V D	EPARTMENT OF THE INTER	IOR verse alde)	5. LEASE DESIGNATIO	ON AND SER
	GEOLOGICAL SURVEY		6. IF INDIAN, ALLOY	THE OR TRI
	Y NOTICES AND REPORTS		1.4	. t
(Do not use this form Use	for proposals to drill or to deepen or plug "APPLICATION FOR PERMIT-" for such p	back to a different reservoir. proposais.)	L'été	up .
1. 01L CAB (30	Urilling Well		7. UNIT AGREEMENT	NAME
2. NAME OF OPERATOR	OTHER COLLEGE	V	8. PABY-OB LEASE N	
	there has mexico bil corp.			
3. ADDRESS OF OPERATOR	U. Box 105%, Hichana, Texa		9. WELL BO.	
	t location clearly and in accordance with any		10. FILD AND POOL	OR WILDCA
See also space 17 below.) At surface	1650' from the South Line		ANS STO	m . 1
	Last Line of Sec. 24		11. SEC., T., B., M., OI SCRVBT OR AN	R BLE. AND
			HE/4 OE SA/4	ot is
14. PERMIT NO.	15. BLEVATIONS (Show whether D	F. BT. GR. etc.)	12. COUNTY OF PARI	8E 13. 82
	3551 Gr.		iád y	Bev
16.	Check Appropriate Box To Indicate N	Natura of Masian Banant an		
	CRECK Appropriate Dox to indicate F		OTHER LOAD	· · /
Г	[]	J		
TEST WATEB SHUT-OFF	PULL OR ALTER CASING MULTIPLE COMPLETE	WATER SHUT-OFF FBACTURE TREATMENT	ALTIBING	
SHOOT OR ACIDIZE	ABANDON®	SHOOTING OR ACIDIZING	ABANDONE	· · ·
REPAIR WELL	CHANGE PLANS	(Other)		[
(Other)	FLETED OPERATIONS (Clearly state all pertines	i Completion or Recon	ts of multiple completion appletion Report and Log :	form.)
ta tau taulust	y 3, 3800° of 8 5/8" new 24	69 H-40 CASING WAS C	amente4 41 381)	
torrows1	y 3, 3800° of 8 5/8" new 24 tage at thes (3815°) with "	_		- 45 ACAG R
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Form 9-331 (May 1963)	ITED STATES DEPARTMENT OF THE INTER	SUBMIT IN T (Other instruc.		approved. t Bureau No. 42-B1424. NATION AND BERIAL NO.
	GEOLOGICAL SURVEY	NOR verse lide)	J L6-0293	
SUN	DRY NOTICES AND REPORTS	TON WELLS	6. IF INDIAN, A	LLOTTLE OR TRIBE NAME
	form for proposals to drill or to deepen or plug	• · · · · • • • •	ir.	
OIL GAB WELL WELL	ornen Schiling His	43 111 64	7. UNIT AGREEM	
2. NAME OF OPERATOR	Southern Sew Yealco Sel Cor	D.	8. FARM OR LE	
3. ADDRESS OF OPERATO	R	·	9. WILL NO.	
LOUMION OF WELL (2. C. Los 1659, Melanc, Yes Report location clearly and in accordance with an			POOL, OR WILDCAT
See also space 17 bel At surface	low.) 1650° from the South Line			LI AVE.
	Last Line of Sec. 24.		11. SBC., 2. B., BURVEY	M., OR BLE. AND DE AREA
			38 14 61 1-17-5 1	36 74 08 388. 2 4 -32-8
14. PERMIT NO.	15. ELEVATIONS (Show whether I			PARISE 18. STATE
		3551 36.		Bew daile
16.	Check Appropriate Box To Indicate	Nature of Notice, Repo		
	NOTICE OF INTENTION TO :		BUBBEQUENT REPORT OF:	
TEST WA TEB SHUT-(Fractu re trea t	PULL OR ALTER CASING	WATER SHUT-OFF FRACTURE TREATME		LEING WELL
SHOOT OR ACIDIZE	ABANDON*	SHOOTING OR ACIDI	ZING ABAI	DONMENT*
REPAIR WELL	CHANGE PLANS	(Other) (ith pu		<u> </u>
(Other)		(Note: Report Completion of	rt results of multiple com r Recompletion Report and	pletion on Well Log form.)
	ales for 30 offices the conte- and conversion of the later		· · · · · · · · · · · · · · · · · · ·) partorated
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The	well will be washed with 100	u gal or mud acte	i one a p otun tio	i test unce.
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18. I hereby certify tha	t the foregoing is true and correct			
SIGNED	TITLE	<u>in a state</u>	DATR	6/1/64
(This sport For For	eral or State office use)			
APROVED BY	TITLE	<u> </u>	DATE	
CONDITIONS OF	PPROVAL, OF ANY :			
JUN 3	NGINEER		• 	
I SISTRICT E	*See Instructio	ns on Reverse Side		
ACTING				

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			rte	sia, NM	1 88210 dSF
Form 3160-5 (June 1990)	DEPARTMEN	TED STATES T OF THE INTERIOR AND MANAGEMEN	1000 1000		FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 cese Designation and Serial No.
			•		C-029358
Do not use th	SUNDRY NOTICES his form for proposals to dr Use "APPLICATION FO	AND REPORTS ON II or to deepen or ree R PERMIT—" for such	proposals U. U. LAN	ofr. 6. 0	(Indian, Allococ or Tribe Name
		IN TRIPLICATE	RECEIUS	THE	Unit or CA, Agreement Designation
Type of Well Oil Well Oil Well Operator	Gas Well Other		0°C7 20	/ വ	JUSK Deep Unit "A" ell Name and No.
······································	Petroleum Company		an OIST 1894	/	1 Well No. 30-015 -
4001 Pent	prook St., Odessa, 1			10. F	ield and Pool, or Exploratory Area
	Footage, Sec., T., R., M., or Survey D		Vew Mexico		Jusk Strawn
· Unit I,]	L650' FSL & 990' FEL	of Section 24, T	-19-S, R-31-E	{	ddy
12. CHE	CK APPROPRIATE BOX(S) TO INDICATE NAT	TURE OF NOTICE, REI	PORT, O	R OTHER DATA
ТҮРЕ	OF SUBMISSION		TYPE OF ACTI	ON	
	otice of Intent	Abando			Change of Plaza
يو لک	ubsequent Report	Pluggin	g Back		New Construction Non-Routine Fracturing Water Shat-Off
🗆 Fi	inal Abandonment Notice	Cessing	Casing		Conversion to Injection
		Other_			Dispose Water se: Report results of multiple completion on Well
					npletion or Recompletion Report and Lag form.) sposed work. If well is directionally drilled,
give subsurfa	ce locations and measured and true vertic	al depths for all markers and zon	es pertinent to this work.)*		
10/12/94		11300' to 10962 rforated 4-1/2" ('. Plug #2 spotter csg @ 7098'. Set	1 25.sx 4-1/2"	s class H cmt from
10/13/94	to 6908'. Plug #4 spotted 50	eve class H out I	a 4325' to 4117' E	t-annet	
10/14/94	Plug #5 spotted 65	sxs class C ant i	@ 3915' to 3670' &	tagged	TOC @ 3670'.
	Plug #6 spotted 45 Plug #7 spotted 30				
	Plug #8 Spotted 15	sxs class C cmt	0 54' to 3'. Tagge	or be	@ 3'.
10/17/94	Ran 1" pipe down 8- Cut and pulled csg			nped 14	
			NTA SA DA DA DA		Prot ID 12 -9-94
		_	Surface restorati		
11	at the foregoing is true and correct				
	WAC TRANKO		Req. Affairs	=	Detr <u>10/24/94</u>
Approved by Conditions of appr	RIG. SGD.) JOE G. LA	RA Title PE	TROLEUM ENGINE	ER	Dute _11/17/94

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

ters Instruction on Dourse Cide

DEHLI FEDERAL 001 (30020025)

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Image: State of the set Number sucks of coment Method used Mud gravity 13-3/8 5071 Mud gravity Amount of mud to the set	┣ ━ ┤ ━ <u></u>					т. т. е.т.	UNIT	ED STATE	S	NM C	E	
LOCATE WELL CORRECTLY LOCATE WELL CORRECTLY Company DelhisTaylor. Oll Corporation Address F. O. Box 1621, Midland, " Lessor or Tract. DelhisTaylor. St. al Federal Field Juak State Next Method Well No. State State Next Method State Next Method Mell No. State State Next Method State Next Method Location 660. ft. [S] of J. Jaca County Les The information given herewith is a complete and correct record of the well and all work don so far as can be determined from all available records. Signed Margared Hitternet Date April 3, 1963 Title District. Clerk Title District. Clerk The summary on this page is for the condition of the well at above date. Commenced drilling March 23 OL OR GAS SANDS OR ZONES (Denoie gas by 0) No. 1, from 11,200' to 11,285' No. 4, from to No. 5, from to No. 5, from to No. 5, from to No. 2, from to No. 4, from to No. 4, from to No. 4, from to No. 4, from to		╉╍╍╉╍╍╉				DEPART	MENT	OF THE				
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Lessor or Tract_Delhi=Taylor_Et_al_Federal_ Field Lusk State New Mi Well No	Company _	De.]	lhi-Tay	lor_011	Corporat	tion Ad	iress F	2. 0. Box	1821 M	Ldland,	1	
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So far as can be determined from all available records. Signed	'Fhe m	formation	i given h	erewith is	a complet	te and cor	rect rec	ord of the w	ell and a	(Deric) Il work	don	
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	(SUBMIT IN TRI	PLICATE)	MM-0107699
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NOTICE OF INTENTION TO PULL OR ALI	TER CASING SUPP	LEMENTARY WELL HISTORY	·····
NOTICE OF INTENTION TO ABANDON WE	₽↓		
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NE/4 NW/4 (4 Sec. and Sec. No.)	(Twp.) (Bange)	(Meridian)	rteo (
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Lusk Strevn	(Twp.) (Bango) Lea (County or Subdivision loor above sea level is	(Meridian) Mew Me 1548 ft. WORK and lengths of proposed casings, im	Territory)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company DELHI-TAYLOR OIL CORPORATION
Address P. O. Box 1821
Midland, Texas By Congress Midland,
Title District Clark

U. S. GOVERNMENT PRINTING OFFICE: 1958 O - 463339



Ilwether Exploration Compan-1331 Lamar, Suite 1455 Houston, TX 77010-3039

WELL SCHEMATIC	RKB: 3550	SPUD	2-2-63	•	PRESENT C	OMPLET	0.
WELL SCILMATIC	Elv: 3536		: 3-23-63				
				BE	LLWETHE	R EXPL OR	ATION
				DATE:		Jul-00	
				-			
	13 3/8 @ 510			WELL:	Delhi Fed	 Com #1	
				FIELD:	Lusk Straw	·	
		······································			Lea, New M		
	DV tool @ 2996'			LOC	Sec 30 T19		
				BEC WI:		NRI: 7	,
				· _ ·			
	8-5/8"@ 4050'.						
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	Est. hole in Csg @ 6058-6087, Sq.	z'd w/ 200 sx 8/	20/99				
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	Tubing anchor @ 10,814			· · · · · · · · · · · · · · · · · · ·			
	SN @ 11.181'						
	EOT @ 11.217'						
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		Well	Delhi Fed C	'om #1	_	 _	
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	11226-11244, 11258-11270		0.000				
	11277-11287	Size	8.625"	4.50"	├	2 7/8	2 3/8
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4 4		The second	STAC			8rd	0.4
		Thread	ST&C	+	<u>}</u>	010	8rd
		Depth	4050	11400		8680'	1 1 8680'-11.217'
╺╸╺╴╞	TD: 11400' PBTD: 11.397		40.00	1	<u> </u>	0000	
	10. 11900 [101D: 11.337	_					

SL DEEP FEDERAL 003 (3002539441) .

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4

	REC	EIVI	=V			_										
FORM 3160-4		N Q 20(10			Ī	OCD-HO	DBBS	•	1	F	ORM APPRO	VED			
(August 2007)) 8 20(O STATE	:S					MB NO 1004				
	MOBE	BSOC	DEPA	RTMI	ENT O	F THE IN	ITERIOR GEMENT			LE LEVEL		pires July 31 ATION AND				
NUR									00	D LEASE						
WE							REPORT					<u>M-0107</u>			=	
la Type of We	-	X 0.1 We		Gas We	"	Dıy	Other			6 INDIAN	ALLOT	TEE OR TRI	BE NA	ME		
b Type of Con	npletion	X New W	ell 🛄	Workov	er 🗌	Deepen	Plug Back	🗌 Dif	l' Resvr		an det is					
		Other		/						7 UNIT A	GREEME	-NI				
2 Name of Ope	iator			1						8 FARM	OR LEAS	ENAME				
Marbol	Energy C	orporati	ons V	,							SL	Deep Fed	leral	#3 🖌		
3 Address			·				3a Phone No	(milude a	rca . oxle)	9 API WE	LL NO				7	
P.O. Bo							57	75-748-3	3303		3	0-025-39	44]	/		
	, NM 8821		h and in	wordan	ce with Fe	deral reguire	ment			10. FILLD	NAME	<u> </u>				
At surface	990' FN									}	Lus	k; Bone	Sprin	፲፪ ረ	414	40
74 301000	990 I IN		10 F W	L, Ulli		L(\ 1)	1				. K. M . C	OR BLOCK A	AND 2	URVEY		/
At top piod	Interval reporte	d below	Sa	me						OR AREA	30	T 198 PARISM 13	_	32E		
At total depth		Same									Lea			M	1	
14 Date Spudd	ed 1	15 Date T	D Reach	ed		16 Date Co	mpleted	8/	18/09	17 ELEVA		DF, RKB, RT				
6/15/	/09		7/6/()9	_		D&A	X	Ready 10 Prod	35	53 7'	GR	35	554'	KB	
18. Total Depth	MD	9580	1	Plug bi	eck T D	MD	95	36'	20 Depth E	Bridge Plug St	а. MD	>				
<u> </u>	TVD	9580	<u> </u>			TVD	95	36'			ΤV	<u>d</u>			<u> </u>	
21 Type El	ectric & other l	.ogs Run (S							22. Was we	ell cored?	X No	Ye	s (Sub	mit analy	y31S)	
			DL	L, DS	N				Was DS		∑ №			mit repo		
									Directio	onal Survey?	X No	Ye	s (Sub	mit copy)	
	and Liner Recor			l i			Stave C	ementer	No of Sks & T	VDe		r				
Hole Size	Size/ Grade	: WI	(#/A)	Тор	(MD)	Bottom(M		pth	of Cement	Slurry	Vol (Bbl)	Cement T	op•	Amour	it Pulled	
17 1/2"	13 3/8" J5		4.5#	0		839'			700 sx			0		No	one	
12 1/4"	9 5/8" J5	_	& 40#	0		4158'			1800 sx		·	<u>100' (T</u>			one	
7 7/8"	<u>5 1/2" J5</u>	<u>s </u>	7#	0		9555'	<u> </u>		1275 sx		·	1800' (1	<u>(S)</u>	No	one	
24 Tubing	Record		···· _						L		<u>_</u>	<u> </u>				
Size	Depth Set (1	MD) Pi	cker Dep	ih (MD)	Si	ze []	Depth Set (MD)	Packer	Depth (MD)	Size	Dept	sei (MD)	Pac	ker Depi	h (MD)	
2 7/8"	9396	·			ļ								Γ_			
	ng Intervals		тт.	0p	Bott		6 Perforation Perforated	_	Size		t Holes		Perf 5			
	Ione Spring	2	·	56'	920		8956-9		5120		6	<u> </u>	Op			
B)		<u> </u>	<u> </u>		1							- -				
C)																
D)			[l			. <u></u>				<u> </u>				
	icture Treatmen	it, Ceinent S	Squeeze, E	ic		·		Amount	and Turne of Marine							
	pth Interval 56-9203'		Acdz	w/200	0 gal 7	1/2% NE	FE acid: Fi	rac w/2	ind Type of Mater 4216# 16/3	ACCE	PIE	D.FOR	R	COL		
									12100 1005				1000		<u> </u>	
					-							hris V		is		
				_	-						-SEP		2009			
	on- interval A				10.1	- 12	- 100	1000								
Date First Produced	Test Date	Hours Fested	Test Proc	faction	ол Вы	Gas MCF	Water Bbl	Oil Grav Corr AP	· 1	BUR	AU OF	LAND MA	NAG	EMENI		
8/20/09	8/24/09	24	<u> </u>	->	106	95	133	N	4		ARLSE	AD FLELD	0FF	ÇE	لسب	
Choke Size	Tbg Press Flwg	Csg I	Press 24 ł	Ir Rate	OIL BPI	Gas MCF	Water Bbl	Gas Oil Ratio	Well St	atus						
N/A	SI N/A	l						ixano				Produc	ing			
	on- interval B	- (-								<u> </u>		_		
Date First Produced	Test Date	Hours	Test		Oil UN	Gas	Water	Oil Grav	· I	Pro	Juction M	lethod '				
Produced		Tested	11'100		вы	MCF	вы	Con AP	f Gravity	ł						
Choke Size	Tby Press	Съв Р	ress 24 1	Ir Rate	Ол ВЫ	Gas	Water	Gas Oil	Well St	atus /	1 -	<u> </u>	<u> </u>			
	Flwg Si					MCF	ВЫ	Rano	ļ	k	Ŋ	•				
* See instructions					L	<u></u>	L	1		l						

* See instructions and spaces for additional data on page 2

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	UNITED STATES PARTMENT OF THE IN UREAU OF LAND MANA	NTERIOR	CO 4	.	OMB NO	APPROVED 0. 1004-0135 July 31, 2010
SUNDRY	NOTICES AND REPOR	RTS ON WE	LLJ	2 4 9	5. Lease Serial No. NMNM0107698	
abandoned we	s form for proposals to I. Use form 3160-3 (API	D) for such p	roposals.		6 If Indian, Allottee of	r Tribe Name
SUBMIT IN TRI	PLICATE - Other instruc	tions on rev	erse side.		7. If Unit or CA/Agree	ment, Name and/or No.
Type of Well					8. Well Name and No. S L DEEP FEDER	
Q Oil Well Gas Well Oth	/				9 API Well No. /	AL 3 /
MARBOB ENERGY CORPOR	Contact: Contact: Contact: Contact: Contact: Contact: Contact:	DEBBIE WILI narbob com	JUUKN		30-025-39441-0	0-X1
3a. Address P. O. BOX 227 ARTESIA, NM 88211-0227		Ph: 575-74	(include area code 8-3303	:)	10. Field and Pool, or LUSK	Exploratory Spring
4. Location of Well (Footage, Sec., 1					II. County or Parish, a	and State
Sec 30 T19S R32E NENW 99	IOFNL 1650FWL	:+-C1			LEA COUNTY, I	
12. CHECK APPI	ROPRIATE BOX(ES) TO) INDICATE	NATURE OF 1	NOTICE, RI	EPORT, OR OTHER	R DATA
TYPE OF SUBMISSION			TYPE O	F ACTION	····· · · · ·	·······
Notice of Intent	Acidize		pen	Product	ion (Start/Resume)	UWater Shut-Off
-	Alter Casing	□ Frac	ture Treat	C Reclam	ation	U Well Integrity
Subsequent Report	Casing Repair		Construction	C Recomp	olete	Other Drilling Operations
Final Abandonment Notice	–	and Abandon	–	arily Abandon	Drining Operations	
13 Describe Proposed or Completed Op	Convert to Injection	O Plug				
If the proposal is to deepen direction Attach the Bond under which the wo following completion of the involve testing has been completed Final A determined that the site is ready for 06/23/09 @6:15 PM, DRLD 1 CSG (3475.07' 36# & 664.08' @5:00 PM ON 06/23/09, DNC 06/23/09, CIRC W/GRAY WT W/10# BRINE - NO LOSS OF	ork will be performed or provided d operations. If the operation re- bandonment Notices shall be fi- final inspection) 2 1/4" HOLE TO 4160'. R 40#) TO 4158'. CMTD 1S C. CMTD 2ND STG W/100	e the Bond No. c esults in a multip iled only after all AN 93 JTS (4 ST STG W/45 00 SX HLPP.	on file with BLM/B ble completion or re requirements, inclu 139.15') 9 5/8" 0 SX HLPP, TA TAILED IN W/1	IA. Required s completion in uding reclamati 36/40# J-55 ILED IN W/2 00 SX HLPP	ubsequent reports shall b a new interval, a Form 31 ion, have been completed BUTTRESS 50 SX P+, PD 2, PD @9:15 PM ON	e filed within 30 days 160-4 shall be filed once I, and the operator has
			AUG O C	5 2009		
			HOBBE	Socd		
14 Thereby certify that the foregoing a	s true and correct				<u></u>	
	Electronic Submission # For MARBOB E nmitted to AFMSS for proc	71969 verified NERGY CORF	by the BLM Wel	Il Information to the Hobbs	System	
Cor Name(Printed/Typed) DEBBIE \		essing by KU			9 KMS0925SE) PRESENTATIVE	
Signature (Electronic	Submission)		Date 07/08/2	2009	<u></u>	<u> </u>
	THIS SPACE FO		L OR STATE		SE	
ACCEPT	ED		WESLEY TillePETROLE	INGRAM EUM ENGIN	EER	61 Date 07/10/20
Conditions of approval, if any, are attach certify that the applicant holds legal or ec which would entitle the applicant to cond	uitable title to those rights in the uct operations thereon.	he subject lease	Office Hobbs		Ka	<u> </u>
Title 18 U.S.C. Section 1001 and Title 4. States any false, fictitious or fraudulent	U.S.C. Section 1212, make it statements or representations a	a crime for any past to any matter v	erson knowingly a within its jurisdictic	nd willfully to m.	make to any department	or agency of the United

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

	UNITED STATE EPARTMENT OF THE I SUREAU OF LAND MANA	NTERIOR	0 Ch	OMB N Expires	APPROVED 10. 1004-0135 : July 31, 2010	
SUNDRY	NOTICES AND REPO	RTS ON WELLS	OCD Hobbs	5. Lease Serial No. NMNM010769	8	
Do not use th abandoned we	his form for proposals to all. Use form 3160-3 (AP	drill or to re-enter an D) for such proposal	5.	6 If Indian, Allottee	or Tribe Name	
SUBMIT IN TR	IPLICATE - Other instru	ctions on reverse sid	9.	7. If Unit or CA/Agr	eement, Name and/or No.	
T. Type of Well Gas Well O	ther	· · · · · · · · · · · · · · · · · · ·		8. Well Name and No S L DEEP FEDE		
2. Name of Operator MARBOB ENERGY CORPO	Contact:	DEBBIE WILBOURN		9. API Well No. 30-025-39441-	00-X1	
3a Address P. O. BOX 227 ARTESIA, NM 88211-0227		3b Phone No. (include a Ph: 575-748-3303	rea code)	10. Field and Pool, c LUSK	er Exploratory	
4. Location of Well (Footage, Sec.,	T., R., M., or Survey Descriptio	n) /		11. County or Parish	, and State	
Sec 30 T19S R32E NENW 9	90FNL 1650FWL	rc /		LEA COUNTY	, NM /	
12. CHECK APP	PROPRIATE BOX(ES) T	O INDICATE NATUR	E OF NOTICE	, REPORT, OR OTHE	ER DATA	
TYPE OF SUBMISSION			YPE OF ACTIO	N		
Notice of Intent	□ ^{Acidize}	Decpen		duction (Start/Resume)	U Water Shut-Off	
-	Alter Casing	Fracture Treat		lamation	Well Integrity	
Subsequent Report	Casing Repair	□ New Construe	tion D Rec	complete	Drilling Operations	
Final Abandonment Notice Change Plans Plu			ndon 🗖 ^{Ter}	Temporarny Abandon		
	Convert to Injection	Plug Back		ter Disposal		
Attach the Bond under which the w following completion of the involv testing has been completed. Final determined that the site is ready for TD WELL @11:45 PM ON 0 LTC CSG TO 9554.86'. CMT 07/08/09, CIRC 45 BBLS CM PD @9:03 PM ON 07/08/09,	ed operations. If the operation Abandonment Notices shall be r final inspection.) 7/6/09. DRLG 7 7/8" HOLI D 1ST STG W/300 SX HI AT OFF DVT @5987.39'.	results in a multiple comple filed only after all requirement E TO 9580'. RAN 242 . _P, TAILED IN W/300 3 CMTD 2ND STG W/57	tion or recompletion ents, including rection JTS (9549.86') (SX SUPER H, F 5 SX H/L, TAILI	n in a new interval, a Forn amation, have been complet 5 1/2" 17# N-80 8RD PD @1:35 pm ON	3160-4 shall be filed once ed, and the operator has	
			RE	CEIVED		
				6 06 Zimy		
				BBSUCD		
14. I hereby certify that the foregoing	Electronic Submission For MARBOB E	ENERGY CORPORATION	I, sent to the Ho	obbs		
	mmitted to AFMSS for pro			REPRESENTATIVE		
Signature (Electronic	: Submission)	OR FEDERAL OR S		FUSE		
			SLEY INGRAM			
_Approved By			TROLEUMEN		Date 07/10/2(
Conditions of approval, if any, are attac certify that the applicant holds legal or a which would entitle the applicant to cor	equitable title to those rights in a duct operations thereon.	the subject lease Office		KN	,	
Title 18 U.S.C. Section 1001 and Title 4 States any false, fictitious or frauduler	43 U.S.C. Section 1212, make it at statements or representations	a crime for any person kno as to any matter within its j	wingly and willfull irisdiction	y to make to any department	nt or agency of the United	

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

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LUSK DEEP UNIT A 024H (3002540863)

.FORM 3160-4								000			1		FO	RM APPRO	/ED	
(August 2007)					D STAT			UCD	Hobt)S	- I		OM	B NO. 1004-	0137	
		Γ	DEPARTM	ENT Ó	F THE I	NTERI	OR						Exp	ires: July 31,	2010	
		B	UREAU O	F LAN	D MAN	AGEME	ENT				5.	LEASE	DESIGNA	TION AND	SERIAL N	0.
WE	LL COMP	LETIO	N OR REC	COMPI	LETION	N REPO	RT .	AND I	LOG				NIA	/NM016	107	
												INTELAN		EE OR TRI		
la. Type of W		Oil Well	Gas We		Dry	Other						INDIAN	ALLOTI	EE OK TRI	SE NAME	
b. Type of Co	mpletion X	New Well	Worko	ver [Deepen	Plug Back	K	🗌 Dji	ÓBB	s Of	ctb		<u> </u>			
		<u>.</u> .						1			7, 1	UŅIT A	GREEME			
		Other				·							NM	INM709	S2X	
2. Name of Op		_		•				Δ	PR 1	77	ທິລ	PAKM	OR LEAS	2 NAME		
COG (Dperating LI	LC			•						1	• 1	Lusk D	eep Unit	A #24H	
3. Address						3a. Phor						API WE	LL NO.		_	
2208 V	V. Main Stre	et					575	-748-6	di REC	;EIV	ECP		30	-025-408	63	
	i, NM <u>8821</u>						515	-/+0-0				_		-025-400	UJ	
4. Location of	Well (Report loca	tion clearly	and in accorda	nce with F	ederal requ	irements)*		-			10,	FIELD				
At surface 33	30' FNL & 6	60' FWL	., Lot 1 (N	WNW)	of Sec 1	9-T19S-	R32E	Ξ			ŀ	- <u></u>		; Bone S		<u> </u>
												SEC. T	', r. m.:0 19	r block a t 19S		ey 2E
At top prod. Inte	rval reported belo	1 4.901	X 47								`	•		ARISH 13.		<u>2E</u>
At total depth		782' 190	ez 🔍 E, Lot 4 (S	wsw)	of Sec 19	-T19S-F	32E				12,	000		AGAIT 15.		
				·····					28/13				Lea	<u>l ·</u>	NM	
14. Date Spud		Date T.D.			16. Date (۰ ·		·						OF, RKB, RT		
12/19	0/12	-	1/5/13] D&A			Ready	to Pro	id.	3.	569'	GR	35,87'	КВ
18. Total Depth	MD	13660'	19. Plug b	ack T.D.:	MD		1360)0'	20.	Depti	n Bridge	Plug So	t: MD		13600	,
	TVD	9276'			TVD		9274	4'					TVI)	9274'	
21. Type E	lectric & other Lo	gs Run (Sub	mit a copy of ea	ich)					22.	Was	weil con	ed?	X No	Yes	(Submit a	nalysis)
			None						,	·	DST rur					
			None										No No		(Submit re	•
								·	ļ	Direc	tional S	urvey?	□ ^N ⁰	X Yes	(Submit co	эру)
23. Casing	and Liner Record	(Report all .	strings set in we	(1)				·	,	•						
Hole Size	Size/ Grade	Wt. (#	/ft.) Top	(MD)	Bottom(N	4D) St	age Cen		No. of		· · ·	Slurry 3	Vol. (Bbl)	Cement To	p* Amo	unt Pulled
		· ·	<u> </u>				.Dept			Ceme					· .	
<u> </u>	13 3/8" J5				770'		Non			75 s				0		Мопе
<u> 12 1/4" </u>	9 5/8" J55				4455		269	6'		57 <u>5</u> s			<u>`</u>	0	<u> </u>	<u>Norie</u>
7 7/8"	5 1/2" P110	0 17	# 0	·	1366	0'	Non	ne	18	<u>875 s</u>	iΧ	,		<u>0</u>	<u> </u>	Лопе
· .	·]							· •	•		` I				ł	
24. Tubing		<u> </u>			····	. .	· •				·					<u> </u>
Size	Depth Set (M	ID) Pack	er Depth (MD)	Si	2e	Depth Set (MD)	Packer	Depth (N	۸D)	Si	ze	Depth	Set (MD)	Packer De	epth (MD)
2 7/8"	.,8553'								•	<u> </u>		· · ·				
25. Produci	ng Intervals			•			ration R					•			•	
	Formation		Тор	Bot			ated Int			Siz		No. c	f Holes ,	. · I	erf. Status	
<u>A) E</u>	Bone Spring		9400'	135	570'		Attac			0.4	3	- 4	60	•	Open	
<u>B)</u>			• •			1356	50-13	<u>570'</u>			` I	(50		Open	
C)											-				••	
D)	-									•						<u>, .</u>
27. Acid,Fr	acture Trestment,	Cement Sou	ceze, Etc.	· · · · · · ·												
p	epth Interval						Ă	mount ar	nd Type	of Mai	erial	-			`	
	e Attached				•	<u> </u>		See	Attac	hed	<u> </u>					
												<u> </u>				<u> </u>
											· · · · ·					
	· · · ·				··'		··· ·	- <u>-</u> -			•	Æ	CLA	<u> </u>	TUN	
	<u> </u>		······································								<u>. </u>	ND		- 76		
		- <u>-</u> L	·	;									<u>E.A.</u>	<u>- </u>	-1-/	
	ion-Interval A	Hours	7-4	101		huran		010	<u>.</u>	Ic						<u> </u>
Date First Produced	Test Date	Tested	Test Production	Qil Bbl	Gas MCF	Wate Bbl	r	Oil Grav Corr. AP	-	Gas Gravi	tu	Pro	duction M	ethod		
3/4/13	. 4/1/13	24		570		•	242		•						iņg∟∩	000
Choke Size	Tbg. Pres5	Csg	24 Hr. Rate	Oil Bbl	Gas	Water		Gas: Oil		Well	Status	<u>, t</u>	· · · · · · · · · · · · · · · · · · ·	TIT	<u>, 191 / 1</u>	
	Flwg.	Press.			· MCF	Bbl		Ratio				14		Produci		UNU
	520#	280#	\rightarrow	570	23	5 12	242 .					5				· ·
28a. Product	ion-Interval B			· · ·	- :					Ť		1	- 4 -	- 14-1	2	<u> </u>
Date First	Test Date	Hours	Test	Oil	Gas	Water	r ·	Oil Gtav	ity	Gas		Pro	ductionA	ethod 7		
Produced	1	Tested	Production	вы	MCF	вы		Corr. AP	•	Gravi	tv	1	ATT	?		ł
				<u> </u>									[[[]	w	•	
Choke Size	Tbg. Press	Csg	24 Hr. Rate	Oil Bbl	Gas	Wate	r ·	Gaș: Oil		Well	Status		2			
	Flwg. SI	Press.	`_ _`		MCF	Bbl		Ratio			E	381/.		AND MA		ENT
		<u> </u>		<u></u>	l			L	11	Ļ	<i>[</i>	<u></u>	<u>8165V</u>	<u>n fifi n</u>	OFFICE	
 See instruction: 	sand spaces for ad	ditional data	on page 2)						Kc	7 _4		/ <u>;</u>				
	-							1	12	>	\checkmark			. Δ Ρ	R 3 6	n 201

APR 3 0 2013

-	· · ·		OCD	Hobbs		
Form 3160-5 (August 2007) DE	UNITED STATES	NTERIOR			OMBIN	I APPROVED NO. 1004-0135 : July 31, 2010
SUNDRY	UREAU OF LAND MANAG	RTS ON WE	LLS	·	. 5. Lease Serial No. NMNM016497	
Do not use this abandoned we NECEIVE	is form for proposals to II. Use form 3160-3 (API	D) for such p	enter an roposals.		6. If Indian, Allottee	or Tribe Name
SUBMIT IN TRI	PLICATE - Other instruc	tions on reve	rse side.		7. If Unit or CA/Agn	eement, Name and/or No.
1. Type of Well Gas Well Of I	ner /		· ·		8. Well Name and No LUSK DEEP UN	
2. Name of Operator COG OPERATING LLC		STORMI DAV	IS	· · ·	9. API Well No. 30-025-40 8 63	
3a. Address 2208 WEST MAIN STREET ARTESIA, NM 88210		3b. Phone No. Ph: 575-748 Fx: 575-748		e)	10. Field and Pool, o LUSK; BONE S	
4. Location of Well (Footage, Sec.,) Sec 19 T19S R32E NWNW 3	i) 		11. County or Parish LEA COUNTY,			
12. CHECK APPI	ROPRIATE BOX(ES) TO) INDICATE	NATURE OF	NOTICE,	REPORT, OR OTHE	ER DATA
TYPE OF SUBMISSION	•		TYPE O	F ACTION		
 Notice of Intent Subsequent Report Final Abandonment Notice 	Acidize Alter Casing Casing Repair Change Plans	· D New	en ure Treat Construction and Abandon		4	Water Shut-Off Well Integrity Other Drilling Operations
· .	Convert to Injection	D Plug		.—	Disposal	
13. Describe Proposed of Completed Op If the proposal is to deepen direction. Attach the Bond under which the wo following completion of the involved testing has been completed. Final Al determined that the site is ready for f	ally or recomplete horizontally, rk will be performed or provide l'operations. If the operation res bandonment Notices shall be fil	give subsurface h the Bond No. on sults in a multiple	ocations and meas file with BLM/BI completion or rec	ured and true A. Required completion in	vertical depths of all pert subsequent reports shall b a new interval, a Form 31	inent markers and zones. e filed within 30 days 60-4 shall be filed once
12/19/12 Spud well.	· · ·			•	APPEDTER	END DECODD
12/20/12 TD 17 1/2" hole @ 1 Tailed in w/250 sx. Circ 250 s out 5' below FS w/10# brine -	sx to surface. WOC 18 hr	55 csg @ 770 s. Test csg to)'. Cmt w/425 s 1500# for 30 r	sx Class C. mins. Drill	4.	FOR RECORD
12/25/12 TD 12 1/4" hole @ 4 w/425 sx Class C. Tailed in w Tailed in w/100 sx. Circ 49 sx 5' below FS w/10# brine - no I	/250 sx. Circ 295 sx thru to surface. WOC 18 hrs.	ECP. Cmt 2r	nd Stage w/ 80	0 sx Class		1 2 2013
						FIELD OFFICE
14. Thereby certify that the foregoing is	true and correct	<u> </u>		· <u> </u>		<u></u>
	Electronic Submission #1 For COG C Committed to AFMSS for	OPERATING 🏨	.C. sent to the	Hobbs	-	
Name(Printed/Typed) STORMI	DAVIS		Title PREPA	ARER		
Signature (Electronic S	Submission)		Date 01/04/2	2013	_	· .
	THIS SPACE FO	R FEDERAL	OR STATE	OFFICE I	JSE	
Approved By	· · ·		Title		······································	Date
Conditions of approval, if any, are attache certify that the applicant holds legal or equ which would entitle the applicant to condu	d. Approval of this notice does hitable title to those rights in the act operation mercan	not warrant or subject lease	Office			
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212, make it a statements or representations as	crime for any per to any matter wit	rson knowingly an hin its jurisdiction	nd willfully to	make to any department of	or agency of the United

Form 3160-5 (August 2007)	gust 2007) DEPARTMENT OF THI BUREAU OF LAND MAI SUNDRY NOTICES AND REF			INTERIOR AGEMENT HOBBS OCD ORTS ON WELLS		FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010 5. Lease Serial No. NMNM016497 6. If Indian, Allottee or Tribe Name	
SUBMIT IN TRIPLICATE - Other instructions on reverse side.						7. If Unit or CA/Agr	eement, Name and/or No.
1. Type of Well R Oil Well	Gas Well Ot	ncr				8. Well Name and No LUSK DEEP UN	
2. Name of Ope			STORMI DA	VIS		9. API Well No. 30-025-40363-40863	
3a. Address 2208 WES ARTESIA,	T MAIN STREET	3b. Phone No. (include area code) Ph: 575-748-6946 Fx: 575-748-6968			10. Field and Pool, or Exploratory LUSK; BONE SPRING		
4. Location of W	Tell . (Footage, Sec., 1)			11. County or Parish, and State		
_ Sec 19 T19	95 A32E NWNW 3				LEA COUNTY, NM		
	12. CHECK APP	ROPRIÀTE BOX(ES) TO) INDICATI	E NATURE OF N	NOTICE, RI	EPORT, OR OTHE	R DATA
TYPE OF S	SUBMISSION		TYPE O	F ACTION	-		
Notice of	Intent					ion (Start/Resume)	U Water Shut-Off
						mation Ukell Integrity	
Subsequent Report Casing Repair Final Abandonment Notice Change Plans			□ New Construction □ Recomplete □ Plug and Abandon □ Temporarily /				🗙 Other Drilling Operations
				Plug Back Water Disposal			
If the proposa Attach the Bo following con testing has be determined th 12/30/12 T 1/5/13 TD	l is to deepen direction and under which the we appletion of the involved en completed. Final A at the site is ready for f D 7 7/8" vertical h	ole @ 8706' (KOP). 660'. Set 5 1/2" 17# P-11	give subsurface the Bond No. o sults in a multig ed only after all	e locations and measu on file with BLM/BL ole completion or rece requirements, includ	red and true vi A. Required su ompletion in a ding reclamatio	ertical depths of all pertibutes $response response reports shall be new interval, a Form 31 n, have been completed response re$	inent markers and zones. e filed within 30 days 60-4 shall be filed once
1/7/13 Rel	eased rig.		÷.			JAN 2 BURZAU OF LAN	D MANAGEMENT
14. Thereby cert	ity that the foregoing is	true and correct.				CARLSBAD FI	LLD OFFICE
· · · · · · · · · · · · · · · · · · ·		Electronic Submission #1 For COG (Committed to AFMSS for	79512 verifie DPERATING or processing	d by the BLM Wei LC, sent to the F by KURT SIMMO	II Information lobbs NS on 01/11/	9 System	
Name(Printed/Typed) STORMI DAVIS				Title PREPARER			
Signature (Electronic Submission)				Date 01/09/2013			
		THIS SPACE FO	R FEDERA	L OR STRATE	OFFICE US	SE	
Approved By			Title Petroleum Engineery / Date				
certify that the appl	oval, if any, are attache icani holds legal or equ the applicant to condu	d. Approval of this notice does nitable title to those rights in the let operations thereon.	not warrant or subject lease	Office		K2 J	AN 3 0 2013
Title 18 U.S.C. Sec States any false, f	tion 1001 and Title 43 ictitious or fraudulent s	U.S.C. Section 1212, make it a tatements or representations as	crime for any p to any matter v	erson knowingly and vithin its jurisdiction.	willfully to m	ake to any department o	r agency of the United
				SUBMITTED *			** / ·

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED

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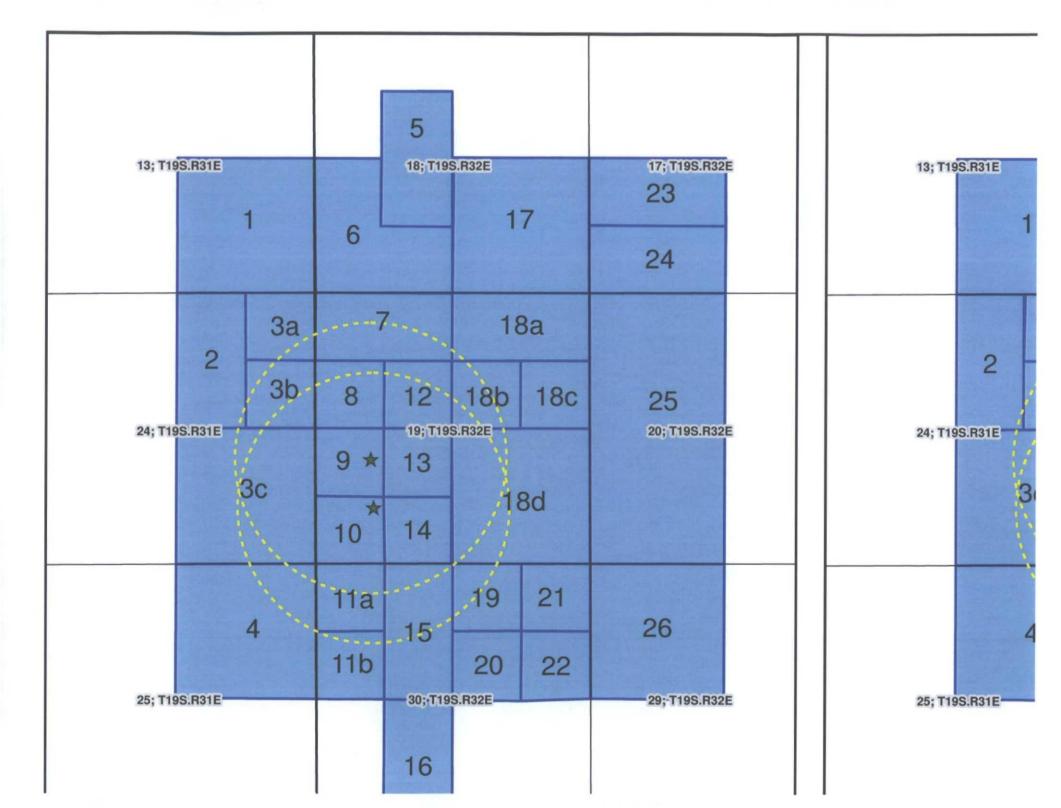
APPENDIX B

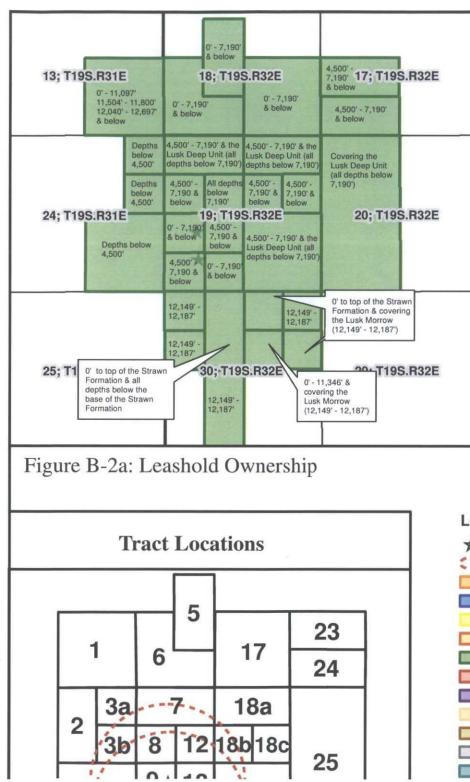
Land information on Tracts within one Mile of Proposed Zia AGI #1 and AGI #2

Table of Contents

- 1. Table B-1 Surface and Mineral Owners
- 2. Table B-2 Operators

- 3. Table B-3 Mineral Leasehold Owners
- 4. Table B-4 Summary Land Index
- 5. Figure B-1a,b Maps Showing Surface and Mineral Owners
- 6. Figure B-2 a,b,c,d,e Maps Showing Mineral Leasehold Owners
- 7. Land Status Reports by Tract (Basis for Table B-4)





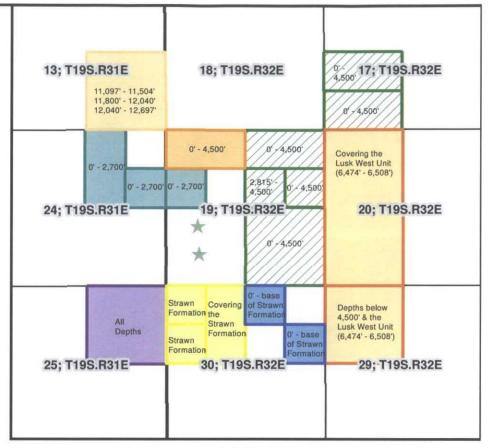


Figure B-2b: Leasehold Ownership



TABLE B-1 SURFACE AND MINERAL OWNERS

SURFACE OWNERS

United States of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

DCP Midstream 5718 Westheimer, Ste 1900 Houston, TX 77057

MINERAL OWNERS

United States of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

TABLE B-2OPERATORS

Chisos, Ltd 670 Dona Ana Rd. SW Deming, NM 88030

.

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Cimarex Energy Co 600 N. Marienfeld, Ste 600 Midland, TX 79701

Tom R. Cone 1304 W. Broadway Place Hobbs, NM 88240

Devon Energy Corporation 20 N. Broadway Ave. Oklahoma City, OK 73102

Lynx Petroleum Consultants PO Box 1708 Hobbs, NM 88241

Tandem Energy Corporation 200 N Loraine, Ste 500 Midland, TX 79701

Oxy USA Inc PO Box 4294 Houston, TX 77210

TABLE B-3 MINERAL LEASEHOLD OWNERS

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

Big Three Energy Group 1801 W. 2nd St Roswell, NM 88201

Bluestem Energy Assets, LLC 301 Commerce St. Fort Worth, TX 76102

Chase Oil Corporation P.O. Box 1767 Artesia, NM 88211

Chisos, Ltd 670 Dona Ana Rd SW Deming NM 88030

COG Operating LLC Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

ConocoPhillips Company P.O. Box 7500 Bartlesville, OK 74005

Cross Borders 2515 McKinney Ave., Ste 900 Dallas, TX 75201

D2 Resources LLC P.O. Box 10187 Midland, TX 79702

Devon Energy Corporation 20 N. Broadway Ave Oklahoma City, OK 73102

Dan Wallace Irwin, ssp 118 N. Grant St. Hinsdale, 11 60521

Lynx Petroleum Consultants Inc PO Box 1708 Hobbs, NM 88241

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TABLE B-3 MINERAL LEASEHOLD OWNERS

McVay Drilling Co PO Box 2450 Hobbs, NM 88241

OXY Y-1 PO Box 27570 Houston, TX 77227

Prize Energy Resources, L.P. 20 E. 5th Street, Ste 1400 Tulsa, OK 74103

Kathleen Irwin Schuster as Trustee of the Kathleen Irwin Schuster Trust u/t/a 12/20/2007 3213 Pepperwood Ln., Fort Collins, CO 80525

Seven Rivers PO Box 1598 Carlsbad, NM 88220

Sharbro Energy LLC PO Box 890 Artesia, NM 88210

Solis Energy LLC P.O. Box 51451 Midland, TX 79710

Tenison 8140 Walnut Hill Ln Dallas, TX 75231

Wallfam Limited 1811 Heritage Blvd, Ste 200 Midland, TX 79707

WK Land Company 911 Kimbark St. Longmont, CO 80501

Yates Industries, Inc PO Box 1091 Artesia, NM 88210

		.,	Summ	Table B-4 uary Land Index us Report By Tract)			
act #	Trac Location	Surface Owner	Mineral Owner	Operator	Lease Holder	Depth (tract)	Map Reference
	13-195-31E SE/4	USA Bureau of Land Management	USA Bureau of Land Management		COG Operating, LLC	Surface to 11,097	Figures 8-1a & B-1b Figure 8-2a
					Concho Oil & Gas, LLC	11,504' to 11,800' 12,040' to 12,697' & sil depths below 12,697' Surface to 11,097' 12,504' to 11,800'	Figure 8-2a
					Lynx Petroleum Consultants, Inc.	12,040' to 12,697' & all depths below 12,697' 12,040' to 12,697'	Figure B-25
				Lynx Petroleum Consultants, Inc.		11,097' to 11,504' 11,800' to 12,040'	Figure 8-25
	24-195-31E W/2-NE/4	USA Bureau of Land Management	USA Bureau of Land Management	·····			Figures 8-1a & 8-15
	1			Tandem Energy Corp.		Surface to 2,700	Figure 8-2b
					McVay Drilling Co.	Depths below 2,700'	Figure B-2c
					Şeven Rivers	Depths below 2,700'	Figure B-2c
					Devon Energy Corp.	Depths below 2,700'	Figure B-2c
					COG Operating, LLC	Depths below 2,700'	Figure 8-2c
					Concho Oil & Gas, LLC	Depths below 2,700'	Figure 8-2c
	24-195-31E NE/4-NE/4 (3a)	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a & B-1b
	SE/4-NE/4 (3b) SE/4 (3c)			Tandem Energy Corp.		Surface to 2,700' (35)	Figure B-Zb
					McVay Drilling Co.	2,700' to 4,500' (3b) Surface to 4,500' (3a, 3c)	Figure B-2c
					Seven Rivers	2,700' to 4,500' (36) Surface to 4,500' (3a, 3c)	Figure 8-2c
					Devon Energy Corp.	2,700' to 4,500' (3b) Surface to 4,500' (3a, 3c)	Figure B-2c
					COG Operating, LLC	2,700' to 4,500' (3b) Surface to 4,500' (3a, 3c) Depths below 4,500' (3a, 3b, 3c)	Figures B-2a & B-2c
					Concho Oli & Gas, LLC	2,700' to 4,500' (3b) Surface to 4,500' (3a, 3c) Depths below 4,500' (3a, 3b, 3c)	Figures B-2a & B-2c
	25-195-31E NE/4	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a & B-1b
	1.			Devon Energy Corp.		All Depths	Figure B-2b
	18-195-32E SE/4-NW/4, NE/4-	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a & B-1b
	sw/A				COG Operating, LLC	Surface to 7,190'	Figure B-2a
					Concho Oli & Gas, LLC	Surface to 7,190'	Figure B-2a
				COG Operating, LLC		Covering the Lusk Deep Unit (Being all depths below 7,190')	Figure 6-2a
	18-195-32E Lot 3: NW/4-SW/4,	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a & B-1b
	Lot 4: SW/4-SW/4, SE/4-SW/4				COG Operating, LLC	Surface to 7,190	Figure B-Za
					Concho Oil & Gas, LLC	Surface to 7,190	Figure 8-2a
				COG Operating, LLC		Covering the Lusk Deep Unit (Being all depths below 7,190')	Figure 8-2a
	19-195-32E Lot 1	USA Bureau of Land Management (Lot 1, S/2-S/2-NE/4-NW/4)	USA Bureau of Land Management				Figures 8-1a B 8-1b
	NE-NW	DCP Midstream (N/2-NE/4-NW/4, N/2-S/2-NE/4-NW/4)					Figure B-1b
					Big Three Energy Group	Surface to 4,500	Figure 8-2b
					COG Operating, LLC	4,500' to 7,190'	Figure 8-2a
				COG Operating, LLC	Concho Oli & Gas, LLC	4,500' to 7,190' Covering the Lusk Deep Unit	Figure B-2a Figure B-2a
	19-1 0 5-32E	USA Bureau of Land Management	USA Bureau of Land Management			(Being all depths below 7,190')	Figures 8-1a &
	Lot 2: 5W/4-NW/4			Tandem Energy Corp.		Surface to 2,700'	B-1b Figure B-2b
					Apache Corp.	2,700' to 4,500'	Figure B-2c
					Chisos, Ltd.	2,700' to 4,500'	Figure B-2c
					Chisos, Ltd. Cross Borders Resources, inc.	2,700' to 4,500' 2,700' to 4,500'	Figure B-2c Figure B-2c
							-
					Cross Borders Resources, Inc.	2,700' to 4,500'	Figure B-2c

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fract # 9	S/T/R 39-195-326	Surface Owner USA Bureau of Land Management	Mineral Owner USA Bureau of Land Management	Operator	Lease Holder	Depth (tract)	Map Referen
	Lot 3: NW/4-SW/4				COG Operating, LLC	Surface to 7,190'	B-1b Figure B-2a
					Concho Oil & Gas, LLC	Surface to 7,190'	Figure 8-2a
				COG Operating, LLC		Covering the Lusk Deep Unit	Figure 8-2a
10	19-195-32E Lot 4: SW/4-SW/4	USA Bureau of Land Management	USA Bureau of Land Management			(Being all depths below 7,190')	Figures B-1
	Lot 4: 5W/4-5W/4				Apache Corp.	Surface to 4,500'	B-15 Figure B-2c
					Chisos, Ltd.	Surface to 4,500'	Figure B-2c
					Cross Borders Resources, Inc.	Surface to 4,500'	Figure 8-2c
					COG Operating, LLC	4,500' to 7,190'	Figure 6-2a
					Concho Oil & Gas, LLC	4,500' to 7,190'	Figure B-2a
				COG Operating, LLC		Covering the Lusk Deep Unit (Being all depths below 7,190')	Figure B-2a
11	30-195-32E Lot 1: NW/4-NW/4	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a B-1b
	(11a) Lot 2: SW/4-NW/4			COG Operating, LLC		Covering the Lusk Morrow (12,149' to 12,187') (11a, 11b)	Figure 8-2a
	(116)				Apache Corp.	All depths, save & except the Lusk Morrow & Strawn Formation (11a) All Depths below the Top of the Bone Springs, save & except the	
				,	Chisos, Ltd.	Strawn and Lusk Morrow Formations (13b) All depths, save & except the Lusk Morrow & Strawn Formation (11a) All Depths below the Top of the	Figure 8-2c
					Cross Borders Resources, Inc.	Bone Springs, save & except the Strawn and Lusk Morrow Formations (11b) All depths, save & except the Lusk Morrow & Strawn	
						Formation (11a) All Depths below the Top of the Bone Springs, save & except the Strawn and Lusk Morrow	
				OXY USA, inc.		Formations (11b) Surface to the top of the Bone Springs (11b)	Figure B-2d
				Chisas, Ltd.		Covering the Strawn Formation {11a, 11b}	Figure B-2b
12	19-195-32E 5E/4-NW/4	USA Bureau of Land Management	USA Bureau of Land Management	Tom R. Cane		Surface to 7,190'	Figures 8-1 B-15 Figure 8-2c
				COG Operating, LLC		Covering the Lusk Deep Unit	Figure 8-2a
13	19-195-32E	USA Bureau of Land Management	USA Buresu of Land Management			(Being all depths below 7,190')	Figures B-1
	NE/4-5W/4				Apache Corp.	Surface to 4,500'	B-15 Figure B-Zc
					Chisos, Ltd.	Surface to 4,500	Figure B-2c
					Cross Borders Resources, Inc.	Surface to 4,500'	Figure 8-2c
					COG Operating, LLC	4,500' to 7,190'	Figure B-2a
					Concho Oil & Gas, LLC	4,500' to 7,190'	Figure B-2a
				COG Operating, LLC		Covering the Lusk Deep Unit {Being all depths below 7,190'}	Figure 8-2a
14	19-195-32E SE/4-SW/4	USA Bureau of Land Management	USA Bureau of Land Management		· · ·	Loong an append below 7,1901	Figures B-1a B-1b
	- ¹				COG Operating, LLC	Surface to 7,190'	Figure B-2a
					Concho Oil & Gas, LLC	Surface to 7,190'	Figure B-2a
				COG Operating, LLC		Covering the Lusk Deep Unit (Being all depths below 7,190)	Figure B-Za
15	30-195-32E E/2·NW/4	USA Bureau of Land Management	USA Bureau of Land Management	COG Operating, LLC		Surface to Top of the Strawn Formation & Covering the Lusk Morrow	Figures B-1 B-1b Figure B-2a
				Chisos, Ltd.		(12,149' to 12,187') Covering the Strawn Formation	Figure B-2t
					COG Operating, LLC	Ail depths below the base of	Figure B-2a
					۰ Concho Oil & Gas, LLC	the Strawn Formation All depths below the base of	Figure B-2a
					ConocoPhillips Company	the Strawn Formation All depths below the base of	Figure B-2e
	·					the Strawn Formation	

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Tract #	Tract Location S/T/R	Surface Owner	Mineral Owner	Operator	Lease Holder	Depth (tract)	Map Reference
16	30-195-32E	USA Bureau of Land Management	USA Bureau of Land Management			[Depin (over)	Figures 8-1a &
	E/2-SW/4			COG Operating, LLC		Covering the Lusk Morrow	B-1b Figure B-2a
						(12,149' to 12,187')	
					OXY Y-1	Surface to 11,080° Depths below 11,080°	Figures B-2c & B-2e
					Sharbro Energy, LLC	Surface to 11,080'	Figures B-2c &
					Tenison	Depths below 11,080' Surface to 11,080'	8-Ze Figure 8-2c
					Yates industries, inc.	Surface to 11,080	Figures B-2c &
l						Depths below 11,080'	B-Ze
					Bluestern Energy Assets, LLC	Depths below 11,080'	Figure B-Ze
					D2 Resources, LLC	Depths below 11,080'	Figure B-2e
					Solis Energy, LLC	Depths below 11,080'	Figure B-2e
17	18-195-32E SE/4	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a & B-1b
	_				COG Operating, LLC	Surface to 7,190'	Figure B-2a
					Concho Oli &Gas	Surface to 7,190'	Figure B-2a
				605 Davasiaa 115			
				COG Operating, LLC		Covering the Lusk Deep Unit (being all depths below 7,190')	Figure B-2a
18	19-195-32E	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a &
<u> </u>	N/Z-NE/4 (18a) SW/4-NE/4 (18b)	(E/2-NW/4-NE/4, NE/4-NE/4, S/2-NE/4, SE/4					B-1b
	SE/4-NE/4 (18c) SE/4 (18d)	DCP Midstream (NW/4-NW/4-NE/4, SW/4-NW/4-NE/4)					Figure B-1b
					Dan W. Inwin	Surface to 4,500' (18a,18c, 18d)	Figure 8-25
						From 2,815' to 4,500' (18b)	
					Kathleen Invin Schuster as Trustee of the Kathleen Irwin	Surface to 4,500' (18a,18c, 18d) From 2,815' to 4,500' (18b)	Figure 8-2b
					Schuster Trust		
					Wallfam Limited	Surface to 4,500' (18a,18c, 18d) From 2,815' to 4,500' (18b)	Heure B-25
					WK Land Company	Surface to 4,500' (18a,18c, 18d) From 2,815' to 4,500' (18b)	Figure B-2b
					COG Operating, LLC	4,500' to 7,190' (18a, 18b, 18c,	Figure B-2a
					Concho Oli & Gas, L⊥C	18d) 4,500' to 7,190' (18a, 18b, 18c,	Sieure P. Da
					Clining on a day, Lic	16d)	Figure 0-24
				Tom R. Cone		Surface to 2,815' (18b)	Figure 8-2c
				COG Operating, LLC		Covering the Lusk Deep Unit (Seing all depths below 7,190' - 18a, 18b, 18c, 18d)	Figure B-2a
19	30-195-32E NW/4-NE/4	USA Bureau of Land Management	USA Bureau of Land Management			•	Figures B-1a & B-1b
<u> </u>				COG Operating, LLC		Covering the Lusk Morrow	Figure B-Za
					COG Operating , LLC	(12,149' to 12,187') Surface to the Top of the	Figure 8-2a
İ						Strawn Formation	
					Concho Oil & Gas, LLC	Surface to the Top of the Strawn Formation	Figure 8-2a
					Chase Oil Corp.	Surface to the Top of the Strawn Formation & Covering	Figure B-2b
					OXY Y-1	the Strawn Formation Covering the Strawn Formation	5 mm 0 2 d
[Covering the Strawn Formation	rigure 6-20
					Prize Energy Resources, LP	Covering the Strawn Formation	Figure B-2c
				OXY USA, Inc.		From the base of the Strawn	Figure B-2d
					ConocoPhillips Company	Formation to 12,740' Depths below 12,740'	Figure B-2e
20	30-195-326	USA Bureau of Land Management	USA Bureau of Land Management	· · · ·			Figures B-1a &
	SW/4 NE/4	-	-	COG Operating, LLC		Surface to 11,346' & Covering the Lusk Morrow (12,149'	B-1b Figure B-2a
				OXY USA, Inc.		to 12,187} Depths below 11,346' ascept the	
21	30-195-326	USA Bureau of Land Management	USA Bureau of Land Management			Lusk Morrow	
<u> </u>	NE/4-NE/4		Parees of Letter Mitchiger(1864	COC Onerator		Providence and the second second	Figures B-1a & B-1b
				COG Operating		Covering the Lusk Morrow (12,149) to 12,187)	
					OXY Y-1	Surface to 11,346' Depths below 11,346', except the Lusk Morrow	
					Sharbro Energy, LLC	Surface to 11,346' Depths below 11,346', except the Lusk Morrow	
					Tenison	Surface to 11,346	Figure B-2c
					Yates Industries, Inc.	Surface to 11,346' Depths below 11,346', except the Lisk Morrow	
					Bluestern Energy Assets, LLC	Depths below 11,346', except the Lusk Morrow	Figure 8-2e
					D2 Resources, LLC	Depths below 11,346', except the	Figure B-2e
					Solis Energy, LLC	Lusk Morrow Depths below 11,346', except the	Figure B-2e
1						Lusk Morrow	

	Tract Location		I		i	Τ	
ract #	5/7/R	Surface Owner	Historial Dwitter	Operator	Lease Holder	(Depth (tract)	Map Reference
2	30-195-325	USA Bureau of Land Management	USA Bureau of Land Management				Figures B-1a &
	SE/4-NE/4						8-16
				CDG Operating		Covering the Lusk Morrow (12,149) to 12,187	Figure 8-2a
					COG Operating, LLC		Figure B-2a
					Concho Oil & Gas, LLC	surface to the lop of the Strawn Pollhabon	Figure B-2a
					Chase Oil Corp.	surface to the top of the Strawn permation Covering the Strawn Formation	Figure 8-2b
					Prize Energy Resources, LP	Covering the Strawn Formation	Figure 8-2c
					OXY Y-1 Company	Covering the Strawn Formation	Figure 6-2d
				OXY USA, Inc.		sil depths below the base of the strawn Formation, except the Lusk plorrow	figure 8-2d
23	17-195-32E	USA Bureau of Land Management	USA Sureau of Land Management				Figures B-1a &
	N/2-SW/4						B-15
					Dan W, Irwin	surface to 4,500'	Figure B-2b
					Kathleen Irwin Schuster as Trustee of the Kathleen Irwin Schuster Trust	surface to 4,500'	Figure 8 2b
					Wallfam Limited	surface to 4,500'	figure B-2b
					WK Land Company	surface to 4,500'	Figure 8-2b
					COG Operating, LLC	4,500 to 7,190	Figure 6-2a
					Concho Del & Gas, LLC	4,500° to 7,190'	Figure 8-2a
				COG Operating, UC		Covering the Lusk Deep Unit (being gli depths below 7,1907)	Figure B-2a
4	17-195-321	USA Bureau of Land Management	USA Bureau of Land Management				Figures 8-1a &
	\$/2·SW/4				Dan W. Irwin	surface to 4,500'	B-1b Figure B-2b
					Kathleen Irwin Schuster as	surface to 4,500'	Figure B-2b
					Trustee of the Kathleen Irwin Schuster Trust	•	-
					Wallfam Limited	surface to 4,500°	Figure 8 2b
					WK Land Company	Surface to 4,500'	Figure B-2b
					COG Operating, LLC	4,500 to 7,190	Figure B-2a
					Conche Dil & Gas, LLC	4,500' to 7,190'	Figure 8-Za
				COG Operating, LLC		Covering the Lusk Deep Unit (being all depths below 7,190')	-
25	20-195-32E W/2	USA Bureau of Land Management	USA Bureau of Land Management				Figures 8-1a &
	J.,,,				Prize Energy Resources, LP	surface to 7,190', save & except the Lusk West Unit	8-16 Figure B-2c
				Cimarex Energy Company		covering the Lusk West Unit (being depths from 6,474' to	Figure B-2b
				COG Operating, LLC		6.508') Covering the Lusk Deep Unit (being all depths below 7,190')	Figure B-2a
:6	29-195-32E	USA Bureau of Land Management	USA Bureau of Land Management				Figures 8-1a &
	NW/4				•	Surface to 4,500	B-1b
					Dan W. Irwin	Surface to 4,500 Surface to 4,500	Figure B-2e Figure B-2e
					Kathleen Irwin Schuster as Trustee of the Kathleen Irwin Schuster Trust		•
					Prize Energy Resources, LP	Surface to 4,500	Figure B-Ze
					WK Land Company	Surface to 4,500'	Figure B-Ze
				Company Energy Company		Cleptits below 4,500° & the Lusi. West Unit (6,474' to 6,508')	figu⊮e B-2b

Land Status Reports by Tract

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(Basis for Table B-4)

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OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: Tract #1

<u>Township 19 South, Range 31 East, N.M.P.M.</u> <u>Section 13: SE/4</u> <u>Containing 160.00 acres more or less</u> <u>Eddy County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

LANDMAN: Mary Helen Ormseth

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	160.000000	<u>HPB</u> OGL: DATE:

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LEASEHOLD OWNERSHIP SE/4 Surface to 11,097' and from 11, 504' to 11,800'

and all depths below 12,697'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
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LEASEHOLD OWNERSHIP

SE/4

From 11,097' to 11,504'

INTEREST OWNERS	 WORKING	NET REVENUE	STATUS & REMARKS
INTEREST OWNERS	INTEREST	INTEREST	STATUS & REMARKS

PRODUCING WELL:

HJ 13 Federal Com #1 Gas Well API: 30-015-23781 S/2 proration unit Producing from 11,790' to 11,954'

Operator: Lynx Petroleum Consultants PO Box 1708 Hobbs, NM 88241

Working Interest:

Basin Petroleum Co PO Box 4028 Albuquerque, NM 87196

Amity Oil Co., Inc 4925 Greenville Ave, Ste 700 Dallas, TX 75206

DNA Petroleum PO Box 7118 Houston, TX 79702 COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP SE/4 From 11,800' to 12,040'

INTEREST OWNERS WORKIN		STATUS & REMARKS
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PRODUCING WELL:

HJ 13 Federal Com #1 Gas Well API: 30-015-23781 S/2 proration unit Producing from 11,790' to 11,954'

Operator: Lynx Petroleum Consultants PO Box 1708 Hobbs, NM 88241

Working Interest:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Lynx Petroleum Consultants PO Box 1708 Hobbs, NM 88241

ConocoPhillips 600 N Dairy Ashford Houston, TX 77079

LEASEHOLD OWNERSHIP SE/4 Covering the Morrow (12,040' to 12,697)

INTEREST OWNERS	WORKING NET REVENUE INTEREST INTEREST	STATUS & REMARKS

• ...-

Working Interest:

Lynx Petroleum Consultants Inc PO Box 1708 Hobbs, NM 88241

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: Tract #2

<u>Township 19 South, Range 31 East, N.M.P.M.</u> <u>Section 24: W/2NE/4</u> <u>Containing 80.00 acres more or less</u> <u>Eddy County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

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MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	109.000000%	80.000000	<u>HBP</u> OGL: NM 0107697 DATE: 1/1/1940

LEASEHOLD OWNERSHIP W/2NE/4 Surface to 2,700'

INTEREST OWNERS	WORKING	NET REVENUE INTEREST	STATUS & REMARKS

PRODUCING WELL

Ohio Jones # 2 Oil Well API: 30-015-05786 40 acre proration covering SWNE Producing from 2,476' to 2,480', 2,547' to 2,550', 2,632' to 2,640'

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<u>Operator:</u> Tandem Energy Corporation 200 N Loraine, Ste 500 Midland, TX 79701

Working Interest:

Tandem Energy Corporation 200 N Loraine, Ste 500 Midland, TX 79701

LEASEHOLD OWNERSHIP W/2NE/4 Depths below 2,700'

1.

Working Interest: McVay Drilling Co PO Box 2450 Hobbs, NM 88241 Seven Rivers PO Box 1598	
PO Box 2450 Hobbs, NM 88241	
Hobbs, NM 88241	
Seven Rivers PO Box 1598	
PO Box 1598	
C	
Carlsbad, NM 88220	
Devon Energy Corporation	
20 N. Broadway Ave	
Oklahoma City, OK 73102	
COG Operating LLC	
600 W. Illinois Ave	
One Concho Center	
Midland, TX 79701	
Concho Oil & Gas LLC	
600 W. Illinois Ave	
One Concho Center	
Midland, TX 79701	



OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #3a, 3b, 3c

Township 19 South, Range 31 East, N.M.P.M. Section 24: SE/4NE/4, SE/4, NE/4NE/4 Containing 240,00 acres more or less Eddy County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	240.000000	<u>HBP</u> OGL: LC 029358 DATE: 1/1/1940

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LEASEHOLD OWNERSHIP SE/4NE/4 Surface to 2,700'

],	INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
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PRODUCING WELL

Ohio Jones #1 Oil Well API: 30-015-05785 40 acre proration covering SENE Producing from 2,456' to 2,470'

Operator: Tandem Energy Corporation 200 N Loraine, Ste 500 Midland, TX 79701

Working Interest:

Tandem Energy Corporation 200 N Loraine, Ste 500 Midland, TX 79701

LEASEHOLD OWNERSHIP

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SE/4NE/4

From 2,700' to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
McVay Drilling Co			
PO Box 2450		• •	
Hobbs, NM 88241			
Seven Rivers			
PO Box 1598			
Carlsbad, NM 88220			
Devon Energy Corporation			
20 N. Broadway Ave			
Oklahoma City, OK 73102			
COG Operating LLC			
600 W. Illinois Ave			
One Concho Center			
Midland, TX 79701			
-		•	
Concho Oil & Gas LLC			
600 W. Illinois Ave			
One Concho Center			
Midland, TX 79701		,	

LEASEHOLD OWNERSHIP SE/4, NE/4NE/4

Surface to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

McVay Drilling Co PO Box 2450 Hobbs, NM 88241

Seven Rivers PO Box 1598 Carlsbad, NM 88220

Devon Energy Corporation 20 N. Broadway Ave Oklahoma City, OK 73102

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP SE/4NE/4, SE/4, NE/4NE/4 Depths below 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave			

600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #4

<u>Township 19 South, Range 31 East, N.M.P.M.</u> <u>Section 25: NE/4</u> <u>Containing 160.00 acres more or less</u> <u>Eddy County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

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United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
	•		
United States Of America	100.000000%	160.000000	HBP
Bureau of Land Management			OGL: NM 0107697
1474 Rodeo Rd.			DATE: 1/1/1940
Santa Fe, NM 87505			

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LEASEHOLD OWNERSHIP ALL Depths

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

PRODUCING WELLS:

Spica 25 Federal #2H Oil Well API: 30-015-40222 160 ac proration unit covering S/2N/2 Producing from 9,700' to 13,703'

Spica 25 Federal #3H Oil Well API: 30-015-40220 160 ac proration unit covering N/2S/2 Producing from 9,550' to 13,589'

Devon Energy Corporation 20 N. Broadway Ave Oklahoma City, OK 73102 . ⊰ 1.

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Working Interest:

Operator:

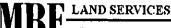
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

McVay Drilling Co PO Box 2450 Hobbs, NM 88241

Seven Rivers PO Box 1598 Carlsbad, NM 88220

Devon Energy Corporation 20 N. Broadway Ave Oklahoma City, OK 73102



OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: Tracts #5 and #14

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 18: SENW, NESW</u> <u>Section 19: SESW</u> <u>Containing 120.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	120.000000	<u>HBP</u> OGL: NMNM 068947 DATE: 4/1/1952

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LEASEHOLD OWNERSHIP

Surface to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:		x	
COG Operating LLC 600 W. Illinois Ave One Concho Center			
Midland, TX 79701			
Concho Oil & Gas LLC			
600 W. Illinois Ave One Concho Center			
Midland, TX 79701		<u>.</u> •	

LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #6

Township 19 South, Range 32 East, N.M.P.M. Section 18: Lots 3, 4, SESW Containing 120.00 acres more or less Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 **REPORT DATE: 8/26/2013**

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

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United States Of America **Bureau of Land Management** 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	-120.000000	<u>HPB</u> OGL: NMNM 038690 DATE: 10/1/1958

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LEASEHOLD OWNERSHIP Surface to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:		:•	
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			

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LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest;			

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OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #7

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 19: Lot 1, NENW</u> <u>Containing 80.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

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<u>N/2NE/4NW/4, N/2S/2NE/4NW/4,</u> 30.00 Acres, more or less:

DCP Midstream 5718 Westheimer, Ste 1900 Houston, TX 77057

Lot 1, S/2S/2NE/4NW/4, United States of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL'OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management	100.000000%	80.000000	<u>HBP</u> OGL: NMNM 016497
1474 Rodeo Rd. Santa Fe, NM 87505			DATE: 1/1/1955

TOTAL MINERAL OWNERSHIP 100.000000%

80.000000

LEASEHOLD OWNERSHIP Surface to 4,500'

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Working Interest:

Big Three Energy Group 1801 W. 2nd St Roswell, NM 88201

LEASEHOLD OWNERSHIP From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS	
Working Interest:				

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

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	INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
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Working Interest:

OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #8, #10, #13

Township 19 South, Range 32 East, N.M.P.M. Section 19: Lot 2 & 4, NESW Containing 120.00 acres more or less Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	120.000000	<u>HBP</u> OGL: NMNM 065863 DATE: 1/1/1940

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TOTAL MINERAL OWNERSHIP

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100.00000% 120

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120.000000

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LEASEHOLD OWNERSHIP

Lot 4, NE/4SW/4 Surface to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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Apache Corporation 303 Veterans Airpark Lane, Ste 3000 Midland, TX 79705

Chisos, Ltd 670 Dona Ana Rd SW Deming, NM 88030

Cross Borders Resources, Inc 22610 US Hwy 281 N, Ste 218 San Antonio, TX 78258

LEASEHOLD OWNERSHIP Lot 4, NE/4SW/4 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:		•	

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COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP Lot 2 Surface to 2,700'

1	INTEREST OWNERS	WORKING	NET REVENUE	STATUS & REMARKS
Ľ		INTEREST	INTEREST	STATUS & REMARKS

PRODUCING WELL:

Miller Federal #1 API: 30-025-00902 40 acre proration SWNW producing from 2,634'

Operator: Tandem Energy Corporation 2700 Post Oak, Ste 1000 Houston, TX 77056

Working Interest:

Tandem Energy Corporation 2700 Post Oak, Ste 1000 Houston, TX 77056

LEASEHOLD OWNERSHIP Lot 2 From 2,700' to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Warking Interate	· · · · ·		

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Working Interest:

Apache Corporation 303 Veterans Airpark Lane, Ste 3000 Midland, TX 79705

Chisos, Ltd 670 Dona Ana Rd SW Deming, NM 88030

Cross Borders Resources, Inc 22610 US Hwy 281 N, Ste 218 San Antonio, TX 78258

LEASEHOLD OWNERSHIP Lot 2 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			

LEASEHOLD OWNERSHIP Lot 2 & 4, NE/4SW/4 Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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OPERATOR:

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COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



OWNERSHIP REPORT

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PROSPECT: Zia Plant TRACT: #9

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 19: Lot 3</u> <u>Containing 40.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

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United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

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NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	40.000000	<u>HBP</u> OGL: NMNM 0149956 DATE: 12/1/1961

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LEASEHOLD OWNERSHIP

Surface to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

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INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



OWNERSHIP REPORT

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PROSPECT: Zia Plant TRACT: #8, #10, #13

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 19: Lot 2 & 4, NESW</u> <u>Containing 120.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used,

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	120.000000	<u>HBP</u> OGL: NMNM 065863 DATE: 1/1/1940

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TOTAL MINERAL	
OWNERSHIP	

120.000000

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LEASEHOLD OWNERSHIP Lot 4, NE/4SW/4 Surface to 4,500'

INTEREST OWNERS	-	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:		÷ .		

Apache Corporation 303 Veterans Airpark Lane, Ste 3000 Midland, TX 79705

Chisos, Ltd 670 Dona Ana Rd SW Deming, NM 88030

Cross Borders Resources, Inc 22610 US Hwy 281 N, Ste 218 San Antonio, TX 78258

LEASEHOLD OWNERSHIP Lot 4, NE/4SW/4 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	···		
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
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LEASEHOLD OWNERSHIP Lot 2 Surface to 2,700'

INTEREST OWNERS	WORKING	NET REVENUE.	CTATHE & DEMADES
INTEREST OWNERS	INTEREST	INTEREST	STATUS & REMARKS

PRODUCING WELL:

Miller Federal #1 API: 30:025-00902 40 acre proration SWNW producing from 2,634

Operator: Tandem Energy Corporation 2700: Post Oak, Ste 1000 Houston, TX 77056

Working Interest:

Tandem Energy Corporation 2700 Post Oak, Ste 1000 Houston, TX: 77056

LEASEHOLD OWNERSHIP Lot 2 From 2,700' to 4,500'

4

INTEREST OWNERS	WORKING INTERÉST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
Apache Corporation			
303 Veterans Airpark Lane, Ste 3000 -			
Midland, TX 79705			
Chisos, Ltd			
670 Dona Ana Rd SW			
Deming, NM 88030			
Cross Borders Resources, Inc.			
22610 US Hwy 281'N; Ste 218			
San Antonio, TX ² 78258			

LEASEHOLD OWNERSHIP Lot 2 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	·······		
COG Operating LLC			
600 W. Illinois Ave			
One Concho Center			
Midland, TX 79701			
Concho Oil & Gas LLC			
600 W. Illinois Ave			
One Concho Center			
Midland, TX 79701			

LEASEHOLD OWNERSHIP Lot 2 & 4, NE/4SW/4 Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	-		· · · · · · · · · · · · · · · · · · ·

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OPERATOR:

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COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701 **TDT** LAND SERVICES

A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #11a, 11b

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 30: Lot 1 & 2</u> <u>Containing 80.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd.	100.000000%	80.000000	<u>HBP</u> OGL: NMNM 107697 DATE: 1/1/1940

There is a producing well that covers the entire section as to the Lusk Morrow 12,149' to 12.187':

SL Deep Federal Com #1 API: 30-025-35088 640 acre proration entire section Producing from Lusk Morrow 12,149' to 12,187'

Operator:

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COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP

Lot 1

All depths, save & except the Strawn Formation

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

Working Interest:

Chisos, Ltd 670 Dona Ana Rd SW Deming NM 88030

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

Cross Borders 2515 McKinney Ave., Ste 900 Dallas, TX 75201

LEASEHOLD OWNERSHIP Lot 2 Surface to the Top of the Bone Spring

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			······································
OXY Y-1			
PO Box 27570			
Houston, TX 77227			
Myco Industries Inc			
105 S 4 th St			
Artesia, NM 88210			
PRODUCING WELLS:			
Federal #1 Well		,	
API: 30-025-31039			
40 acre proration NWSW			
Producing from Lusk Delaware			
6,805' to 7,118'			
0			
Operator:			
Oxy USA Inc			
PO Box 4294			
Houston, TX 77210			

LEASEHOLD OWNERSHIP

Lot 2

All depths below the Top of the Bone Spring, save & except the Strawn Formation

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
TTI II TA A			

Working Interest:

Chisos, Ltd 670 Dona Ana Rd SW Deming NM 88030

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

Cross Borders 2515 McKinney Ave., Ste 900 Dallas, TX 75201

LEASEHOLD OWNERSHIP Lot 1 & 2 Covering the Strawn Formation

INTEREST OWNERS	WORKING	NET REVENUE	STATUS & REMARKS
INTERESTOWNERS	INTEREST	INTEREST	STATUS & REMARKS

PRODUCING WELL:

Delhi Federal #1 Oil Well API: 30-025-20025 S/2 proration unit Producing from Strawn 160 acre proration NW

Operator;

Chisos, Ltd 670 Dona Ana Rd. SW Deming, NM 88030

Working Interest:

Chisos, Ltd 670 Dona Ana Rd SW Deming NM 88030

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

Cross Borders 2515 McKinney Ave., Ste 900 Dallas, TX 75201

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas Company 600 W. Illinois Ave One Concho Center Midland, TX 79701 LAND SERVICES

A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #12

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 19: SENW</u> <u>Containing 40.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	40.000000	<u>HBP</u> OGL: NMLC 068019 DATE: 4/1/1951

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LEASEHOLD OWNERSHIP Surface to 7,190'

	INTEREST OWNERS	WORKING	NET REVENUE INTEREST	STATUS & REMARKS
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PRODUCING WELLS:

Gulf Federal #001 Oil Well API 30-025-00909 40 acre proration SENW producing 2,429' to 2,433'

Gulf Federal #0012 Oil Well API 30-025-00910 40 acre proration SENW producing 2,440' to 2,500'

Gulf Federal #003 Oil Well API 30-025-20876 40 acre proration SENW producing 2,616' to 2,641', 2,419' to 2,510'

Operator:

Tom R. Cone 1304 W. Broadway Place Hobbs, NM 88240

Working Interest:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

Working Interest:

OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701 **MRE** LAND SERVICES

A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #8, #10, #13

Township 19 South, Range 32 East, N.M.P.M. Section 19: Lot 2 & 4, NESW Containing 120.00 acres more or less Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

INTEREST	NET ACRES	LEASEHOLD STATUS
100.000000%	120.000000	<u>HBP</u> OGL: NMNM 065863 DATE: 1/1/1940

LEASEHOLD OWNERSHIP Lot 4, NE/4SW/4 Surface to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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Apache Corporation 303 Veterans Airpark Lane, Ste 3000 Midland, TX 79705

Chisos, Ltd 670 Dona Ana Rd SW Deming, NM 88030

Cross Borders Resources, Inc 22610 US Hwy 281 N, Ste 218 San Antonio, TX 78258

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LEASEHOLD OWNERSHIP Lot 4, NE/4SW/4 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

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Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP Lot 2 Surface to 2,700'

I INTEREST OWNERS	ORKING TEREST	NET REVENUE INTEREST	STATUS & REMARKS
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PRODUCING WELL:

Miller Federal #1 API: 30-025-00902 40 acre proration SWNW producing from 2,634'

Operator: Tandem Energy Corporation 2700 Post Oak, Ste 1000 Houston, TX 77056

Working Interest:

Tandem Energy Corporation 2700 Post Oak, Ste 1000 Houston, TX 77056

LEASEHOLD OWNERSHIP

Lot 2 From 2,700' to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
Apache Corporation			
303 Veterans Airpark Lane, Ste			
3000			

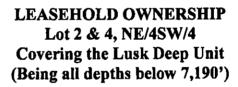
670 Dona Ana Rd SW Deming, NM 88030

Cross Borders Resources, Inc 22610 US Hwy 281 N, Ste 218 San Antonio, TX 78258

LEASEHOLD OWNERSHIP Lot 2 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			

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INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: Tracts #5 and #14

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 18: SENW, NESW</u> <u>Section 19: SESW</u> <u>Containing 120.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

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INTEREST	NET ACRES	LEASEHOLD STATUS
100.000000%	120.000000	<u>HBP</u> OGL: NMNM 068947 DATE: 4/1/1952

LEASEHOLD OWNERSHIP Surface to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
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LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
TRE DI TA A			

Working Interest:

OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #15 and #22

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 30: E2NW, SENE</u> <u>Containing 120.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	120.000000	<u>НВР</u> OGL: NM 0107698 DATE: 8/1/1951

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There is a producing well that covers the entire section as to the Lusk Morrow 12,149' to 12,187':

SL Deep Federal Com #1 API: 30-025-35088 640 acre proration entire section Producing from Lusk Morrow 12,149' to 12,187'

Operator:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP E/2NW/4

Surface to the Top of the Strawn

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

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PRODUCING WELL:

SL Deep Federal #2 API: 30-025-36257 40 acre proration SENW Producing from Lusk Bone Spring 8,886' to 9,265'

SL Deep Federal #3 API: 30-025-39441 40 acre proration NENW Producing from Lusk Bone Spring 8,956'' to 9,203'

Operator:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Working Interest:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Chisos, Ltd 670 Dona Ana Rd SW Deming, NM 88030

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

LEASEHOLD OWNERSHIP

E/2NW/4

Covering the Strawn

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
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PRODUCING WELL:

Delhi Federal #1 Oil Well API: 30-025-20025 S/2 proration unit Producing from Strawn 160 acre proration NW

Operator:

Chisos, Ltd 670 Dona Ana Rd. SW Deming, NM 88030

Working Interest:

COG Operating LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

Prize Energy Resources, L.P. 20 E. 5th Street, Ste 1400 Tulsa, OK 74103

Chisos, Ltd 670 Dona Ana Rd. SW Deming, NM 88030

LEASEHOLD OWNERSHIP E/2NW/4

All depths below the Base of the Strawn

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

:

Working Interest:

COG Operating LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

ConocoPhillips Company P.O. Box 7500 Bartlesville, OK 74005

LEASEHOLD OWNERSHIP SE/4NE/4 Surface to the Top of the Strawn

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:		,	<u></u>
COG Operating LLC			
600 W. Illinois Ave,			
One Concho Center			
Midland, TX 79701			
Concho Oil & Gas LLC			
600 W. Illinois Ave,			
One Concho Center			
Midland, TX 79701			
Chase Oil Corporation			
P.O. Box 1767			
Artesia, NM 88211			

LEASEHOLD OWNERSHIP SE/4NE/4 Covering the Strawn Formation

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:		· · · · · · · · · · · · · · · · · · ·	
Chase Oil Corporation			
P.O. Box 1767			
Artesia, NM 88211			
Prize Energy Resources, L.P.			
20 E. 5th Street, Ste 1400			
Tulsa, OK 74103			
Oxy Y-1 Company			
PO Box 4294			

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PO Box 4294 Houston, TX 77210-4294

LEASEHOLD OWNERSHIP SE/4NE/4 All depths below the Base of the Strawn

	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC			
600 W. Illinois Ave,			
One Concho Center			
Midland, TX 79701			
Concho Oil & Gas LLC			
600 W. Illinois Ave,			
One Concho Center			
Midland, TX 79701			
ConocoPhillips Company			
P.O. Box 7500 Bartlesville, OK 74005			
Barnesville, OK /4005			
RODUCING WELLS:			
Elliott Hall A#001			
PI: 30-025-20104			
60 acre proration NE			
roducing from Lusk Strawn 11,260'	to 12,061'		•
Operator:			
Dry USA Inc			
O Box 4294			
louston, TX 77210			



A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACTS: #16, #21

Township 19 South, Range 32 East, N.M.P.M. Section 30: NENE, E/2SW Containing 120.00 acres more or less Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST '	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	120.000000	<u>HPB</u> OGL: NMNM 01218 DATE: 8/1/1952

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TOTAL MINERAL OWNERSHIP

There is a producing well that covers the entire section as to the Lusk Morrow 12,1492 to 12:1872:

SL Deep Federal Com #1 API: 30-025-35088 640 acre proration entire section Producing from Lusk Morrow 12,149' to 12,187'

Operator:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP NE/4NE/4 Surface to 11,346'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

Working Interest:

Tenison 8140 Walnut Hill Ln Dallas, TX 75231

Sharbro Energy LLC PO Box 890 Artesia, NM 88210

Yates Industries, Inc PO Box 1091 Artesia, NM 88210

OXY Y-1 PO Box 27570 Houston, TX 77227

LEASEHOLD OWNERSHIP

NE/4NE/4

Depths below 11,346

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
Sharbro Energy LLC			
PO Box 890			
Artesia, NM 88210			
Yates Industries, Inc			
PO Box 1091			
Artesia, NM 88210			
OXY Y-1			
PO Box 27570			
Houston, TX 77227			
Bluestem Energy Assets, LLC			
301 Commerce St.			
Fort Worth, TX 76102			
D2 Resources LLC			
P.O. Box 10187			
Midland, TX 79702			
Solis Energy LLC			
oons cherky rive			

P.O. Box 51451 Midland, TX 79710

LEASEHOLD OWNERSHIP E/2SW/4

Surface to 11,080'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	•		· · · · · · · · · · · · · · · · · · ·
Tenison			
8140 Walnut Hill Ln			
Dallas, TX 75231			
Sharbro Energy LLC			
PO Box 890			
Artesia, NM 88210			
Yates Industries, Inc			
DO D 1001			

PO Box 1091 Artesia, NM 88210

OXY Y-1 PO Box 27570 Houston, TX 77227

LEASEHOLD OWNERSHIP E/2SW/4

Depths below 11,080'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			<u></u>
Sharbro Energy LLC	·		
PO Box 890			
Artesia, NM 88210			
Yates Industries, Inc			
PO Box 1091			
Artesia, NM 88210			
OXY Y-1			
PO Box 27570			
Iouston, TX 77227			
Bluestem Energy Assets, LLC			
301 Commerce St.			
ort Worth, TX 76102			
D2 Resources LLC		4.1	
P.O. Box 10187			
Midland, TX 79702			
Solis Energy LLC			
P.O. Box 51451			
Vidland, TX 79710			

LAND SERVICES

A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #17

Township 19 South, Range 32 East, N.M.P.M. Section 18: SE/4 Containing 160,00 acres more or less Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 **REPORT DATE: 8/26/2013**

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP .

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United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	160.000000	<u>HPB</u> OGL: NMLC 064198-A Date: 8/1/1951

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LEASEHOLD OWNERSHIP

SE/4

Surface to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP SE/4 Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS WORKING NET REVENUE INTEREST INTEREST ST.	ATUS & REMARKS
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UNIT OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

PRODUCING WELL

Crazy Horze 18 Federal Gas Well API: 30-015-05785 320 acre proration covering all section Producing from 12,217 to 12,332'

Lusk Deep Unit A #13 Gas Well API: 30-025-35053

Operator: COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #18a, 18b, 18c, 18d

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 19: E/2</u> <u>Containing 320.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

<u>NW/4NW/4NE/4, SW/4NW/4NE/4</u> 20.00 Acres, more or less:

DCP Midstream 5718 Westheimer, Ste 1900 Houston, TX 77057

E/2NW/4NE/4, NE/4NE/4, S/2NE/4, SE/4 United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	320.000000	<u>HBP</u> OGL: NMNM 025566 DATE: 9/1/1956

TOTAL MINERAL OWNERSHIP 100.000000%

LEASEHOLD OWNERSHIP N/2NE/4, SE/4NE/4, SE/4 Surface to 4,500'

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INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
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Working Interest:

Wallfam Limited 1811 Heritage Blvd, Ste 200 Midland, TX 79707

Dan W. Irwin 118 N. Grant Street Hinsdale, IL 60521

Kathleen Irwin Schuster as **Trustee of the Kathleen Irwin** Schuster Trust u/t/a 12/20/2007 3213 Pepperwood Ln., Fort Collins, CO 80525

WK Land Company 911 Kimbark St Longmont, CO 80501

LEASEHOLD OWNERSHIP N/2NE, SE/4NE, SE/4 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	· • • •		

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COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave **One Concho Center** Midland, TX 79701

LEASEHOLD OWNERSHIP SW/4NE/4 Surface to 2,815'

INTEREST OWNERS	WORKING	NET REVENUE	STATUS & REMARKS
ETTEREST OWNERS	INTEREST	INTEREST STATUS & REM	STATUS & REMARKAS

PRODUCING WELLS:

Southern California Pet Federal #001 Oil Well API 30-025-00906 40 acre proration SWNE producing 2,498' to 2,510', 2,516 to 2,538'

Operator:

Tom R. Cone 1304 W. Broadway Place Hobbs, NM 88240

Working Interest:

Glenn Plemmons Box 688 Morton, TX 79346

Lucy Lee Plemons 8216 Chicago Lubbock, TX 79424

Mack Energy Corporation PO Box 960 Artesia, NM 88211

LEASEHOLD OWNERSHIP SW/4NE/4 From 2,815' to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

Wallfam Limited 1811 Heritage Blvd, Ste 200 Midland, TX 79707

Dan W. Irwin 118 N. Grant Street Hinsdale, IL 60521

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Kathleen Irwin Schuster as Trustee of the Kathleen Irwin Schuster Trust u/t/a 12/20/2007 3213 Pepperwood Ln., Fort Collins, CO 80525

WK Land Company 911 Kimbark St Longmont, CO 80501

LEASEHOLD OWNERSHIP SW/4NE/4 From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	· · · · · · · · · · · · · · · · · · ·		
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			

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LEASEHOLD OWNERSHIP E/2 Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
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Working Interest:

OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #19

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 30: NWNE</u> <u>Containing 40.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

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SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America	100.000000%	40.000000	HBP
Bureau of Land Management			OGL: NMNM 01218-A
1474 Rodeo Rd.			out of NMNM 01218
Santa Fe, NM 87505			DATE: 5/1/1952

There is a producing well that covers the entire section as to the Lusk Morrow 12,149' to 12,187':

SL Deep Federal Com #1 API: 30-025-35088 640 acre proration entire section Producing from Lusk Morrow 12,149' to 12,187'

Operator:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP NW/4NE/4 Surface to the Top of the Strawn

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	-		
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			

Chase Oil Corporation PO Box 1767 Artesia, NM 88211

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LEASEHOLD OWNERSHIP NW/4NE/4

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Covering the Strawn Formation

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
OXY Y-1 PO Box 27570 Houston, TX 77227	•		

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Prize Energy Resources LP 20 E. 5th St., #1400 Tulsa, OK 74103

Chase Oil Corporation P.O. Box 1767 Artesia, NM 88211

LEASEHOLD OWNERSHIP NW/4NE/4

From the Base of the Strawn Formation to 12,740'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC			
600 W. Illinois Ave			
One Concho Center			
Midland, TX 79701			
Concho Oil & Gas LLC			
600 W. Illinois Ave			
One Concho Center			
Midland, TX 79701			
PRODUCING WELLS: Elliott Hall A#001 API: 30-025-20104 160 acre proration NE Producing from Lusk Strawn 11,260' to 12,061'		: e**	
Operator:			
Oxy USA Inc			
PO Box 4294			
Houston, TX 77210			

PRODUCING WELLS:

SL East 30 Federal Com #14 API: 30-025-40154 160 acre proration W2E2 Producing from Lusk Bone Spring 9,380' to 13,480'

Operator: COG Operating LLC 600 W. Illinois Ave **One Concho Center** Midland, TX 79701

LEASEHOLD OWNERSHIP

NW/4NE/4

Depths below 12,740'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest;			

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ConocoPhillips Company P.O. Box 7500 Bartlesville, OK 74005



A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #20 .

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 30: SWNE</u> <u>Containing 40.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	40.000000	<u>HPB</u> OGL: NMNM 0107698-A out of NMNM 0107698 DATE: 8/1/1951

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LEASEHOLD OWNERSHIP SW/4NE/4 Surface to 11,346'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
Tenison 8140 Walnut Hill Ln Dallas, TX 75231			
Sharbro Energy LLC PO Box 890 Artesia, NM 88210			

Yates Industries, Inc **PO Box 1091** Artesia, NM 88210

OXY Y-1 PO Box 27570 Houston, TX 77227

PRODUCING WELLS:

Elliott Hall A#001 API: 30-025-20104 160 acre proration NE **Producing from Lusk Strawn** 11,260' to 12,061'

Operator: COG Operating LLC 600 W. Illinois Ave **One Concho Center** Midland, TX 79701

LEASEHOLD OWNERSHIP SW/4NE/4 Depths below 11,346

	-	-	
NTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
orking Interest:			
harbro Energy LLC			
PO Box 890			
Artesia, NM 88210			
Yates Industries, Inc			
PO Box 1091			
Artesia, NM 88210			
OXY Y-1			
PO Box 27570			
Houston, TX 77227		•	
Bluestem Energy Assets, LLC			
301 Commerce St.			
ort Worth, TX 76102			
02 Resources LLC		<u>.</u>	
P.O. Box 10187		* -	
Aidland, TX 79702			
Solis Energy LLC			
P.O. Box 51451			
Iidland, TX 79710			
RODUCING WELLS:			
Liott Hall A#001			
PI: 30-025-20104			
50 acre proration NE	(A) to 17 0411		
roducing from Lusk Strawn 11,2	UV 1U 12,VOL		
berator:			

Oxy USA Inc PO Box 4294 Houston, TX 77210

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OWNERSHIP REPORT

PROSPECT: Zia Plant TRACTS: #16, #21 - --- -

Township 19 South, Range 32 East, N.M.P.M. Section 30: NENE, E/2SW Containing 120.00 acres more or less Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	120.000000	<u>HPB</u> OGL: NMNM 01218 DATE: 8/1/1952

SL Deep Federal Com #1 API: 30-025-35088 640 acre proration entire section Producing from Lusk Morrow 12,149' to 12,187'

Operator:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP NE/4NE/4 Surface to 11,346'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interests			

Working Interest:

Tenison 8140 Walnut Hill Ln Dallas, TX 75231

Sharbro Energy LLC PO Box 890 Artesia, NM 88210

Yates Industries, Inc PO Box 1091 Artesia, NM 88210

OXY Y-1 PO Box 27570 Houston, TX 77227

LEASEHOLD OWNERSHIP NE/4NE/4 Depths below 11,346

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	<u> </u>		
Sharbro Energy LLC PO Box 890 Artesia, NM 88210			
Yates Industries, Inc PO Box 1091 Artesia, NM 88210			
OXY Y-1 PO Box 27570 Houston, TX 77227			
Bluestem Energy Assets, LLC 301 Commerce St. Fort Worth, TX 76102			
D2 Resources LLC P.O. Box 10187 Midland, TX 79702		' (
Solis Energy LLC P.O. Box 51451 Midland, TX 79710			

LEASEHOLD OWNERSHIP E/2SW/4 Surface to 11,080'

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INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
Tenison 8140 Walnut Hill Ln Dallas, TX 75231			

Sharbro Energy LLC PO Box 890 Artesia, NM 88210

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Yates Industries, Inc PO Box 1091 Artesia, NM 88210

OXY Y-1 PO Box 27570 Houston, TX 77227

LEASEHOLD OWNERSHIP E/2SW/4

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Depths below 11,080'

Yates Industries, Inc. PO Box 1091 Artesia, NM 88210 OXY Y-1: PO Box 27570; Houston, TX 77227 Bluestem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC: P.O. Box 10187 Midland, TX 79702; Solis Energy LLC	NTEREST OWNERS	WORKING INTEREST	NET REVENUE	STATUS & REMARKS
PO Box 890 Artesia, NM-88210 Yates Industries, Inc, PO Box 1091 Artesia, NM 88210 OXY Y-1: PÔ Box 27570; Houston, TX 77227 Blueštem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC: PiO: Box 10187 Midland, TX 79702): Solis Energy LLC	Working Interest:			
PO Box 890 Artesia, NM-88210 Yates Industries, Inc, PO Box 1091 Artesia, NM 88210 OXY Y-1: PÔ Box 27570; Houston, TX 77227 Blueštem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC: PiO: Box 10187 Midland, TX 79702): Solis Energy LLC	Sharbro Energy LLC			
Artesia, NM 88210 Yates Industriës, Inc. PO Box 1091 Artesia, NM 88210 OXY Y-1: PO Box 27570; Houston; TX 77227 Bluestem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC:				
PO Box 1091 Artesia, NM 88210 OXY Y-1: PO Box 27570; Houston; TX 77227 Bluestem Energy Assets, LUC 301 Commerce St: Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702; Solis Energy LLC				
PO Box 1091 Artesia, NM 88210 OXY Y-1: PO Box 27570 Houston, TX 77227 Bluestem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702; Solis Energy LLC	l'ates Industries, Inc.			
Artesia, NM 88210 OXY Y-1: PO Box 27570 Houston, TX 77227 Bluestem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702; Solis Energy LLC				
PO Box 27570 Houston, TX 77227 Blueštem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702 Solis Energy LLC				
PO Box 27570 Houston, TX 77227 Bluestem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702 Solis Energy LLC	DXY Y-1			
Houston, TX 77227 Bluestem Energy Assets, LUC 301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702) Sölis Energy LLC				
301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702 Solis Energy LLC				
301 Commerce St. Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702 Solis Energy LLC	Bluestem Energy Assets, LLC			
Fort Worth, TX 76102 D2 Resources LLC P.O. Box 10187 Midland, TX 79702 Sölis Energy LLC				
P.O. Box 10187 Midland, TX 79702 Sölis Energy LLC				
P.O. Box 10187 Midland, TX 79702 Sölis Energy LLC	D2 Resources LLC			
Midland, TX 79702)		•		
Solis Energy LLC				
P.O. Box 51451				
Midland, TX 79710 .	Midland, TX 79710			

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OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #15 and #22

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 30: E2NW, SENE</u> <u>Containing 120.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

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United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd.	100.000000%	120.000000	<u>HBP</u> OGL: NM 0107698 DATE: 8/1/1951
Santa Fe, NM 87505		•	

There is a producing well that covers the entire section as to the Lusk Morrow 12:149' to 12:187':

SL Deep Federal Com #1 API: 30-025-35088 640 acre proration entire section Producing from Lusk Morrow 12,149' to 12,187'

Operator:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

LEASEHOLD OWNERSHIP E/2NW/4 Surface to the Top of the Strawn

INTEREST OWNERS	WORKING NET REVENUE INTEREST INTEREST	STATUS & REMARKS	•

PRODUCING WELL:

SL Deep Federal #2 API: 30-025-36257 40 acre proration SENW Producing from Lusk Bone Spring 8,886' to 9,265'

SL Deep Federal #3 API: 30-025-39441 40 acre proration NENW Producing from Lusk Bone Spring 8,956'' to 9,203'

Operator:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Working Interest:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

Chisos, Ltd 670 Dona Ana Rd SW Deming, NM 88030

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

LEASEHOLD OWNERSHIP E/2NW/4 Covering the Strawn

	NTERESTOWNERS	WORKING	NET REVENUE	STATUS & REMARKS
1	MIERESI UWMERS	INTEREST	INTEREST	SIATUS & REMARKS

PRODUCING WELL:

Delhi Federal #1 Oil Well API: 30-025-20025 S/2 proration unit Producing from Strawn 160 acre proration NW

Operator;

Chisos, Ltd 670 Dona Ana Rd. SW Deming, NM 88030

Working Interest:

COG Operating LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

Apache Corporation 2000 Post Oak Blvd., Ste 100 Houston, TX 77056

Prize Energy Resources, L.P. 20 E. 5th Street, Ste 1400 Tulsa, OK 74103

Chisos, Ltd 670 Dona Ana Rd. SW Deming, NM 88030

LEASEHOLD OWNERSHIP

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E/2NW/4

All depths below the Base of the Strawn

INTEREST OWNERS	WORKING	NET REVENUE	STATUS & REMARKS
	INTEREST	INTEREST	STATUS & REMARKS

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Working Interest:

COG Operating LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

Concho Oil & Gas LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701

ConocoPhillips Company P.O. Box 7500 Bartlesville, OK 74005

LEASEHOLD OWNERSHIP SE/4NE/4 Surface to the Top of the Strawn

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INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave, One Concho Center Midland, TX 79701			
Chase Oil Corporation P.O. Box 1767 Artesia, NM 88211		ī	

LEASEHOLD OWNERSHIP SE/4NE/4 Covering the Strawn Formation

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
Chase Oil Corporation			
P.O. Box 1767			
Artesia, NM 88211			
Prize Energy Resources, L.P.			
20 E. 5th Street, Ste 1400		•	
Tulsa, OK 74103			
Oxy Y-1 Company			
PO Box 4294			
Houston, TX 77210-4294			
11040000, 175 / 210-4274		84 ⁸	
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LEASEHOLD OWNERSHIP SE/4NE/4 All depths below the Base of the Strawn

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave, Dne Concho Center Midland, TX 79701			
oncho Oil & Gas LLC 10 W. Illinois Ave, ne Concho Center lidland, TX 79701			
onocoPhillips Company O. Box 7500 urtlesville, OK 74005			
<u>RODUCING WELLS:</u> liott Hall A#001 PI: 30-025-20104 0 acre proration NE oducing from Lusk Strawn 11;260	' to 12,061'		
<u>perator:</u> xy USA Inc O Box 4294 ouston, TX 77210			

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OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #23

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 17: N2SW</u> <u>Containing 80.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

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United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

INTEREST	NET ACRES	LEASEHOLD STATUS
100.000000%	80.000000	<u>HPB</u> OGL: NM 01087 DATE: 3/1/1950

100.000000%

LEASEHOLD OWNERSHIP

Surface to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE	STATUS & REMARKS
Working Interest:			

Dan Wallace Irwin, ssp 118 N. Grant St. Hinsdale, II 60521

Wallfam Limited 1811 Heritage Blvd, Ste 200 Midland, TX 79707

WK Land Company 911 Kimbark St. Longmont, CO 80501

Kathleen Irwin Schuster as Trustee of the Kathleen Irwin Schuster Trust u/t/a 12/20/2007 3213 Pepperwood Ln., Fort Collins, CO 80525

LEASEHOLD OWNERSHIP From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:	· · · · · · · · · · · · · · · · · · ·		<u></u>
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			

LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

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Working Interest:

OPERATOR:

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



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OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #24

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 17: S2SW</u> <u>Containing 80.00 acres more or less</u> <u>Lea County, NM</u>

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

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United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505	100.000000%	80.00000 0	<u>HPB</u> OGL: NM 01088 DATE: 3/1/1950

100.000000%

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LEASEHOLD OWNERSHIP Surface to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
Dan Wallace Irwin, ssp	ł		

Dan Wallace Irwin, ssp 118 N. Grant St. Hinsdale, Il 60521

Wallfam Limited 1811 Heritage Blvd, Ste 200 Midland, TX 79707

WK Land Company 911 Kimbark St. Longmont, CO 80501

Kathleen Irwin Schuster as Trustee of the Kathleen Irwin Schuster Trust u/t/a 12/20/2007 3213 Pepperwood Ln., Fort Collins, CO 80525

LEASEHOLD OWNERSHIP

From 4,500' to 7,190'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			
COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			
Concho Oil & Gas LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701			

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LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

UNIT OPERATOR;

COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701

PRODUCING WELL

Lusk Deep Unit A #2H Oil Well API: 30-025-40705 160 acre proration E/2W/2

<u>Operator:</u> COG Operating LLC 600 W. Illinois Ave One Concho Center Midland, TX 79701



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OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #25

<u>Township 19 South, Range 32 East, N.M.P.M.</u> <u>Section 20: W/2</u>. <u>Containing 320.00 acres more or less</u> Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

SURFACE OWNERSHIP

United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

NAME OF MINERAL OWNERS	INTEREST	NET ACRES	LEASEHOLD STATUS
United States Of America Bureau of Land Management	100.00000%	320.000000	<u>нрв</u> одl: LC 065710-а
1474 Rodeo Rd.			DATE: 10/1/1951
Santa Fe, NM 87505			

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LEASEHOLD OWNERSHIP Surface to 7,190', save & except the Lusk West Unit

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

Prize Energy Resources, LP 3500 William D. Tate, Ste 200 Grapevine, TX 76051

LEASEHOLD OWNERSHIP Covering the Lusk West Unit (Being depths from 6,474' to 6,508')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
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Working Interest:

OPERATOR:

Cimarex Energy Company 1700 Lincoln St, Ste 1800 Denver, CO 80203

LEASEHOLD OWNERSHIP Covering the Lusk Deep Unit (Being all depths below 7,190')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:		<u> </u>	
OPERATOR:			
COG Operating LLC 600 W. Illinois Ave			
One Concho Center Midland, TX 79701			

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A Division of MBF Inspection Services, Inc. PO Box 2428 805 N. Richardson Roswell, NM 88202 Telephone (575) 625-0599 Fax (575) 625-0687

OWNERSHIP REPORT

PROSPECT: Zia Plant TRACT: #26

Township 19 South, Range 32 East, N.M.P.M. Section 29: NW/4 Containing 160.00 acres more or less Lea County, NM

RECORD DATE: Federal 3/28/2013 RECORD DATE: County 8/22/2013 REPORT DATE: 8/26/2013

The conclusions reported herein are based upon the landman's review of the instruments recorded in the county as indexed by the abstractor used.

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SURFACE OWNERSHIP

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United States Of America Bureau of Land Management 1474 Rodeo Rd. Santa Fe, NM 87505

MINERAL OWNERSHIP

INTEREST	NET ACRES	LEASEHOLD STATUS
100.000000%	160.000000	<u>HPB</u> OGL: LC 063586 DATE: 10/1/1947

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TOTAL MINERAL	
OWNERSHIP	

100.000000%

160.000000

LEASEHOLD OWNERSHIP

Surface to 4,500'

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

Working Interest;

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Dan Wallace Irwin, ssp 118 N. Grant St. Hinsdale, 11 60521

WK Land Company 911 Kimbark St. Longmont, CO 80501

Kathleen Irwin Schuster as Trustee of the Kathleen Irwin Schuster Trust u/t/a 12/20/2007 3213 Pepperwood Ln., Fort Collins, CO 80525

Prize Energy Resources, L.P. 20 E. 5th Street, Ste 1400 Tulsa, OK 74103

LEASEHOLD OWNERSHIP Depths below 4,500', save & except the Lusk West Unit

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS

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PRODUCING WELL;

Southern California 29 Fed #16H Gas Well API: 30-025-39853 S/2N/2 proration unit Producing from 9,713' to 13,502'

Southern California 29 Fed #18H Gas Well API: 30-025-39889 N/2N/2 proration unit Producing from 9,270' to 13,953'

Operator:

Cimarex Energy Co 600 N. Marienfeld, Ste 600 Midland, TX 79701

Working Interest:

Prize Energy Resources, L.P. 20 E. 5th Street, Ste 1400 Tulsa, OK 74103

Cimarex Energy Co 600 N. Marienfeld, Ste 600 Midland, TX 79701

LEASEHOLD OWNERSHIP Covering the Lusk West Unit (Being depths from 6,474' to 6,508')

INTEREST OWNERS	WORKING INTEREST	NET REVENUE INTEREST	STATUS & REMARKS
Working Interest:			

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OPERATOR:

Cimarex Energy Company 1700 Lincoln St, Ste 1800 Denver, CO 80203