

STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 21410

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COMPULSORY POOLING APPLICATION CHECKLIST ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS Case: 21410 APPLICANT'S RESPONSE Date: September 8, 2020 Applicant COG Operating LLC Designated Operator & OGRID (affiliation if applicable) 229137 Applicant's Counsel: Holland & Hart Case Title: APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO. Entries of Appearance/Intervenors: None Well Family Boo Radley Com wells Formation/Pool Formation Name(s) or Vertical Extent: Wolfcamp Primary Product (Oil or Gas): Oil Pooling this vertical extent: N/A Pool Name and Pool Code: Purple Sage; Wolfcamp (Gas) Pool (98220) Well Location Setback Rules: Standard Spacing Unit Size: 1538.88-acres, more or less Spacing Unit Type (Horizontal/Vertical) Horizontal Size (Acres) 1538.88-acres, more or less Building Blocks: half sections Orientation: north-south Description: TRS/County Allof Sections 21, 28, and 33, Township 26 Sou th, Range 28 East, Eddy County, New Mexico Standard Horizontal Well Spacing Unit (Y/N), If No, describe No, FTPs for 701H-706H wells will be nonstandard. Other Situations Depth Severance: Y/N. If yes, description Yes, at 9,500' Proximity Tracts: If yes, description Yes, E/2 of Sections 21, 28, and 33 Proximity Defining Well: if yes, description Boo Radley Com 704H wellwill be within 330' of the quarter-quarter line se pant ingthe W/2 and the E/2 of Sections 21,28, and 33 toal lowing lusion of the E/2 of Sections 21,28, and 33 into a stand ard horizontal well spacing unit Applicant's Ownership in Each Tract Exhibit C-2, C-3 BEFORE THE OIL CONSERVATION DIVISION Well(s) Santa Fe, New Mexico

Exhibit No. A
Submitted by: COG OPERATING LLC
Hearing Date: September 10, 2020
Case No. 21410

Name & API (if assigned), surface and bottom hole loca	
footages, completion target, orientation, completion st	tatus
(standard or non-standard)	D. O. W. C 70411
Well #1	Boo Radley Com 701H well (API pending)
	SHL: 200' FSL and 1490' FEL (Unit O) of Section 16
	BHL: 200' FSL and 330' FEL (Lot 4) of Section 33,
	Township 26 South, Range 28 East
	Completion Target: Wolfcamp formation
	Well Orientation: north-south
	Completion Location expected to be: nonstandard
Well #2	Boo Radley Com 702H well (API pending)
	SHL: 200' FSL and 1520' FEL (Unit O) of Section 16
	BHL: 200' FSL and 1210' FEL (Lot 4) of Section 33
	Township 26 South, Range 28 East
	Completion Target: Wolfcamp formation
	Well Orientation: north-south
	Completion Location expected to be: nonstandard
Well #3	Boo Radley Com 703H well (API pending)
	SHL: 200' FSL and 1550' FEL (Unit O) of Section 16
	BHL: 200' FSL and 2090' FEL (Lot 3) of Section 33,
	Township 26 South, Range 28 East
	Completion Target: Wolfcamp formation
	Well Orientation: north-south
	Completion Location expected to be: nonstandard
Well #4	Boo Radley Com 704H well (API pending)
vven n v	SHL: 220' FSL and 1460 FWL (Unit N) of Section 16
	BHL: 200' FSL _a nd 2325 FWL (Lot 2) of Section 33,
	Township 26 South, Range 28 East
	Completion Target: Wolfcamp formation
	Well Orientation: north-south
	Completion Location expected to be: nonstandard
Well #5	Boo Radley Com 705H well (API pending)
	SHL: 220' FSL and 1430' FWL (Unit N) of Section 16
	BHL: 200' FSL and 1430' FWL (Lot 2) of Section 33,
	Township 26 South, Range 28 East
	Completion Target: Wolfcamp formation
	Well Orientation: north-south
	Completion Location expected to be: nonstandard
Well #6	BooRadley Com 706H well(API pe rding)
TTCII II O	SHL: 220' FSL and 1400' FWL(Unit N) of Section 16
	BHL: 200' FSL and 550' FWL (Lot 5) of Section 33,
	Township 26 South, Range 28 East
	Completion Target: Wolfcamp formation
	WellOrie ntation:north-south Completi on Locaton expected to be: nonstandard
Horizontal Well First and Last Take Points	Exhibit C-1

Completion Target (Formation, TVD and MD)	Exhibit C-4
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,000
Production Supervision/Month \$	\$800
Justification for Supervision Costs	Exhibit C, Exhibit C-4
Requested Risk Charge	200%
Notice of Hearing	
Proposed Notice of Hearing	Exhibit B
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit E
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit F
Ownership Determination	
Land Ownership Schematic of the Spacing Unit	Exhibit C-2
Tract List (including lease numbers and owners)	Exhibit C-2
Pooled Parties (including ownership type)	Exhibit C-2
1 boled Farties (including ownership type)	
Unlocatable Parties to be Pooled	N/A
Ownership Depth Severance (including percentage above & below)	Yes; Exhibit C-3
Joinder	
Sample Copy of Proposal Letter	Exhibit C-4
List of Interest Owners (ie Exhibit A of JOA)	Exhibit C-2
Chronology of Contact with Non-Joined Working Interests	Exhibit C-5
Overhead Rates In Proposal Letter	Exhibit C-4
Cost Estimate to Drill and Complete	Exhibit C-4
Cost Estimate to Equip Well	Exhibit C-4
Cost Estimate for Production Facilities	Exhibit C-4
Geology	
Summary (including special considerations)	Exhibit D
Spacing Unit Schematic	Exhibit D-1
Gunbarrel/Lateral Trajectory Schematic	Exhibit D-1
Well Orientation (with rationale)	Exhibit D-1
Target Formation	Exhibit D-2
HSU Cross Section	Exhibit D-3, D-4
Depth Severance Discussion	N/A
Forms, Figures and Tables	
C-102	Exhibit C-1
Tracts	Exhibit C-2
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit C-2
General Location Map (including basin)	Exhibit D-1
Well Bore Location Map	Exhbit D-2

Structure Contour Map - Subsea Depth	Exhibit D-2
Cross Section Location Map (including wells)	Exhibit D-3, D-4
Cross Section (including Landing Zone)	Exhibit D-3, D-4
Additional Information	
Special Provisions/Stipulations	None
CERTIFICATION: I hereby certify that the information pro	ovided in this checklist is complete and accurate.
Printed Name (Attorney or Party Representative):	Kaitlyn A. Luck
Signed Name (Attorney or Party Representative):	Smother !!
Date:	8-Sep-20

STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO.	21410	
CIADE ITO.	214IU	

APPLICATION

COG Operating LLC ("Applicant") (OGRID No. 229137), through its undersigned attorneys, hereby files this application with the Oil Conservation Division pursuant to the provisions of NMSA 1978, § 70-2-17, for an order pooling all uncommitted interests in the Wolfcamp formation [Purple Sage Wolfcamp Gas Pool (98220)] underlying a standard 1,538.88-acre, more or less, horizontal spacing unit comprised of all of Sections 21, 28, and 33, Township 26 South, Range 28 East, Eddy County, New Mexico. In support of its application, COG states:

- 1. Applicant is a working interest owner in the proposed horizontal spacing unit and has the right to drill thereon.
- 2. Applicant seeks to dedicate the above-referenced horizontal spacing unit to the following proposed wells:
 - The Boo Radley Com 701H well, and the Boo Radley Com 702H well to be drilled from a common surface hole location in SW/4 SE/4 (Unit O) of Section 16 to bottom hole locations in the SE/4 NE/4 (Lot 4) of Section 33;
 - The Boo Radley Com 703H well to be drilled from a surface hole location in SW/4 SE/4 (Unit O) of Section 16 to a bottom hole location in the SW/4 NE/4 (Lot 3) of Section 33;

Hearing Date: September 10, 2020 Case No. 21410

- The Boo Radley Com 704H well and the Boo Radley Com 705H well to be drilled from a common surface hole location in SE/4 SW/4 (Unit N) of Section 16 to bottom hole locations in the SE/4 NW/4 (Lot 2) of Section 33; and
- The Boo Radley Com 706H well to be drilled from a surface hole location in SE/4 SW/4 (Unit N) of Section 16 to a bottom hole location in the SW/4 NW/4 (Lot 1) of Section 33.
- 3. The completed interval for the proposed **Boo Radley Com 704H well** will be within 330' of the quarter-quarter line separating the W/2 and the E/2 of Sections 21, 28, and 33 to allow inclusion of the E/2 of Sections 21, 28, and 33 into a standard horizontal well spacing unit.
- 4. Applicant has sought and been unable to obtain voluntary agreement for the development of these lands from all the interest owners in the subject spacing unit.
- 5. The pooling of interests will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.
- 6. In order to permit Applicant to obtain it's just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in this horizontal spacing unit should be pooled and Applicant should be designated the operator of the proposed horizontal well spacing unit.

WHEREFORE, Applicant requests that this application be set for hearing before an Examiner of the Oil Conservation Division on September 10, 2020, and, after notice and hearing as required by law, the Division enter an order:

A. Pooling all uncommitted interests in the horizontal spacing unit;

- B. Approving the initial wells in the horizontal spacing unit;
- C. Designating Applicant as the operator of this spacing unit and the horizontal wells to be drilled thereon;
- D. Authorizing Applicant to recover its costs of drilling, equipping, and completing the wells;
- E. Approving the actual operating charges and costs of supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- F. Imposing a 200% charge for the risk assumed by Applicant in drilling and completing the wells against any working interest owner who does not voluntarily participate in the drilling of the wells.

Respectfully submitted,

HOLLAND & HART LLP

Bv:

Michael H. Feldewert

Adam G. Rankin

Julia Broggi

Kaitlyn A. Luck

Post Office Box 2208

Santa Fe, New Mexico 87504-2208

(505) 988-4421

(505) 983-6043 Facsimile

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agrankin@hollandhart.com

ibroggi@hollandhart.com

kaluck@hollandhart.com

ATTORNEYS FOR COG OPERATING LLC

STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 21410

AFFIDAVIT OF LIZZY LAUFER, LANDMAN

Lizzy Laufer, being of lawful age and duly sworn, states the following:

1. My name is Lizzy Laufer, and I am employed by COG Operating LLC ("COG") as

a Landman.

2. I have previously testified before the New Mexico Oil Conservation Division as an

expert witness in petroleum land matters and my credentials have been accepted by the Division

and made a matter of record.

3. I am familiar with the application filed by COG this case and the status of the lands

in the subject area.

4. None of the mineral owners to be pooled have expressed opposition to this case

proceeding by affidavit, so I do not expect any opposition at the hearing.

5. In this case, COG seeks an order pooling all uncommitted interests in the Wolfcamp

formation (Purple Sage; Wolfcamp (Gas) Pool [98220]) underlying standard 1,538.88-acre, more

or less, horizontal spacing unit comprised of all of Sections 21, 28, and 33, Township 26 South,

1

Range 28 East, Eddy County, New Mexico.

6. COG seeks to form and initially dedicate the horizontal spacing unit to the

following proposed initial wells:

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. C

Submitted by: COG OPERATING LLC Hearing Date: September 10, 2020

Case No. 21410

- The Boo Radley Com 701H well (API No. 30-015-pending), and the Boo Radley Com 702H well (API No. 30-015-pending), both of which are to be drilled from a common surface hole location in SW/4 SE/4 (Unit O) of Section 16 to bottom hole locations in the SE/4 NE/4 (Lot 4) of Section 33;
- The Boo Radley Com 703H well (API No. 30-015-pending) to be drilled from a surface hole location in SW/4 SE/4 (Unit O) of Section 16 to a bottom hole location in the SW/4 NE/4 (Lot 3) of Section 33;
- The Boo Radley Com 704H well (API No. 30-015-pending) and the Boo Radley Com 705H well (API No. 30-015-pending) to be drilled from a common surface hole location in SE/4 SW/4 (Unit N) of Section 16 to bottom hole locations in the SE/4 NW/4 (Lot 2) of Section 33; and
- The Boo Radley Com 706H well (API No. 30-015-pending) to be drilled from a surface hole location in SE/4 SW/4 (Unit N) of Section 16 to a bottom hole location in the SW/4 NW/4 (Lot 5) of Section 33.
- 7. The completed interval for the proposed **Boo Radley Com 704H well** will be within 330' of the quarter-quarter line separating the W/2 and the E/2 of Sections 21, 28, and 33 to allow inclusion of the E/2 of Sections 21, 28, and 33 into a standard horizontal well spacing unit.
- 8. COG Exhibit C-1 contains Form C-102s for the proposed initial wells for each spacing unit in numerical order and reflecting that these wells are located in the Purple Sage; Wolfcamp (Gas) Pool (98220).
- 9. COG Exhibit C-2 identifies the tracts of land comprising the proposed spacing unit, the working interest ownership in each tract and their respective interest in the horizontal

spacing unit. COG has highlighted on Exhibit C-2 the mineral owners that remain to be pooled for the proposed spacing unit. COG has also listed the overriding royalty interest owners that require pooling. The acreage is comprised of fee, state, and federal lands.

- 10. An ownership depth severance exists within in the Wolfcamp formation underlying the subject acreage at 9500' and COG is currently working with the affected parties on an Operating Agreement for the entire subject horizontal spacing unit. The percentage of each interest above and below the depth severance is provided on COG Exhibit C-3.
- 11. COG has conducted a diligent search of company records, county records, telephone directors and conducted computer searches to locate contact information for each of the mineral owners that it seeks to pool. All of the pooled mineral owners have been located.
- 12. COG Exhibit C-4 contains a sample of the letters and AFE's for the proposed wells sent to the working interest owners that COG has been able to locate. The costs reflected on these AFE's are consistent with what COG and other operators have incurred for drilling similar horizontal wells in the area in these formations.
- 13. COG Exhibit C-5 contains a chronology of the contacts with the uncommitted mineral owners COG was able to locate. COG has made a good faith effort to obtain voluntary joinder of these owners in the proposed wells.
- 14. COG requests overhead and administrative rates of \$8,000 per month for drilling and \$800 per month for a producing well. These rates are consistent with the rates charged by COG and other operators for similar wells in this area.
- 15. I have provided the law firm of Holland and Hart, LLP, with the names and addresses of the mineral owners that COG seeks to pool and instructed that they be notified of this hearing.

16. COG Exhibits C-1 through C-5 were prepared by me or compiled under my direction from company business records.

FURTHER AFFIANT SAYETH NAUGHT.

STATE OF TEXAS)
COUNTY OF MIDLAND	;
SUBSCRIBED and S	SWORN to before me this \(\frac{1}{2020} \) day of \(\frac{1}{2020} \) by
Lizzy Laufer.	110,000
	Mikefler
	NOTARY PUBLIC

BEFORE THE OIL CONSERVATION DIVIS

Santa Fe, New Mexico

Exhibit No. C1 Submitted by: COG OPERATING LLC

Hearing Date: September 10, 2020

Case No. 21410

State of New Mexico PRODE: (576) 583-6161 Fax: (676) 583-6720 Energy, Minerals & Natural Resources Department

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT I

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

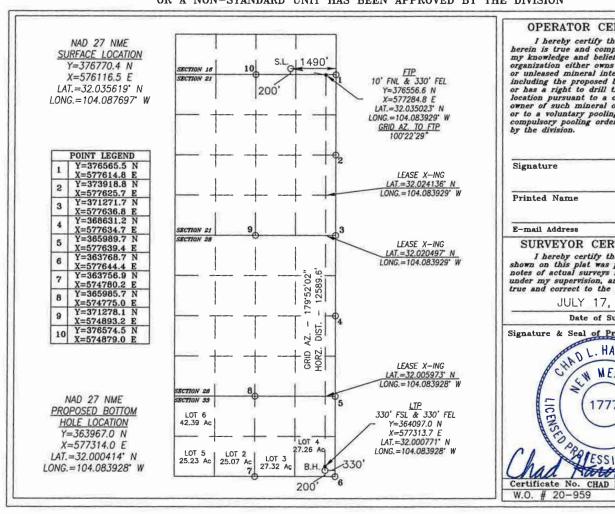
WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code Pool Name Property Code Property Name Well Number BOO RADLEY COM 701H OGRID No. Operator Name Elevation COG OPERATING, LLC 2993.9

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	16	26-S	28-E		200	SOUTH	1490	EAST	EDDY

Bottom Hole Location If Different From Surface

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land or uneased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary noting arranged and account of the contract with an owner of such mineral or working interest, or to a voluntary noting arranged and account of the contract of the contrac or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JULY 17, 2020

Date of Survey

Signature & Seal of Professional Surveyor

CHAOL HARCRO EN MEXIC 0 ESSIONA Harrison 7/28/20 17777

Certificate No. CHAD HARCROW DRAWN BY: AH DISTRICT I

State of New Mexico 1625 N. FERNCH DR., HOBBS, NM 88240 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 534-6170

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FR, NM 67505 Phone: (505) 476-3460 Fax: (505) 476-3462

□ AMENDED REPORT

none. (000) 410 0200 142. (000) 410 0	WELL LOCATION AND ACREAGE DEDICATION PLAT	
API Number	Pool Code Pool Nat	ne
Property Code	Property Name	Well Number
	BOO RADLEY COM	701H
OGRID No.	Operator Name COG OPERATING, LLC	Elevation 2993.9

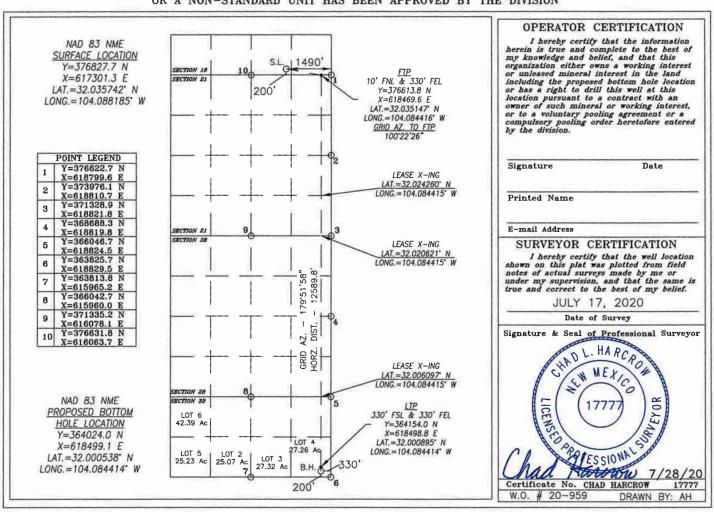
Surface Location

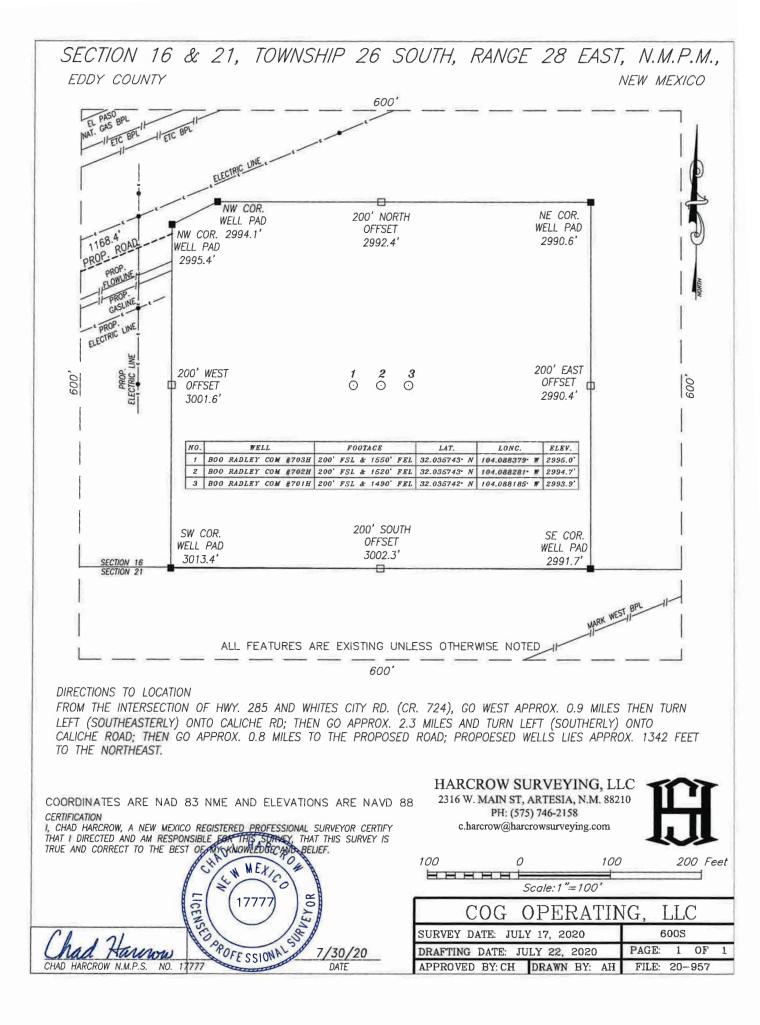
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	16	26-S	28-E		200	SOUTH	1490	EAST	EDDY

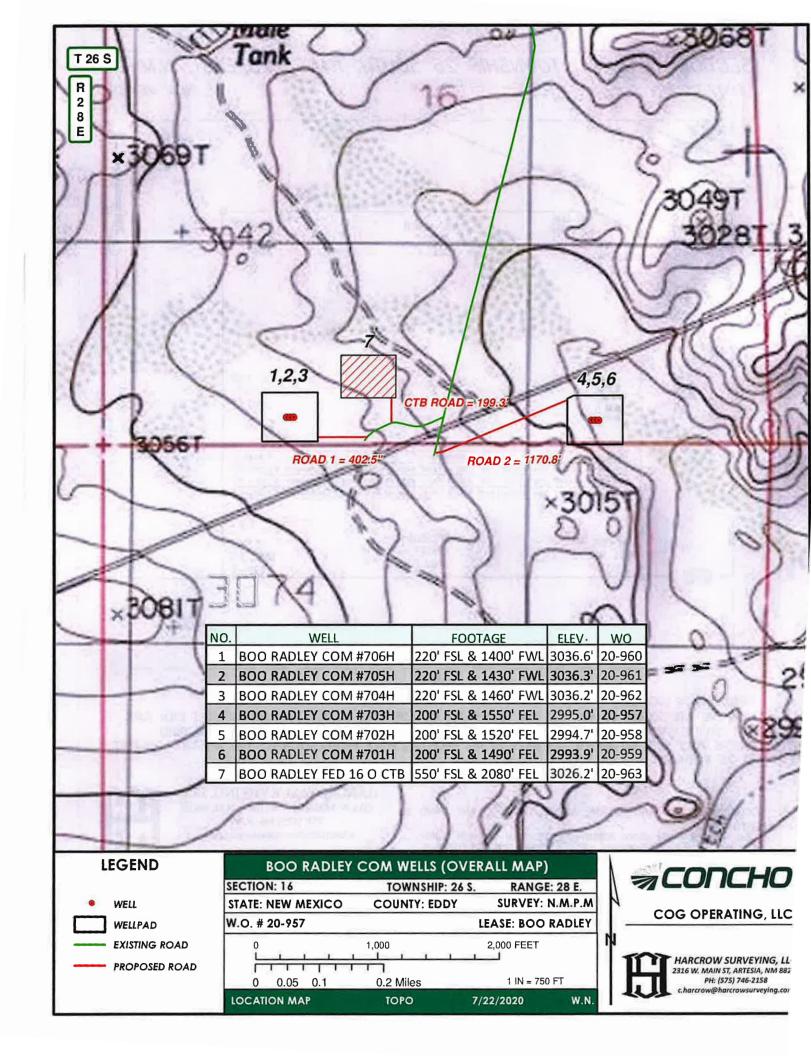
Bottom Hole Location If Different From Surface

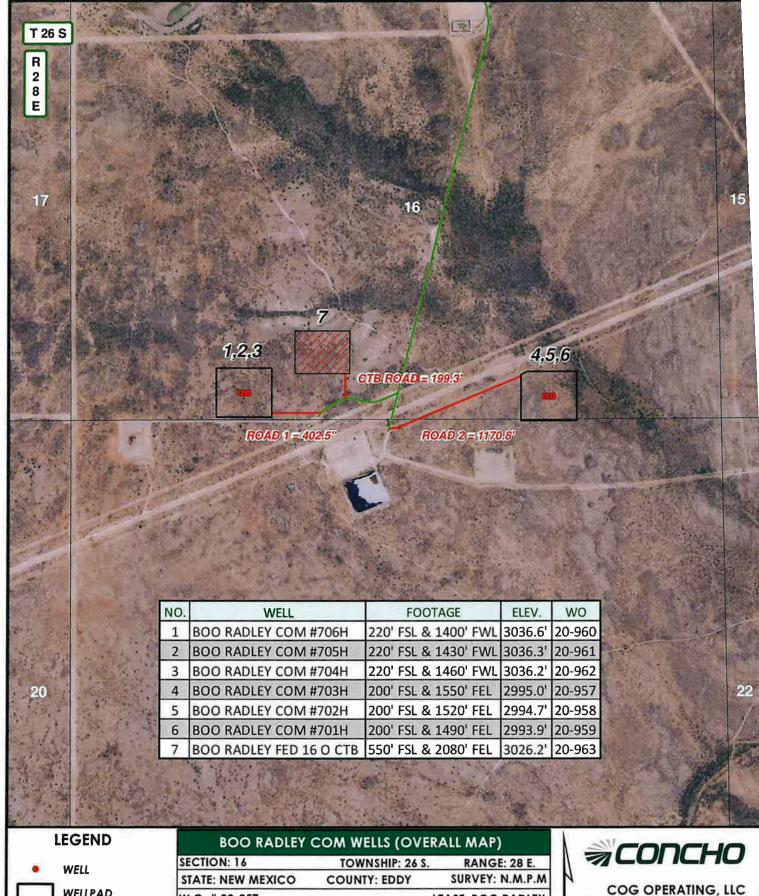
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	33	26-S	28-E		200	SOUTH	330	EAST	EDDY
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Or	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION











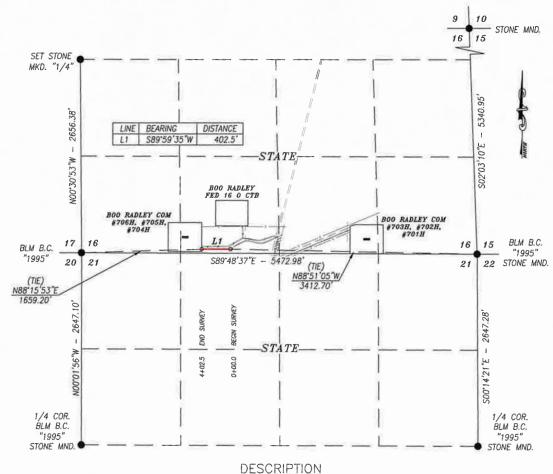
BOO RADLEY	COM WELLS (OV	ERALL MAP)		
SECTION: 16	TOWNSHIP: 26	S. RANGE: 28 E.		
STATE: NEW MEXICO	COUNTY: EDDY	SURVEY: N.M.P.		
W.O. # 20-957		LEASE: BOO RADLEY		
0	1,000	2,000 FEET		
0 0.05 0.1	0.2 Miles	1 IN = 750 FT		
LOCATION MAP	IMAGERY	7/22/2020 W.N		



PH: (575) 746-2158

ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°51'05"W 3412.70 FEET FROM THE SOUTHEAST CORNER; THEN S89°59'35"W 402.5 FEET; TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°15'53"E 1659.20 FEET FROM THE SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 402.5 FEET OR 24.39 RODS IN LENGTH, CONTAINING 0.277 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST. ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



1000	0	1000		2000	FEET
HHHHH					1
	SCALE:	1"=1000"			

COG OPERATING, LLC.

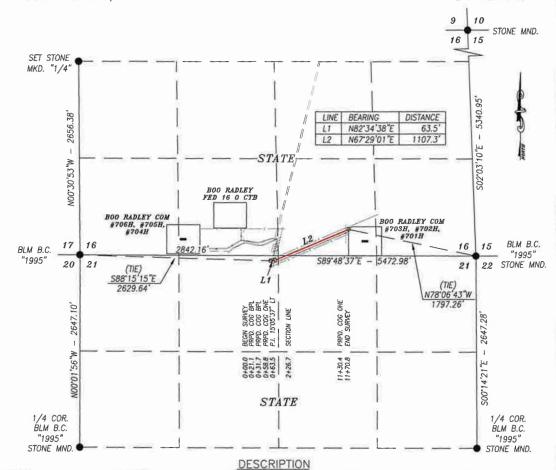
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	ROAD #1
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-995

ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE NE/4 NW/4 OF SECTION 21, WHICH LIES S88'15'15"E 2629.64 FEET FROM THE NORTHWEST CORNER OF SECTION 21; THEN N82'34'38"E 63.5 FEET; THEN N67'29'01"E 1107.3 FEET; TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N78'06'43"W 1797.26 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1170.8 FEET OR 70.96 RODS IN LENGTH, CONTAINING 0.806 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

/27/20

DATE

SECTION 16 SW/4 SE/4 57.22 RODS OR 0.650 ACRES

CHAD HARCROW N.M.P.S. NO. 17777

SECTION 21 NE/4 NW/4 6.81 RODS OR 0.077 ACRES NW/4 NE/4 6.93 RODS OR 0.079 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS HAD L. HARCRO FOR SURVEYING IN NEW MEXICO.

MEN

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POFESSIONE

MEXICO

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



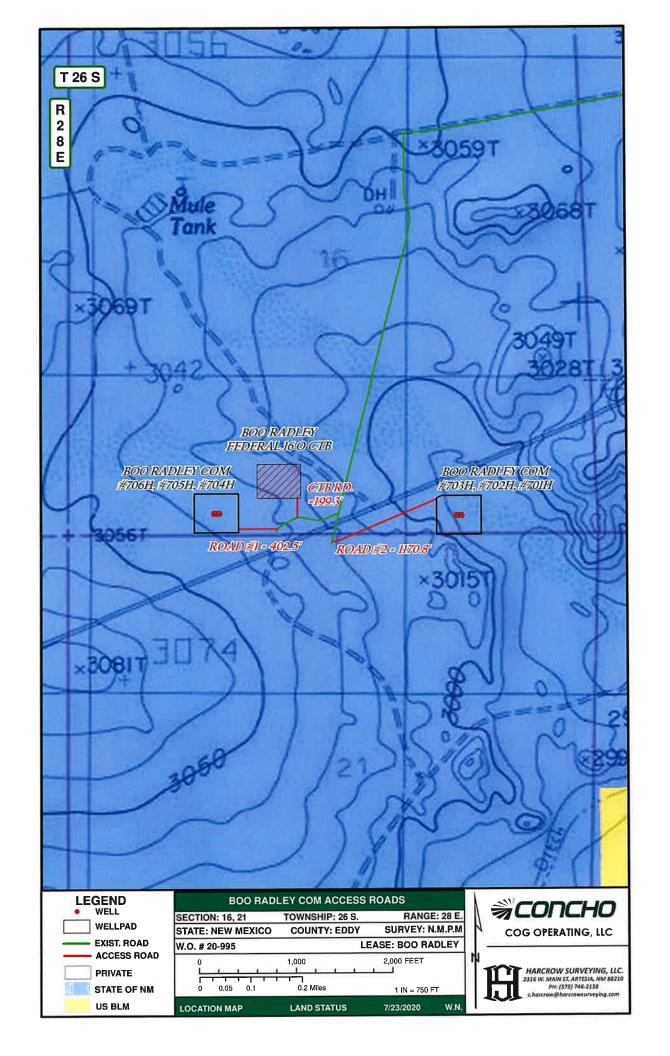
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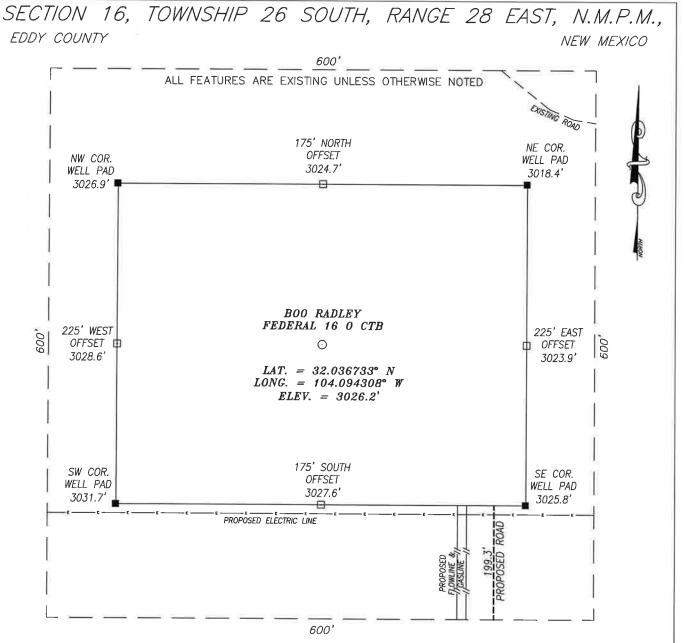
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #2
DRAFTING DATE:	JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995







DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HWY. 285 AND WHITES CITY RD. (CR. 724), GO WEST APPROX. 0.9 MILES THEN TURN LEFT (SOUTHEASTERLY) ONTO CALICHE RD; THEN GO APPROX. 2.3 MILES AND TURN LEFT (SOUTHERLY); THEN GO APPROX. 0.7 MILES; TURN RIGHT AND GO APPROX. 0.1 MILES TO THE PROPOSED ROAD. PROPOSED PAD LIES APPROX. 420 FEET TO THE NORTHWEST.

CERTIFICATION I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY NOWLEDGE AND BELIEF. 177777 POFESSION 7/27/20 CHAD HARCROW N.M.P.S. NO. 177777 DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

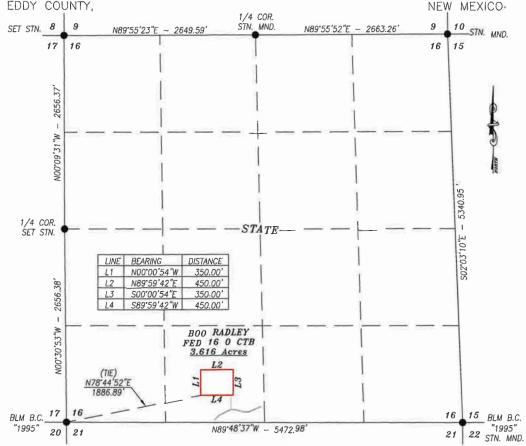


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COG OPERATING, LLC							
SURVEY DATE: JULY 17, 2020 600S							
DRAFTING DATE: JULY 22, 2020	PAGE: 1 OF 1						
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963						

EXHIBIT A STATE BUSINESS LEASE COG OPERATING, LLC.

A STATE BUSINESS LEASE FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.



DESCRIPTION

A PROPOSED PAD LOCATED WITHIN STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE PROPOSED PAD, WHICH LIES N78'44'52"E 1886.89 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN NO0*00'54"W 350.00 FEET; THEN N89°59'42"E 450.00 FEET; THEN S00°00'54"W 350.00 FEET; THEN S89°59'42"W 450.00 FEET TO THE POINT OF BEGINNING.

SAID PAD CONTAINS 3.616 ACRES AND IS LOCATED ALL IN THE SE/4 SW/4.

7/27/20

CHAD HARCROW N.M.P.S. NO. 17777

BASIS OF BEARING:
BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO
THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE"
NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS HADL HAR CRO FOR SURVEYING IN NEW MEXICO.

EN MEXIC

POFESSIONS

SCALE: 1"=1000"

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



2000 FEET

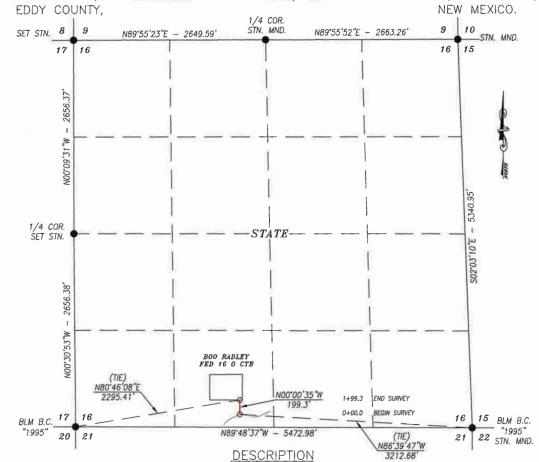
COG OPERATING, LLC

SURVEY OF A PROPOSED PAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17 2020	EXHIBIT A
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-963

<u>EXHIBIT B</u> ACCESS ROAD PLAT COG OPERATING, LLC.

AN ACCESS ROAD FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86'39'47"W 3212.68 FEET FROM THE SOUTHEAST CORNER; THEN N00'00'35"W 199.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N80'46'08"E 2295.41 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 199.3 FEET OR 12.08 RODS IN LENGTH, CONTAINING 0.137 ACRES MORE OR LESS AND BEING LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

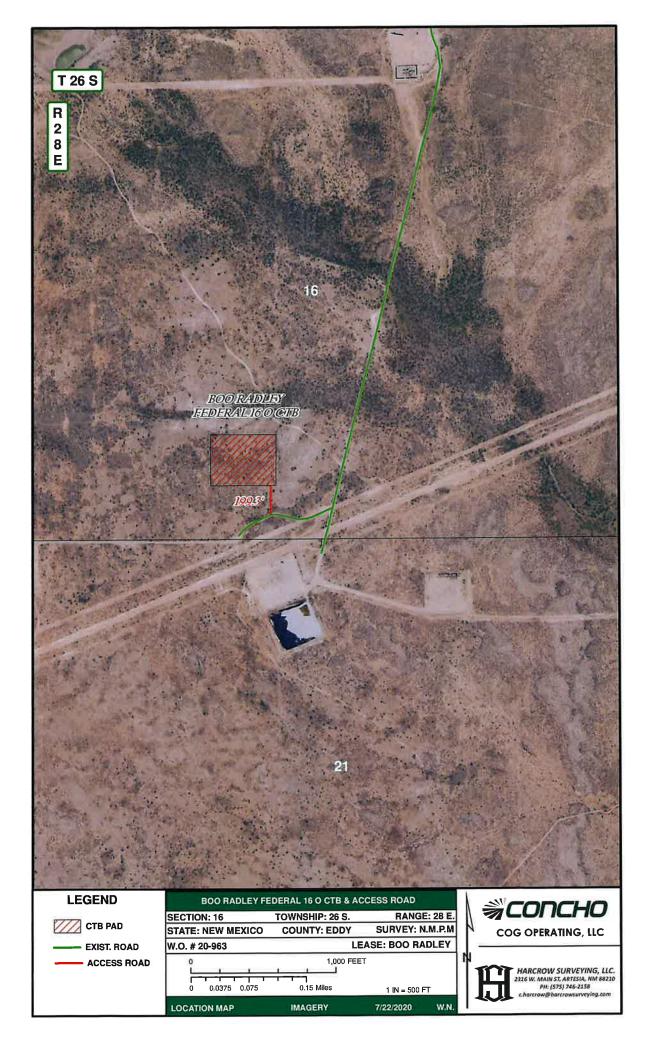


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COG OPERATING, LLC

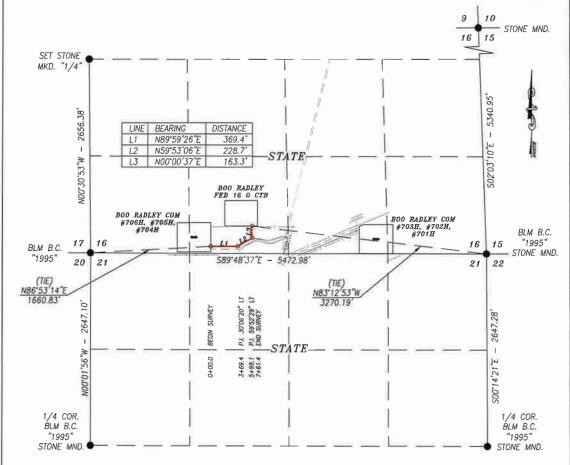
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	EXHIBIT B
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963





A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86°53'14"E 1660.83 FEET FROM THE SOUTHWEST CORNER; THEN N89*59'26"E 369.4 FEET; THEN N59*53'06"E 228.7; THEN N00*00'37"E 163.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES NB3'12'53"W 3270.19 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 761.4 FEET OR 46.15 RODS IN LENGTH, CONTAINING 0.524 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

CHAD HARCROW N.M.P.S.

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HERE THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. AD L. HARCAG

NO. 17777

Harrow

MEXICO

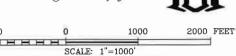
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07/28/20

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



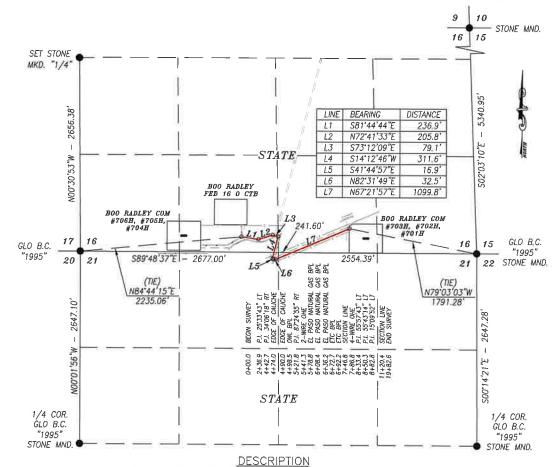


COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 20, 2020	FLOWLINE #1
DRAFTING DATE:	TULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-992

A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'44'15"E 2235.06 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S81'44'44"E 236.9 FEET; THEN N72'41'33"E 205.8; THEN S73'12'09"E 79.1 FEET; THEN S14'12'46"W 311.6; THEN S41'44'57"E 16.9; THEN N82'31'49"E 32.5 FEET; THEN N67'21'57"E 1099.8 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'03'03"W 1791.28 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.6 FEET OR 120.16 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

CHAD HARCROW N.M.P.S. NO. 17777

SE/4 SW/4 45.08 RODS OR 0.512 ACRES SW/4 SE/4 52.42 RODS OR 0.595 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

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ANDARDS

07/28/20 DATE SECTION 21

NE/4 NW/4 10.71 RODS OR 0.122 ACRES NW/4 NE/4 11.95 RODS OR 0.136 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



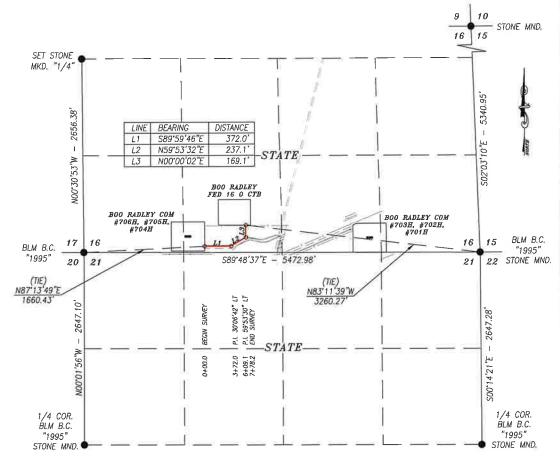
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	FLOWLINE #2
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-992

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTION 16. TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N87*13'49"E 1660.43 FEET FROM THE SOUTHWEST CORNER; THEN S89'59'46"E 372.0 FEET; THEN N59'53'32"E 237.1; THEN N00'00'02"E 169.1 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION. WHICH LIES N83*11'39"W 3260.27 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 778.2 FEET OR 47.16 RODS IN LENGTH, CONTAINING 0.536 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEST THE MINIMUM STANDARDS



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



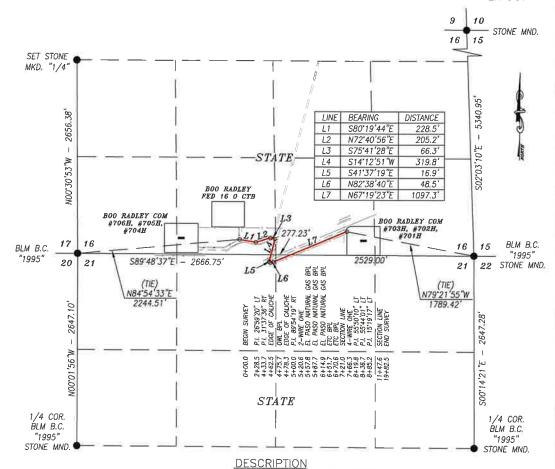
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COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #1
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-993

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'54'33"E 2244.51 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S80°19'44"E 228.5 FEET; THEN N72'40'56"E 205.2; THEN S75'41'28"E 66.3 FEET; THEN S14'12'51"W 319.8; THEN S41'37'19"E 16.9; THEN N82'38'40"E 48.5 FEET; THEN N67'19'23"E 1097.3 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'212'55"W 1789.42 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.5 FEET OR 120.15 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

07/28/20

SECTION 16

SE/4 SW/4 43.70 RODS OR 0.497 ACRES SW/4 SE/4 50.59 RODS OR 0.574 ACRES

BASIS OF BEARING:

CHAD HARCROW N.M.P.S.

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT FET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. AD L. HARCRO

NO. 17777

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SECTION 21

NE/4 NW/4 12.25 RODS OR 0.139 ACRES NW/4 NE/4 13.61 RODS OR 0.155 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

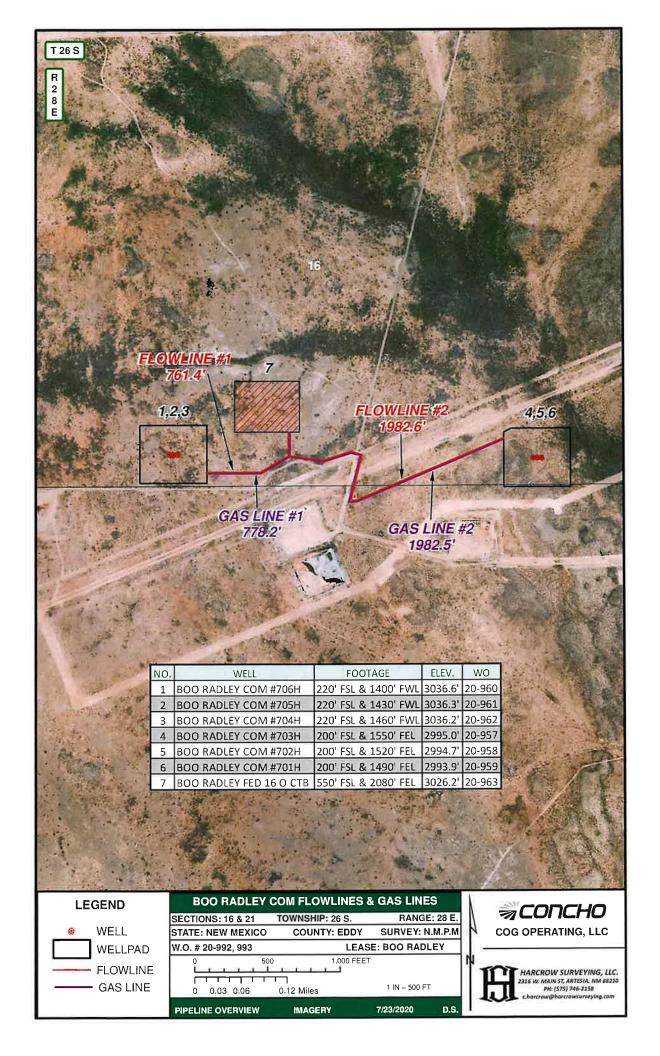


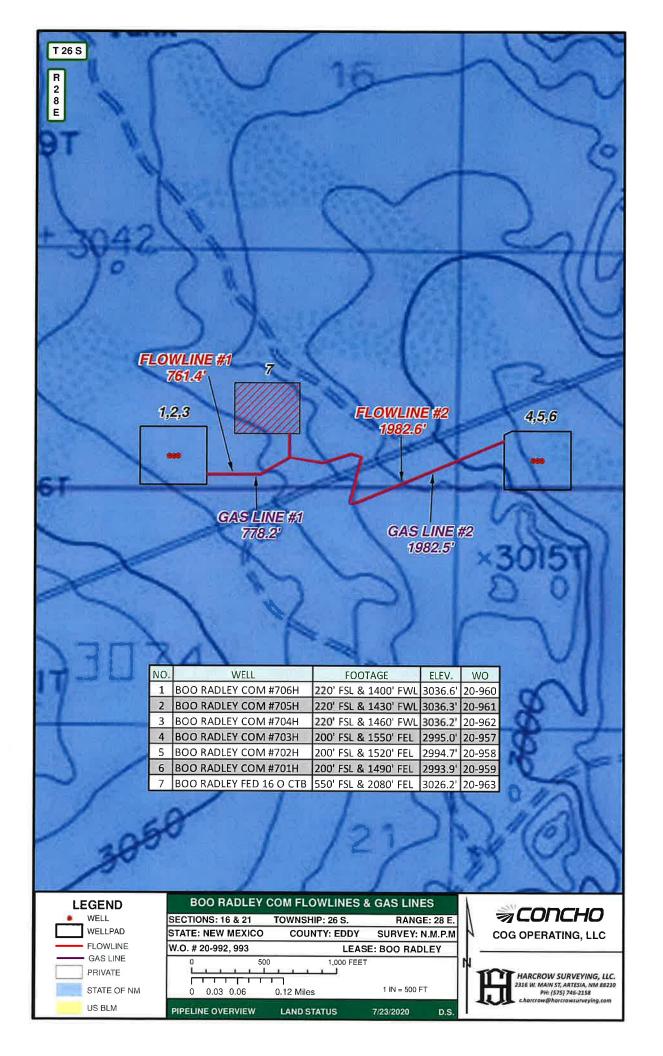
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COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #2
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-993

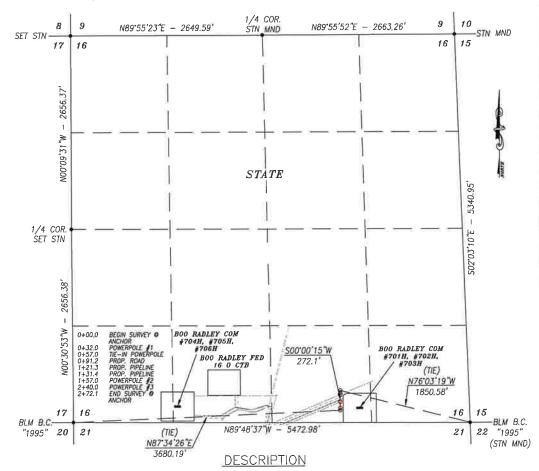




POWERLINE PLAT: LINE #1 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY;

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N76'03'19"W 1850.58 FEET FROM THE SOUTHEAST CORNER; THEN SOO'00'15"W 272.1 FEET, TO A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N87'34'26"E 3680.19 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 272.1 FEET OR 16.49 RODS IN LENGTH, CONTAINING 0.187 ACRES MORE OR LESS AND BEING LOCATED ENTIRELY IN THE SW/4 SE/4 OF SAID SECTION.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET HE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



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COG OPERATING, LLC.

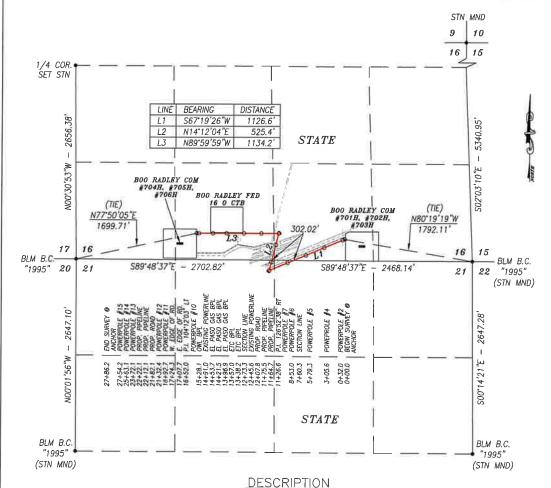
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	POWERLINE #1
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: JH	FILE: 20-994

POWERLINE PLAT: LINE #2 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY; WITH ANCHORS EXTENDING OUTSIDE THE CENTERLINE SURVEY 14 FEET SOUTHERLY AND WESTERLY AT POLE 7 AND 17.0 FEET NORTHERLY AND EASTERLY AT POLE 10; WHICH HAVE BEEN ACCOUNTED FOR IN FOOTAGES, RODS, AND ACRES:

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES NB0'19'19"W 1792.11 FEET FROM THE SOUTHEAST CORNER OF SECTION 16; THEN S67:19'26"W 1126.6 FEET; THEN N14'12'04"E 525.4 FEET; THEN N89'59'59"W 1134.2 FEET, TO A POINT IN THE SEC4 SW/4 OF SECTION 16, WHICH LIES N77'50'05"E 1699.71 FEET FROM THE SOUTHWEST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 2848.2 FEET OR 172.62 RODS IN LENGTH, CONTAINING 1.962 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

67.53 RODS OR 0.767 ACRES 72.30 RODS OR 0.822 ACRES SE/4 SW/4

SECTION 21 NW/4 NE/4

17.61 RODS OR 0.200 ACRES NE/4 NW/4 15.18 RODS OR 0.173 ACRES

DATE

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. AD L. HARCAD

W MEXIC 17777 PADLESSIDNE 7/27/20 CHAD HARCROW N.M.P.S. NO. 177777

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



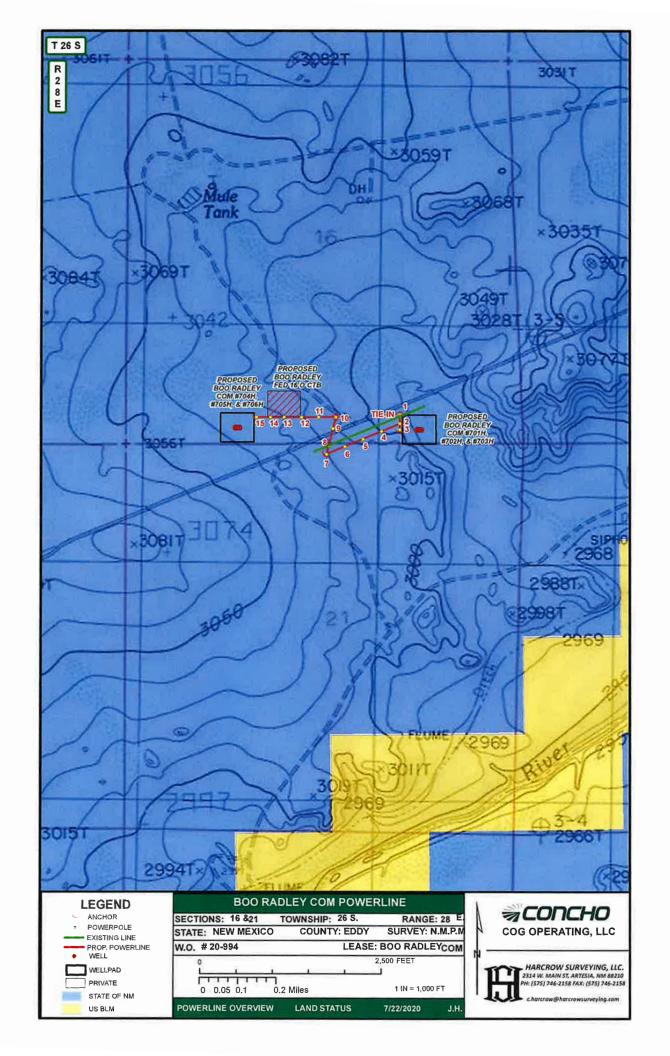
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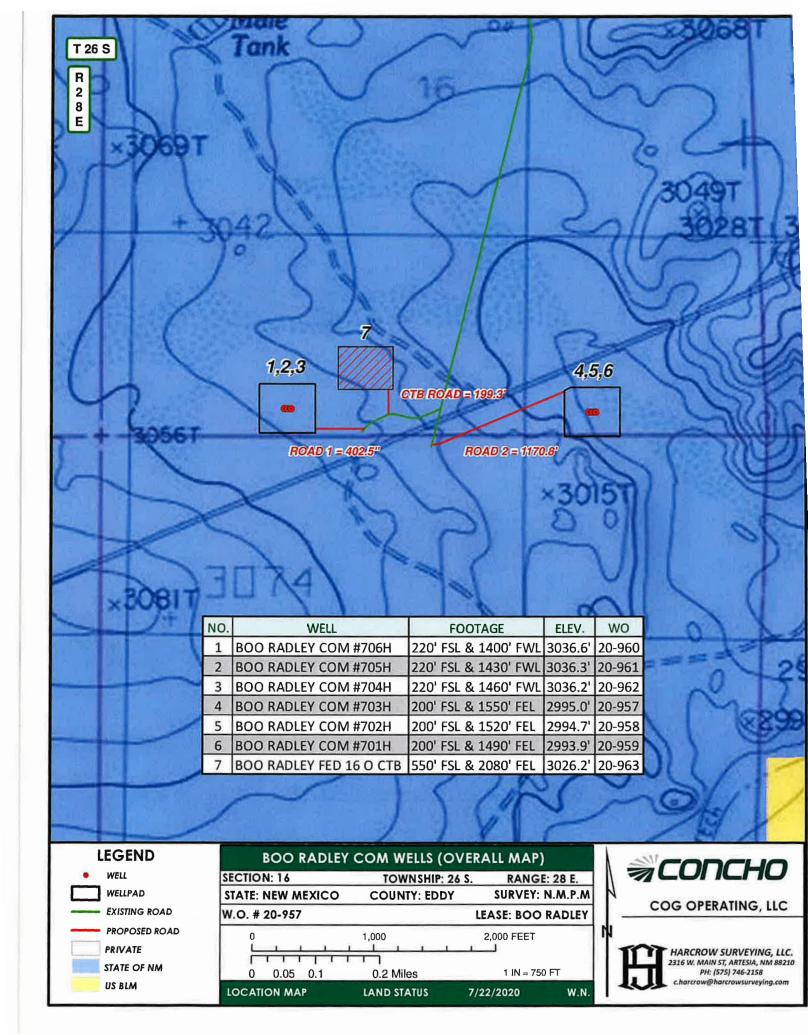
COG OPERATING. LLC.

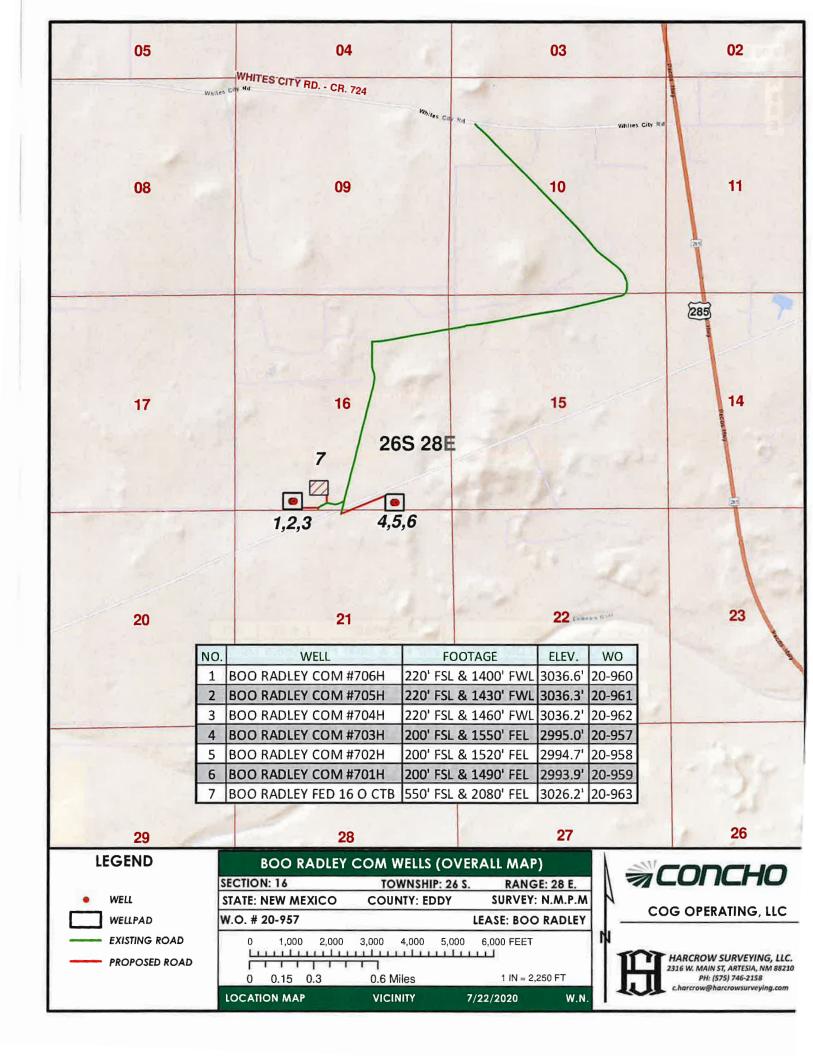
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

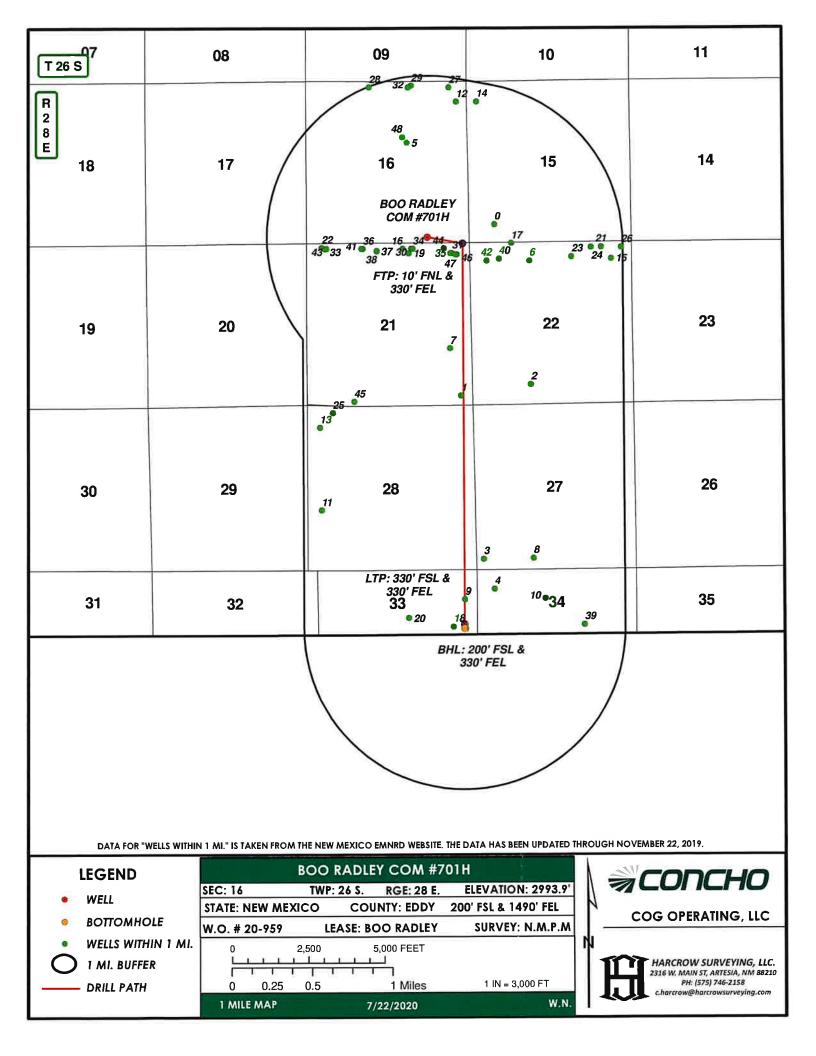
SURVEY DATE: JULY 17, 2020	POWERLINE #2
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: JH	FILE: 20-994











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O STATE OF NIM I'D!! OO	OPERATION CO.		SECTION TOWNSHIP	IF KANGE	FIG NS INS CD	KANGE FIGUS INS CD FIG EW EW CD	LATITUDE	LONGITUDE COMPL STAT	
IE OF NM 'B' UUI	SUN OIL CO	3001502527	15 26.05	28E	8 009 8 2	860 W	32.036889	-104.080989 Plugged	
1 HUMBLE STATE 001	GLENN BENNETT	3001502530	21 26.05	28E	330 S	330 E	32.021524	-104.084662 Plugged	
2 HUMBLE FOWLKES 001	BENNETT J	3001502531	22 26.05	28E	9 S 099	W 0861	32.022515	-104.077183 Plugged	
3 SUN ST 27 001	CHAPMAN FORD	3001502534	27 26.0S	28E	330 S	330 W	32,006824	-104:082376 Plugged	
4 STATE 34 001	CHAPMAN FORD	3001502536	34 26.05	28E	N 099	W 099	32.004115	-104.081203 Plugged	
5 STATE LG 1175 001	JAKE L HAMON	3001521398	16 26.05	28E	1980 N	1980 E	32.044302	-104.090314 Plugged	
6 AMINOIL ST 001	HARWICK OIL CO	3001524358	22 26.0S	28E	N 065	1980 W	32.033636	-104.077313 Plugged	
7 GETTY STATE 001	RAY H HASKINS	3001524474	21 26.05	28E	1880 S	660 E	32.025777	-104.085782 Plugged	
8 STATE 001	CHAPMAN FORD	3001510269	27 26.05	28E	330 S	1980 W	32.006879	-104.077027 Plugged	
9 POGO ST 001	SLEDGE OIL & GAS INC	3001523607	33 26.05	28E	N 066	330 E	32,003178	-104,084369 Plugged	
10 AMINOIL ST 001	CALLAWAY OIL; GAS	3001524042	34 26.05	28E	N 066	2310 W	32.003263	-104.075804 Plugged	
11 ALL STATE COM 002H	MARBOB ENERGY CORP	3001537499	28 26.05	28E	1980 S	330 W	32.011235	-104.099544 Unknown	
12 SRO STATE UNIT COM 105H	MARBOB ENERGY CORP	3001537424	16 26.05	38E	N 099	330 E	32.047903	-104.085018 Plugged	
13 ALL STATE COM 001H	MARBOB ENERGY CORP	3001537498	28 26.05	38E	N 099	330 W	32.018698	-104.099698 Unknown	
14 SRO STATE UNIT COM 107H	MARBOB ENERGY CORP	3001537427	15 26.05	38E	N 099	330 W	32.047906	-104.082878 Unknown	
15 DIAMONDBACK 22 STATE COM 003H	COG PRODUCTION, LLC	3001539861	22 26.05	28E	250 N	9099	32,033791	-104.068594 Unknown	
16 SKEEN 21 B2BO STATE COM 001H	MEWBOURNE OIL CO	3001543247	21 26.05	28E	185 N	2180 E	32.034723	-104.090816 Unknown	
17 DIAMONDBACK 22 STATE COM 004H	COG PRODUCTION, LLC	3001540816	22 26.05	28E	20 N	1393 W	32.035193	-104.079235 Unknown	
18 GRAHAM NASH STATE COM 005H	COG OPERATING LLC	3001542453	33 26.05	28E	280 S	760 E	32.000751	-104.085613 Unknown	
SKEEN 21 STATE COM 002H	MEWBOURNE OIL CO	3001539773	21 26.05	28E	330 N	1980 E	32.034324	-104.090162 Unknown	
20 GRAHAM NASH STATE COM 006H	COG OPERATING LLC	3001542464	33 26.05	28E	S 095	2200 E	32.001511	-104.090348 Unknown	
21 DIAMONDBACK 22 STATE COM 005H	COG PRODUCTION, LLC	3001542432	22 26.05	38E	170 N	990 E	32.03483	-104.069675 Unknown	
22 SKEEN 21 DM STATE 001	MEWBOURNE OIL CO	3001540863	21 26.05	38E	150 N	200 W	32.034828	-104.099418 Unknown	
23 DIAMONDBACK 22 STATE COM 001H	OGX RESOURCES, LLC	3001538528	22 26.05	28E	480 N	1960 E	32,033962	-104.072811 Unknown	
24 DIAMONDBACK 22 STATE COM 011H	COG PRODUCTION, LLC	3001543465	22 26.05	28E	125 N	1365 E	32.034811	-104.070726 Unknown	
25 GRAHAM NASH STATE COM 008H	COG OPERATING LLC	3001542203	28 26.05	28E		760 W	32.019999	-104.09833 Unknown	
25 CULIONMOUTH 23 FEDERAL COM 002H	COG PRODUCTION, LLC	3001543015	22 26.05	28E	190 N	330 E	32.034786	-104.067535 Unknown	
SIAIE UNII USSH	COG OPERALING LLC	3001541532	16 26.05	28E	190 N	260 E	32.049199	-104.085784 Unknown	
28 GRAHAM CRACKER 16 STATE 002H	COG OPERATING LLC	3001541533	16 26.05	28E		2080 W	32.049243	-104.094295 Unknown	
29 GRAHAIN CRACKER 16 STATE 007H	COG OPERATING LLC	3001542332	16 26.05	28E		1810 E	32.049371	-104.089841 Unknown	
30 SKEEN 21 D3BO STATE COM 003H	MEWBOURNE OIL CO	3001542811	21 26.05	28E	185 N	1900 E	32.034722	-104.089908 Unknown	
31 SKEEN ZI B3AP SIATE COM 001H	MEWBOURNE OIL CO	3001542810	21 26.05	28E	330 N	260 E	32.03432	-104.085558 Unknown	
32 GRAHAM CKACKER 16 STATE 003H	COG OPERATING LLC	3001541633	16 26.05	28E	190 N	1910 E	32.049222	-104.090163 Unknown	
33 SKEEN ZI B3DM SIAIE COM 002H	MEWBOURNE OIL CO	3001542855		28E	185 N	610 W	32.034731	-104.09906 Unknown	
34 SKEEN ZI D3BO SIAIE COM 002H	MEWBOURNE OIL CO	3001542853	21 26.05	28E	185 N	1850 E	32.034722	-104.089746 Unknown	
33 SNEEN ZI DSAF STATE COM UUZH	MEWBOOKNE OIL CO	3001542856	21 26.05	28E	330 N	610 E	32.03432	-104.08572 Unknown	
30 SKEEN ZI B3CN SIAIE COM UUIH	MEWBOURNE OIL CO	3001542854	21 26.05	28E	185 N	1850 W	32.034727	-104.095039 Unknown	
N 21 BZCN SIAIE UUIH	MEWBOURNE OIL CO	3001542934	21 26.05	28E	766 N	2310 W	32.034503	-104.093543 Unknown	
38 SKEEN 21 STATE 001H	CHESAPEAKE OPERATING, INC.	3001537802	21 26.05	28E	250 N	2310 W	32.034547	-104.093544 Unknown	
39 SKEEN 34 STATE 001H	CHESAPEAKE OPERATING, INC.	3001537805	34 26.05	28E	315 S	1670 E	32.000874	-104.071681 Unknown	
40 DIAMONDBACK 22 STATE COM 006H	COG PRODUCTION, LLC	3001543195	22 26.05	28E	520 N	M 066	32.033812	-104.080526 Unknown	
SKEEN 21 D3CN STATE COM 002H	MEWBOURNE OIL CO	3001542857	21 26.05	28E	185 N	1800 W	32.034727	-104.095201 Unknown	
42 DIAMONDBACK 22 STATE COM 002H	OGX RESOURCES, LLC	3001539105	22 26.05	28E	280 N	280 W	32.03364	-104.081853 Unknown	
SKEEN 21 D3DM STATE COM 003H	MEWBOURNE OIL CO	3001542812	21 26.05	28E	185 N	W 099	32.034731	-104.098898 Unknown	
44 SKEEN 21 B2AP STATE COM 001H	MEWBOURNE OIL CO	3001543246	21 26.05	28E	185 N	820 E	32.034719	-104.086406 Unknown	
45 GRAHAM NASH FEDERAL COM 013H	COG OPERATING LLC	3001543811	21 26.05	28E	200 S	1550 W	32.021012	-104.096034 Unknown	
46 SKEEN 21 WOAP STATE COM 002H	MEWBOURNE OIL CO	3001544553	21 26.05	28E	330 N	550 E	32.034186	-104.085036 Unknown	
47 SKEEN 21 WZAP STATE COM 001H	MEWBOURNE OIL CO	3001544552	21 26.05	28E	330 N	600 E	32.034186	-104.085198 Unknown	
48 SALT CEDAR 16 STATE SWD #001 001	COG OPERATING LLC	3001545826	16 26S	28E	1850 N	2185 E	32.044761	-104.090784 New (Not drilled or compl)	(ldm

Inten	t	As Drill	ed										
API#	:												
Ope	rator Nar	ne:				Prop	erty N	ame:					Well Number
Kick (Off Point ((KOP)											
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet	F	om E/W	County	
Latitu	ude)			Longitu	de						NAD	
First ⁻	Take Poin	t (FTP)											
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet	F	om E/W	County	
Latit	ude				Longitu	ide						NAD	
Last T	Take Poin	t (LTP)	Range	Lot	Feet	Fro	m N/S	Feet	. [From E/V	V Cour	nty	
Latit		TOWNSHIP	Nullec	Lot	Longitu						NAD		
Latitu	ude				Longitu	ide					INAD		
Is this	s well the	defining v	vell for th	e Hori	zontal S _l	pacinį	g Unit?						
Is this	s well an	infill well?		1:									
Spaci	ng Unit.	lease prov	ide API if	availal	ble, Ope	rator	Name	and \	well nu	ımber f	or Defin	ing well fo	or Horizontal
API#													l u.e.
Ope	erator Nai	ne:				Pro	perty N	lame	:				Well Number

KZ 06/29/2018

DISTRICT I

State of New Mexico 1825 N. FRENCH DR., HOBBS, NM 88240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1263 Fax: (575) 748-9720

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 67505 Phone: (505) 476-3460 Fax: (505) 476-3462

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION DIAT

API Number	Pool Code	ACREAGE DEDICATION	Pool Name
Property Code	-	erty Name DLEY COM	Well Number 702H
OGRID No.	•	ator Name RATING, LLC	Elevation 2994.7'

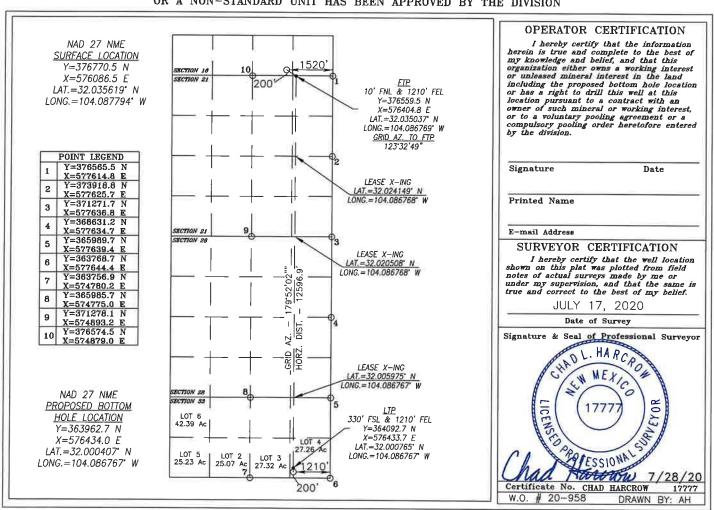
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	16	26-S	28-E		200	SOUTH	1520	EAST	EDDY

Bottom Hole Location If Different From Surface

	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	4	33	26-S	28-E		200	SOUTH	1210	EAST	EDDY
	Dedicated Acres	Joint o	r Infill	Consolidation (Code Or	der No.			1	
L										

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I

State of New Mexico 1625 N. FRENCH DR., HOBBS, NM 88240 Energy, Minerals & Natural Resources Department Phone: (676) 383-6161 Fax: (676) 383-0720 OIL CONSERVATION DIVISION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 478-3460 Fax: (505) 478-3462

API Number

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Name Pool Code Well Number Property Name

Property Code 702H BOO RADLEY COM Elevation Operator Name OGRID No. COG OPERATING, LLC 2994.7

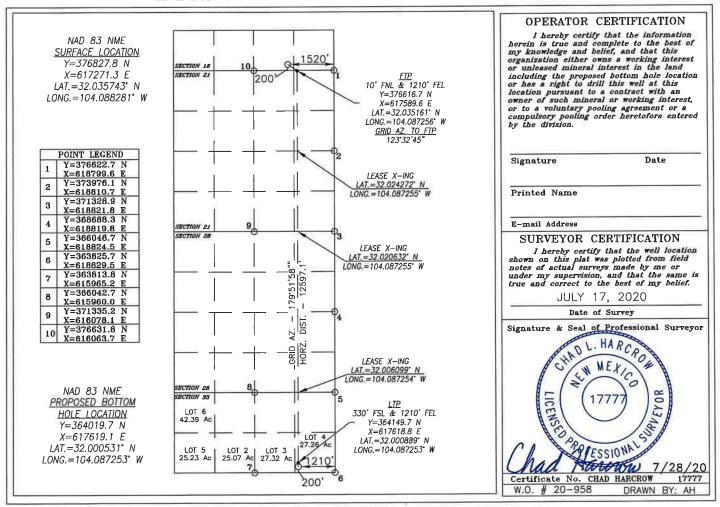
Surface Location

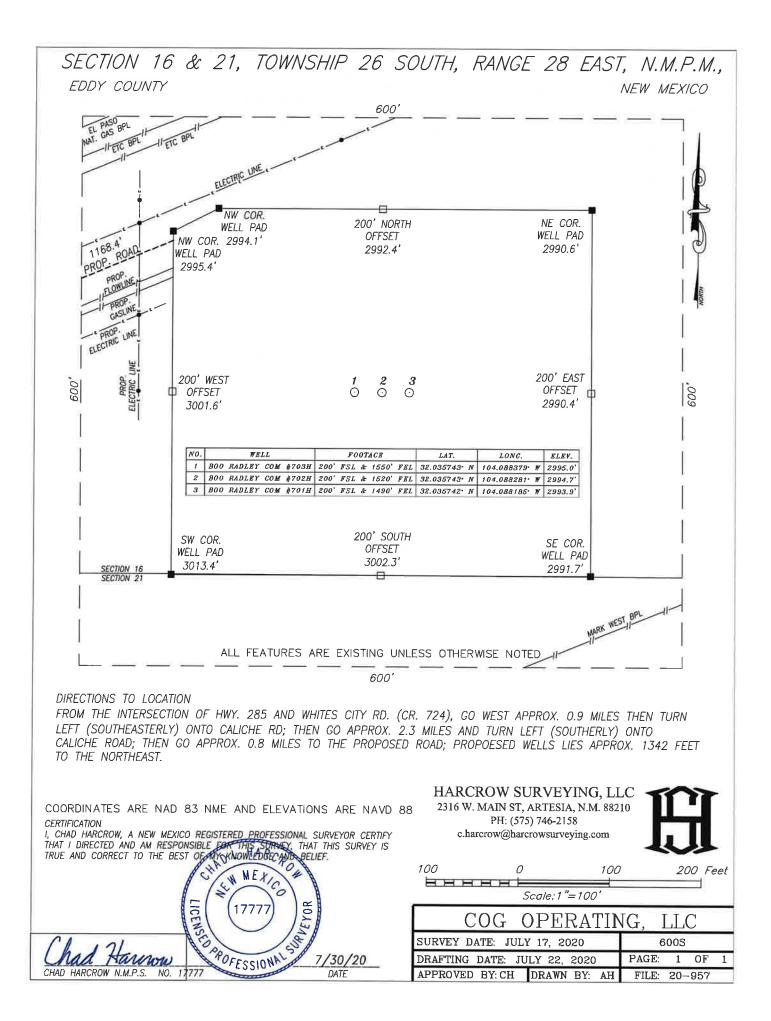
UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	16	26-S	28-E		200	SOUTH	1520	EAST	EDDY

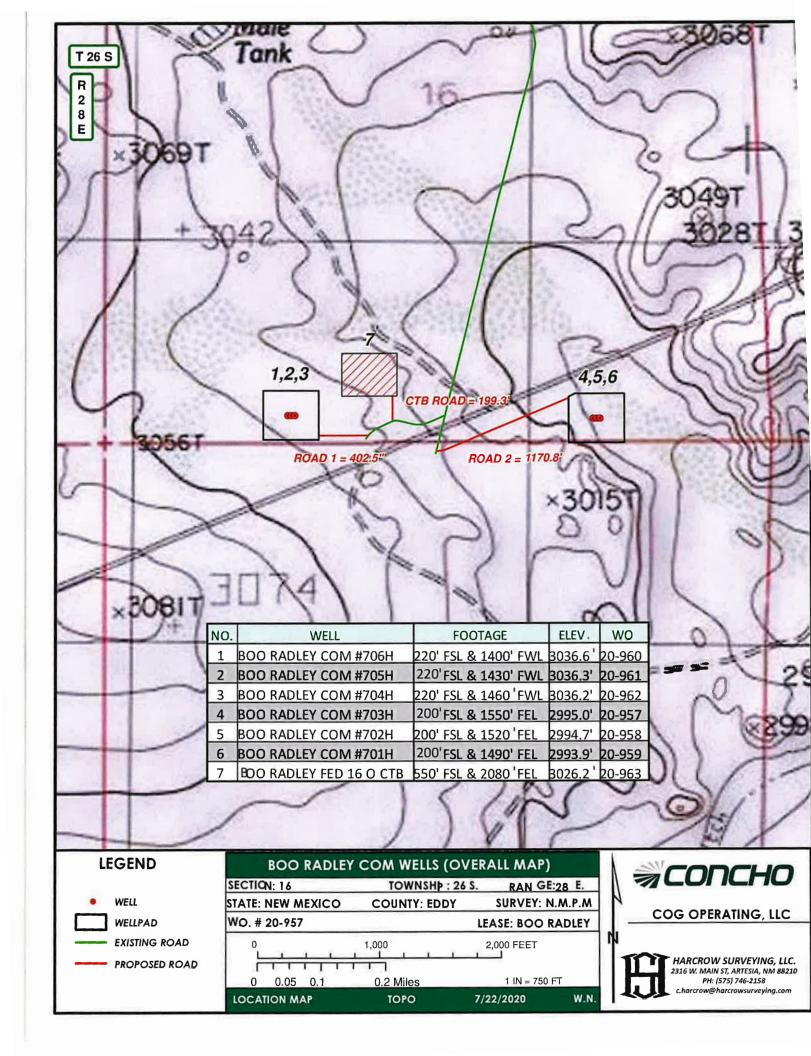
Bottom Hole Location If Different From Surface

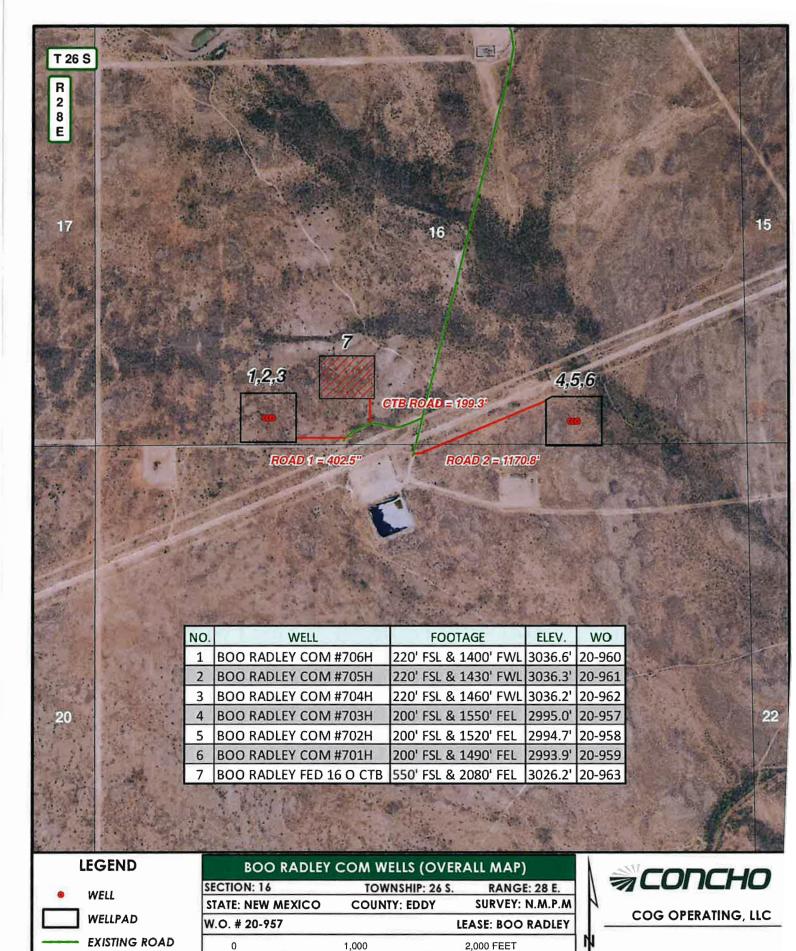
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	33	26-5	28-E		200	SOUTH	1210	EAST	EDDY
Dedicated Acres	Joint of	r Infill	Consolidation	Code Or	der No.	•			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION









PROPOSED ROAD

0.05 0.1

LOCATION MAP

0.2 Miles

IMAGERY

1 IN = 750 FT

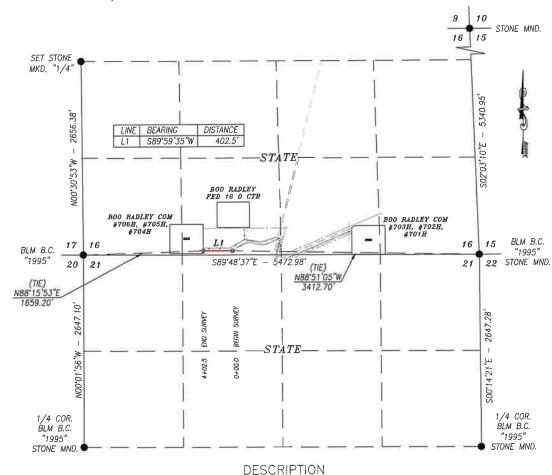
W.N

7/22/2020



ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°51'05"W 3412.70 FEET FROM THE SOUTHEAST CORNER; THEN S89°59'35"W 402.5 FEET; TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°15'53"E 1659.20 FEET FROM THE SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 402.5 FEET OR 24.39 RODS IN LENGTH, CONTAINING 0.277 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



1000	o	1000	2000 FE	ET
	SCALE	1"=1000'		

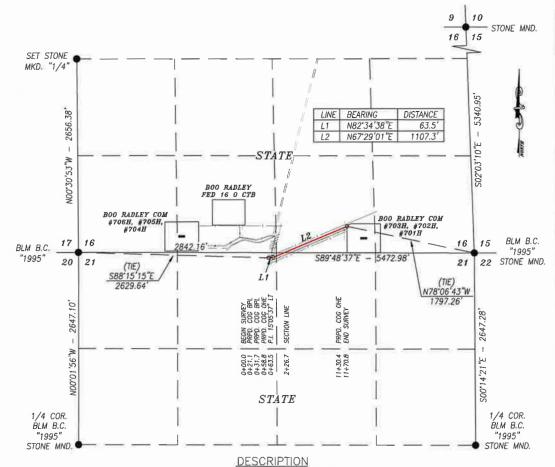
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #1
DRAFTING DATE:	TULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995

ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE NE/4 NW/4 OF SECTION 21, WHICH LIES S88'15'15"E 2629.64 FEET FROM THE NORTHWEST CORNER OF SECTION 21; THEN N82'34'38"E 63.5 FEET; THEN N67'29'01"E 1107.3 FEET; TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N78'06'43"W 1797.26 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1170.8 FEET OR 70.96 RODS IN LENGTH, CONTAINING 0.806 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

<u>SECTION 16</u> SW/4 SE/4 57.22 RODS OR 0.650 ACRES <u>SECTION 21</u> NE/4 NW/4 6.81 RODS OR 0.077 ACRES NW/4 NE/4 6.93 RODS OR 0.079 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEFT THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Chad Harrow Paressione 7/27/20

Chad Harrow Paressione 7/27/20

Date

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

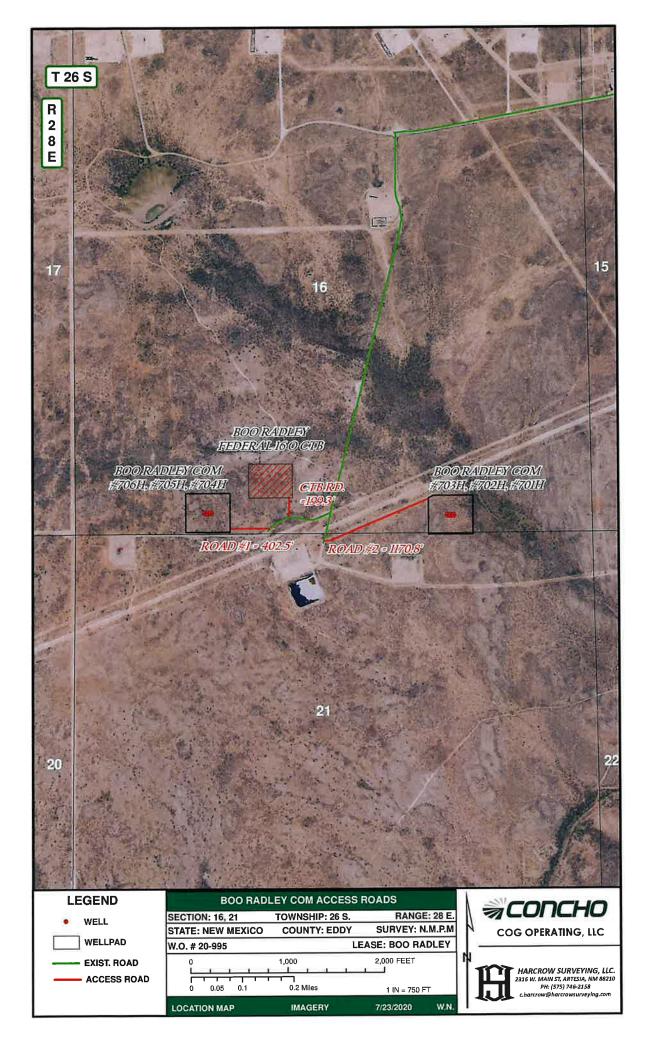


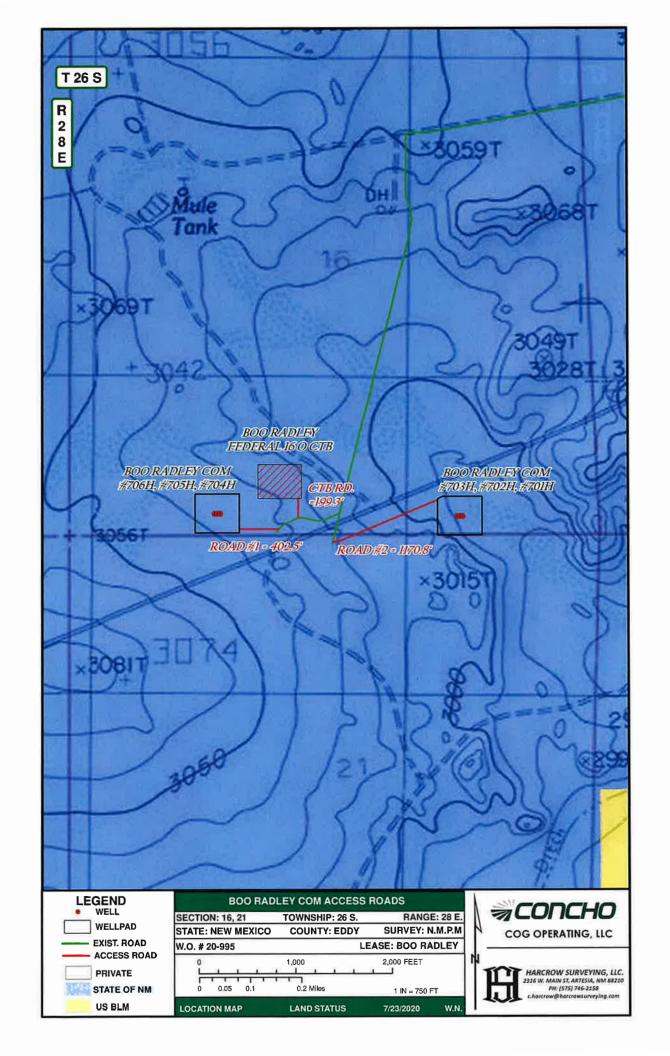
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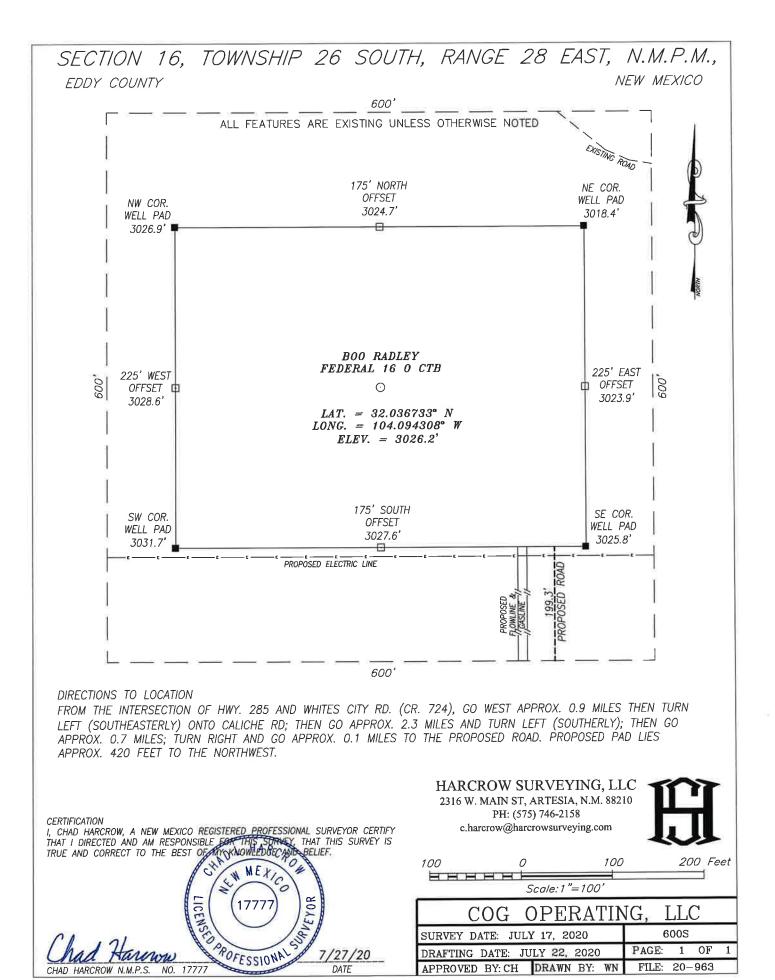
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #2
DRAFTING DATE: 3	ULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995

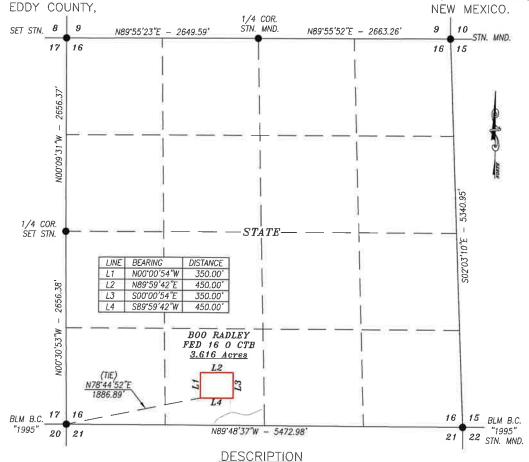






STATE BUSINESS LEASE COG OPERATING, LLC.

A STATE BUSINESS LEASE FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,



A PROPOSED PAD LOCATED WITHIN STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE PROPOSED PAD, WHICH LIES N78'44'52"E 1886.89 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN N00°00'54"W 350.00 FEET; THEN N89'59'42"E 450.00 FEET; THEN S00°00'54"W 350.00 FEET; THEN S89'59'42"W 450.00 FEET TO THE POINT OF BEGINNING.

SAID PAD CONTAINS 3.616 ACRES AND IS LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEFT THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

6 W. MAIN ST, ARTESIA, N.M. 88: PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



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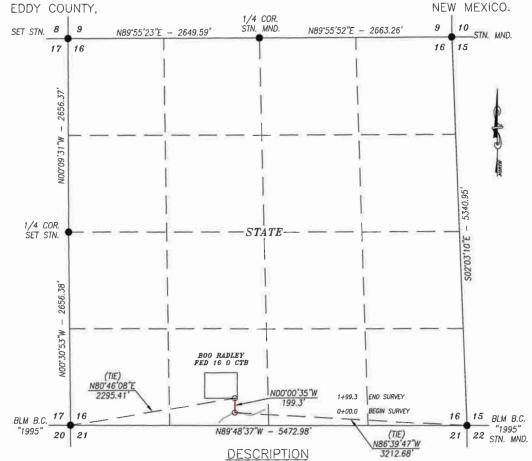
COG OPERATING, LLC

SURVEY OF A PROPOSED PAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	EXHIBIT A
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963

EXHIBIT BACCESS ROAD PLAT COG OPERATING, LLC.

AN ACCESS ROAD FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86°39'47"W 3212.68 FEET FROM THE SOUTHEAST CORNER; THEN NOO*00'35"W 199.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION. WHICH LIES N80'46'08"E 2295.41 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 199.3 FEET OR 12.08 RODS IN LENGTH, CONTAINING 0.137 ACRES MORE OR LESS AND BEING LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM IT THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983, DISTANCES ARE SURFACE VALUES.

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



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BBB	SCALE:	1"=1000'		

COG OPERATING, LLC

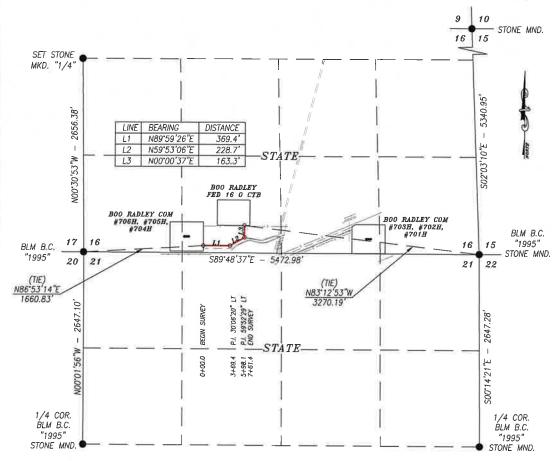
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST. NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	EXHIBIT B
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963





A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY. NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86*53'14"E 1660.83 FEET FROM THE SOUTHWEST CORNER; THEN N89'59'26"E 369.4 FEET; THEN N59'53'06"E 228.7; THEN N00'00'37"E 163.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83*12'53"W 3270.19 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 761.4 FEET OR 46.15 RODS IN LENGTH, CONTAINING 0.524 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

c.harcrow@harcrowsurveying.com

PH: (575) 746-2158

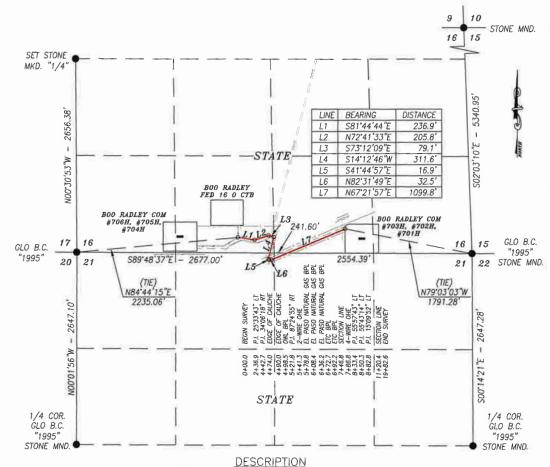
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COG OPERATING. LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 20, 2020	FLOWLINE #1
DRAFTING DATE: .	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-992

A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'44'15"E 2235.06 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S81'44'44"E 236.9 FEET; THEN N72'41'33"E 205.8; THEN S73'12'09"E 79.1 FEET; THEN S14'12'46"W 311.6; THEN S41'44'57"E 16.9; THEN N82'31'49"E 32.5 FEET; THEN N67'21'57"E 1099.8 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'03'03"W 1791.28 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.6 FEET OR 120.16 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

07/28/20

SECTION 16

SE/4 SW/4 45.08 RODS OR 0.512 ACRES SW/4 SE/4 52.42 RODS OR 0.595 ACRES

BASIS OF BEARING:

CHAD HARCROW N.M.P.S. NO. 177777

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEET, THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

EN MEXIC

POFESSIONE

SECTION 21

NE/4 NW/4 10.71 RODS OR 0.122 ACRES NW/4 NE/4 11.95 RODS OR 0.136 ACRES

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

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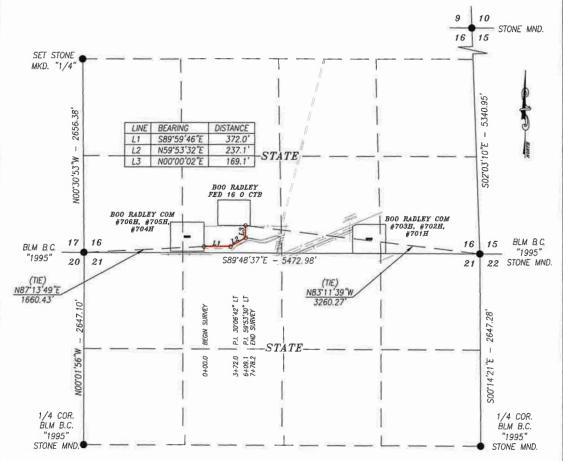
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	FLOWLINE #2
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-992

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET IEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAD SECTION, WHICH LIES NB7"13'49"E 1660.43 FEET FROM THE SOUTHWEST CORNER; THEN S89'59'4 6'E 372.0 FEET; THEN N59'53'32"E 237.1; THEN N00'00'02 "E 169.1 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83'11'39 "W 3260.27 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 778.2 FEET OR 47.16 RODS IN LENGTH, CONTAINING 0.536 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

EARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO HE NEW MEXICO COORDIN ATE STATEM "NE W MEXICO EAST ZONE"!

NORTH AMERICAN DATUM 1 983. DISTANCES ARE SURFACE VALUES.

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT! DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEST THE MINIMUM STANDARDS HAD L. HARCRO FOR SURVEYING IN NEW MEXICO.

LY MEXIC 1777 POFESSIONAL 07/28/20

HARCROW SURVEYIN G, LLC 2316 W. MAIN ST. ARTESIA, N. M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveving.com



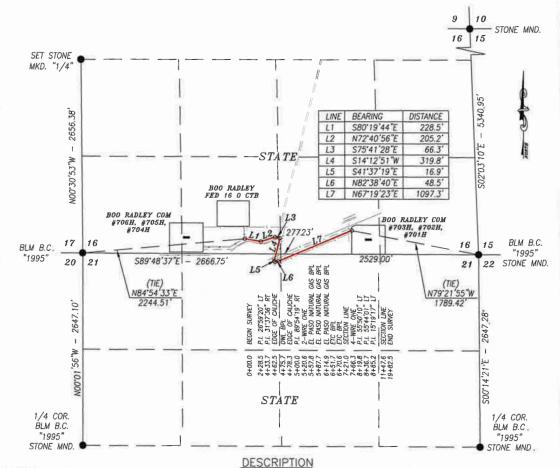
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COG OPE RATING. LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST. NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE:	JULY 20, 2020	GAS LINE #1
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-993

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84*54'33"E 2244.51 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S80*19'44"E 228.5 FEET; THEN N724 0'56"E 205.2; THEN S75*4 1'28"E 66.3 FEET; THEN S14*12'51"W 319.8; THEN S41*37'19"E 16.9; THEN N82*38'40"E 485 FEET; THEN N67*19'23"E 1097.3 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79*212'55"W 1789.42 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.5 FEET OR 120.15 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SE/4 SW/4 43.70 RODS OR 0.497 ACRES SW/4 SE/4 50.59 RODS OR 0.574 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR OR ID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES AR E SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Chad Harrow POFESSION DATE

<u>SECTION 21</u> NE/4 NW/4 12. 25 RODS OR 0.139 ACRES

NW/4 NE/4 13. 61 RODS OR 0.155 ACRES

HARCROW S URVEYING,LLC 2316 W. MAIN ST , ARTESIA, N.M88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

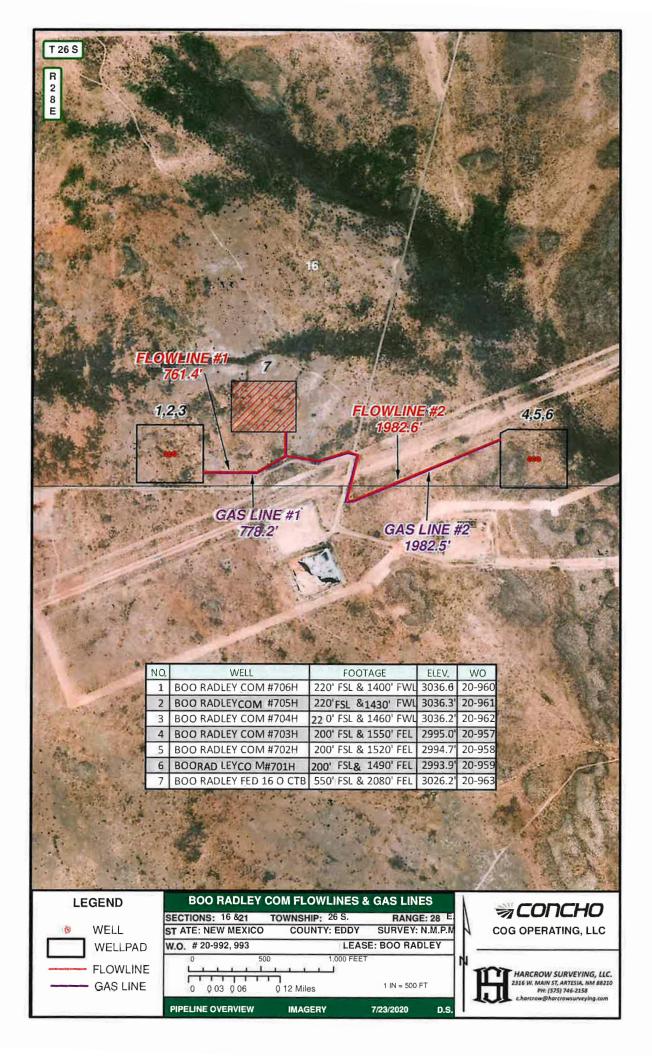


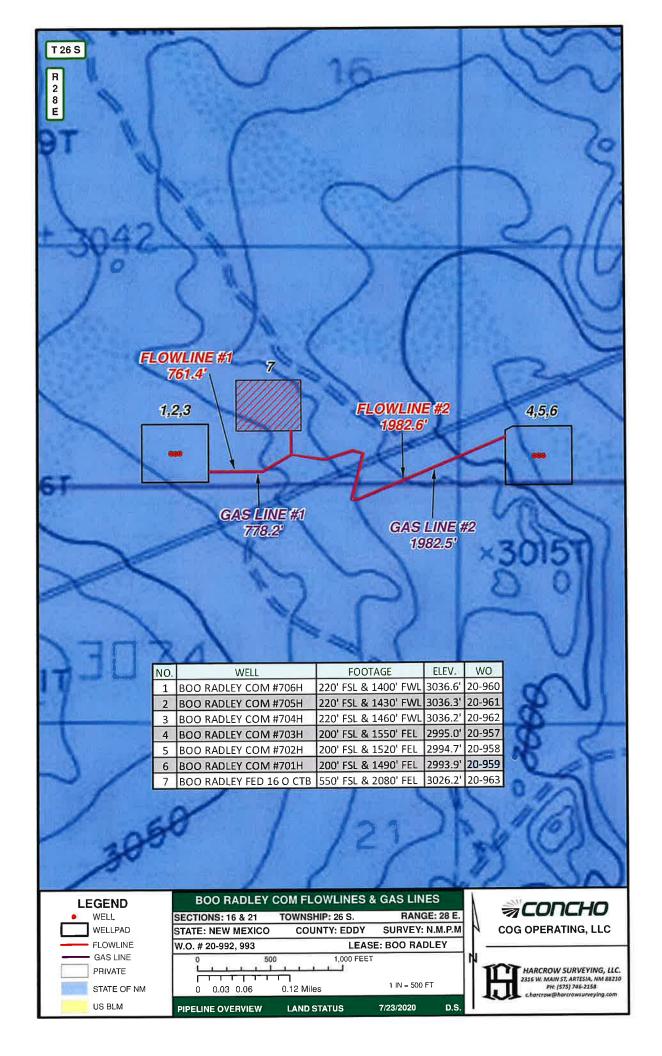
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COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST., NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20,	2020 GAS LINE #2
DRAFTING DATE: JULY 2:	2, 2020 PAGE 1 OF 1
APPROVED BY: CH DRAW	BY: DS FILE: 20-993

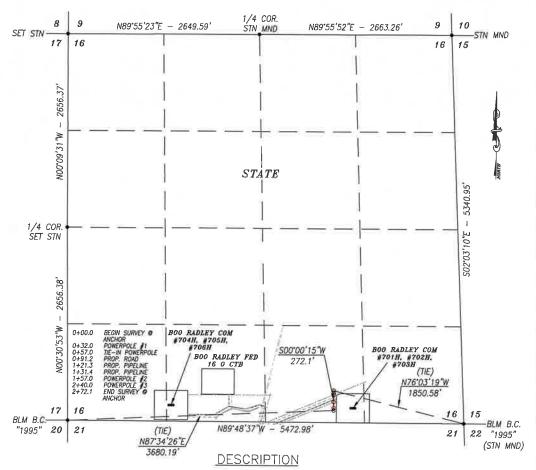




POWERLINE PLAT: LINE #1 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH. RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N76'03'19"W 1850.58 FEET FROM THE SOUTHEAST CORNER; THEN SOO'00'15"W 272.1 FEET, TO A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N87°34'26"E 3680.19 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 272.1 FEET OR 16.49 RODS IN LENGTH, CONTAINING 0.187 ACRES MORE OR LESS AND BEING LOCATED ENTIRELY IN THE SW/4 SE/4 OF SAID SECTION.

BASIS OF BEARING:

CHAD HARCROW N.M.P.S.

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS AD L. HARCRO FOR SURVEYING IN NEW MEXICO.

Harrow

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POFESSIONE



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



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COG OPERATING, LLC.

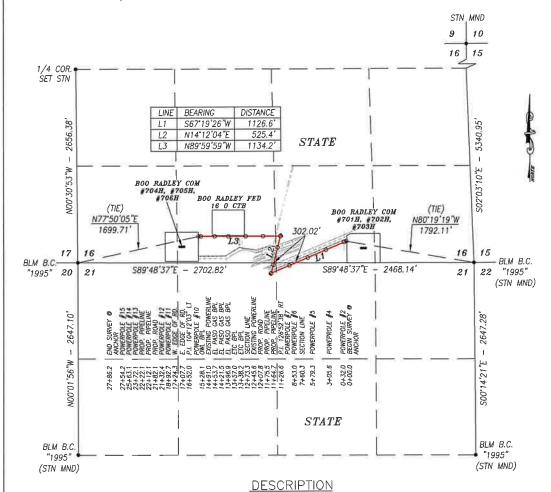
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	POWERLINE #1
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: JH	FILE: 20-994

POWERLINE PLAT: LINE #2 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY; WITH ANCHORS EXTENDING OUTSIDE THE CENTERLINE SURVEY 14 FEET SOUTHERLY AND WESTERLY AT POLE 7 AND 17.0 FEET NORTHERLY AND EASTERLY AT POLE 10; WHICH HAVE BEEN ACCOUNTED FOR IN FOOTAGES, RODS, AND ACRES:

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES NB0'19'19"W 1792.11 FEET FROM THE SOUTHEAST CORNER OF SECTION 16; THEN S67'19'26"W 1126.6 FEET; THEN N14'12'04"E 525.4 FEET; THEN N89'59'59"W 1134.2 FEET, TO A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N77'50'05"E 1699.71 FEET FROM THE SOUTHWEST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 2848.2 FEET OR 172.62 RODS IN LENGTH, CONTAINING 1.962 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16 SW/4 SE/4

67.53 RODS OR 0.767 ACRES 72.30 RODS OR 0.822 ACRES SE/4 SW/4

SECTION 21 NW/4 NE/4

17.61 RODS OR 0.200 ACRES NE/4 NW/4 15.18 RODS OR 0.173 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEST THE MINIMUM STANDARDS



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

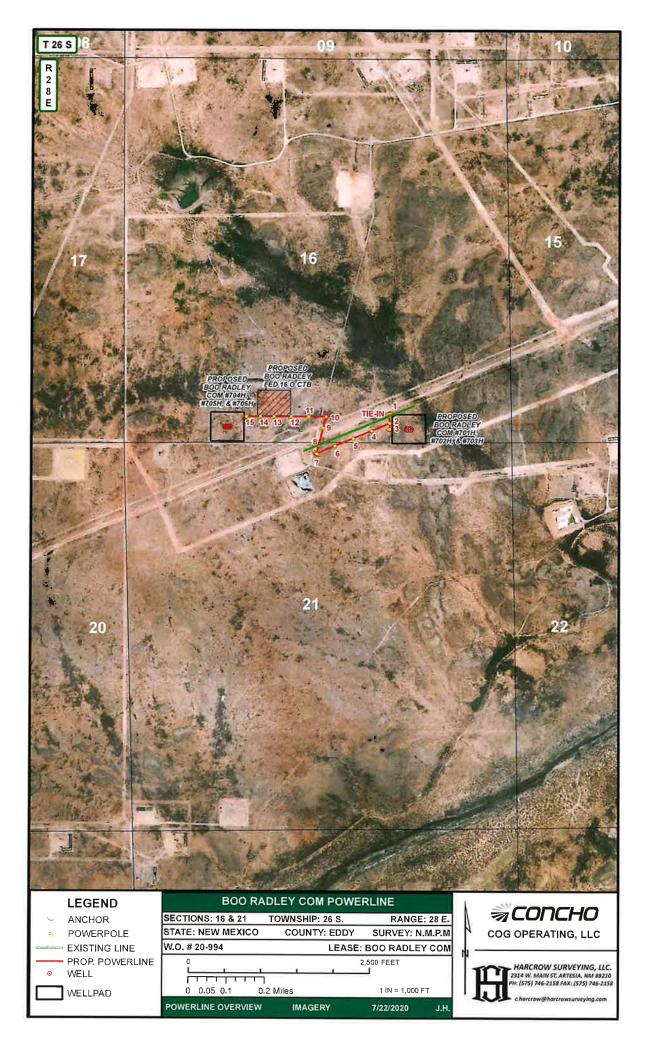


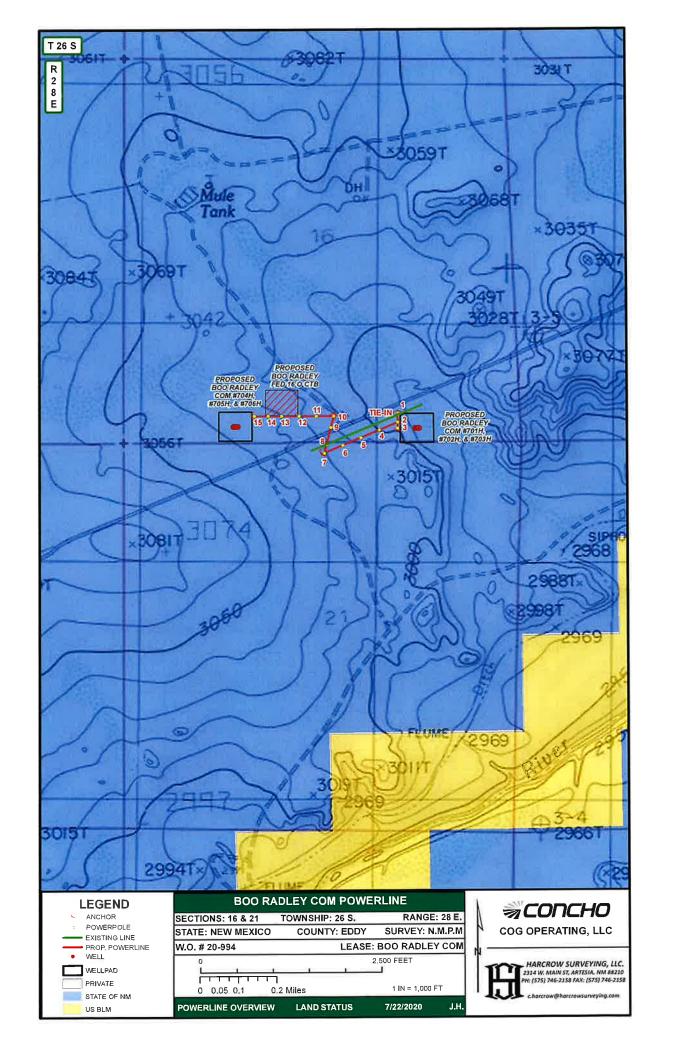
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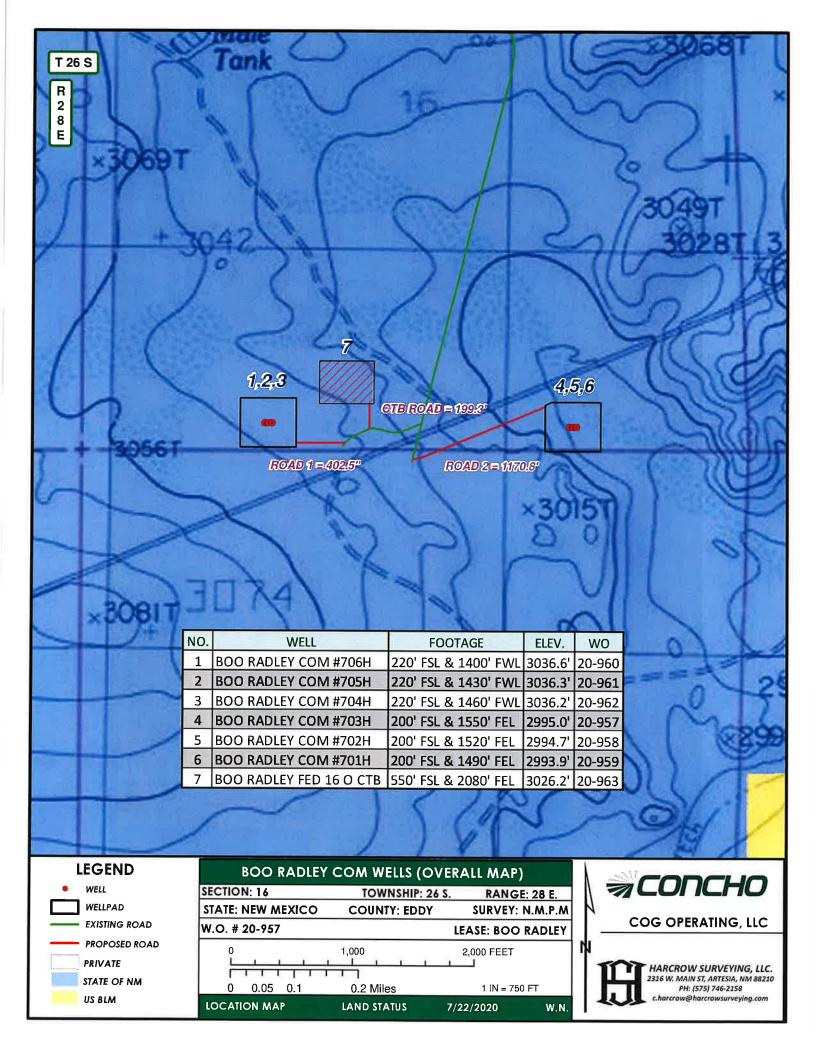
COG OPERATING, LLC.

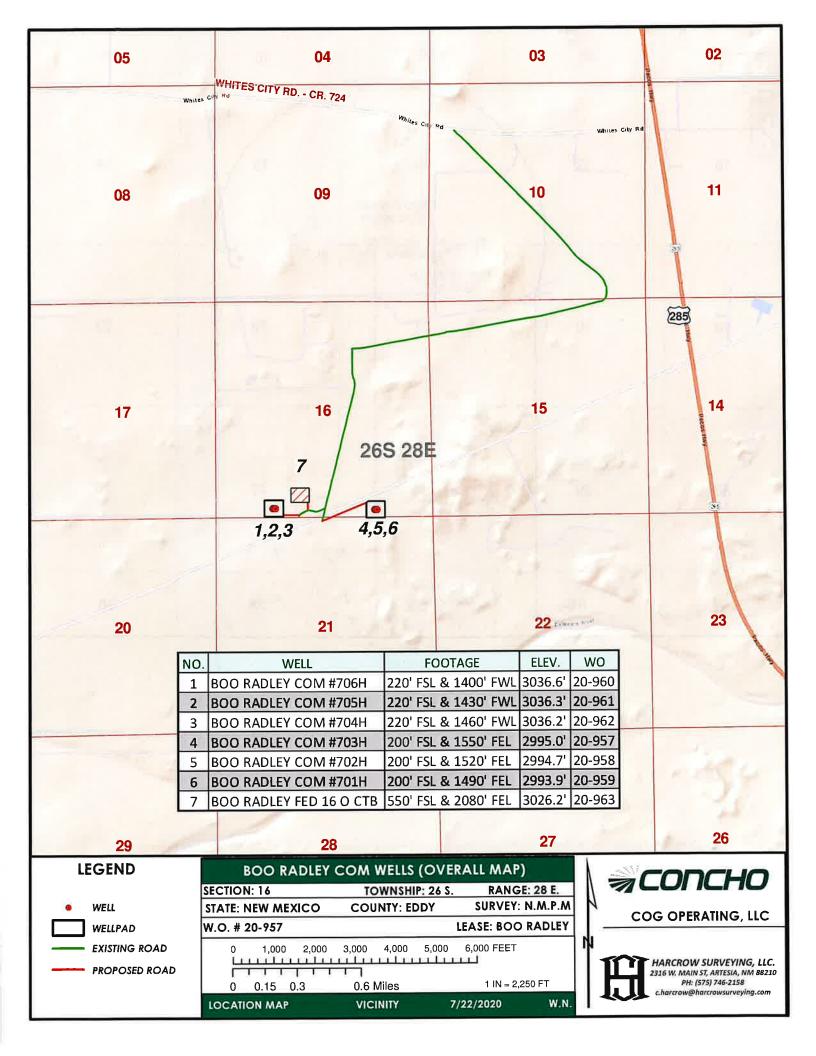
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

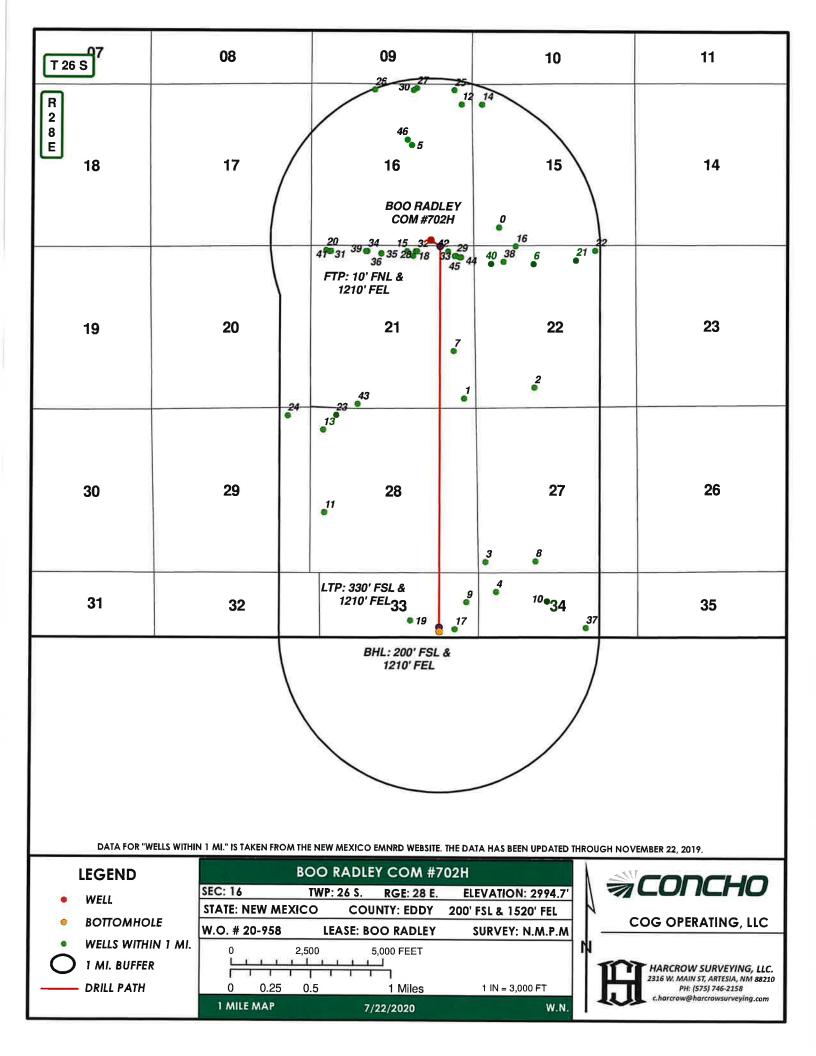
SURVEY DATE: JU	JLY 17, 2020	POWERLINE #2
DRAFTING DATE: J	ULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: JH	FILE: 20-994











FID WELL NAINE	OPERATOR	API SEC	SECTION TOWNSHIP RANGE FTG NS INS	RANGE	FTG_NS NS_CD	CD FTG EW EW CD	LATITUDE	CD LATITUDE LONGITUDE COMPL STAT
0 STATE OF NM "B" 001	SUN OIL CO	3001502527	15 26.05	28E	8 009	860 W	32.036889	
1 HUMBLE STATE 001	GLENN BENNETT	3001502530	21 26.05	28E	330 S	330 E	32.021524	-104.084662 Plugged
2 HUMBLE FOWLKES 001	BENNETTJ	3001502531	22 26.05	28E	9 299	1980 W	32.022515	-104.077183 Plugged
3 SUN ST 27 001	CHAPMAN FORD	3001502534	27 26.05	38E	330 S	330 W	32.006824	-104.082376 Plugged
4 STATE 34 001	CHAPMAN FORD	3001502536	34 26.05	28E	N 099	W 099	32.004115	-104.081203 Plugged
5 STATE LG 1175 001	JAKE L HAMON	3001521398	16 26.05	28E	1980 N	1980 E	32.044302	-104.090314 Plugged
6 AMINOIL ST 001	HARWICK OIL CO	3001524358	22 26.05	28E	N 065	1980 W	32.033636	-104.077313 Plugged
7 GETTY STATE 001	RAY H HASKINS	3001524474	21 26.05	28E	1880 S	9 099	32.025777	
8 STATE 001	CHAPMAN FORD	3001510269	27 26.05	28E	330 S	1980 W	32.006879	-104.077027 Plugged
9 POGO ST 001	SLEDGE OIL & GAS INC	3001523607	33 26.05	28E	N 066	330 E	32.003178	-104.084369 Plugged
10 AMINOIL ST 001	CALLAWAY OIL; GAS	3001524042	34 26.05	38E	N 066	2310 W	32.003263	-104.075804 Plugged
11 ALL STATE COM 002H	MARBOB ENERGY CORP	3001537499	28 26.05	28E	1980 S	330 W	32.011235	-104.099544 Unknown
12 SRO STATE UNIT COM 105H	MARBOB ENERGY CORP	3001537424	16 26.05	28E	N 099	330 E	32.047903	-104.085018 Plugged
13 ALL STATE COM 001H	MARBOB ENERGY CORP	3001537498	28 26.05	28E	N 099	330 W	32.018698	-104.099698 Unknown
14 SRO STATE UNIT COM 107H	MARBOB ENERGY CORP	3001537427	15 26.05	28E	N 099	330 W	32.047906	-104,082878 Unknown
15 SKEEN 21 B2BO STATE COM 001H	MEWBOURNE OIL CO	3001543247	21 26.05	28E	185 N	2180 E	32.034723	-104.090816 Unknown
16 DIAMONDBACK 22 STATE COM 004H	COG PRODUCTION, LLC	3001540816	22 26.05	28E	20 N	1393 W	32.035193	-104.079235 Unknown
17 GRAHAM NASH STATE COM 005H	COG OPERATING LLC	3001542453	33 26.05	38E	280 S	760 E	32.000751	-104.085613 Unknown
18 SKEEN 21 STATE COM 002H	MEWBOURNE OIL CO	3001539773	21 26.05	28E	330 N	1980 E	32.034324	-104.090162 Unknown
19 GRAHAM NASH STATE COM 006H	COG OPERATING LLC	3001542464	33 26.05	28E	260 S	2200 E	32.001511	-104.090348 Unknown
20 SKEEN 21 DM STATE 001	MEWBOURNE OIL CO	3001540863	21 26.05	28E	150 N	S00 W	32.034828	-104.099418 Unknown
21 DIAMONDBACK 22 STATE COM 001H	OGX RESOURCES, LLC	3001538528	22 26.05	28E	480 N	1960 E	32.033962	-104.072811 Unknown
22 DIAMONDBACK 22 STATE COM 011H	COG PRODUCTION, LLC	3001543465	22 26.05	28E	125 N	1365 E	32.034811	-104.070726 Unknown
23 GRAHAM NASH STATE COM 008H	COG OPERATING LLC	3001542203	28 26.05	28E	190 N	760 W	32,019999	-104.09833 Unknown
24 HONEY GRAHAM STATE COM 005H	COG OPERATING LLC	3001541608	29 26.05	28E	N 061	820 E	32.019969	-104.103453 Unknown
25 SRO STATE UNIT 053H	COG OPERATING LLC	3001541532	16 26.05	28E	190 N	260 E	32.049199	-104.085784 Unknown
26 GRAHAM CRACKER 16 STATE 002H	COG OPERATING LLC	3001541533	16 26.05	28E	190 N	2080 W	32.049243	-104.094295 Unknown
27 GRAHAM CRACKER 16 STATE 007H	COG OPERATING LLC	3001542332	16 26.05	28E	135 N	1810 E	32.049371	-104.089841 Unknown
28 SKEEN 21 D3BO STATE COM 003H	MEWBOURNE OIL CO	3001542811	21 26.05	28E	185 N	1900 E	32.034722	-104.089908 Unknown
29 SKEEN 21 B3AP STATE COM 001H	MEWBOURNE OIL CO	3001542810	21 26.05	28E	330 N	260 E	32.03432	-104.085558 Unknown
30 GRAHAM CRACKER 16 STATE 003H	COG OPERATING LLC	3001541633	16 26.05	28E	190 N	1910 E	32.049222	-104.090163 Unknown
31 SKEEN 21 B3DM STATE COM 002H	MEWBOURNE OIL CO	3001542855	21 26.05	28E	185 N	610 W	32.034731	-104.09906 Unknown
32 SKEEN 21 D3BO STATE COM 002H	MEWBOURNE OIL CO	3001542853	21 26.05	28E	185 N	1850 E	32.034/22	-104.089/46 Unknown
33 SKEEN 21 D3AP STATE COM 002H	MEWBOURNE OIL CO	3001542856	21 26.05	28E	330 N	610 E	32.03432	-104.085/2 Unknown
34 SKEEN 21 B3CN STATE COM 001H	MEWBOURNE OIL CO	3001542854	21 26.05	78F	185 N	1850 W	32.034727	-104.095059 UIINIUWII
35 SKEEN 21 B2CN STATE 001H	MEWBOURNE OIL CO	3001542934	21 26.05	28E	266 N	2310 W	32.034503	-104.093543 URKNOWN
36 SKEEN 21 STATE 001H		3001537802	21 26.05	78F	N 057	7310 W	52,054547	
37 SKEEN 34 STATE 001H	CHESAPEAKE OPERATING, INC.	3001537805	34 26.05	28E	315 5	16/0 E	32.0008/4	-104.0/.1561. URKIOWII
38 DIAMONDBACK 22 STATE COM 006H	COG PRODUCTION, LLC	3001543195	22 26.05	78F	N 025	W 086	32.033612	-104:060328 UINIUWII
39 SKEEN 21 D3CN STATE COM 002H	MEWBOURNE OIL CO	3001542857	21 26.05	28E	185 N	T800 W	32.034/2/	
40 DIAMONDBACK 22 STATE COM 002H	OGX RESOURCES, LLC	3001539105	22 26.05	28E	280 N	W 084	32.03354	
41 SKEEN 21 D3DM STATE COM 003H	MEWBOURNE OIL CO	3001542812	21 26.05	28E	185 N	099 090 W	32.034/31	
42 SKEEN 21 B2AP STATE COM 001H	MEWBOURNE OIL CO	3001543246	21 26.05	28E	185 N	820 E	32.034719	
43 GRAHAM NASH FEDERAL COM 013H	COG OPERATING LLC	3001543811	21 26.05	28E	200 S	1550 W	32.021012	
44 SKEEN 21 WOAP STATE COM 002H	MEWBOURNE OIL CO	3001544553	21 26.05	28E	330 N	550 E	32.034186	
45 SKEEN 21 W2AP STATE COM 001H	MEWBOURNE OIL CO	3001544552	21 26.05	28E	330 N	900 E	32.034186	
46 SALT CEDAR 16 STATE SWD #001 001	COG OPERATING LLC	3001545826	16 265	28E	1850 N	2185 E	32.044/61	-104.090784 New (Not arilled of compt)

Inten	t _	As Dri	led											
API #	ŧ													
1	erator Na G OPE		Property Name: BOO RADLEY COM								Well Number 702H			
Kick (Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet		From I	N/S	Feet		From	ı E/W	County	
Latit	Latitude Longitude NAD													
First Take Point (FTP)														
UL A	Section 21	Township 26-S	Range 28-E	Lot	Feet 10		From NOR		Feet 1210	Feet Fro 1210 EA		E/W	County EDDY	
						Longitude -104.087256							NAD 83	
Last Take Point (LTP)														
UL	Section 33	Township 26-S	Range 28-E	Lot 4	Feet 330	1								
Latitude L						Longitude NAD -104.087253 83								
	s this well the defining well for the Horizontal Spacing Unit?													
Is this well an infill well?														
Spacir	l is yes plang Unit.	ease provi	de API if a	vailab	le, Oper	ator	Name a	and w	ell nu	mber	for D	efinin	g well fo	r Horizontal
API#														
Operator Name:						Property Name:							Well Number	

KZ 06/29/2018

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240 Phone: (675) 393-6161 Fax: (575) 393-0720

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

DISTRICT II 811 S. PIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 478-3480 Fax: (505) 478-3482 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name BOO RADLEY	
OGRID No.	Operator Name COG OPERATING	

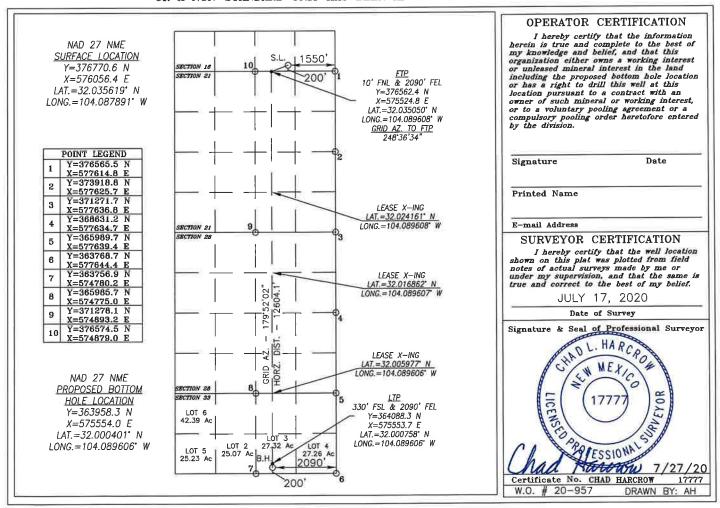
Surface Location

1	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	0	16	26-S	28-E		200	SOUTH	1550	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	33	26-S	28-E		200	SOUTH	2090	EAST	EDDY
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Ore	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 OIL CONSERVATION

State of New Mexico 1825 N. FRENCH DR., HOBBS, NM 88240 Energy, Minerals & Natural Resources Department DIVISION

1220 SOUTH ST. FRANCIS DR.

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

Santa Fe, New Mexico 87505

□ AMENDED REPORT

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

		ACREAGE DEDICATION PLAT	
API Number	Pool Code	Pool Name	
Property Code	Prop	erty Name	Well Number
	BOO RA	703H	
OGRID No.	COG OPE	Elevation 2995.0'	

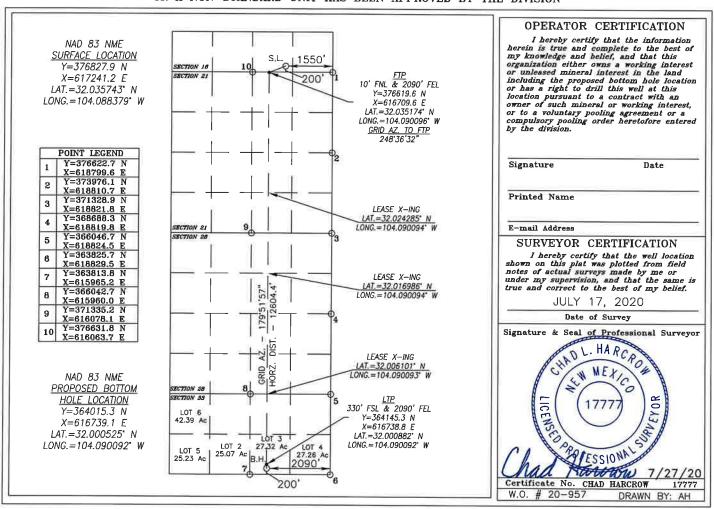
Surface Location

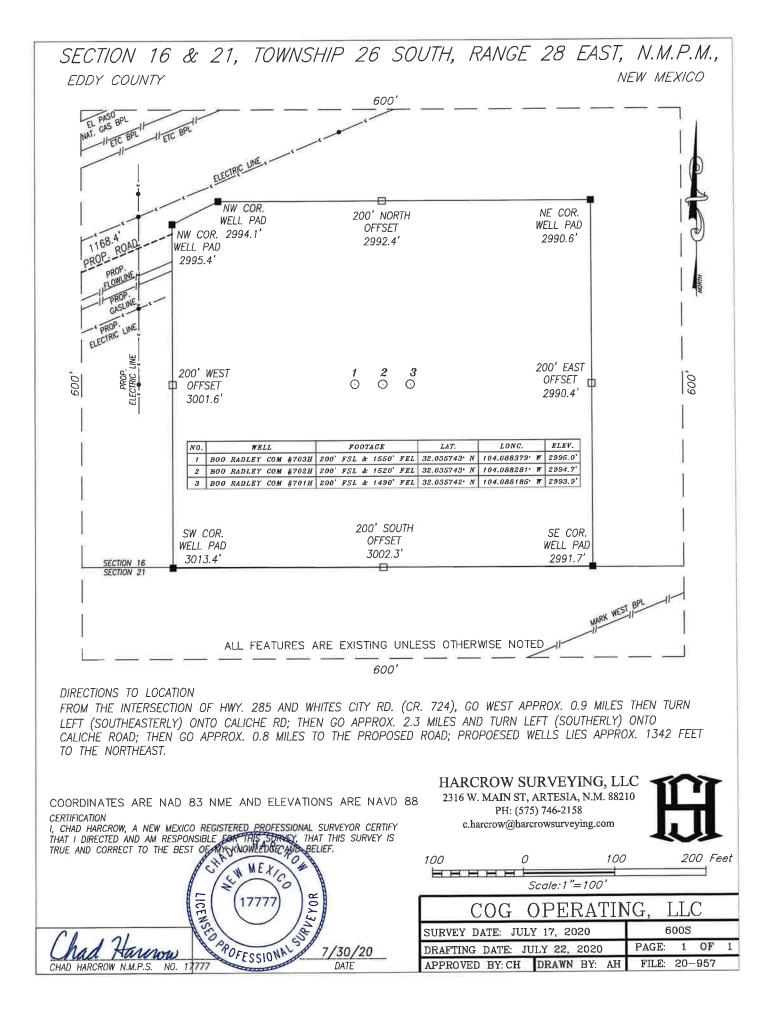
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	16	26-S	28-E		200	SOUTH	1550	EAST	EDDY

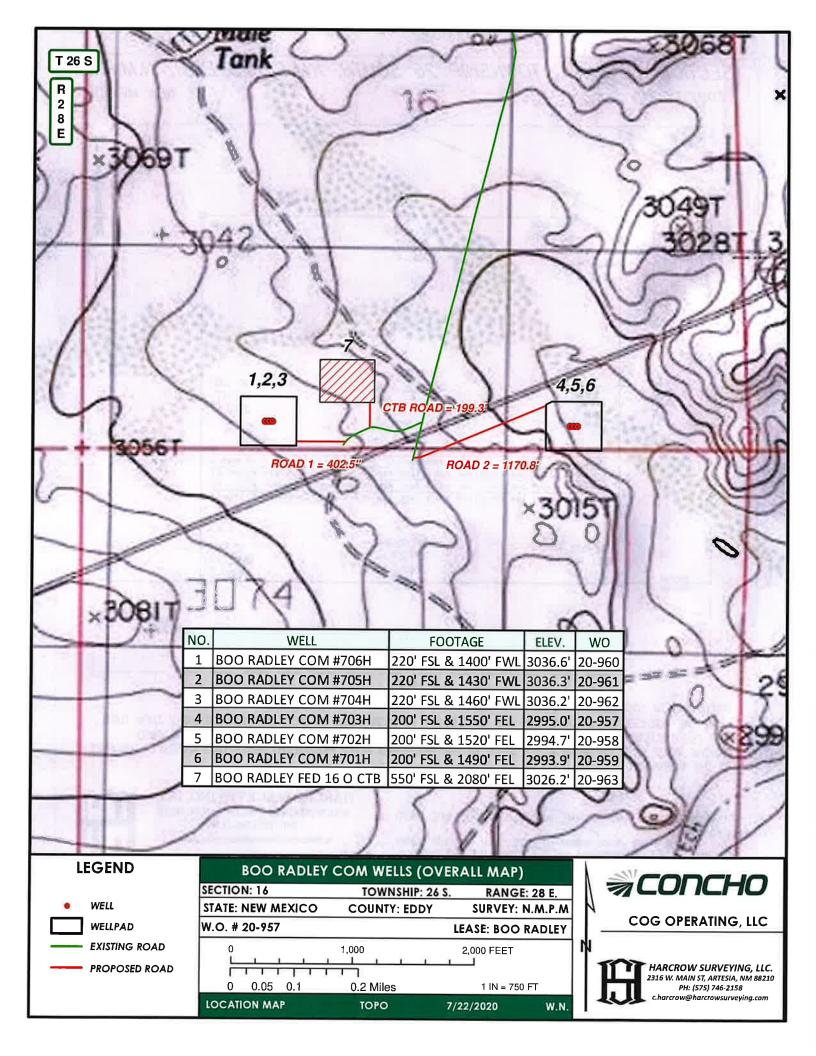
Bottom Hole Location If Different From Surface

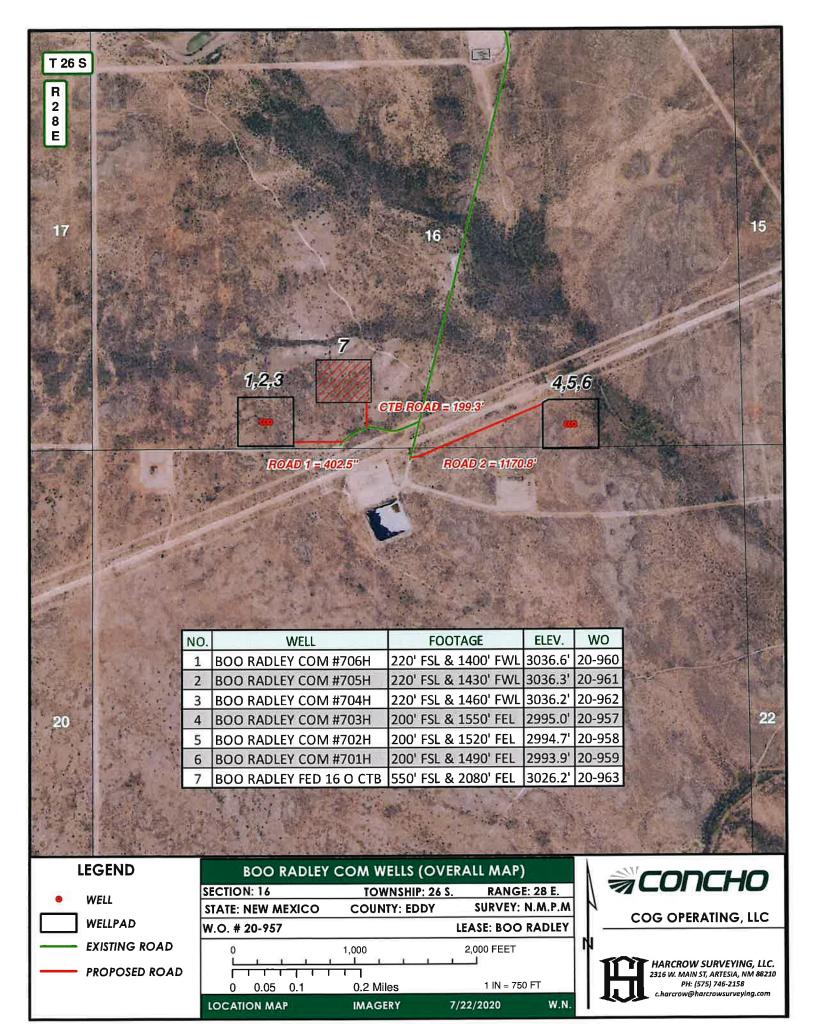
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	33	26-S	28-E		200	SOUTH	2090	EAST	EDDY
Dedicated Acres Joint or Infill Consolidation Code			Code Or	der No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



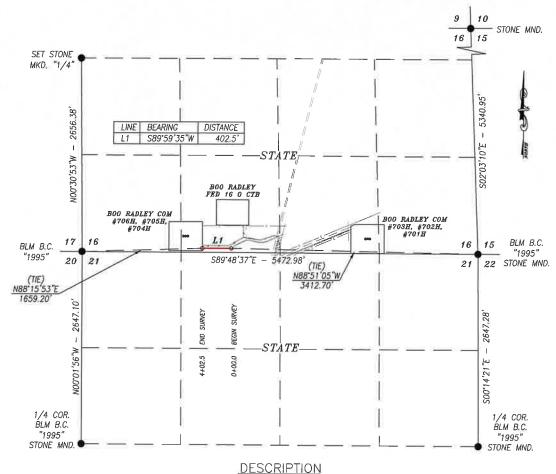






ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°51'05"W 3412.70 FEET FROM THE SOUTHEAST CORNER; THEN S89*59'35"W 402.5 FEET; TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°15'53"E 1659.20 FEET FROM THE SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 402.5 FEET OR 24.39 RODS IN LENGTH, CONTAINING 0.277 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

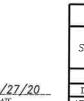
I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS AND L. HARCAD FOR SURVEYING IN NEW MEXICO.

Harrow

CHAD HARCROW N.M.P.S. NO. 17777

EN MEXIC

POLESSIDNE



DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



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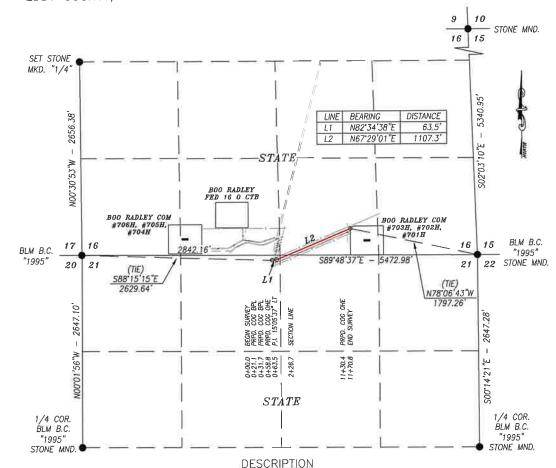
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #1
DRAFTING DATE:	JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995

ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE NE/4 NW/4 OF SECTION 21, WHICH LIES S88'15'15"E 2629.64 FEET FROM THE NORTHWEST CORNER OF SECTION 21; THEN N82'34'38"E 63.5 FEET; THEN N67'29'01"E 1107.3 FEET; TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N78'06'43"W 1797.26 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1170.8 FEET OR 70.96 RODS IN LENGTH, CONTAINING 0.806 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

<u>SECTION 16</u> SW/4 SE/4 57.22 RODS OR 0.650 ACRES

Harrow

NO. 17777

<u>SECTION 21</u> NE/4 NW/4 6.81 RODS OR 0.077 ACRES NW/4 NE/4 6.93 RODS OR 0.079 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

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DATE

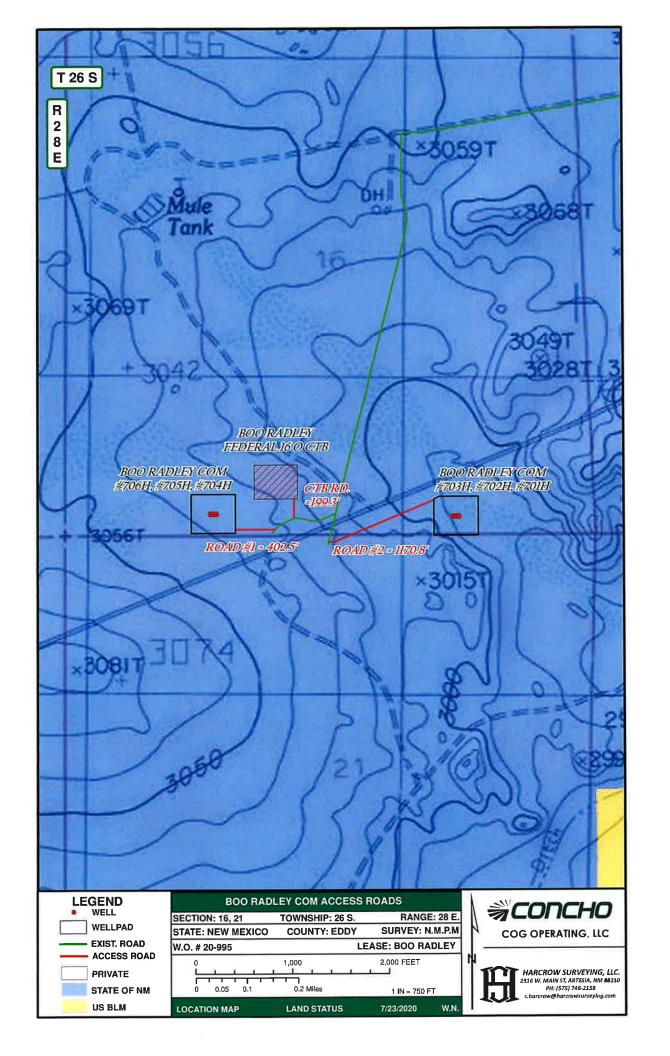
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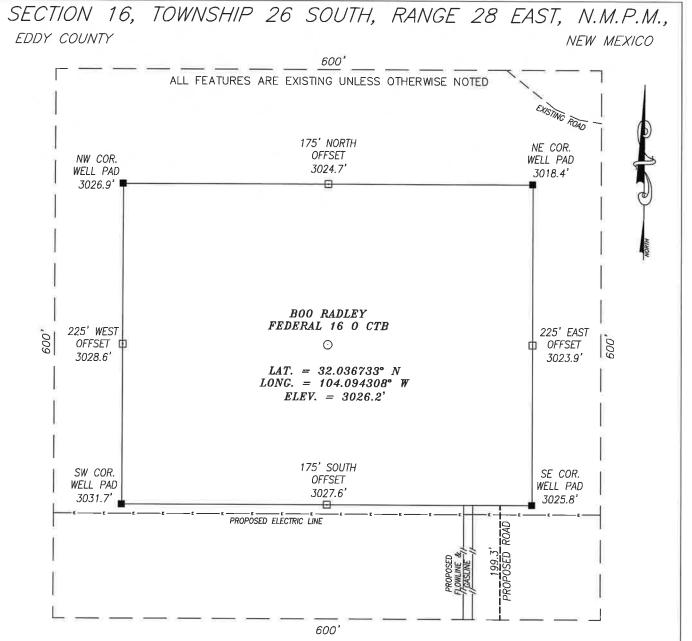
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #2
DRAFTING DATE: 3	OS02 ,23 YJUI	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995







DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HWY. 285 AND WHITES CITY RD. (CR. 724), GO WEST APPROX. 0.9 MILES THEN TURN LEFT (SOUTHEASTERLY) ONTO CALICHE RD; THEN GO APPROX. 2.3 MILES AND TURN LEFT (SOUTHERLY); THEN GO APPROX. 0.7 MILES; TURN RIGHT AND GO APPROX. 0.1 MILES TO THE PROPOSED ROAD. PROPOSED PAD LIES APPROX. 420 FEET TO THE NORTHWEST.

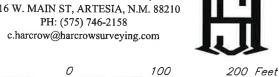
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CERTIFICATION



HARCROW SURVEYING, LLC

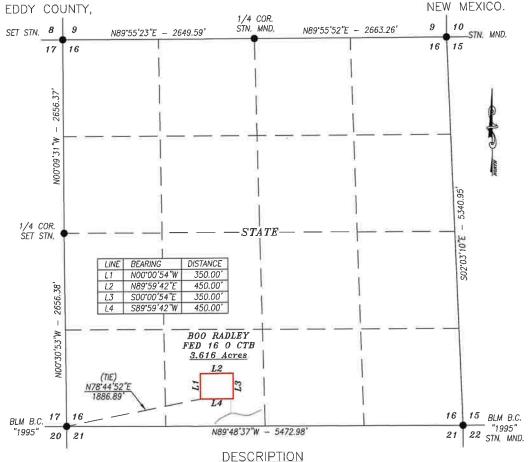
2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158



Scale: 1 = 100							
COG OPERATING, LLC							
SURVEY DATE: JULY 17, 2020	600S						
DRAFTING DATE: JULY 22, 2020	PAGE: 1 OF 1						
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963						

STATE BUSINESS LEASE COG OPERATING, LLC.

A STATE BUSINESS LEASE FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,



A PROPOSED PAD LOCATED WITHIN STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE PROPOSED PAD, WHICH LIES N78*44'52"E 1886.89 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN N00°00'54"W 350.00 FEET; THEN N89*59'42"E 450.00 FEET; THEN S00°00'54"W 350.00 FEET; THEN S89*59'42"W 450.00 FEET TO THE POINT OF BEGINNING.

SAID PAD CONTAINS 3.616 ACRES AND IS LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



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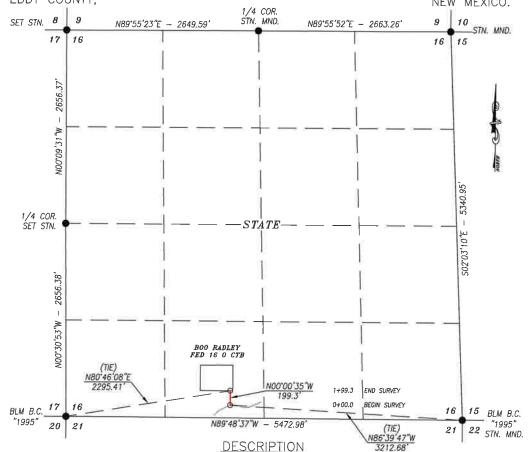
COG OPERATING, LLC

SURVEY OF A PROPOSED PAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	EXHIBIT A
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963

EXHIBIT B ACCESS ROAD PLAT COG OPERATING, LLC.

AN ACCESS ROAD FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86°39'47"W 3212.68 FEET FROM THE SOUTHEAST CORNER; THEN NOO'00'35"W 199.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N80°46'08"E 2295.41 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 199.3 FEET OR 12.08 RODS IN LENGTH, CONTAINING 0.137 ACRES MORE OR LESS AND BEING LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

1, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR
CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT
THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THIS SURVEY AND PLAT HEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveving.com

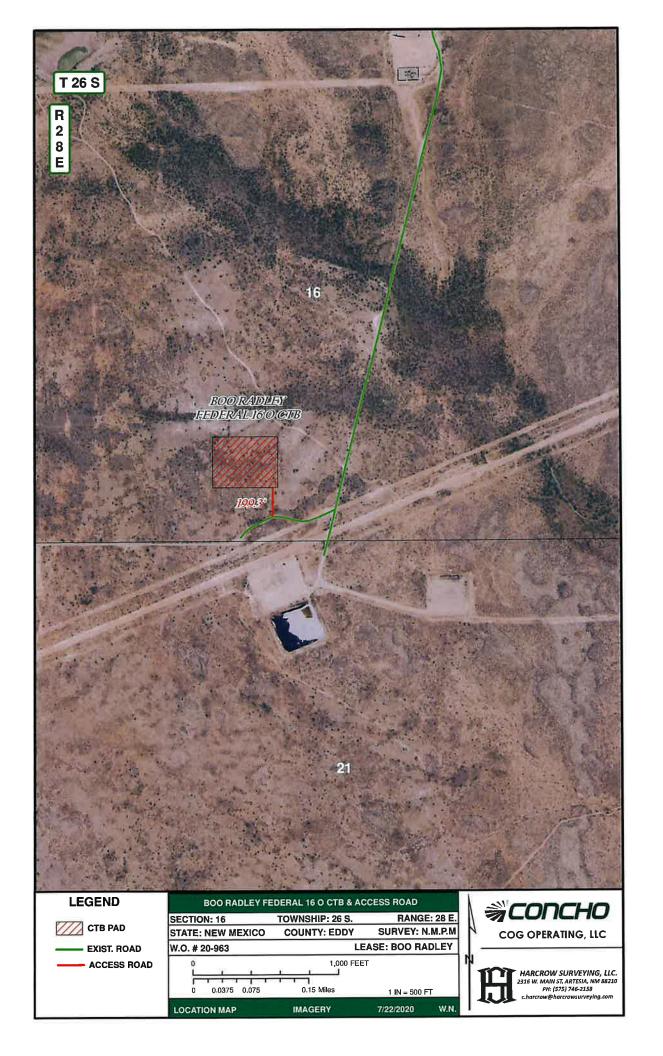


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COG OPERATING. LLC

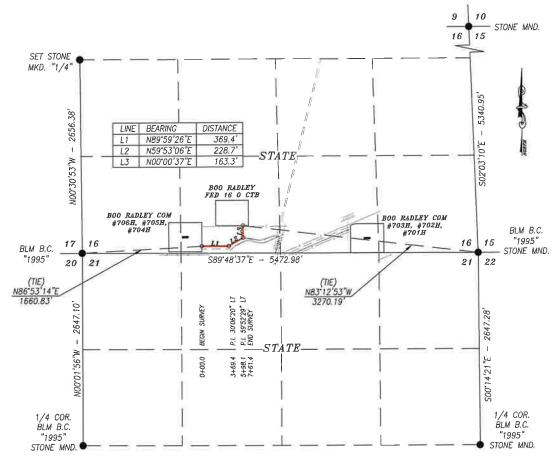
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	EXHIBIT B
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-963





A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86'53'14"E 1660.83 FEET FROM THE SOUTHWEST CORNER; THEN N89'59'26"E 369.4 FEET; THEN N59'53'06"E 228.7; THEN N00'00'37"E 163.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83'12'53"W 3270.19 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 761.4 FEET OR 46.15 RODS IN LENGTH, CONTAINING 0.524 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

d Harrow

CHAD HARCROW N.M.P.S. NO. 17777

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

W MEXIC

POFESSIONAL



07/28/20

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



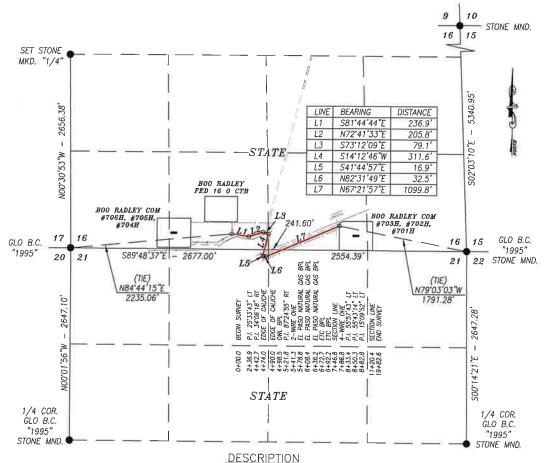
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	FLOWLINE #1
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-992

A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84°44'15"E 2235.06 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S81°44'44"E 236.9 FEET; THEN N72°41'33"E 205.8; THEN S73°12'09"E 79.1 FEET; THEN S14°12'46"W 311.6; THEN S41°44'57"E 16.9; THEN N82°31'49"E 32.5 FEET; THEN N67°21'57"E 1099.8 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79°03'03"W 1791.28 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.6 FEET OR 120.16 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

07/28/20

DATE

SECTION 16

SE/4 SW/4 45.08 RODS OR 0.512 ACRES SW/4 SE/4 52.42 RODS OR 0.595 ACRES

d Harrow

CHAD HARCROW N.M.P.S. NO. 17777

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

CH MEXIC

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SECTION 21

NE/4 NW/4 10.71 RODS OR 0.122 ACRES NW/4 NE/4 11.95 RODS OR 0.136 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



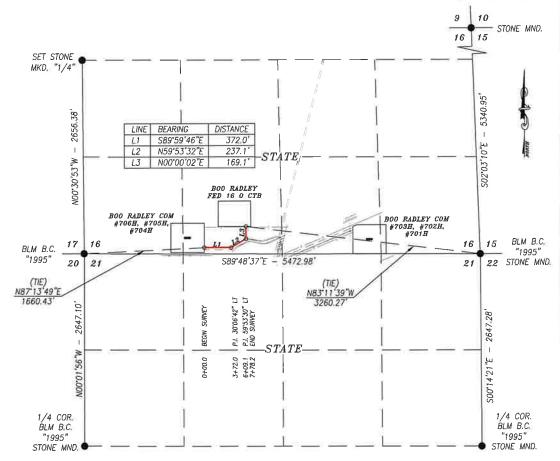
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 20, 2020	FLOWLINE #2
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-992

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N87"13"49"E 1660.43 FEET FROM THE SOUTHWEST CORNER; THEN S89'59'46"E 372.0 FEET; THEN N59'53'32"E 237.1; THEN N00'00'02"E 169.1 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83*11'39"W 3260.27 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 778.2 FEET OR 47.16 RODS IN LENGTH, CONTAINING 0.536 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEET THE MINIMUM STANDARDS



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



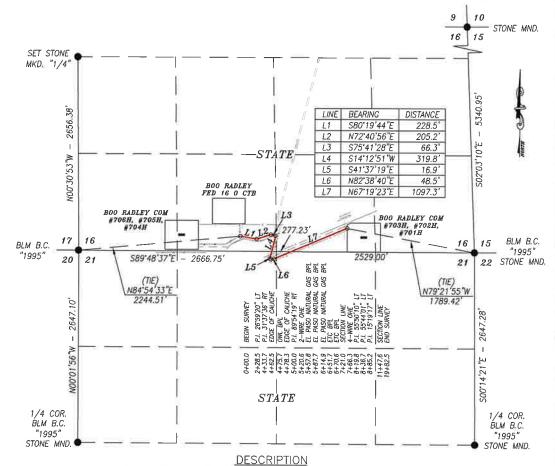
1000	0	1000	2000	FEET
888	SCALE:	1"=1000'		

COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #1
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-993

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84 $^{\circ}$ 54 $^{\circ}$ 33"E 2244.51 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S80 $^{\circ}$ 19'44"E 228.5 FEET; THEN N72 $^{\circ}$ 40'56"E 205.2; THEN S75 $^{\circ}$ 41'28"E 66.3 FEET; THEN S14 $^{\circ}$ 12'51"W 319.8; THEN S41 $^{\circ}$ 37'19"E 16.9; THEN N82 $^{\circ}$ 38'40"E 48.5 FEET; THEN N67 $^{\circ}$ 19'23"E 1097.3 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'212'55"W 1789.42 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.5 FEET OR 120.15 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SE/4 SW/4 43.70 RODS OR 0.497 ACRES SW/4 SE/4 50.59 RODS OR 0.574 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983, DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS

Chad Harrow N.M.P.S. NO. 177777

SECTION 21

NE/4 NW/4 12.25 RODS OR 0.139 ACRES NW/4 NE/4 13.61 RODS OR 0.155 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

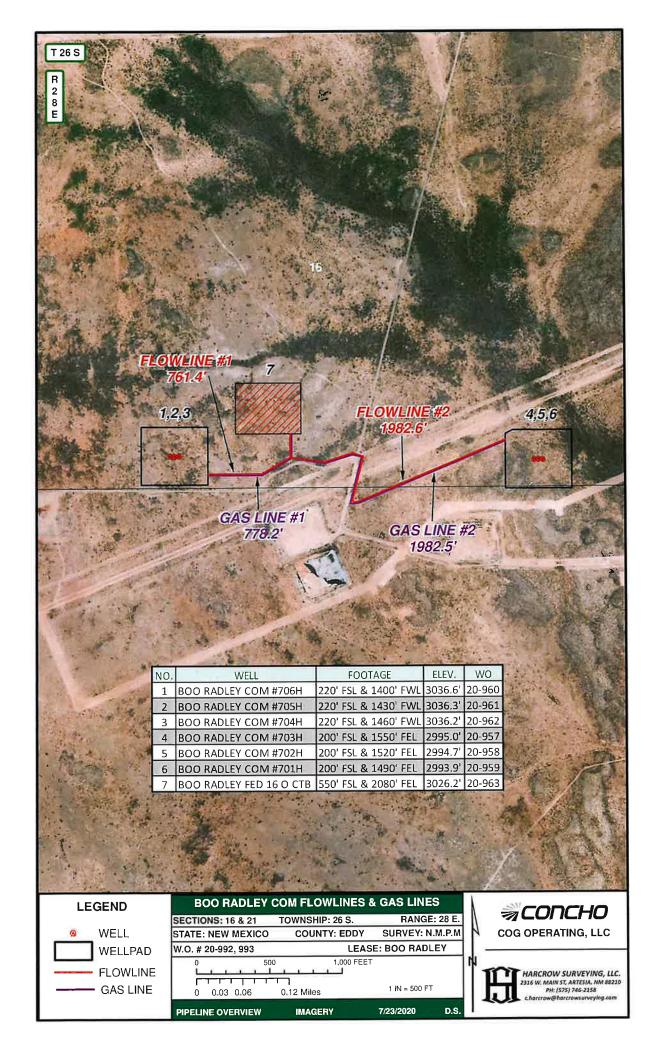


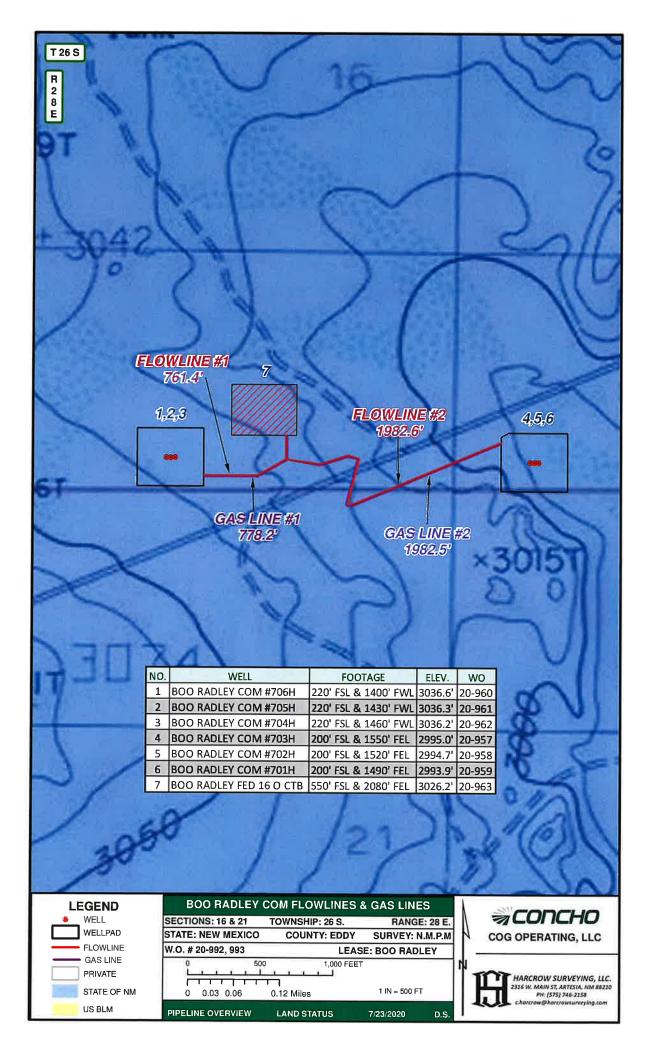
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HHHH	SCALE	1"=1000'			
	COAIII.	1 -1000			

COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #2
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-993

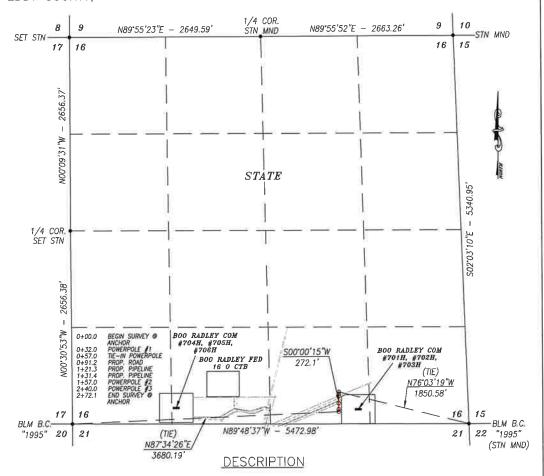




POWERLINE PLAT: LINE #1 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY;

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N76"03'19"W 1850.58 FEET FROM THE SOUTHEAST CORNER; THEN SOO"00'15"W 272.1 FEET, TO A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N87"34'26"E 3680.19 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 272.1 FEET OR 16.49 RODS IN LENGTH, CONTAINING 0.187 ACRES MORE OR LESS AND BEING LOCATED ENTIRELY IN THE SW/4 SE/4 OF SAID SECTION.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HER THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

c.harcrow@harcrowsurveying.com



1000	0	1000	2000 FEET
	SCALE:	1"=1000'	

COG OPERATING, LLC.

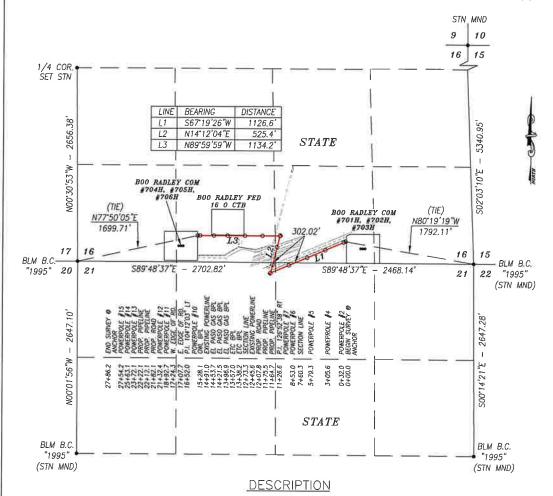
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	POWERLINE #1
DRAFTING DATE:	JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: JH	FILE: 20-994

POWERLINE PLAT: LINE #2 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY; WITH ANCHORS EXTENDING OUTSIDE THE CENTERLINE SURVEY 14 FEET SOUTHERLY AND WESTERLY AT POLE 7 AND 17.0 FEET NORTHERLY AND EASTERLY AT POLE 10; WHICH HAVE BEEN ACCOUNTED FOR IN FOOTAGES, RODS, AND ACRES

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES NB0'19'19'W 1792.11 FEET FROM THE SOUTHEAST CORNER OF SECTION 16; THEN S67'19'26"W 1126.6 FEET; THEN N14'12'04"E 525.4 FEET; THEN NB9'59'59'W 1134.2 FEET, TO A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N77'50'05"E 1699.71 FEET FROM THE SOUTHWEST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 2848.2 FEET OR 172.62 RODS IN LENGTH, CONTAINING 1.962 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16 SW/4 SE/4

67.53 RODS OR 0.767 ACRES 72.30 RODS OR 0.822 ACRES SE/4 SW/4

SECTION 21 NW/4 NE/4 NE/4 NW/4

17.61 RODS OR 0.200 ACRES 15.18 RODS OR 0.173 ACRES

27/20

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS L. HARCRO

LA MEXIC

POFESSIONA

FOR SURVEYING IN NEW MEXICO.

CHAD HARCROW N.M.P.S.

Harrow

1000



1000 2000 FEET SCALE: 1"=1000"

HARCROW SURVEYING, LLC

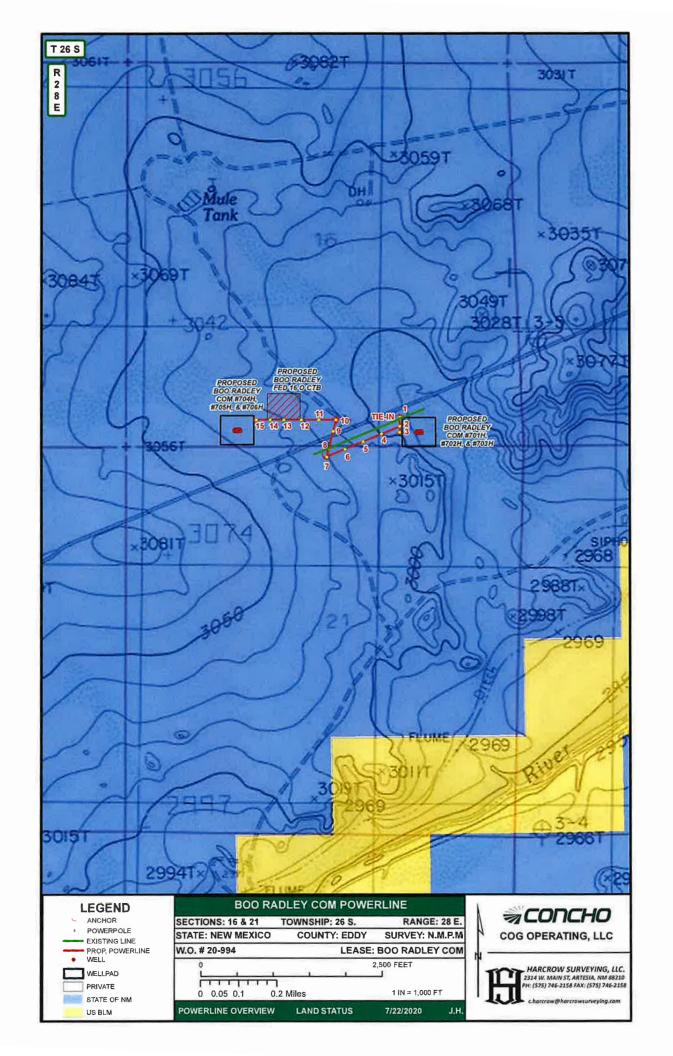
2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

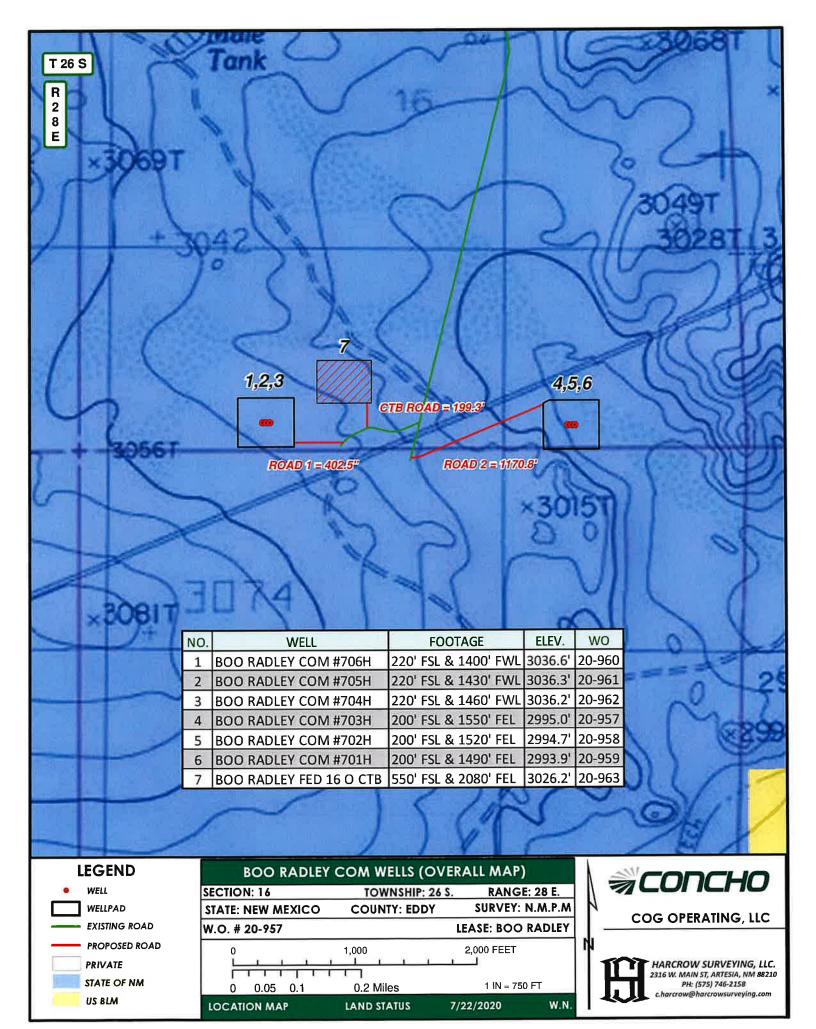
COG OPERATING, LLC.

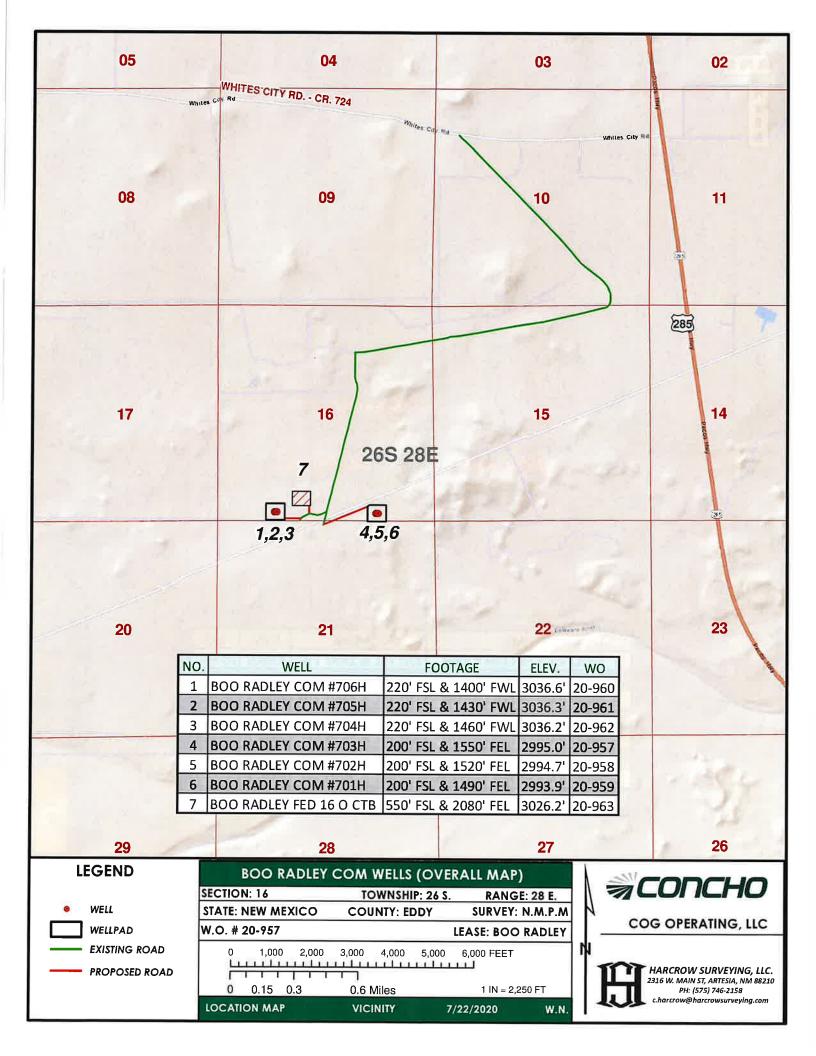
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

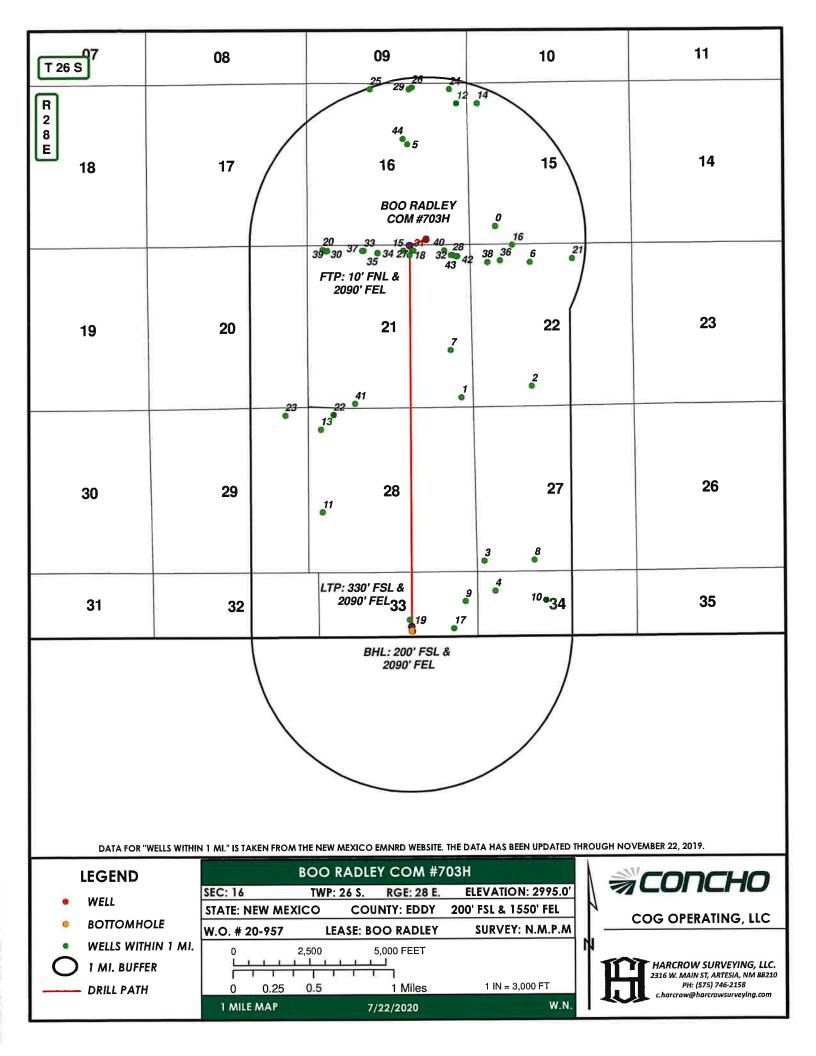
SURVEY DATE: J	ULY 17, 2020	POWERLINE #2
DRAFTING DATE:	JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: JH	FILE: 20-994











	OPERATOR	API SEC	SECTION TOWNSHIP RANGE FTG NS CD	RANGE	TG NS NS CD	FTG EW EW	CD LATITUDE LONGITUDE	LONGITUDE COMPL STAT	
	SUN OIL CO	3001502527	15 26.05	28E	600 S	860 W	32.036889		
	GLENN BENNETT	3001502530	21 26.05	28E	330 S	330 E	32.021524		
	BENNETT 3	3001502531	22 26.05	28E	9 2 9 9	1980 W	32.022515		
	CHAPMAN FORD	3001502534	27 26.05	28E	330 S	330 W	32.006824	-104.082376	
	CHAPMAN FORD	3001502536	34 26.05	28E	N 099	W 099	32.004115		
	JAKE L HAMON	3001521398	16 26.05	28E	1980 N	1980 E	32,044302		
	HARWICK OIL CO	3001524358	22 26.05	28E	N 065	1980 W	32.033636		
	RAY H HASKINS	3001524474	21 26.05	28E	1880 S	9099	32.025777	-104.085782 Plugged	
	CHAPMAN FORD	3001510269	27 26.05	28E	330 S	1980 W	32.006879		
	SLEDGE OIL & GAS INC	3001523607	33 26.05	28E	N 066	330 E	32.003178	-104.084369	
	CALLAWAY OIL; GAS	3001524042	34 26.05	38E	N 066	2310 W	32.003263	-104.075804	
	MARBOB ENERGY CORP	3001537499	28 26.05	28E	1980 S	330 W	32.011235		
12 SRO STATE UNIT COM 105H	MARBOB ENERGY CORP	3001537424	16 26.05	28E	N 099	330 E	32.047903		
	MARBOB ENERGY CORP	3001537498	28 26.05	28E	N 099	330 W	32.018698		
14 SRO STATE UNIT COM 107H	MARBOB ENERGY CORP	3001537427	15 26.05	28E	N 099	330 W	32.047906		
15 SKEEN 21 B2BO STATE COM 001H	MEWBOURNE OIL CO	3001543247	21 26.05	28E	185 N	2180 E	32.034723		
16 DIAMONDBACK 22 STATE COM 004H	COG PRODUCTION, LLC	3001540816	22 26.05	28E	20 N	1393 W	32,035193	-104.079235 Unknown	
17 GRAHAM NASH STATE COM 005H	COG OPERATING LLC	3001542453	33 26.05	28E	280 5	760 E	32.000751	-104.085613 Unknown	
18 SKEEN 21 STATE COM 002H	MEWBOURNE OIL CO	3001539773	21 26.05	28E	330 N	1980 E	32.034324	-104.090162 Unknown	
19 GRAHAM NASH STATE COM 006H	COG OPERATING LLC	3001542464	33 26.05	28E	260 S	2200 E	32.001511	-104.090348 Unknown	
20 SKEEN 21 DM STATE 001	MEWBOURNE OIL CO	3001540863	21 26.05	28E	150 N	200 W	32.034828	-104.099418 Unknown	
21 DIAMONDBACK 22 STATE COM 001H	OGX RESOURCES, LLC	3001538528	22 26.05	38E	480 N	1960 E	32.033962	-104.072811 Unknown	
22 GRAHAM NASH STATE COM 008H	COG OPERATING LLC	3001542203	28 26.05	28E	190 N	W 097	32.019999	-104.09833 Unknown	
23 HONEY GRAHAM STATE COM 005H	COG OPERATING LLC	3001541608	29 26.05	28E	190 N	820 E	32.019969	1	
	COG OPERATING LLC	3001541532	16 26.05	28E	190 N	260 E	32.049199	-104.085784 Unknown	
25 GRAHAM CRACKER 16 STATE 002H	COG OPERATING LLC	3001541533	16 26.05	28E	190 N	2080 W	32.049243	-104.094295 Unknown	
26 GRAHAM CRACKER 16 STATE 007H	COG OPERATING LLC	3001542332	16 26.05	28E	135 N	1810 E	32.049371	-104.089841 Unknown	
27 SKEEN 21 D3BO STATE COM 003H	MEWBOURNE OIL CO	3001542811	21 26.05	28E	185 N	1900 E	32.034722	-104.089908 Unknown	
28 SKEEN 21 B3AP STATE COM 001H	MEWBOURNE OIL CO	3001542810	21 26.05	38E	330 N	260 E	32.03432	-104.085558 Unknown	
29 GRAHAM CRACKER 16 STATE 003H	COG OPERATING LLC	3001541633	16 26.05	28E	190 N	1910 E	32.049222	-104.090163 Unknown	
30 SKEEN 21 B3DM STATE COM 002H	MEWBOURNE OIL CO	3001542855	21 26.05	28E	185 N	610 W	32.034731	-104.09906 Unknown	
31 SKEEN 21 D3BO STATE COM 002H	MEWBOURNE OIL CO	3001542853	21 26.05	28E	185 N	1850 E	32.034722	-104.089746 Unknown	
32 SKEEN 21 D3AP STATE COM 002H	MEWBOURNE OIL CO	3001542856	21 26.05	28E	330 N	610 E	32.03432	-104.08572 Unknown	
33 SKEEN 21 B3CN STATE COM 001H	MEWBOURNE OIL CO	3001542854	21 26.05	28E	185 N	1850 W	32,034727	-104.095039 Unknown	
34 SKEEN 21 B2CN STATE 001H	MEWBOURNE OIL CO	3001542934	21 26.05	28E	266 N	2310 W	32.034503	-104.093543 Unknown	
	CHESAPEAKE OPERATING, INC.	3001537802	21 26.05	28E	250 N	2310 W	32.034547	-104.093544 Unknown	
36 DIAMONDBACK 22 STATE COM 006H	COG PRODUCTION, LLC	3001543195	22 26.05	28E	520 N	M 066	32.033812	-104.080526 Unknown	
37 SKEEN 21 D3CN STATE COM 002H	MEWBOURNE OIL CO	3001542857	21 26.05	28E	185 N	1800 W	32.034727	-104.095201 Unknown	
38 DIAMONDBACK 22 STATE COM 002H	OGX RESOURCES, LLC	3001539105	22 26.05	28E	280 N	580 W	32.03364	-104.081853 Unknown	
39 SKEEN 21 D3DM STATE COM 003H	MEWBOURNE OIL CO	3001542812	21 26.05	28E	185 N	W 099	32.034731	-104.098898 Unknown	
40 SKEEN 21 B2AP STATE COM 001H	MEWBOURNE OIL CO	3001543246	21 26.05	28E	185 N	820 E	32.034719	-104.086406 Unknown	
41 GRAHAM NASH FEDERAL COM 013H	COG OPERATING LLC	3001543811	21 26.05	38E	200 S	1550 W	32.021012	-104.096034 Unknown	
42 SKEEN 21 WOAP STATE COM 002H	MEWBOURNE OIL CO	3001544553	21 26.05	28E	330 N	250 E	32.034186	-104.085036 Unknown	
43 SKEEN 21 W2AP STATE COM 001H	MEWBOURNE OIL CO	3001544552	21 26.05	28E	330 N	600 E	32,034186	-104.085198 Unknown	
44 SALT CEDAR 16 STATE SWD #001 001	COG OPERATING LLC	3001545826	16 265	28E	1850 N	2185 E	32.044761	-104.090784 New (Not drilled or compl)	(Idmo

Intent		As Drill	led											
API#														
1	rator Nar G OPEF	ne: RATING,	LLC.				perty N O RAI			M				Well Number 702H
	Off Point													
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		From	E/W	County	
Latitu	ıde				Longitu	ide		•					NAD	
First	Take Poir	nt (FTP)												
UL A	Section 21	Township 26-S	Range 28-E	Lot	Feet 10		From NOR		Feet 121		From	i E/W	County EDDY	
Latitu	Latitude					Longitude						NAD 83		
Last T	ake Poin	t (LTP)												
UL	Section 33	Township 26-S	Range 28-E	Lot 4	Feet 330		om N/S OUTH	Feet 121		From		Coun		
Latitu					Longitu -104	ıde						NAD 83		
Is this	s well the	e defining v	vell for th	e Hori:	zontal S	pacir	ng Unitî	, [
Is this	well an	infill well?												
	ng Unit.	lease prov	ide API if	availal	ole, Ope	rator	⁻ Name	and v	well n	umbe	r for∣	Defini	ng well fo	or Horizontal
Ope	rator Na	me:				Pro	perty f	Name	;					Well Number

KZ 06/29/2018

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III 1000 RIO BRAZOS RD., AZTEC. NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DE., SANTA FE, NM 87505 Phone: (505) 476-3480 Fax: (505) 476-3462

State of New Mexico DISTRICT I
State of New Mexico
State of New Mexico
New Mexico
State of New Mexico
Natural Resources Department

State of New Mexico
Natural Resources Department OILCONSERVATION DIVISION

> 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Property Code Property Name Well Number BOO RADLEY COM 704H OGRID No. Operator Name Elevation COG OPERATING, LLC 3036.2

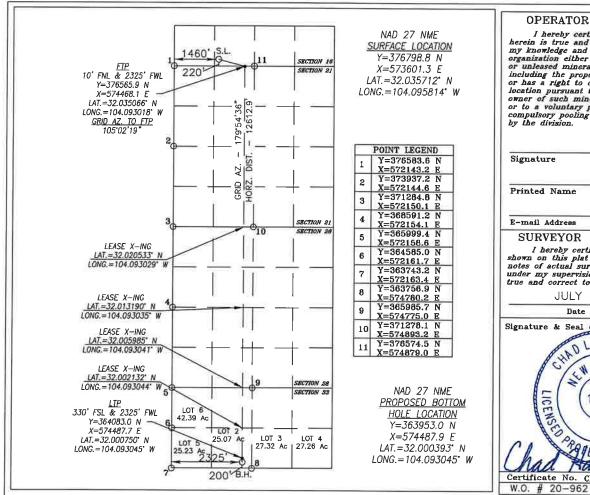
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	16	26-S	28-E		220	SOUTH	1460	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	33	26-S	28-E		200	SOUTH	2325	WEST	EDDY
Dedicated Acres	Joint o	r Infill Co	nsolidation (Code Ore	ler No.	''			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Date

Printed Name
E-mail Address
SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
JULY 17, 2020
Date of Survey

Signature & Seal of Professional Surveyor CHAOL. HARCRO WEXICO ALW OR PATESSIONA Harry 7/28/20

Certificate No. CHAD HARCROW 17777 DRAWN BY: AH

DISTRICT I

State of New Mexico 1825 N. FRENCH DR., E08BS, NM 88240 Energy, Minerals & Natural Resources Department DIVISION

OIL CONSERVATION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV

□ AMENDED REPORT

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

(au) (au) 770 alos 121 (au) 110 alos	WELL LOCATION AND ACREAGE DEDICATION PLAT	
API Number	Pool Code Pool Name	
Property Code	Property Name BOO RADLEY COM	Well Number 704H
OGRID No.	Operator Name COG OPERATING, LLC	Elevation 3036.2'

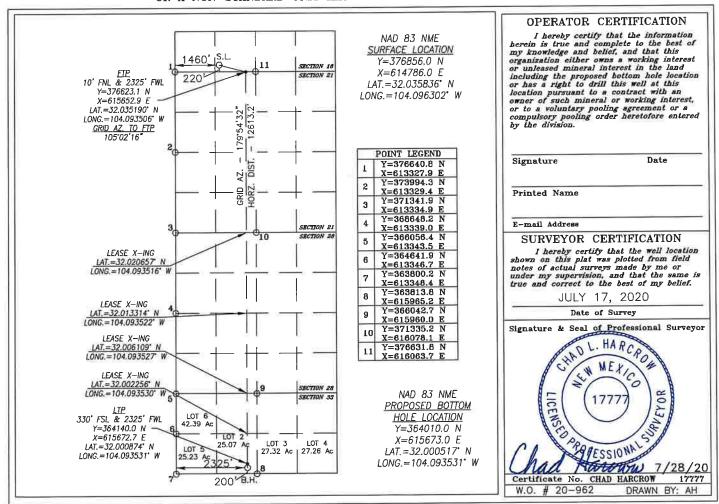
Surface Location

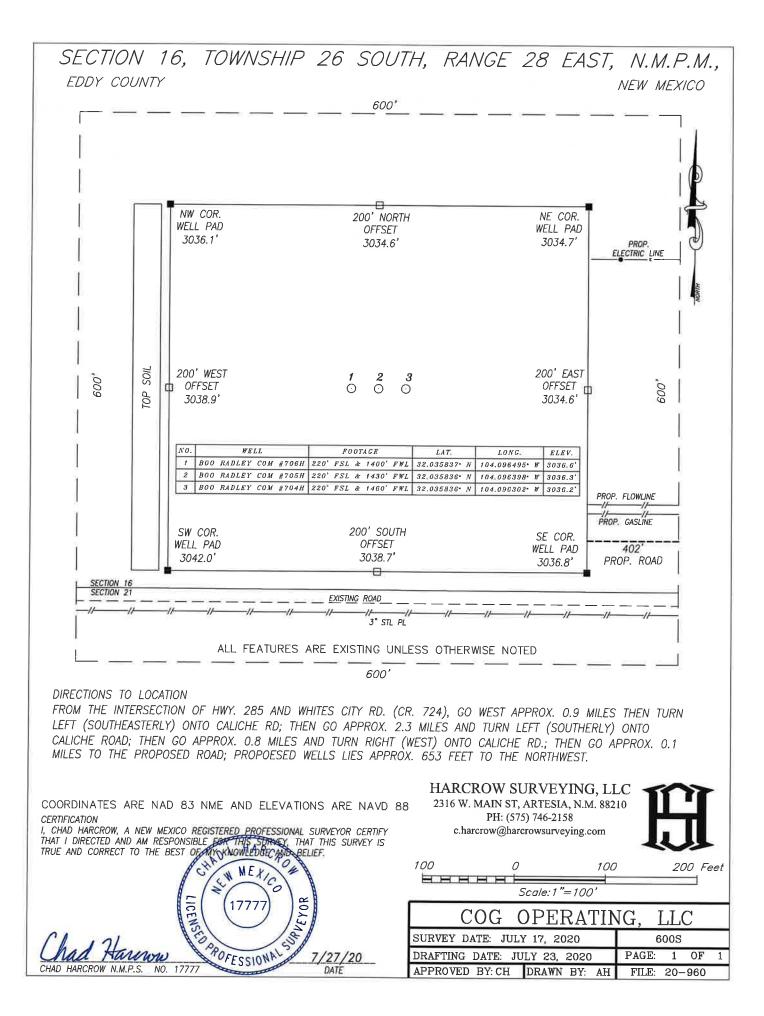
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	16	26-S	28-E		220	SOUTH	1460	WEST	EDDY

Bottom Hole Location If Different From Surface

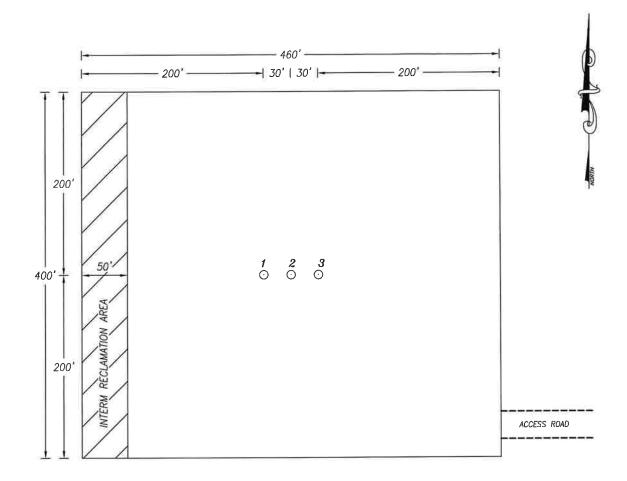
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	33	26-S	28-E		200	SOUTH	2325	WEST	EDDY
Dedicated Acres	Joint o	r Infill	Consolidation	Code Or	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





RECLAMATION AND FACILITY DIAGRAM — PRODUCTION FACILITIES DIAGRAM COG OPERATING, LLC SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



NO.	WELL	FOOTAGE	LAT.	LONG,	ELEV.
1	BOO RADLEY COM #706H	220' FSL & 1400' FWL	32.035837° N	104.096495° W	3036.6
2	BOO RADLEY COM #705h	220' FSL & 1430' FWL	32.035836° N	104.096398° W	3036.3
3	BOO RADLEY COM #704h	220' FSL & 1460' FWL	32.035836° N	104.096302° W	3036.2

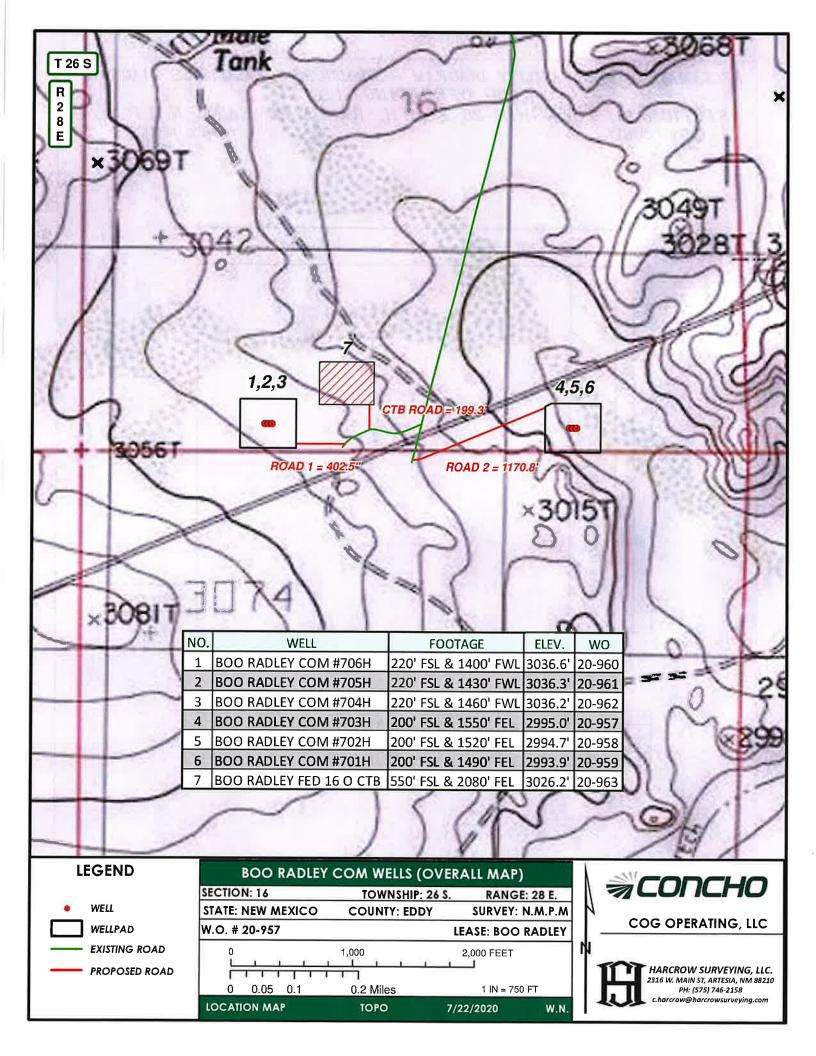
HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

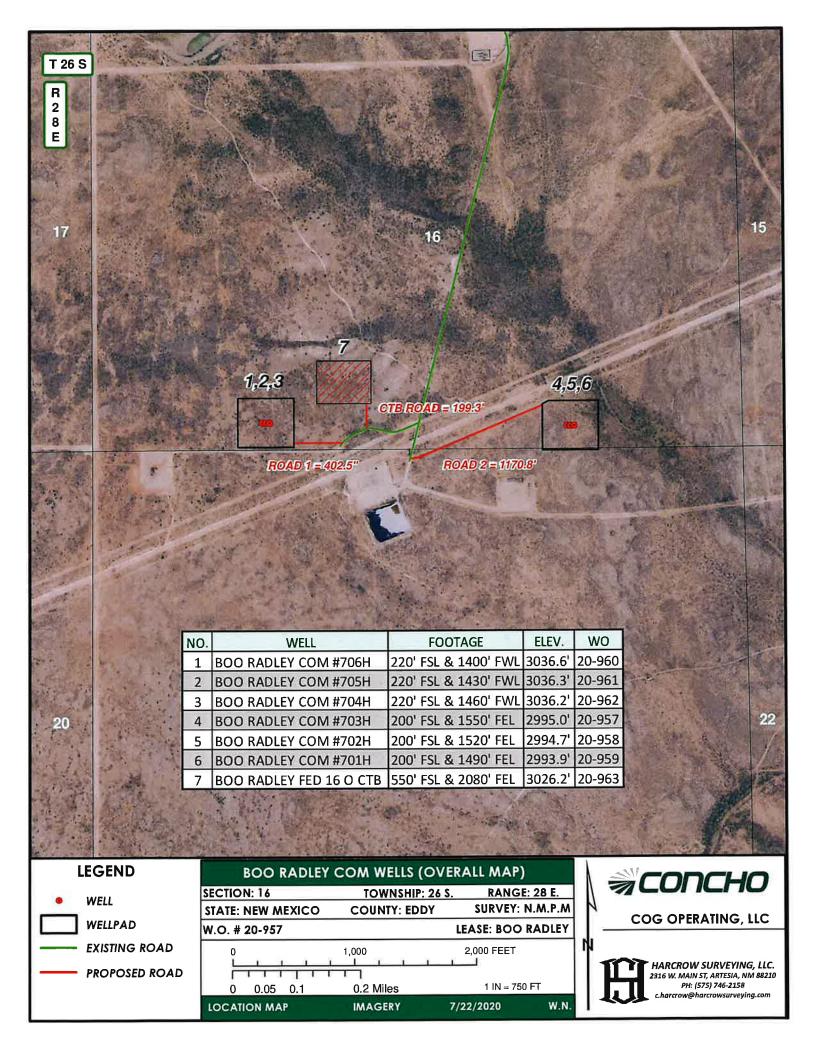
c.harcrow@harcrowsurveying.com



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HHHH	Scale:1	"=100°	

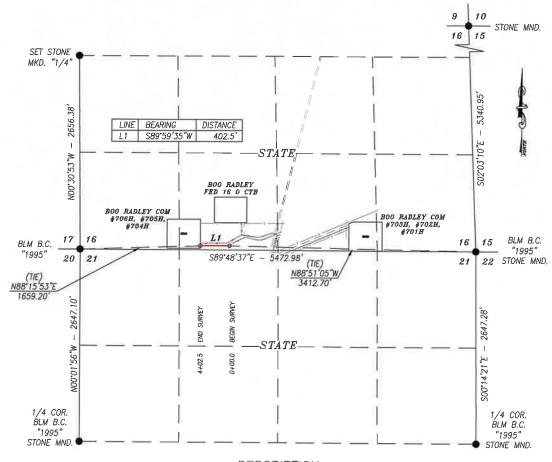
COG (OPERATI	NG, LLC					
SURVEY DATE: JULY 17, 2020 RECLAMATION							
DRAFTING DATE: JU	22 00,	PAGE: 1 OF 1					
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-960					





ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°51'05"W 3412.70 FEET FROM THE SOUTHEAST CORNER; THEN S89°59'35"W 402.5 FEET; TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°15'53"E 1659.20 FEET FROM THE SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 402.5 FEET OR 24.39 RODS IN LENGTH, CONTAINING 0.277 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



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SCALE: 1"=1000'

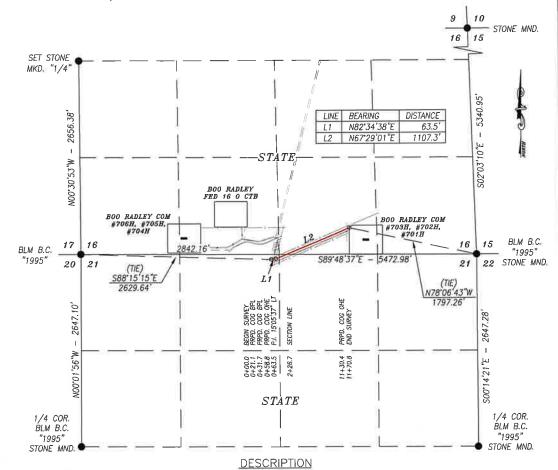
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #1
DRAFTING DATE:	JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995

ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE NE/4 NW/4 OF SECTION 21, WHICH LIES S88'15'15"E 2629.64 FEET FROM THE NORTHWEST CORNER OF SECTION 21; THEN NB2'34'38"E 63.5 FEET; THEN N67'29'01"E 1107.3 FEET; TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N78'06'43"W 1797.26 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1170.8 FEET OR 70.96 RODS IN LENGTH, CONTAINING 0.806 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

/27/20

DATE

<u>SECTION 16</u> SW/4 SE/4 57.22 RODS OR 0.650 ACRES

CHAD HARCROW N.M.P.S. NO. 17777

NE/4 NW/4 6.81 RODS OR 0.077 ACRES NW/4 NE/4 6.93 RODS OR 0.079 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c_harcrow@harcrowsurveying.com

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION
I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR
CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT
HIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THIS SURVEY AND PLAT HEET THE MINIMUM STANDARDS
FOR SURVEYING IN NEW MEXICO.

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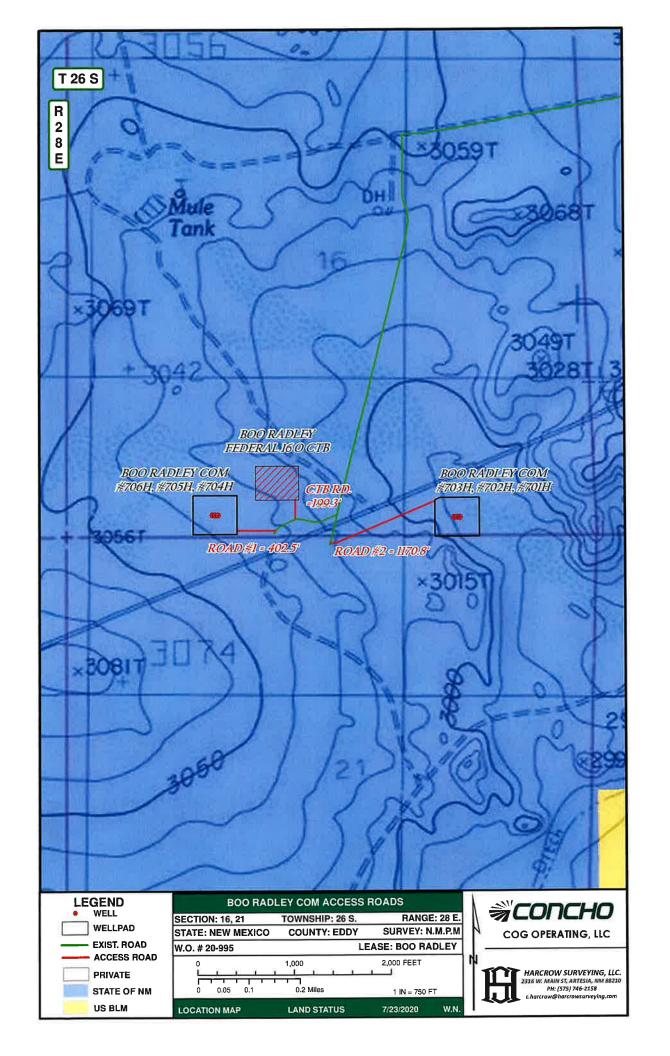
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COG OPERATING, LLC.

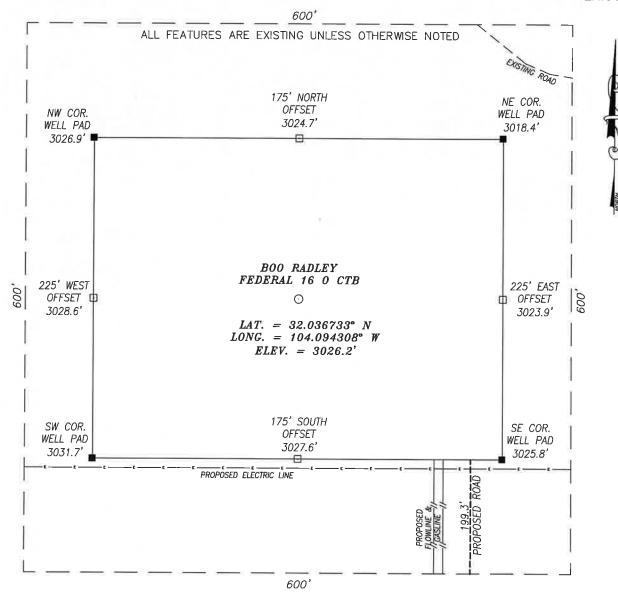
SURVEY OF A PROPOSED ROAD LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	ROAD #2
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-995





SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HWY. 285 AND WHITES CITY RD. (CR. 724), GO WEST APPROX. 0.9 MILES THEN TURN LEFT (SOUTHEASTERLY) ONTO CALICHE RD; THEN GO APPROX. 2.3 MILES AND TURN LEFT (SOUTHERLY); THEN GO APPROX. 0.7 MILES; TURN RIGHT AND GO APPROX. 0.1 MILES TO THE PROPOSED ROAD. PROPOSED PAD LIES APPROX. 420 FEET TO THE NORTHWEST.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY
THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY. THAT THIS SURVEY IS
TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

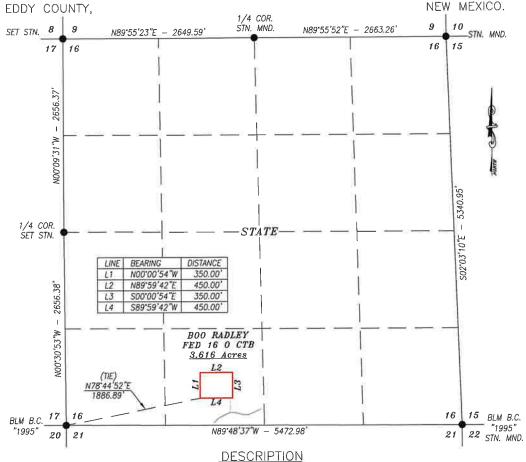


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COG OPERATING, LLC		
SURVEY DATE: JULY 17, 2020	600S	
DRAFTING DATE: JULY 22, 2020	PAGE: 1 OF 1	
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963	

EXHIBIT A STATE BUSINESS LEASE COG OPERATING, LLC.

A STATE BUSINESS LEASE FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,



A PROPOSED PAD LOCATED WITHIN STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE PROPOSED PAD, WHICH LIES N78"44"52"E 1886.89 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN NO0°00'54"W 350.00 FEET; THEN N89°59'42"E 450.00 FEET; THEN S00°00'54"W 350.00 FEET; THEN S89°59'42"W 450.00 FEET TO THE POINT OF BEGINNING.

SAID PAD CONTAINS 3.616 ACRES AND IS LOCATED ALL IN THE SE/4 SW/4.

BASIS OF REARING.

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

c.harcrow@harcrowsurveying.com



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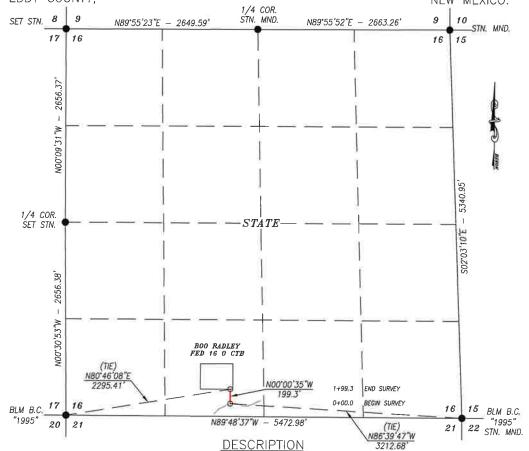
COG OPERATING, LLC

SURVEY OF A PROPOSED PAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY	7 17, 2020 EXHIBIT A
DRAFTING DATE: JUL	Y 22, 2020 PAGE 1 OF 1
APPROVED BY: CH DI	RAWN BY: WN FILE: 20-963

<u>EXHIBIT</u> B ACCESS ROAD PLAT COG OPERATING, LLC.

AN ACCESS ROAD FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86°39'47"W 3212.68 FEET FROM THE SOUTHEAST CORNER; THEN NOO'00'35"W 199.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N80°46'08"E 2295.41 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 199.3 FEET OR 12.08 RODS IN LENGTH, CONTAINING 0.137 ACRES MORE OR LESS AND BEING LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THIS SURVEY AND PLAT HER MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

AD L. HARCA POFESSIONAL /27/20 DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com

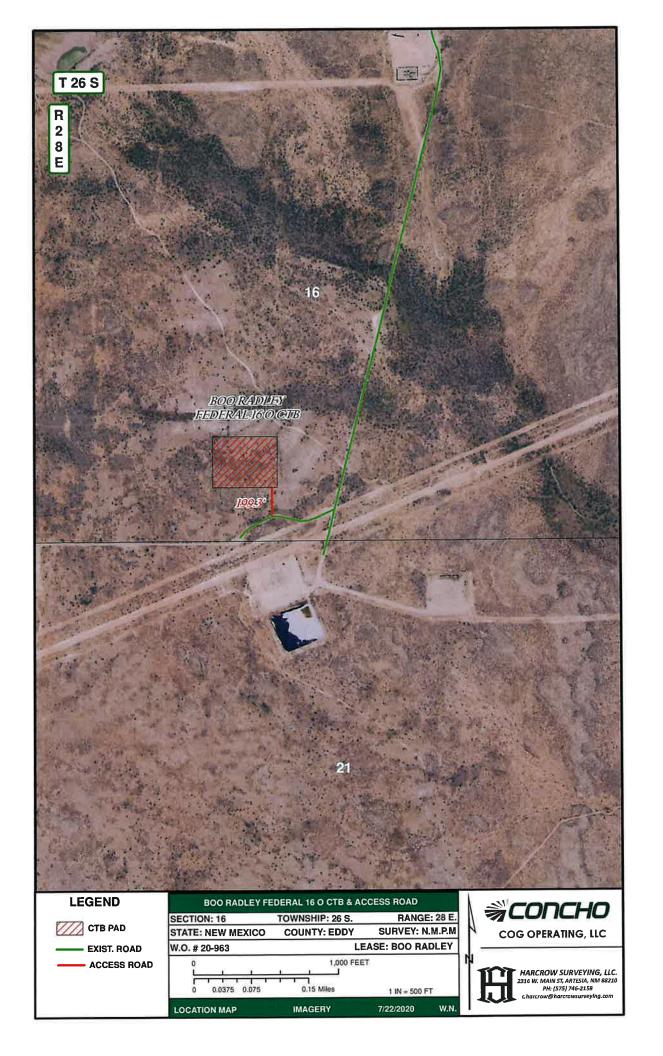


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COG OPERATING. LLC

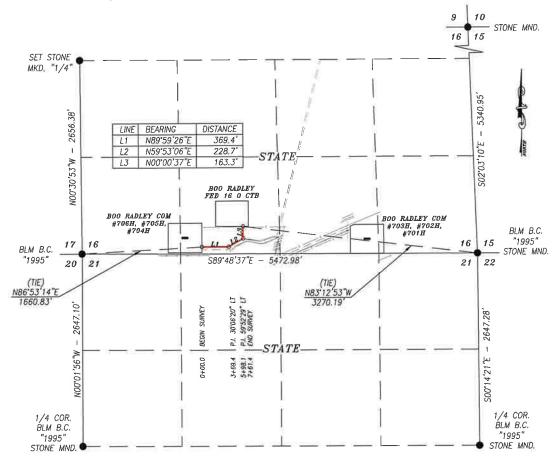
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE:	JULY 17, 2020	EXHIBIT B
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CI	I DRAWN BY: WN	FILE: 20-963





A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTION 16. TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86'53'14"E 1660.83 FEET FROM THE SOUTHWEST CORNER; THEN N89°59'26"E 369.4 FEET; THEN N59°53'06"E 228.7; THEN N00°00'37"E 163.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83°12'53"W 3270.19 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 761.4 FEET OR 46.15 RODS IN LENGTH, CONTAINING 0.524 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



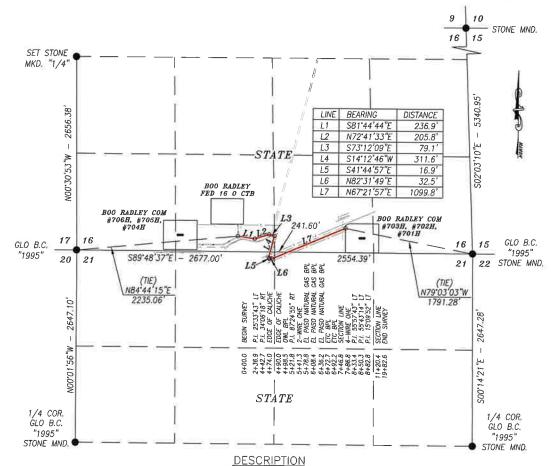
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	FLOWLINE #1
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-992

A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'44'15"E 2235.06 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S81'44'44"E 236.9 FEET; THEN N72'41'33"E 205.8; THEN S73'12'09"E 79.1 FEET; THEN S14'12'46"W 311.6; THEN S41'44'57"E 16.9; THEN N82'31'49"E 32.5 FEET; THEN N67'21'57"E 1099.8 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'03'03"W 1791.28 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.6 FEET OR 120.16 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

07/28/20

DATE

SECTION 16

SE/4 SW/4 45.08 RODS OR 0.512 ACRES SW/4 SE/4 52.42 RODS OR 0.595 ACRES

CHAD HARCROW N.M.P.S. NO. 17777

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983, DISTANCES ARE SURFACE VALUES.

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

W HEXIC

POFESSIONAL

SECTION 21

NE/4 NW/4 10.71 RODS OR 0.122 ACRES NW/4 NE/4 11.95 RODS OR 0.136 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



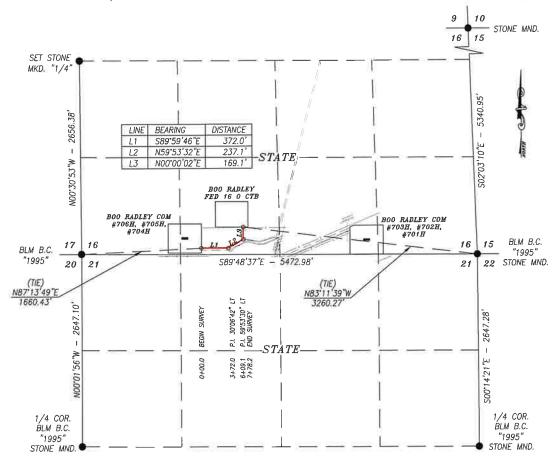
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 20, 2020	FLOWLINE #2
DRAFTING DATE: .	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-992

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N87'13'49"E 1660.43 FEET FROM THE SOUTHWEST CORNER; THEN S89'59'46"E 372.0 FEET; THEN N59'53'32"E 237.1; THEN N00'00'02"E 169.1 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83*11'39"W 3260.27 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 778.2 FEET OR 47.16 RODS IN LENGTH, CONTAINING 0.536 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

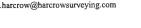
CERTIFICATION

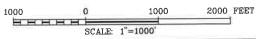
I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

HAD L. HARCAD W MEXIC POFESSIONAL 07/28/20 CHAD HARCROW N.M.P.S. NO. 17777 DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



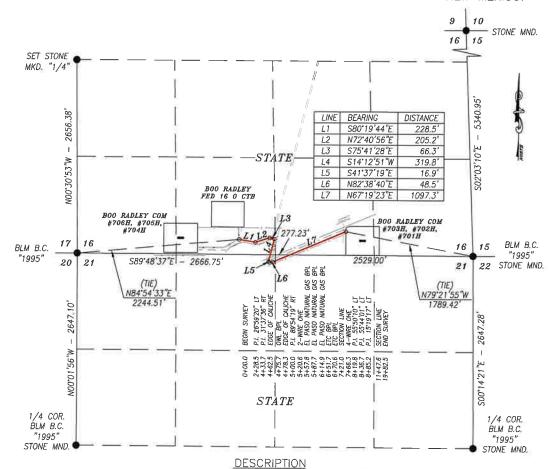


COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #1
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-993

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'54'33"E 2244.51 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S80'19'44"E 228.5 FEET; THEN N72'40'56"E 205.2; THEN S75'41'28"E 66.3 FEET; THEN \$14'12'51"W 319.8; THEN \$41'37'19"E 16.9; THEN \$82'38'40"E 48.5 FEET; THEN \$67'19'23"E 1097.3 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'212'55"W 1789.42 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.5 FEET OR 120.15 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SE/4 SW/4 43.70 RODS OR 0.497 ACRES SW/4 SE/4 50.59 RODS OR 0.574 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY. THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEFT THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. AD L. HARCA

NE/4 NW/4 12.25 RODS OR 0.139 ACRES NW/4 NE/4 13.61 RODS OR 0.155 ACRES

SECTION 21

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



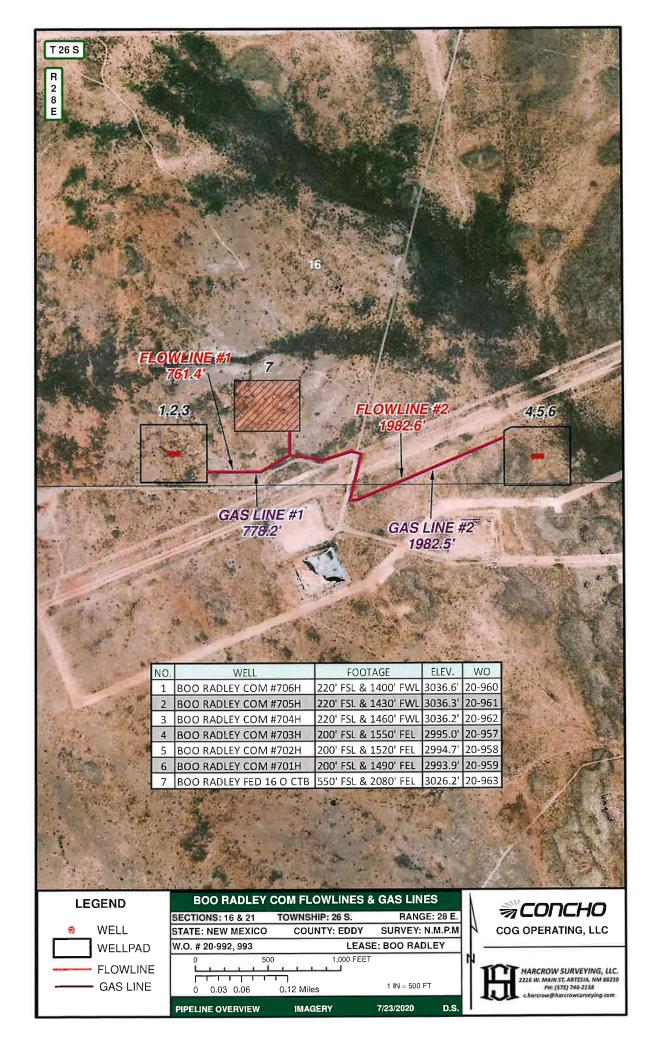
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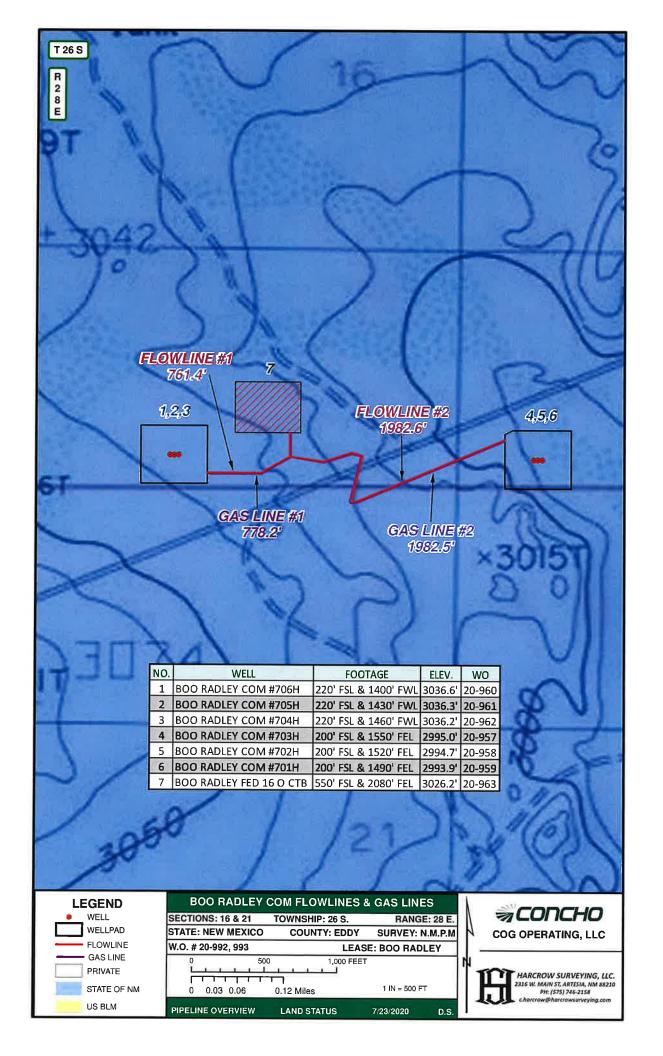
COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #2
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-993

MEXICO POFESSIONAL 07/28/20 CHAD HARCROW N.M.P.S. NO. 17777

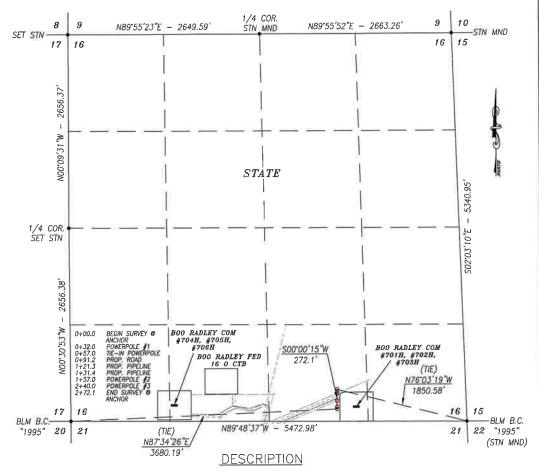




POWERLINE PLAT: LINE #1 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N76'03'19"W 1850.58 FEET FROM THE SOUTHEAST CORNER, THEN SOU'00'15"W 272.1 FEET, TO A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N87*34'26"E 3680.19 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 272.1 FEET OR 16.49 RODS IN LENGTH, CONTAINING 0.187 ACRES MORE OR LESS AND BEING LOCATED ENTIRELY IN THE SW/4 SE/4 OF SAID SECTION.

BASIS OF BEARING:

FOR SURVEYING IN NEW MEXICO.

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



1000	0	1000	2000 FEET
	SCALE:	1"=1000'	

COG OPERATING, LLC.

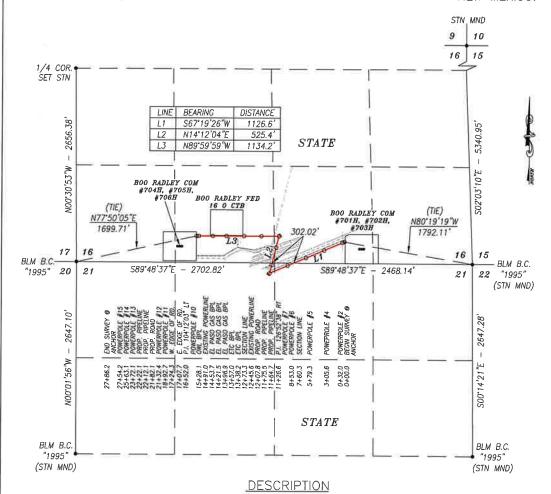
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	POWERLINE #1
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: JH	FILE: 20-994

POWERLINE PLAT: LINE #2 COG OPERATING. LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY; WITH ANCHORS EXTENDING OUTSIDE THE CENTERLINE SURVEY 14 FEET SOUTHERLY AND WESTERLY AT POLE 7 AND 17.0 FEET NORTHERLY AND EASTERLY AT POLE 10; WHICH HAVE BEEN ACCOUNTED FOR IN FOOTAGES, RODS, AND ACRES:

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES NB0'19'19"W 1792.11 FEET FROM THE SOUTHEAST CORNER OF SECTION 16; THEN S67'19'26"W 1126.6 FEET; THEN N14'12'04"E 525.4 FEET; THEN NB9'59'59"W 1134.2 FEET, TO A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N77'50'05"E 1699.71 FEET FROM THE SOUTHWEST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 2848.2 FEET OR 172.62 RODS IN LENGTH, CONTAINING 1.962 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SW/4 SE/4 67.53 RODS OR 0.767 ACRES SE/4 SW/4 72.30 RODS OR 0.822 ACRES SECTION 21 NW/4 NE/4

NW/4 NE/4 17.61 RODS OR 0.200 ACRES NE/4 NW/4 15.18 RODS OR 0.173 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

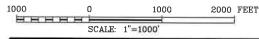
CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEFT THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Chad Harww Profession Date

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

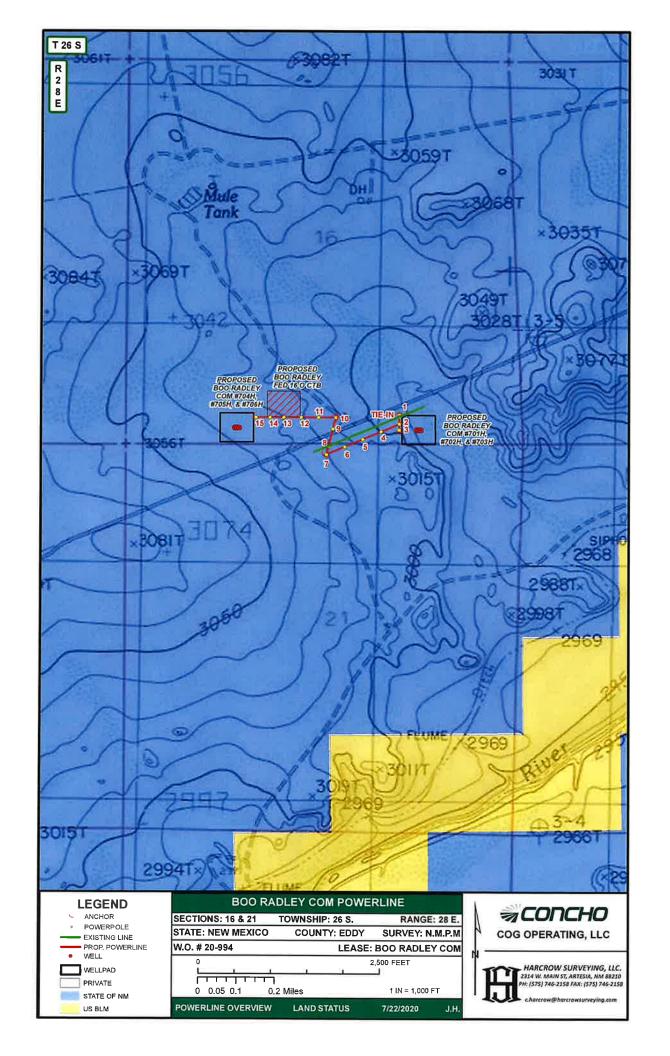


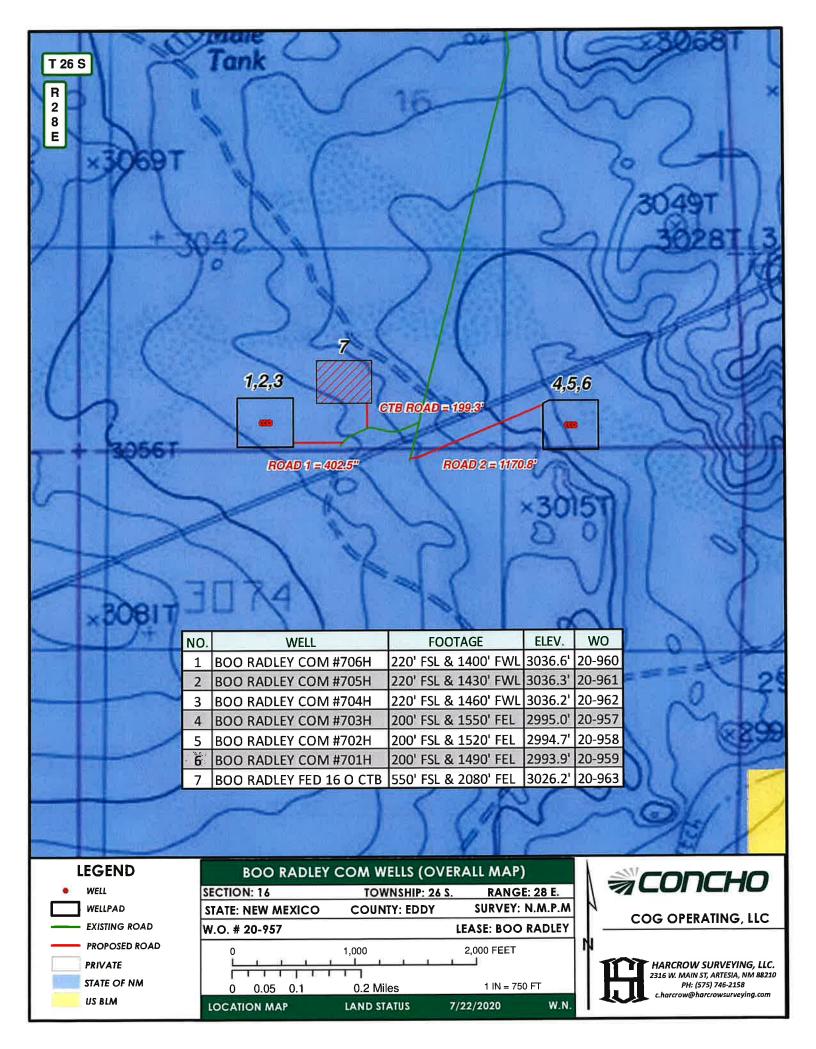
COG OPERATING, LLC.

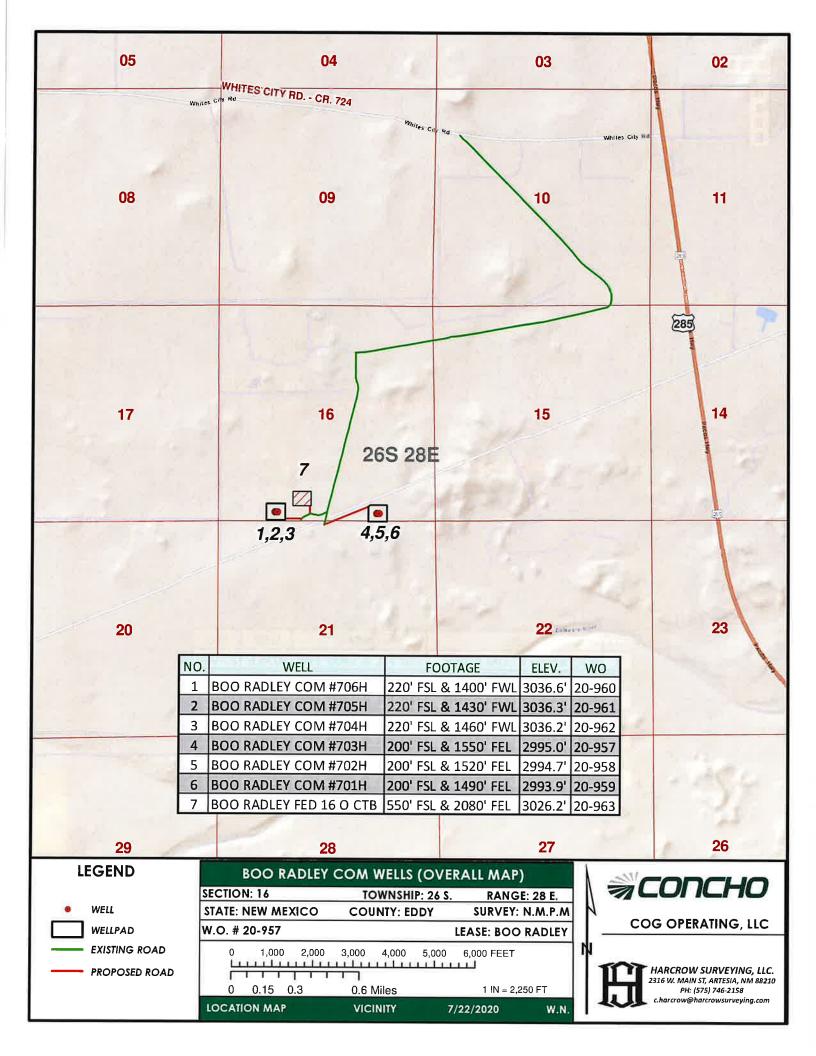
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

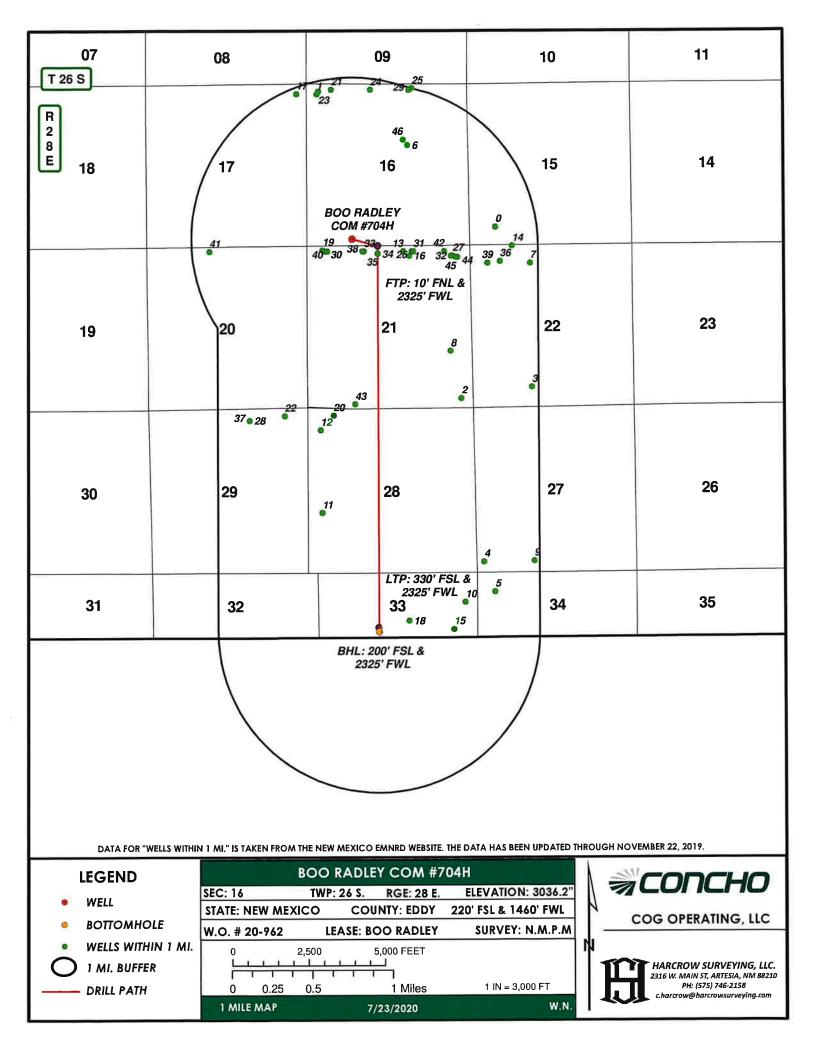
SURVEY DATE: JULY 17, 2020	POWERLINE #2
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: JH	FILE: 20-994











COMPL_STAT	lugged	lugged	lugged	lugged	lugged	lugged	lugged	lugged	lugged	lugged	'lugged	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Jnknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	Inknown	nknown	nknown	nknown	nknown	a production of the contract o
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O STATE OF MAN INC.	4 STATE OF NIM B" UUI	2 DIMABLE STATE SOS	2 HUMBLE SIMIE UUL	3 HOIVIBLE FOVERES UUI	4 50N SI Z/ 001	S SIAIE 34 UUI	6 STATE LG 1175 001	7 AMINOIL ST 001	8 GETTY STATE 001	9 STATE 001	10 POGO ST 001	11 ALL STATE COM 002H	12 ALL STATE COM 001H	13 SKEEN 21 B2BO STATE COM 001H	14 DIAMONDBACK 22 STATE COM 004H	15 GRAHAM NASH STATE COM 005H	16 SKEEN 21 STATE COM 002H	17 SRO STATE UNIT 018H	18 GRAHAM NASH STATE COM 006H	19 SKEEN 21 DM STATE 001	20 GRAHAM NASH STATE COM 008H	21 GRAHAM CRACKER 16 STATE 001H	22 HONEY GRAHAM STATE COM 005H	23 GRAHAM CRACKER 16 STATE 009H	24 GRAHAM CRACKER 16 STATE 002H	25 GRAHAM CRACKER 16 STATE 007H	25 SKEEN ZI USBU SIAIE COM UUSH	27 SKEEN ZI BSAP SIARE COM OUTH	28 HONEY GRAHAMI 29 STATE UU3H	29 GKAHAM CKACKER 16 STATE 003H	31 SKEEN 21 B3DINI STATE COM 002H	31 SKEEN 21 D3BU STATE COM 002H	33 SKEEN 21 B3CN STATE COM 001H	34 SKEEN 21 B2CN STATE 001H	35 SKEEN 21 STATE 001H	36 DIAMONDBACK 22 STATE COM 006H	37 HONEY GRAHAM STATE COM 004H	38 SKEEN 21 D3CN STATE COM 002H	39 DIAMONDBACK 22 STATE COM 002H	40 SKEEN 21 D3DM STATE COM 003H	41 COTTONWOOD NORTH 20 STATE 002H	42 SKEEN 21 B2AP STATE COM 001H	43 GRAHAM NASH FEDERAL COM 013H	44 SKEEN 21 WOAP STATE COM 002H	THE PERSON NAMED IN COLUMN TO PERSON NAMED I

Inten	t	As Drill	led											
API#														
	rator Nar G OPEF	me: RATING,	LLC.			Property Name: BOO RADLEY COM								Well Number 702H
Kick (Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet		From N	1/S	Feet		From	i E/W	County	
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UL A	Section 21	Township 26-S	Range 28-E	Lot	Feet 10		From N		Feet 1210		From	n E/W	County	
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Ope	rator Nai	me:				Pro	perty N	lame	•					Well Number

KZ 06/29/2018

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT I

1825 N. FRENCH DR., HOBBS, NM 88240
Franci (676) 383-6161 Fax: (676) 383-0720

Energy, Minerals & Natural Resources Department State of New Mexico OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

□ AMENDED REPORT

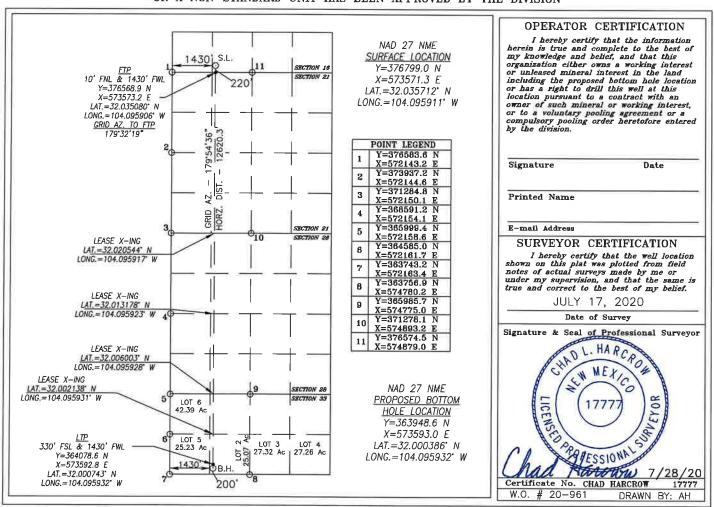
DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code Pool Name Property Code Property Name Well Number BOO RADLEY COM 705H OGRID No. Operator Name Elevation COG OPERATING, LLC 3036.3 Surface Location UL or lot No. Section Feet from the Township Range Lot. Idn North/South line Feet from the East/West line County N 26-S 16 28-E 220 SOUTH 1430 WEST **EDDY**

Bottom Hole Location If Different From Surface UL or lot No. Section Township Lot Idn Feet from the North/South line Range Feet from the East/West line County 2 33 26-S 28-E 200 SOUTH 1430 WEST **EDDY**

Dedicated Acres Joint or Infill Consolidation Code Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I

State of New Mexico 1825 N. FRENCH DR., HOBBS, NM 88240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87606 Phone: (505) 476-3460 Fax: (505) 476-3462

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property N BOO RADLE	
OGRID No.	Operator N COG OPERAT	

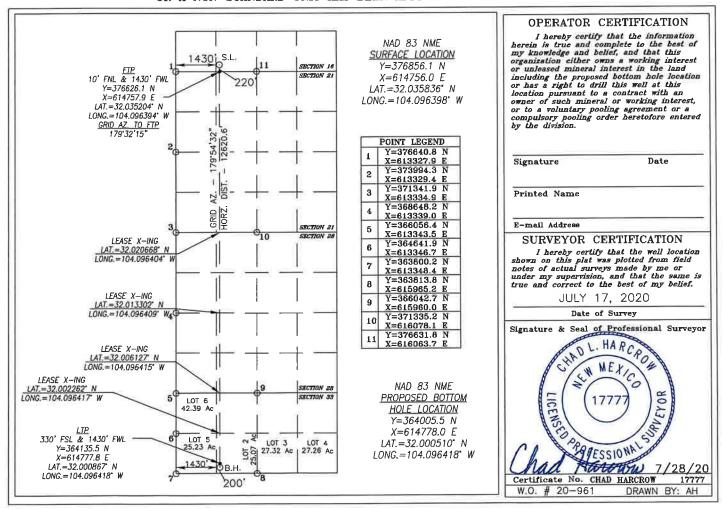
Surface Location

Γ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	Ν	16	26-S	28-E		220	SOUTH	1430	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	33	26-S	28-E		200	SOUTH	1430	WEST	EDDY
Dedicated Acres	Joint of	r Infill Co	nsolidation	Code Ore	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



RECLAMATION AND FACILITY DIAGRAM — PRODUCTION FACILITIES DIAGRAM COG OPERATING, LLC SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

NO.	WELL	FOOTAGE	LAT.	LONG.	ELEV.
1	BOO RADLEY COM #706H	220' FSL & 1400' FWL	32.035837° N	104,096495° W	3036.6"
2	BOO RADLEY COM #705H	220' FSL & 1430' FWL	32.035836° N	104.096398° W	3036.3"
3	BOO RADLEY COM #704H	220' FSL & 1460' FWL	32.035836° N	104.096302° W	3036.2

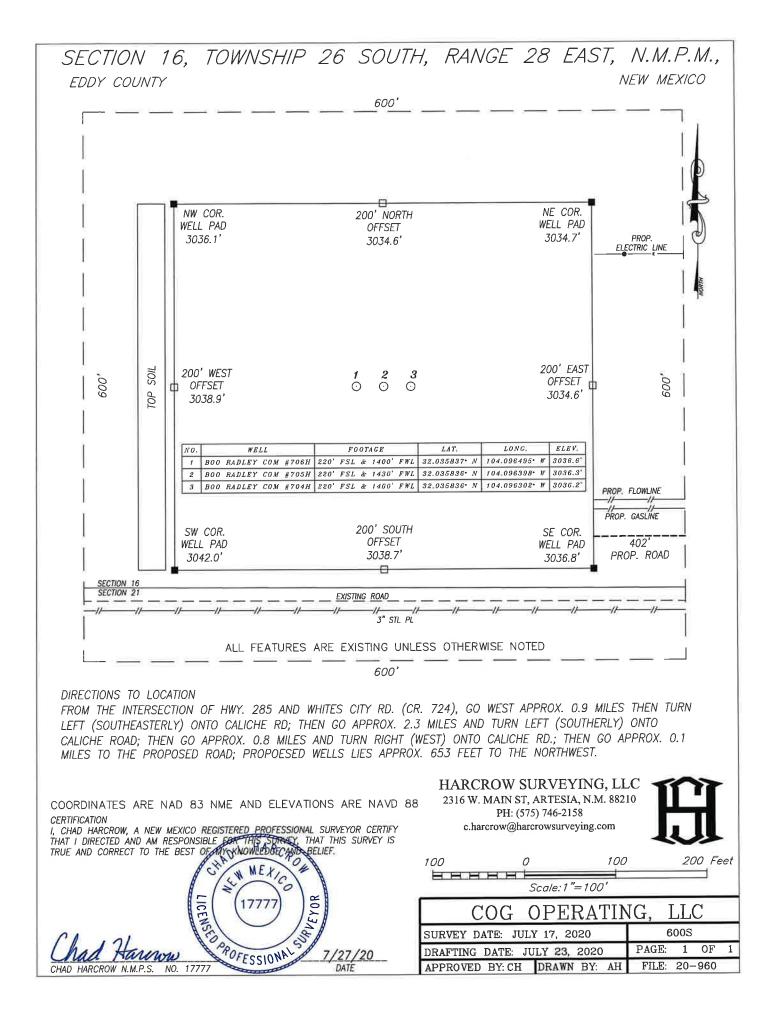
HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

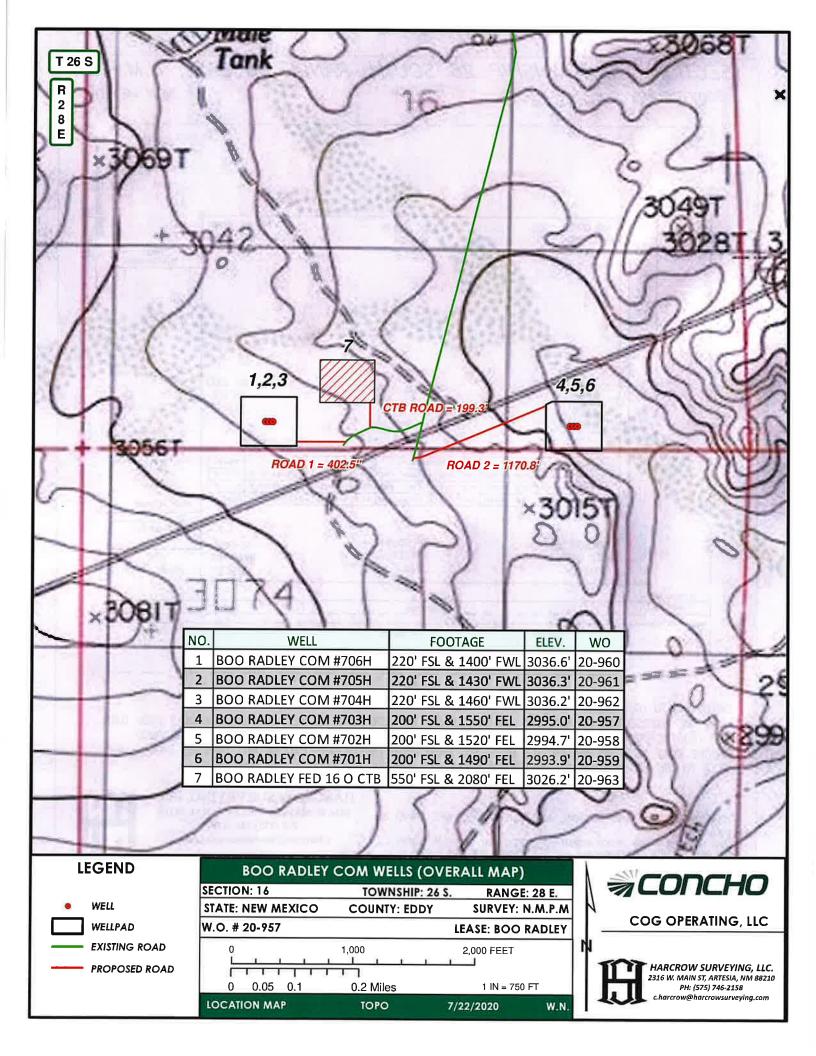
PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

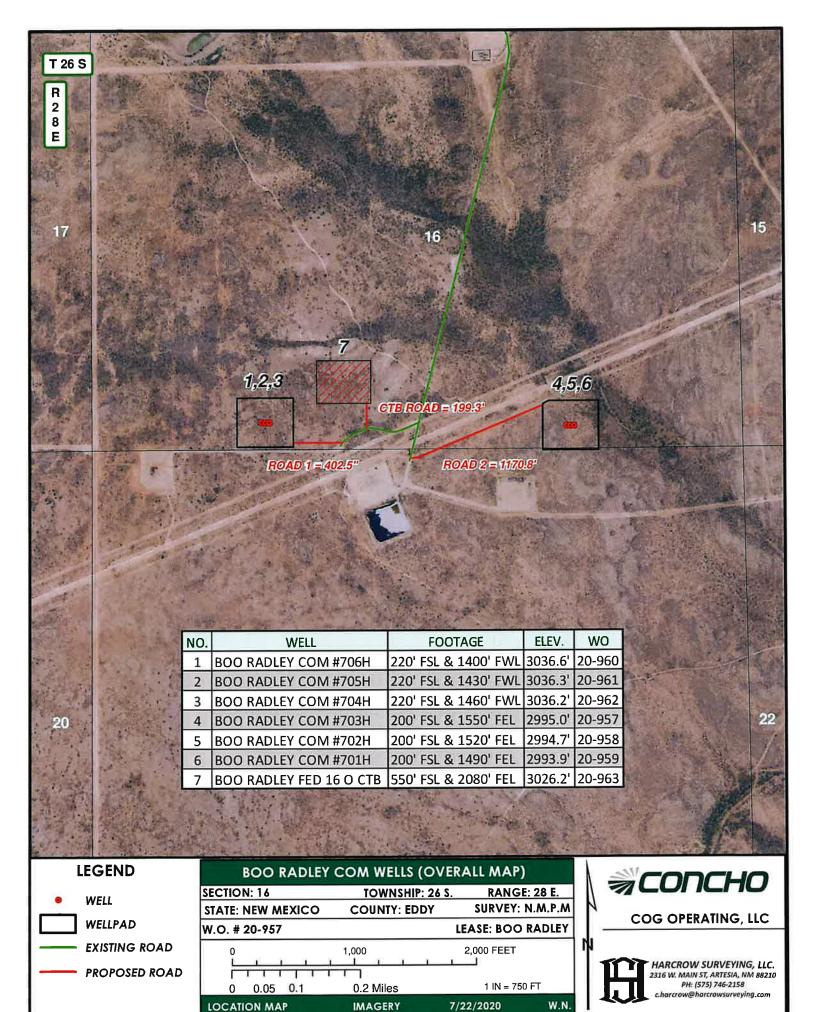


100	0	100	200	Feet
HHH	Scale: 1	1"=100'		

COG OPERATING, LLC								
SURVEY DATE: JULY 17, 2020 RECLAMATION								
DRAFTING DATE: JULY 30, 2020 PAGE: 1 OF 1								
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-960						

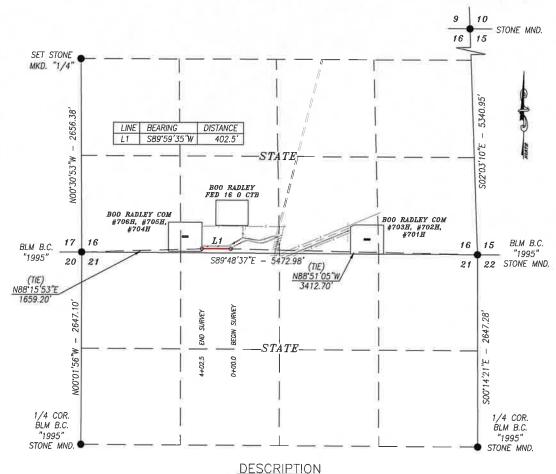






ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°51'05"W 3412.70 FEET FROM THE SOUTHEAST CORNER; THEN S89°59'35"W 402.5 FEET; TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°15'53"E 1659.20 FEET FROM THE SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 402.5 FEET OR 24.39 RODS IN LENGTH, CONTAINING 0.277 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

7/27/20 DATE

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

CHAD HARCROW N.M.P.S. NO. 17777

ST MEXICO

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



1000	0	10	00	2000	FEET
HHHHH	_				
	SCALE:	1"=1000"			

COG OPERATING, LLC.

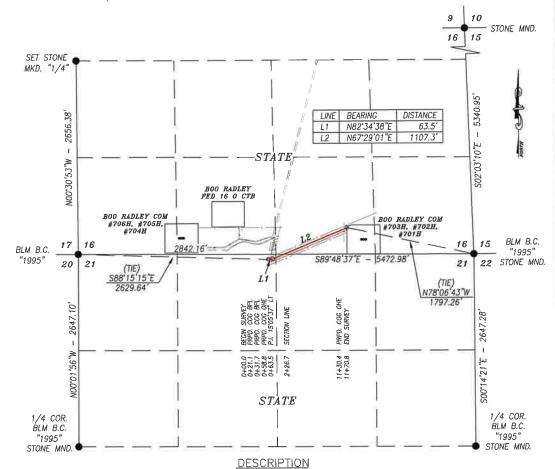
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #1
DRAFTING DATE:	JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995

ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE NE/4 NW/4 OF SECTION 21, WHICH LIES S88'15'15"E 2629.64 FEET FROM THE NORTHWEST CORNER OF SECTION 21; THEN N82'34'38"E 63.5 FEET; THEN N67'29'01"E 1107.3 FEET; TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N78°06'43"W 1797.26 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1170.8 FEET OR 70.96 RODS IN LENGTH, CONTAINING 0.806 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SW/4 SE/4 57.22 RODS OR 0.650 ACRES

SECTION 21 NE/4 NW/4 6.81 RODS OR 0.077 ACRES NW/4 NE/4 6.93 RODS OR 0.079 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS HAD L. HARCRO FOR SURVEYING IN NEW MEXICO.

1000 SCALE: 1"=1000'



2000 FEET

COG OPERATING, LLC.

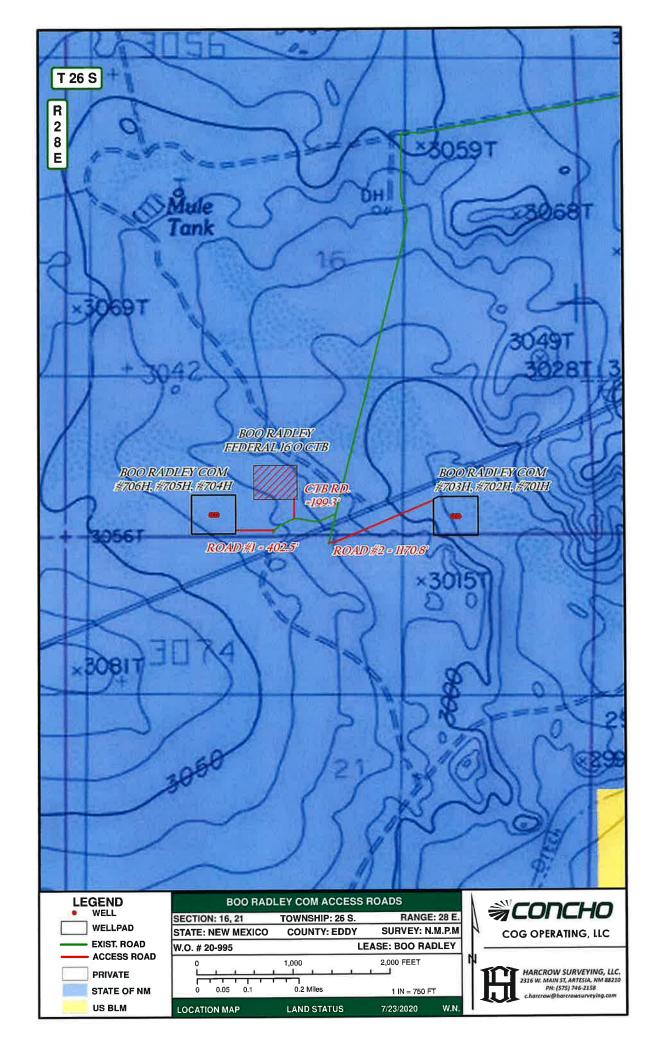
SURVEY OF A PROPOSED ROAD LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

1000

SURVEY DATE: JULY 17, 2020	ROAD #2
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-995

W MEXIC POFESSIONAL 27/20 CHAD HARCROW N.M.P.S. NO. 17777 DATE





SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY NEW MEXICO 600' ALL FEATURES ARE EXISTING UNLESS OTHERWISE NOTED EXISTING ROAD 175' NORTH NE COR. **OFFSET** NW COR. WELL PAD 3024.7 WELL PAD 3018.4 3026.9 BOO RADLEY FEDERAL 16 O CTB 225' WEST 225' EAST OFFSET d (·) OFFSET 3028.6' 3023.9' $LAT. = 32.036733^{\circ} N$ $LONG. = 104.094308^{\circ} W$ ELEV. = 3026.2'175' SOUTH SW COR. SE COR. **OFFSET** WELL PAD WELL PAD 3027.6 3031.7' 3025.8 PROPOSED ELECTRIC LINE

DIRECTIONS TO LOCATION

CHAD HARCROW N.M.P.S. NO. 17777

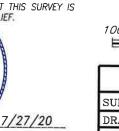
FROM THE INTERSECTION OF HWY. 285 AND WHITES CITY RD. (CR. 724), GO WEST APPROX. 0.9 MILES THEN TURN LEFT (SOUTHEASTERLY) ONTO CALICHE RD; THEN GO APPROX. 2.3 MILES AND TURN LEFT (SOUTHERLY); THEN GO APPROX. 0.7 MILES; TURN RIGHT AND GO APPROX. 0.1 MILES TO THE PROPOSED ROAD. PROPOSED PAD LIES APPROX. 420 FEET TO THE NORTHWEST.

600

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY. THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MICKNOWLEDGE, AND BELIEF.

PROFESSIONAL



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

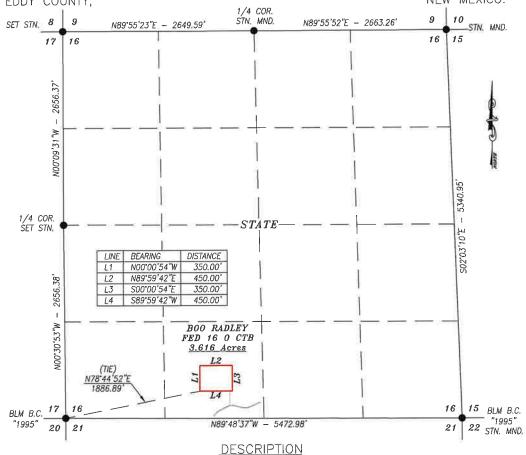


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COG OPERATING, LLC			
SURVEY DATE: JULY 17, 2020 600S			
	PAGE: 1 OF 1		
APPROVED BY: CH DRAWN BY: WN	EILE OO OGO		

EXHIBIT A STATE BUSINESS LEASE COG OPERATING, LLC.

A STATE BUSINESS LEASE FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



A PROPOSED PAD LOCATED WITHIN STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE PROPOSED PAD, WHICH LIES N78'44'52"E 1886.89 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN NO0'00'54"W 350.00 FEET; THEN N89*59'42"E 450.00 FEET: THEN S00*00'54"W 350.00 FEET; THEN S89*59'42"W 450.00 FEET TO THE POINT OF BEGINNING.

SAID PAD CONTAINS 3.616 ACRES AND IS LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HER MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

AD L. HARCA NHEXIC POFESSIONAL 7/27/20 CHAD HARCROW N.M.P.S.

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

c.harcrow@harcrowsurveying.com



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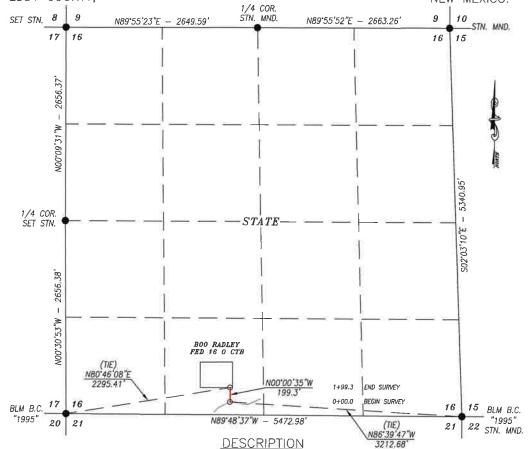
COG OPERATING, LLC

SURVEY OF A PROPOSED PAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	EXHIBIT A
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963

<u>EXHIBIT B</u> ACCESS ROAD PLAT COG OPERATING, LLC.

AN ACCESS ROAD FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES $N86^{\circ}39'47''W$ 3212.68 FEET FROM THE SOUTHEAST CORNER; THEN $N00^{\circ}00'35''W$ 199.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES $N80^{\circ}46'08''E$ 2295.41 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 199.3 FEET OR 12.08 RODS IN LENGTH, CONTAINING 0.137 ACRES MORE OR LESS AND BEING LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HER THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Chad Harwa Professione 7/27/20
CHAD HARCROW N.M.P.S. NO. 17777

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com

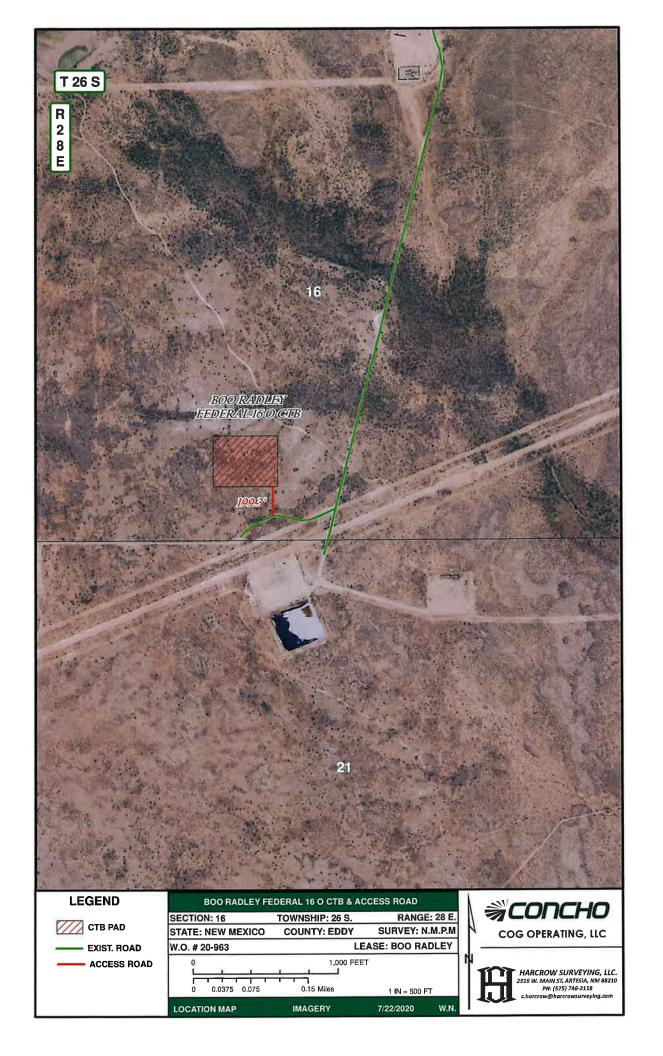


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COG OPERATING, LLC

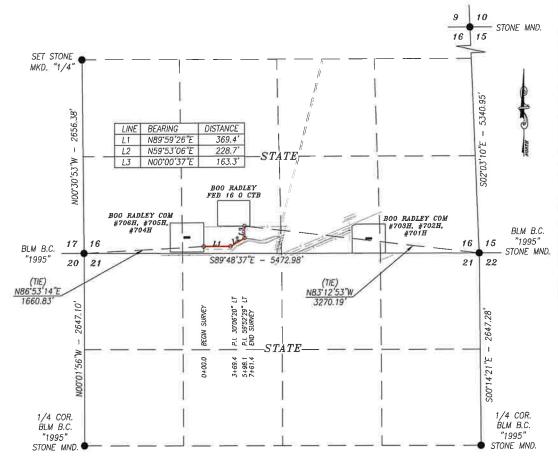
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	EXHIBIT B
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963





A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86'53'14"E 1660.83 FEET FROM THE SOUTHWEST CORNER; THEN N89'59'26"E 369.4 FEET; THEN N59'53'06"E 228.7; THEN N00'00'37"E 163.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83'12'53"W 3270.19 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 761.4 FEET OR 46.15 RODS IN LENGTH, CONTAINING 0.524 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

had Harrow

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

NO. 17777

N MEXIC

POFESSIONE

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07/28/20

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

HARCROW SURVEYING, LLC



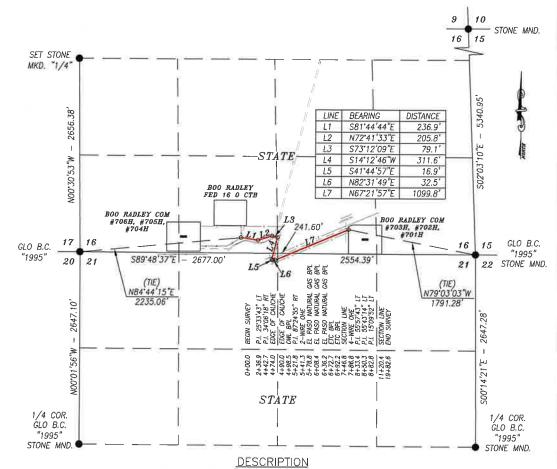
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	FLOWLINE #1
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-992

A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'44'15"E 2235.06 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S81*44'44"E 236.9 FEET; THEN N72*41'33"E 205.8; THEN S73*12'09"E 79.1 FEET; THEN S14 12 46 W 311.6; THEN S41 44 57 E 16.9; THEN N82 31 49 E 32.5 FEET; THEN N67 21 57 E 1099.8 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'03'03"W 1791.28 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.6 FEET OR 120.16 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SE/4 SW/4 45.08 RODS OR 0.512 ACRES SW/4 SE/4 52.42 RODS OR 0.595 ACRES

BASIS OF BEARING:

FOR SURVEYING IN NEW MEXICO.

had Harrow

CHAD HARCROW N.M.P.S. NO. 17777

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THIS SURVEY AND PLAT HEST THE MINIMUM STANDARDS

LY MEXIC

AD L. HARCAG POFESSIONE 07/28/20

SECTION 21

NE/4 NW/4 10.71 RODS OR 0.122 ACRES NW/4 NE/4 11.95 RODS OR 0.136 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



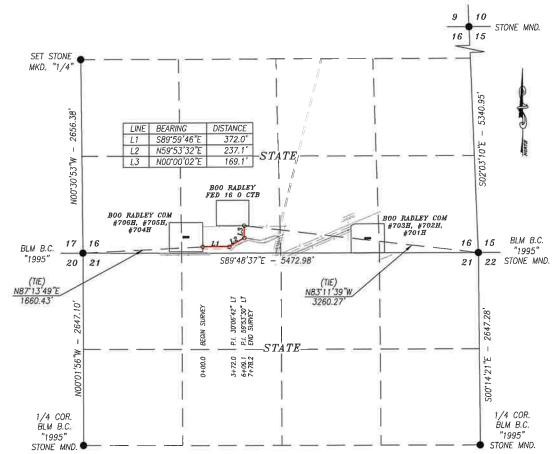
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COG OPERATING. LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JU	LY 20, 2020	FLOWLINE #2
DRAFTING DATE: J	ULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-992

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N87'13'49"E 1660.43 FEET FROM THE SOUTHWEST CORNER; THEN S89:59'46"E 372.0 FEET; THEN N59:53'32"E 237.1; THEN N00'00'02"E 169.1 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83'11'39"W 3260.27 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 778.2 FEET OR 47.16 RODS IN LENGTH, CONTAINING 0.536 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

1, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR
CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT
THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



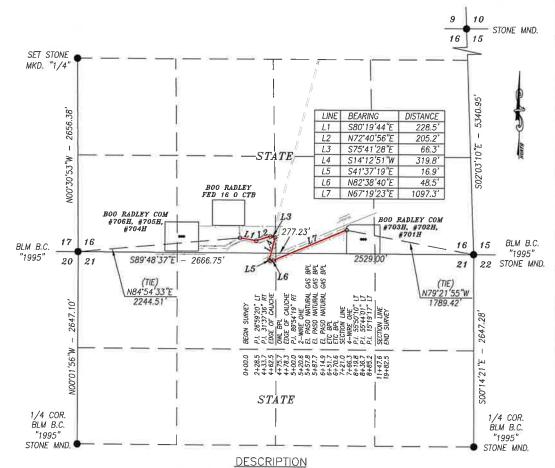
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COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #1
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-993

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'54'33"E 2244.51 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S80'19'44"E 228.5 FEET; THEN N72'40'56"E 205.2; THEN S75'41'28"E 66.3 FEET; THEN S14'12'51"W 319.8; THEN S41'37'19"E 16.9; THEN N82'38'40"E 48.5 FEET; THEN N67'19'23"E 1097.3 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'212'55"W 1789.42 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.5 FEET OR 120.15 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SE/4 SW/4 43.70 RODS OR 0.497 ACRES SW/4 SE/4 50.59 RODS OR 0.574 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

SECTION 21

NE/4 NW/4 12.25 RODS OR 0.139 ACRES NW/4 NE/4 13.61 RODS OR 0.155 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



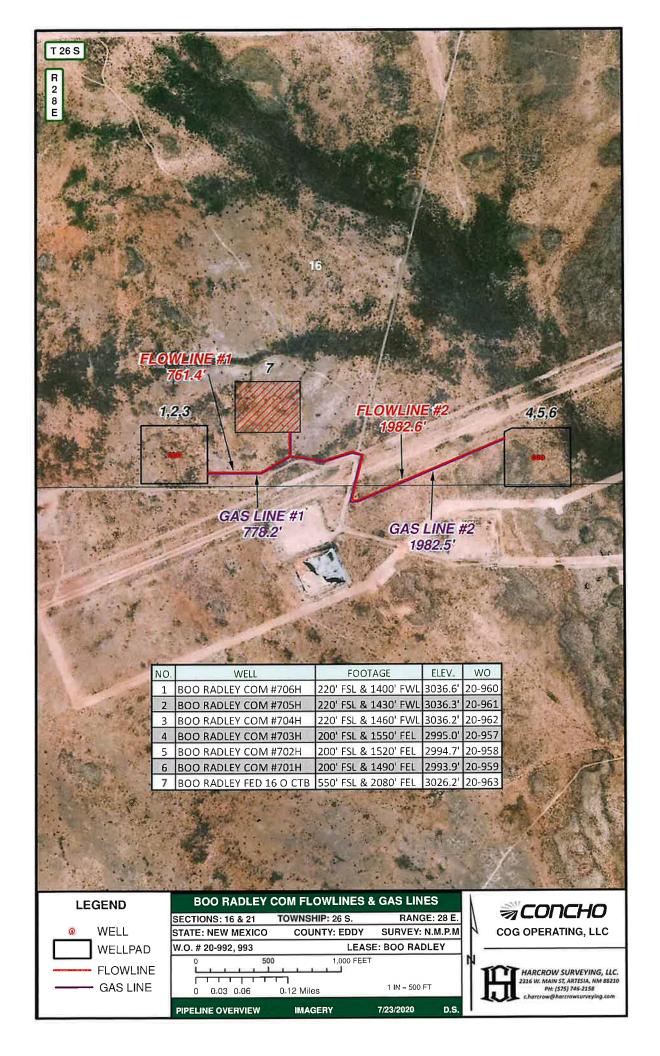
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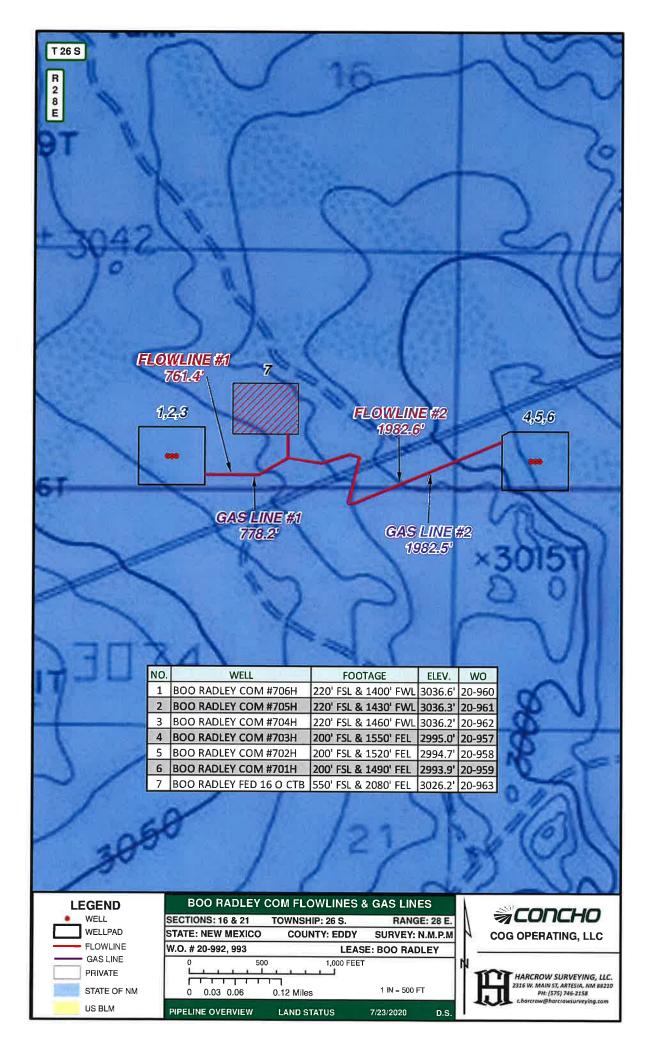
COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	GAS LINE #2
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: D	S FILE: 20-993

Chad Harwin POFESSION DATE

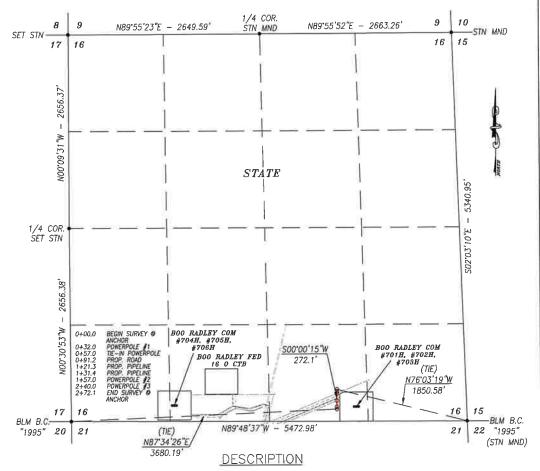




POWERLINE PLAT: LINE #1 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY;

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N76'03'19"W 1850.58 FEET FROM THE SOUTHEAST CORNER, THEN SOO 00'15"W 272.1 FEET, TO A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N87°34'26"E 3680.19 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 272.1 FEET OR 16.49 RODS IN LENGTH, CONTAINING 0.187 ACRES MORE OR LESS AND BEING LOCATED ENTIRELY IN THE SW/4 SE/4 OF SAID SECTION.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEET THE MINIMUM STANDARDS



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



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	SCALE:	1"=1000"	

COG OPERATING, LLC.

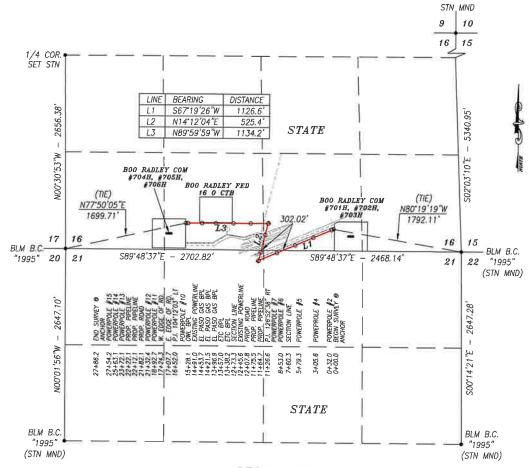
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	POWERLINE #1
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: JH	FILE: 20-994

POWERLINE PLAT: LINE #2 COG OPERATING. LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY. NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY; WITH ANCHORS EXTENDING OUTSIDE THE CENTERLINE SURVEY 14 FEET SOUTHERLY AND WESTERLY AT POLE 7 AND 17.0 FEET NORTHERLY AND EASTERLY AT POLE 10; WHICH HAVE BEEN ACCOUNTED FOR IN FOOTAGES, RODS, AND ACRES:

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES NB0'19'19"W 1792.11 FEET FROM THE SOUTHEAST CORNER OF SECTION 16; THEN S67'19'26"W 1126.6 FEET; THEN N14'12'04"E 525.4 FEET; THEN N89'59'59"W 1134.2 FEET, TO A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N77'50'05"E 1699.71 FEET FROM THE SOUTHWEST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 2848.2 FEET OR 172.62 RODS IN LENGTH, CONTAINING 1.962 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

67.53 RODS OR 0.767 ACRES SW/4 SE/4 SE/4 SW/4 72.30 RODS OR 0.822 ACRES SECTION 21 NW/4 NE/4

17.61 RODS OR 0.200 ACRES NE/4 NW/4 15.18 RODS OR 0.173 ACRES

BASIS OF BEARING:

FOR SURVEYING IN NEW MEXICO.

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983, DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEFT THE MINIMUM STANDARDS

AD L. HARCAD MEXICO MEN Harrow POFESSIONE 27/20 DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



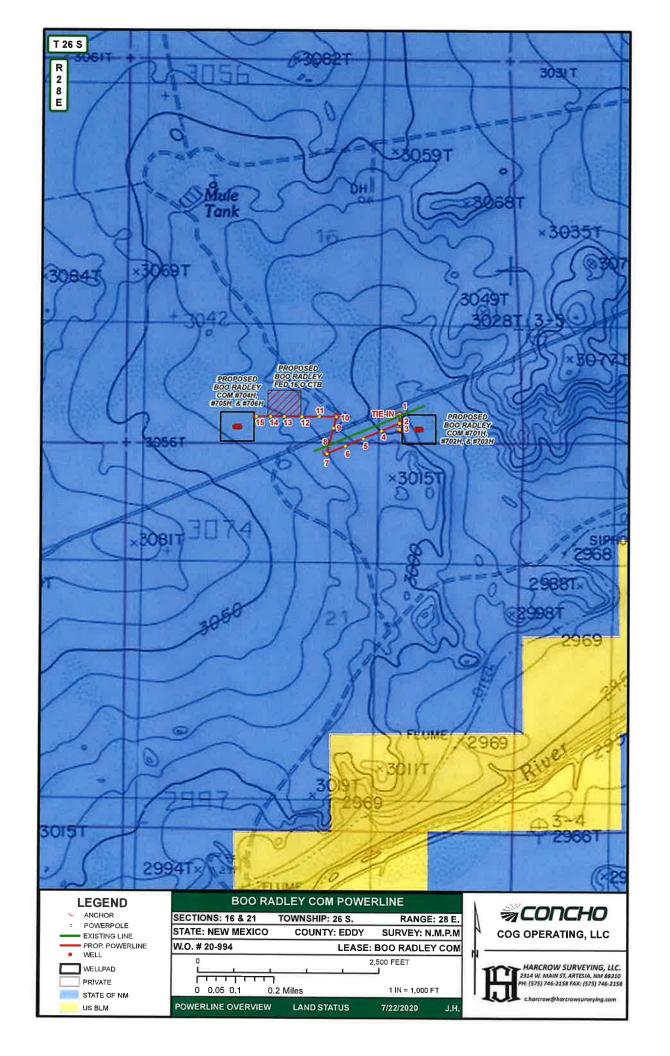
1000 1000 2000 FEET SCALE: 1"=1000"

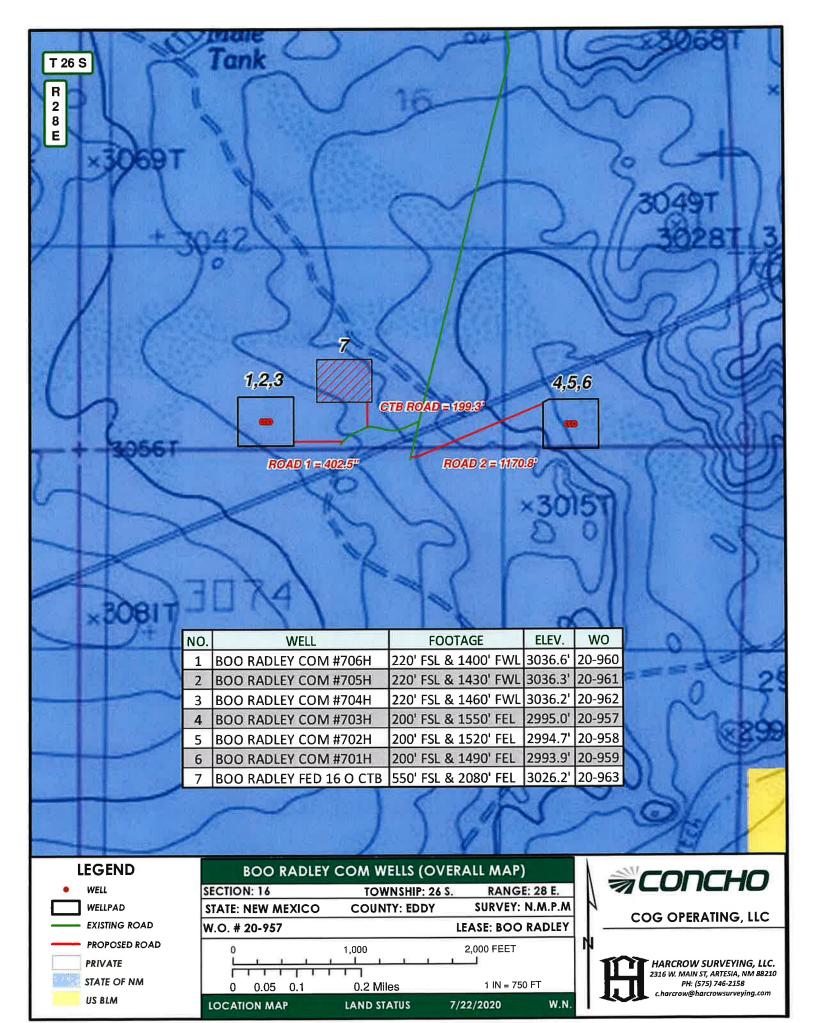
COG OPERATING, LLC.

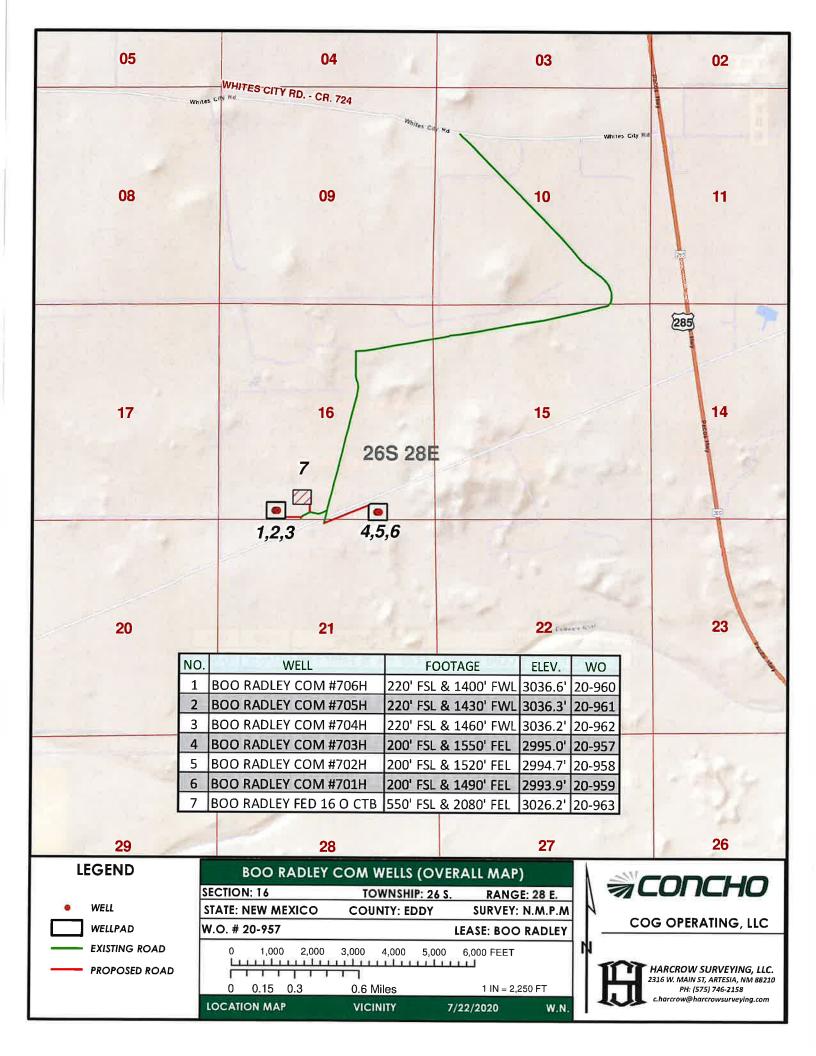
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

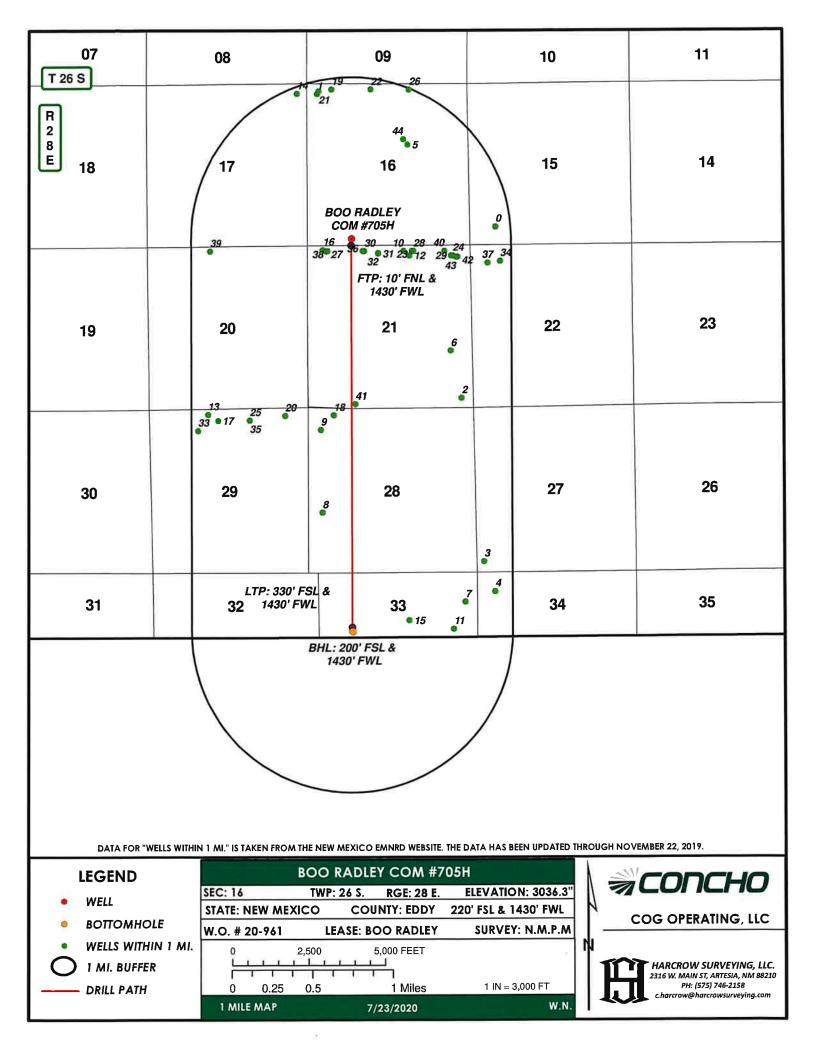
SURVEY DATE: JULY 17, 2020	POWERLINE #2
DRAFTING DATE: JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: JH	FILE: 20-994











FID WELL NAME	OPERATOR		SECTION TOWNSHIP RANGE FTG_N	RANGE	SECTION TOWNSHIP RANGE FIG.NS INS.CD FIG.EW EW.CD LATITUDE LONGITUDE COMPL. STAT	G_EW EW_C	D LATITUDE	CONGITUDE	OMPL_STAT	
0 STATE OF NM "B" 001	SUN OIL CO	3001502527	15 26.05	28E	S 009	W 098	32.036889	-104.080989 Plugged	lugged	
1 STATE OF NM 006	VANDERLAAN T	3001502528	16 26.05	28E	340 N	330 W	32.04886	-104,09997 Plugged	lugged	
2 HUMBLE STATE 001	GLENN BENNETT	3001502530	21 26.05	28E	330 S	330 E	32.021524	-104.084662 P	Plupped	
3 SUN ST 27 001	CHAPMAN FORD	3001502534	27 26.05	28E	330 S	330 W	32.006824	-104.082376 Plupped	lipped	
4 STATE 34 001	CHAPMAN FORD	3001502536	34 26.05	28E	N 099	W 099	32.004115	-104,081203 P	Plugged	
5 STATE LG 1175 001	JAKE L HAMON	3001521398	16 26.05	28E	N 0861	1980 E	32.044302	-104,090314 Plugged	lugged	
6 GETTY STATE 001	RAY H HASKINS	3001524474	21 26,05	28E	1880 S	660 E	32.025777	-104.085782 P	Plugged	
7 POGO ST 001	SLEDGE OIL & GAS INC	3001523607	33 26.05	28E	N 066	330 E	32.003178	-104.084369 Plugged	lugged	
8 ALL STATE COM 002H	MARBOB ENERGY CORP	3001537499	28 26.05	28E	1980 S	330 W	32.011235	-104.099544 Unknown	Inknown	
9 ALL STATE COM 001H	MARBOB ENERGY CORP	3001537498	28 26.05	28E	N 099	330 W	32.018698	-104.099698 Unknown	Inknown	
10 SKEEN 21 B2BO STATE COM 001H	MEWBOURNE OIL CO	3001543247	21 26.05	28E	185 N	2180 E	32.034723	-104,090816 Unknown	nknown	
11 GRAHAM NASH STATE COM 005H	COG OPERATING LLC	3001542453	33 26.05	28E	280 S	760 E	32.000751	-104.085613 Unknown	Inknown	
12 SKEEN 21 STATE COM 002H	MEWBOURNE OIL CO	3001539773	21 26.05	28E	330 N	1980 E	32.034324	-104.090162 Unknown	Inknown	
13 HONEY GRAHAM STATE COM 002H	COG OPERATING LLC	3001541234	29 26.05	28E	130 N	1980 W	32.020094	-104.111677 Unknown	Inknown	
14 SRO STATE UNIT 018H	COG OPERATING LLC	3001539999	17 26.0S	28E	330 N	330 E	32.048888	-104.102111 Unknown	Inknown	
15 GRAHAM NASH STATE COM 006H	COG OPERATING LLC	3001542464	33 26.05	28E	2095	2200 E	32.001511	-104,090348 Unknown	nknown	
16 SKEEN 21 DM STATE 001	MEWBOURNE OIL CO	3001540863	21 26.05	28E	150 N	500 W	32.034828	-104,099418 Unknown	Inknown	
17 HONEYGRAHAM STATE 006H	COG OPERATING LLC	3001538488	29 26.05	28E	330 N	2310 W	32.019549	-104.110608 Unknown	Inknown	
18 GRAHAM NASH STATE COM 008H	COG OPERATING LLC	3001542203	28 26.05	28E	190 N	760 W	32.019999	-104.09833 Unknown	nknown	
19 GRAHAM CRACKER 16 STATE 001H	COG OPERATING LLC	3001541935	16 26.0S	28E	190 N	800 W	32.049264	-104.098446 Unknown	nknown	
20 HONEY GRAHAM STATE COM 005H	COG OPERATING LLC	3001541608	29 26.05	28E	190 N	820 E	32.019969	-104.103453 Unknown	nknown	
21 GRAHAM CRACKER 16 STATE 009H	COG OPERATING LLC	3001543005	16 26.05	28E	250 N	380 W	32.049107	-104.099808 Unknown	nknown	
22 GRAHAM CRACKER 16 STATE 002H	COG OPERATING LLC	3001541533	16 26.05	28E	190 N	2080 W	32,049243	-104.094295 Unknown	nknown	
23 SKEEN 21 D3BO STATE COM 003H	MEWBOURNE OIL CO	3001542811	21 26.05	28E	185 N	1900 E	32.034722	-104,089908 Unknown	nknown	
24 SKEEN 21 B3AP STATE COM 001H	MEWBOURNE OIL CO	3001542810	21 26.05	28E	330 N	560 E	32.03432	-104.085558 Unknown	nknown	
25 HONEY GRAHAM 29 STATE 003H	COG OPERATING LLC	3001538274	29 26.05	28E	330 N	1980 E	32.019566	-104.107206 Unknown	nknown	
26 GRAHAM CRACKER 16 STATE 003H	COG OPERATING LLC	3001541633	16 26.05	28E	190 N	1910 E	32.049222	-104.090163 Unknown	nknown	
27 SKEEN 21 B3DM STATE COM 002H	MEWBOURNE OIL CO	3001542855	21 26.05	28E	185 N	610 W	32.034731	-104.09906 Unknown	nknown	
28 SKEEN 21 D3BO STATE COM 002H	MEWBOURNE OIL CO	3001542853	21 26.05	28E	185 N	1850 E	32.034722	-104,089746 Unknown	nknown	
29 SKEEN 21 D3AP STATE COM 002H	MEWBOURNE OIL CO	3001542856	21 26.05	28E	330 N	610 E	32.03432	-104.08572 Unknown	nknown	
30 SKEEN 21 B3CN STATE COM 001H	MEWBOURNE OIL CO	3001542854	21 26.05	28E	185 N	1850 W	32.034727	-104.095039 Unknown	nknown	
31 SKEEN 21 B2CN STATE 001H	MEWBOURNE OIL CO	3001542934	21 26.05	28E	266 N	2310 W	32.034503	-104.093543 Unknown	nknown	
32 SKEEN 21 STATE 001H	CHESAPEAKE OPERATING, INC.	3001537802	21 26.05	28E	250 N	2310 W	32.034547	-104.093544 Unknown	nknown	
33 HONEYGRAHAM STATE 007H	COG OPERATING LLC	3001538595	29 26.05	28E	N 099	1650 W	32.018631	-104.11275 Unknown	nknown	
34 DIAMONDBACK 22 STATE COM 006H	COG PRODUCTION, LLC	3001543195	22 26.05	28E	520 N	W 066	32,033812	-104.080526 Unknown	nknown	
35 HONEY GRAHAM STATE COM 004H	COG OPERATING LLC	3001541379	29 26.05	28E	330 N	1980 E	32.019566	-104.107206 Unknown	nknown	
36 SKEEN 21 D3CN STATE COM 002H	MEWBOURNE OIL CO	3001542857	21 26.05	28E	185 N	1800 W	32.034727	-104.095201 Unknown	nknown	
37 DIAMONDBACK 22 STATE COM 002H	OGX RESOURCES, LLC	3001539105	22 26.05	28E	280 N	580 W	32,03364	-104.081853 Unknown	nknown	
38 SKEEN 21 D3DM STATE COM 003H	MEWBOURNE OIL CO	3001542812	21 26.05	28E	185 N	W 099	32.034731	-104.098898 Unknown	nknown	
39 COTTONWOOD NORTH 20 STATE 002H	NEARBURG PRODUCING CO	3001543263	20 26.05	28E	150 N	2070 W	32.034747	-104.111429 Unknown	nknown	
40 SKEEN 21 B2AP STATE COM 001H	MEWBOURNE OIL CO	3001543246	21 26.05	28E	185 N	820 E	32.034719	-104.086406 Unknown	nknown	
41 GRAHAM NASH FEDERAL COM 013H	COG OPERATING LLC	3001543811	21 26.05	28E	200 S	1550 W	32.021012	-104.096034 Unknown	nknown	
42 SKEEN 21 WOAP STATE COM 002H	MEWBOURNE OIL CO	3001544553	21 26.05	28E	330 N	550 E	32.034186	-104.085036 Unknown	nknown	
43 SKEEN 21 W2AP STATE COM 001H	MEWBOURNE OIL CO	3001544552	21 26.05	28E	330 N	600 E	32.034186	-104.085198 Unknown	nknown	
44 SALT CEDAR 16 STATE SWD #001 001	COG OPERATING LLC	3001545826	16 265	28E	1850 N	2185 E	32.044761	-104.090784 N	-104.090784 New (Not drilled or compl)	pl)

Inten		As Dril	led											
Ope	rator Nar	ne: RATING,	LLC.				perty N			M				Well Number 702H
Kick (Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		From	E/W	County	
Latitu	ıde				Longitu	ıde							NAD	
First ⁻	Take Poir	t (FTP)												
UL A	Section 21	Township 26-S	Range 28-E	Lot	Feet 10		From N		Feet 1210		From	i E/W	County EDDY	
Latit			20 2		Longitu								NAD 83	
7	Tales Dais	+ /I TD\												
UL UL	Section	Township	Range	Lot	Feet	Fro	m N/S	Feet		From I	=/\w	Count	hv	
	33	26-S	28-E	4	330	so	UTH	121		EAST		EDD		
Latitu 32.	^{ude} 000889)			Longitu		7253					NAD 83		
ls this	s well the	defining v	vell for th	e Horiz	zontal S _l	pacin	g Unit?	. []				
ls this	s well an	infill well?]									
	ng Unit.	lease prov	ide API if	availak	ole, Ope	rator	Name	and v	well nu	umber	for I	Defini	ng well fo	r Horizontal
Ope	rator Na	me:				Pro	perty N	lame	:					Well Number

KZ 06/29/2018

DISTRICT I DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

State of New Mexico 1625 N. FRENCH DR., HOBBS, NM 88240 Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

Santa Fe, New Mexico 87505

□ AMENDED REPORT

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fey: (505) 476-3462

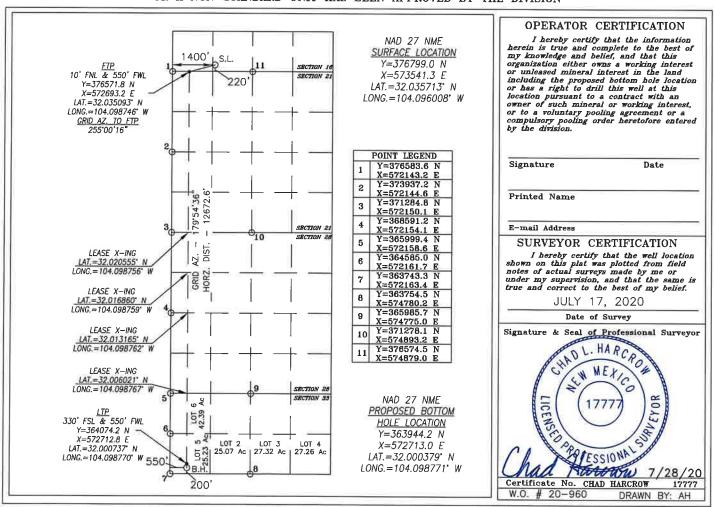
API Number	Pool Code	WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Code Pool Na						
Property Code	_	perty Name Well Number ADLEY COM 706						
OGRID No.		ator Name RATING, LLC	Elevation 3036.6					

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	16	26-S	28-E		220	SOUTH	1400	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
5	33	26-S	28-E		200	SOUTH	550	WEST	EDDY
Dedicated Acres	s Joint o	r Infill	Consolidation	Code Or	der No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 86240
Fhome: (575) 393-8161 Fax: (575) 393-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 86210
Phone: (575) 748-1263 Fax: (575) 748-9720

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

OIL CONSERVATION DIVIS

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

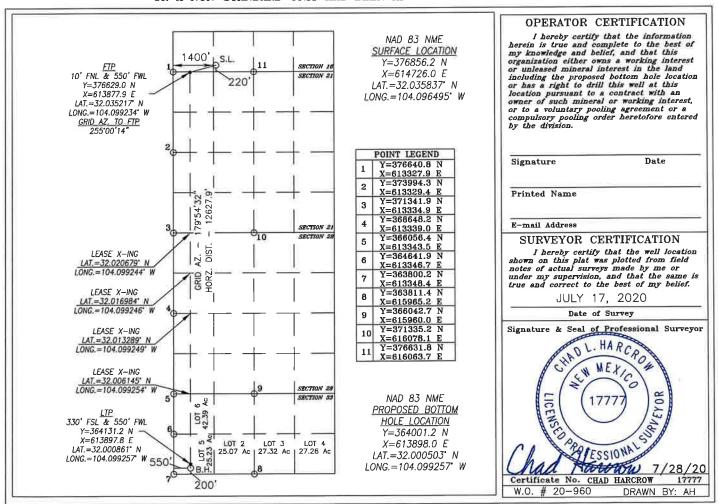
DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 □ AMENDED REPORT

FRORE: (303) 470-34	00 Fal. (505)	170-0402	WELL LO	CATION	AND A	CREAGE	DEDICATIO	N PLAT		
API	Number		Pool Code Pool Name							
Property	Code			rty Name Well Num DLEY COM 706						
OGRID N	0.		Operator Name COG OPERATING, LLC						Elevation 3036.6	
					Surface	Locatio	n			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	the No	rth/South line	Feet from the	East/West line	County
N	16	26-S	28-E		220		SOUTH	1400	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
5	33	26-S	28-E		200	SOUTH	550	WEST	EDDY
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Ore	ier No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

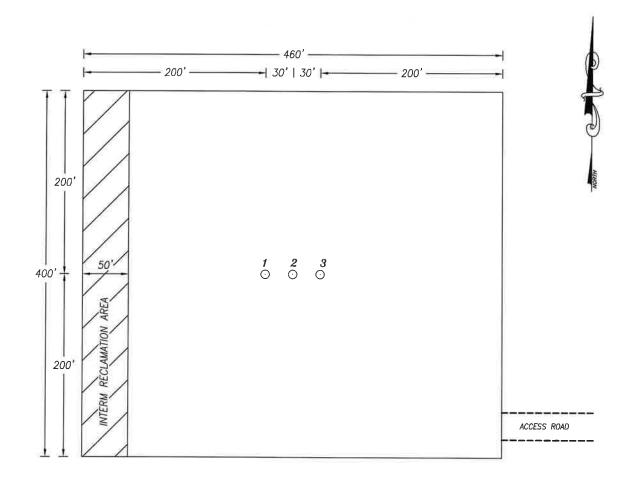


RECLAMATION AND FACILITY DIAGRAM — PRODUCTION FACILITIES DIAGRAM

COG OPERATING, LLC

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.



NO.		WE	LL			FO	07	AGE		LAT.	LONG.	-1	ELEV.
1	B00	RADLEY	COM	#706H	220'	FSL	&	1400'	FWL	32.035837° N	104.096495	W	3036.6*
2	B00	RADLEY	COM	#705H	220'	FSL	&	1430'	FWL	32.035836* N	104.096398	W	3036.3
3	B00	RADLEY	COM	#704H	220'	FSL	&	1460'	FWL	32.035836° N	104.096302*	W	3036.2'

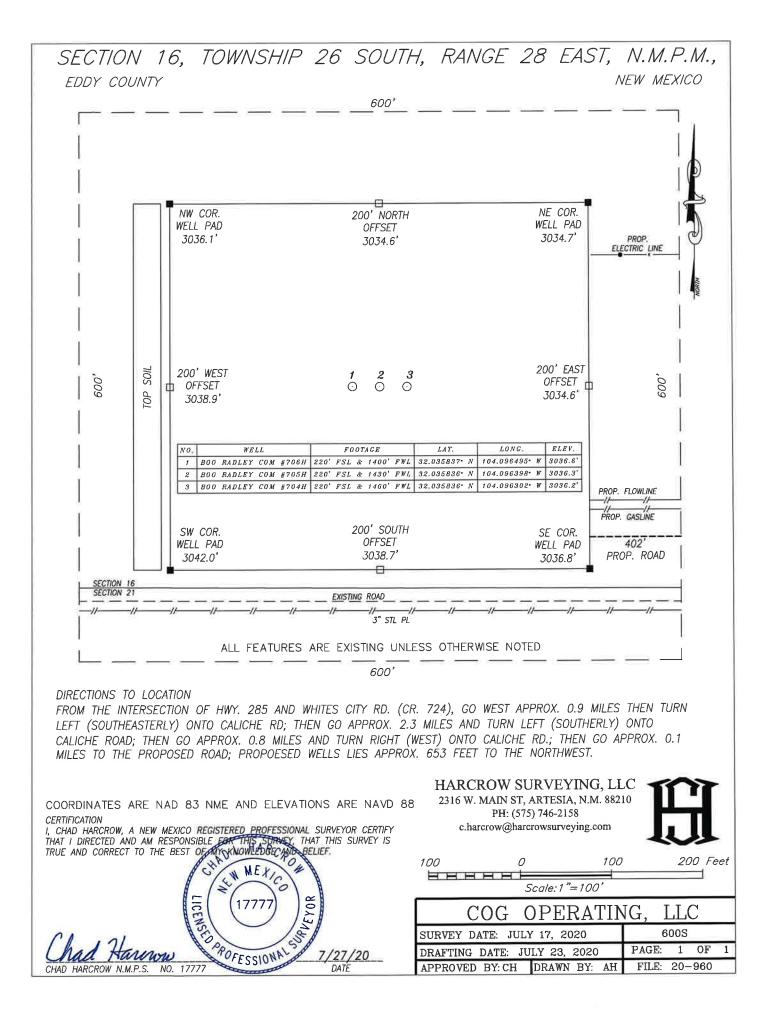
HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

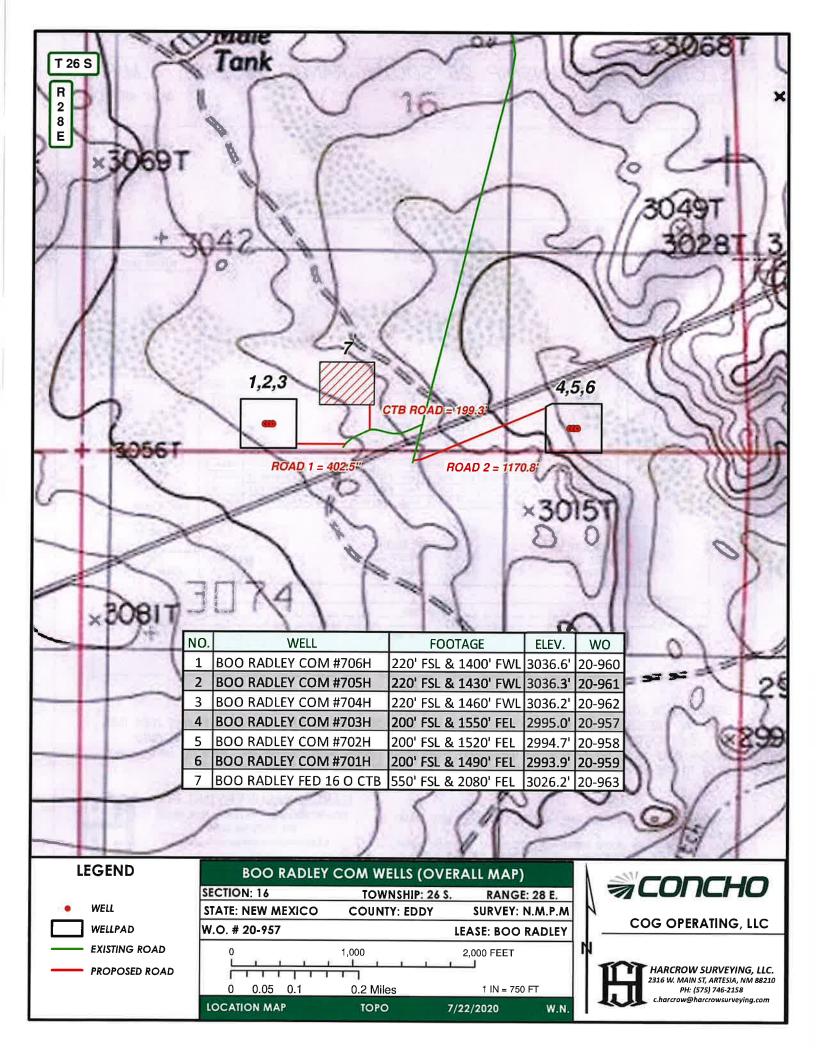
PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

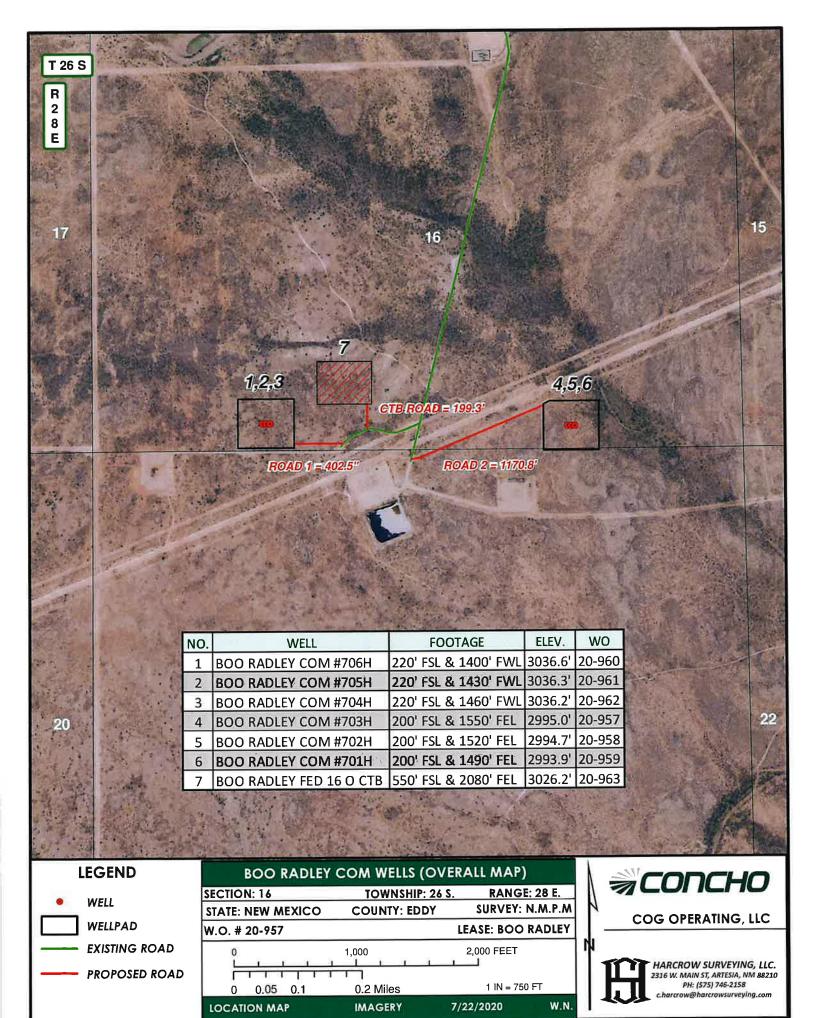


100	0	100	200 Feet
	Scale:1"	=100'	

COG	NG, LLC	
SURVEY DATE: JUL	RECLAMATION	
DRAFTING DATE: JU		
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-960

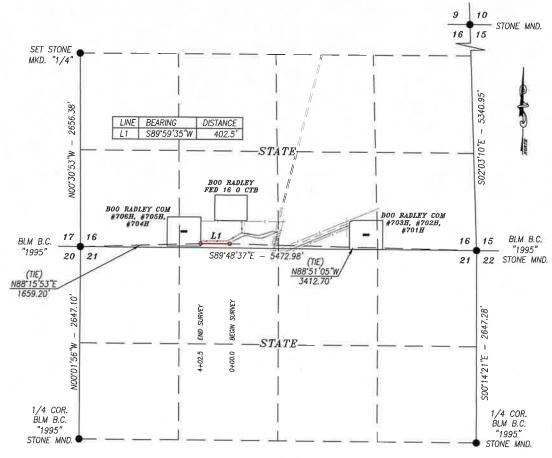






ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°51'05"W 3412.70 FEET FROM THE SOUTHEAST CORNER; THEN S89'59'35"W 402.5 FEET; TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N88°15'53"E 1659.20 FEET FROM THE SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 402.5 FEET OR 24.39 RODS IN LENGTH, CONTAINING 0.277 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HERE THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



1000	0	10	00	2000	FEET
BHH	SCALE:	1"=1000'			1

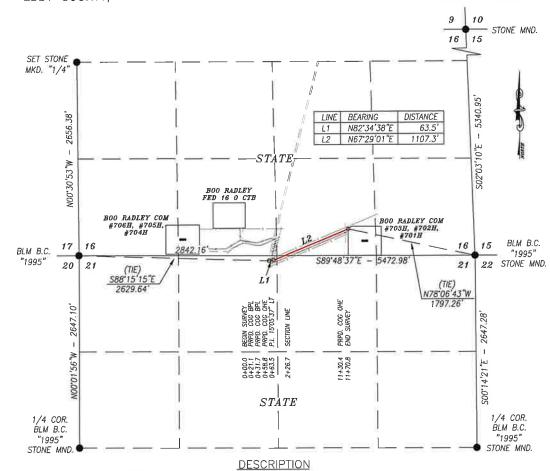
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #1
DRAFTING DATE:	JULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995

ROAD PLAT COG OPERATING, LLC.

A PROPOSED ROAD FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE NE/4 NW/4 OF SECTION 21, WHICH LIES S88'15'15"E 2629.64 FEET FROM THE NORTHWEST CORNER OF SECTION 21; THEN N82'34'38"E 63.5 FEET; THEN N67'29'01"E 1107.3 FEET; TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N78'06'43"W 1797.26 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1170.8 FEET OR 70.96 RODS IN LENGTH, CONTAINING 0.806 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

27/20

DATE

<u>SECTION 16</u> SW/4 SE/4 57.22 RODS OR 0.650 ACRES

Harrow

CHAD HARCROW N.M.P.S. NO. 177777

<u>SECTION 21</u>

NE/4 NW/4 6.81 RODS OR 0.077 ACRES

NW/4 NE/4 6.93 RODS OR 0.079 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158

BASIS OF BEARING:

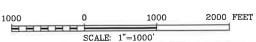
BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION
I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR
CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT
HIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THIS SURVEY AND PLAT HET THE MINIMUM STANDARDS
FOR SURVEYING IN NEW MEXICO.

W MEXIC

PROFESSIONE

c.harcrow@harcrowsurveying.com

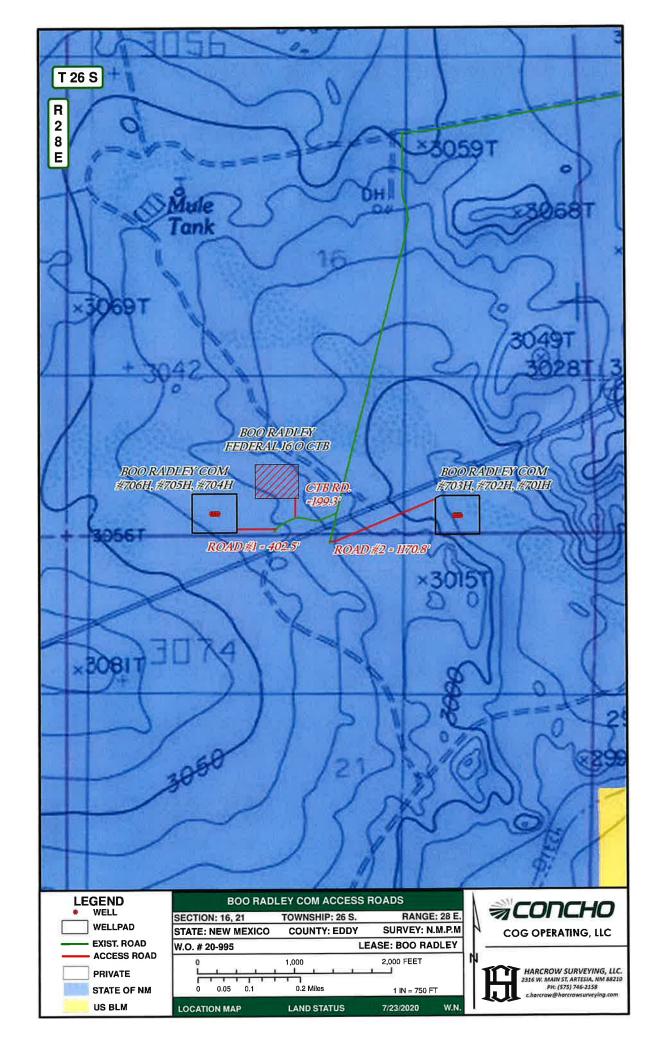


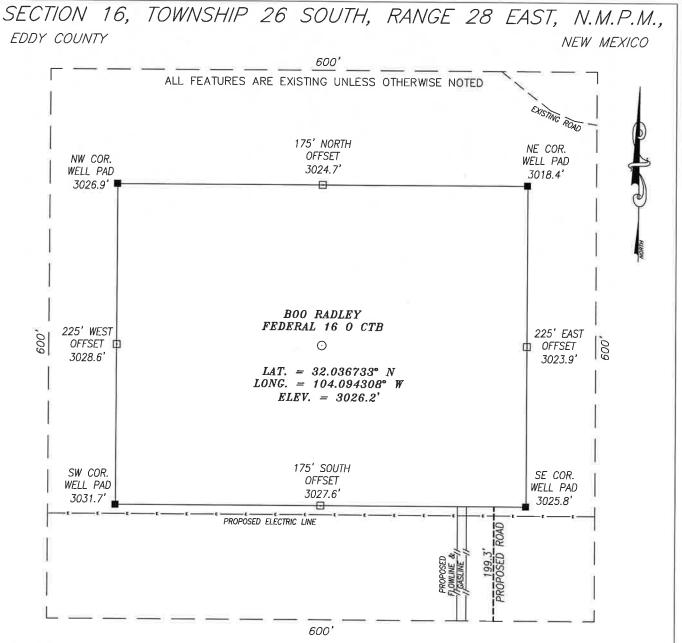
COG OPERATING, LLC.

SURVEY OF A PROPOSED ROAD LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	ROAD #2
DRAFTING DATE:		PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-995







DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HWY. 285 AND WHITES CITY RD. (CR. 724), GO WEST APPROX. 0.9 MILES THEN TURN LEFT (SOUTHEASTERLY) ONTO CALICHE RD; THEN GO APPROX. 2.3 MILES AND TURN LEFT (SOUTHERLY); THEN GO APPROX. 0.7 MILES; TURN RIGHT AND GO APPROX. 0.1 MILES TO THE PROPOSED ROAD. PROPOSED PAD LIES APPROX. 420 FEET TO THE NORTHWEST.

CERTIFICATION I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS STREET, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MYKNOWLEDGE AND BELIEF. 177777 APOFESSION 7/27/20 CHAD HARCROW N.M.P.S. NO. 17777 DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c. harcrow@harcrowsurveying.com

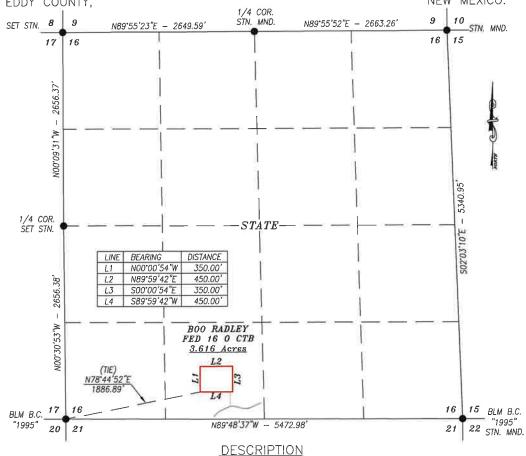


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нннн	Scale: i	1 "= 100"	-		1

COG OPERATING, LLC		
SURVEY DATE: JULY 17, 2020	600S	
	PAGE: 1 OF 1	
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963	

EXHIBIT A STATE BUSINESS LEASE COG OPERATING, LLC.

A STATE BUSINESS LEASE FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A PROPOSED PAD LOCATED WITHIN STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE PROPOSED PAD, WHICH LIES N78'44'52"E 1886.89 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN NO0°00'54"W 350.00 FEET; THEN N89°59'42"E 450.00 FEET; THEN S00°00'54"W 350.00 FEET; THEN S89°59'42"W 450.00 FEET TO THE POINT OF BEGINNING.

SAID PAD CONTAINS 3.616 ACRES AND IS LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS

AND L. HARCAG FOR SURVEYING IN NEW MEXICO. W MEXIC POFESSIONE 27/20 CHAD HARCROW N.M.P.S. NO. 177777 DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

PH: (575) 746-2158 c.harcrow@harcrowsurveying.com



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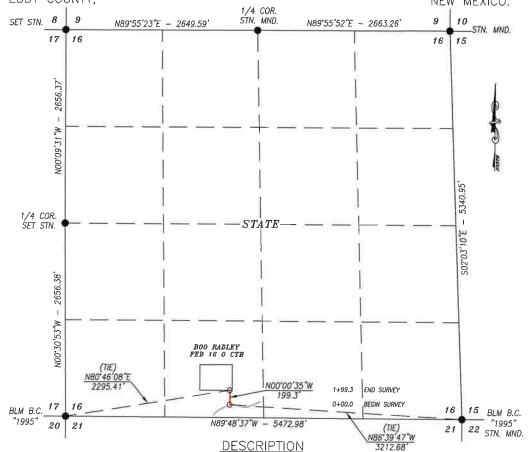
COG OPERATING, LLC

SURVEY OF A PROPOSED PAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 17, 2020	EXHIBIT A
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: WN	FILE: 20-963

<u>EXHIBIT B</u> ACCESS ROAD PLAT COG OPERATING, LLC.

AN ACCESS ROAD FOR THE "BOO RADLEY FED 16 O CTB" IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86°39'47"W 3212.68 FEET FROM THE SOUTHEAST CORNER; THEN N00°00'35"W 199.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N80°46'08"E 2295.41 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 199.3 FEET OR 12.08 RODS IN LENGTH, CONTAINING 0.137 ACRES MORE OR LESS AND BEING LOCATED ALL IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Chal Harwow POFESSIONE 7/27/20

CHAD HARCROW N.M.P.S. NO. 177777

DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



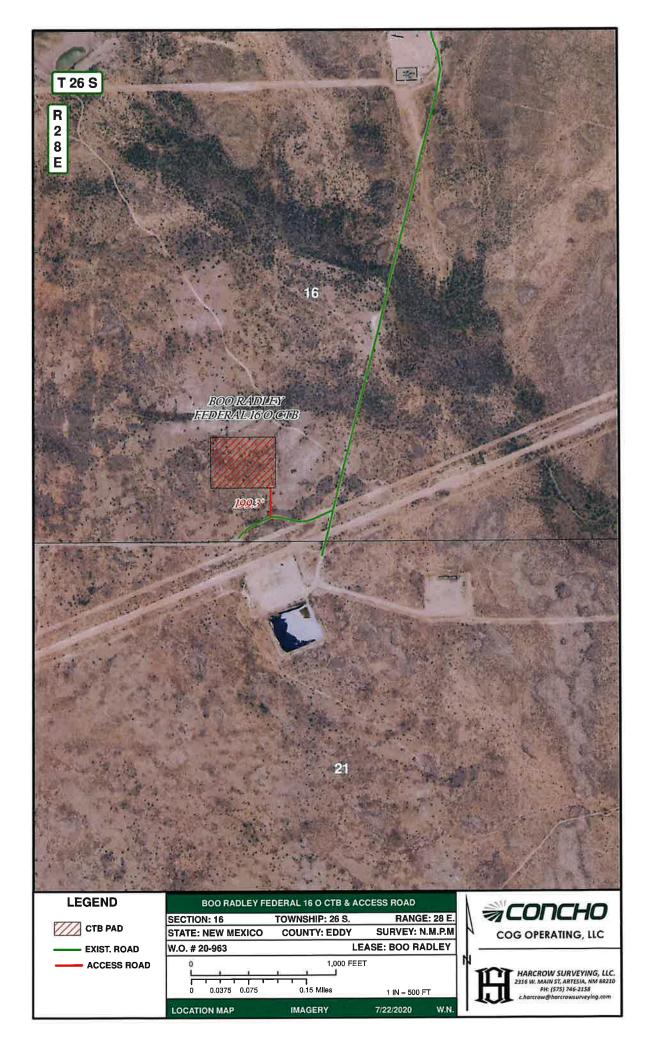
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COG OPERATING, LLC

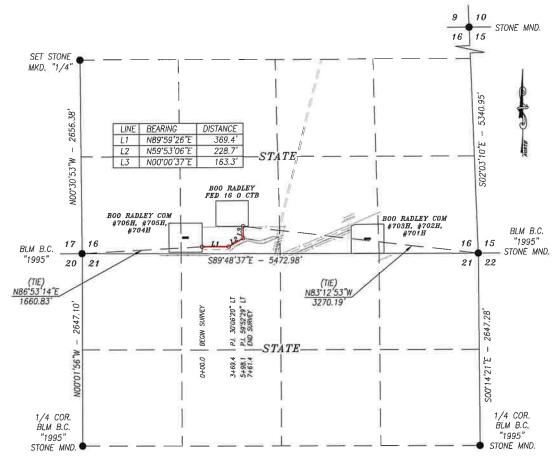
SURVEY OF A PROPOSED ROAD LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	EXHIBIT B
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: WN	FILE: 20-963





A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N86'53'14"E 1660.83 FEET FROM THE SOUTHWEST CORNER; THEN N89'59'26"E 369.4 FEET; THEN N59'53'06"E 228.7; THEN N00'00'37"E 163.3 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83'12'53"W 3270.19 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 761.4 FEET OR 46.15 RODS IN LENGTH, CONTAINING 0.524 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT HEFT THE MINIMUM STANDARDS



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210

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c.harcrow@harcrowsurveying.com



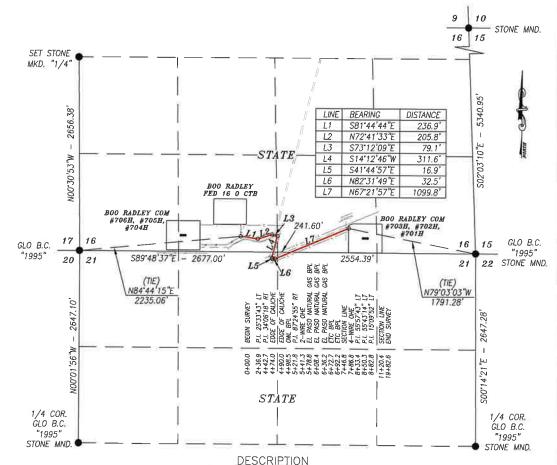
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 20, 2020	FLOWLINE #1
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-992

A PROPOSED FLOWLINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84*44'15"E 2235.06 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S81*44'44"E 236.9 FEET; THEN N72*41'33"E 205.8; THEN S73*12'09"E 79.1 FEET; THEN S14*12'46"W 311.6; THEN S41*44'57"E 16.9; THEN N82*31'49"E 32.5 FEET; THEN N67*21'57"E 1099.8 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79*03'03"W 1791.28 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.6 FEET OR 120.16 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SE/4 SW/4 45.08 RODS OR 0.512 ACRES SW/4 SE/4 52.42 RODS OR 0.595 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

CERTIFICATION

1, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR
CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT
THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THIS SURVEY AND PLAT HEET THE MINIMUM STANDARDS

Chad Harrow Poression Date

<u>SECTION 21</u>
NE/4 NW/4 10.71 RODS OR 0.122 ACRES
NW/4 NE/4 11.95 RODS OR 0.136 ACRES

HARCROW SURVEYING, LLC

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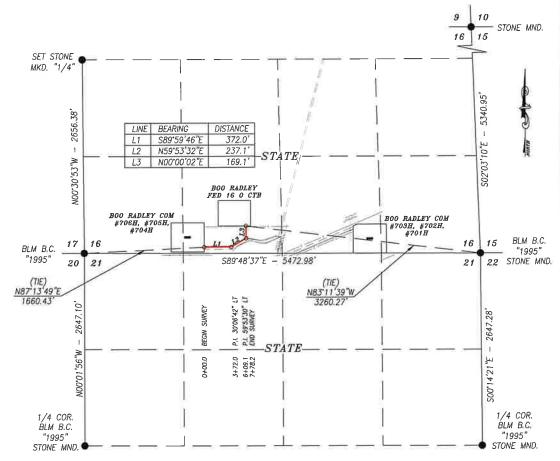
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COG OPERATING, LLC.

SURVEY OF A PROPOSED FLOWLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: JULY 20, 2020	FLOWLINE #2
DRAFTING DATE: JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH DRAWN BY: DS	FILE: 20-992

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY,



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N87*13'49"E 1660.43 FEET FROM THE SOUTHWEST CORNER; THEN S89'59'46"E 372.0 FEET; THEN N59'53'32"E 237.1; THEN N00'00'02"E 169.1 FEET TO A POINT IN THE SE/4 SW/4 OF SAID SECTION, WHICH LIES N83'11'39"W 3260.27 FEET FROM SOUTHEAST CORNER.

SAID STRIP OF LAND BEING 778.2 FEET OR 47.16 RODS IN LENGTH, CONTAINING 0.536 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SE/4 SW/4:

BASIS OF BEARING:

DASIS OF DEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

L. HARCRO LY MEXIC POFESSIONAL Harrow 07/28/20 CHAD HARCROW N.M.P.S. NO. 17777 DATE

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



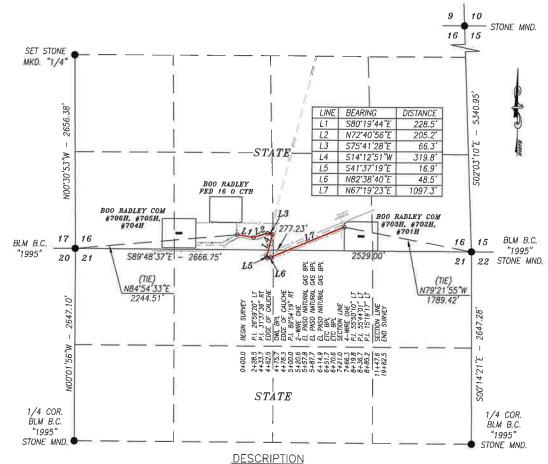
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COG OPERATING. LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	JLY 20, 2020	GAS LINE #1
DRAFTING DATE:	TULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-993

A PROPOSED GAS LINE FOR THE BOO RADLEY WELLS IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N84'54'33"E 2244.51 FEET FROM THE SOUTHWEST CORNER OF SECTION 16; THEN S80'19'44"E 228.5 FEET; THEN N72'40'56"E 205.2; THEN S75'41'28"E 66.3 FEET; THEN S14'12'51"W 319.8; THEN S41'37'19"E 16.9; THEN N82'38'40"E 48.5 FEET; THEN N67'19'23"E 1097.3 FEET TO A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N79'212'55"W 1789.42 FEET FROM SOUTHEAST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 1982.5 FEET OR 120.15 RODS IN LENGTH, CONTAINING 1.365 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

07/28/20

SECTION 16

Harrow

CHAD HARCROW N.M.P.S. NO. 17777

SE/4 SW/4 43.70 RODS OR 0.497 ACRES SW/4 SE/4 50.59 RODS OR 0.574 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES. CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

ST MEXIC

POFESSIONAL

SECTION 21

NE/4 NW/4 12.25 RODS OR 0.139 ACRES NW/4 NE/4 13.61 RODS OR 0.155 ACRES

HARCROW SURVEYING, LLC

2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158 c.harcrow@harcrowsurveying.com

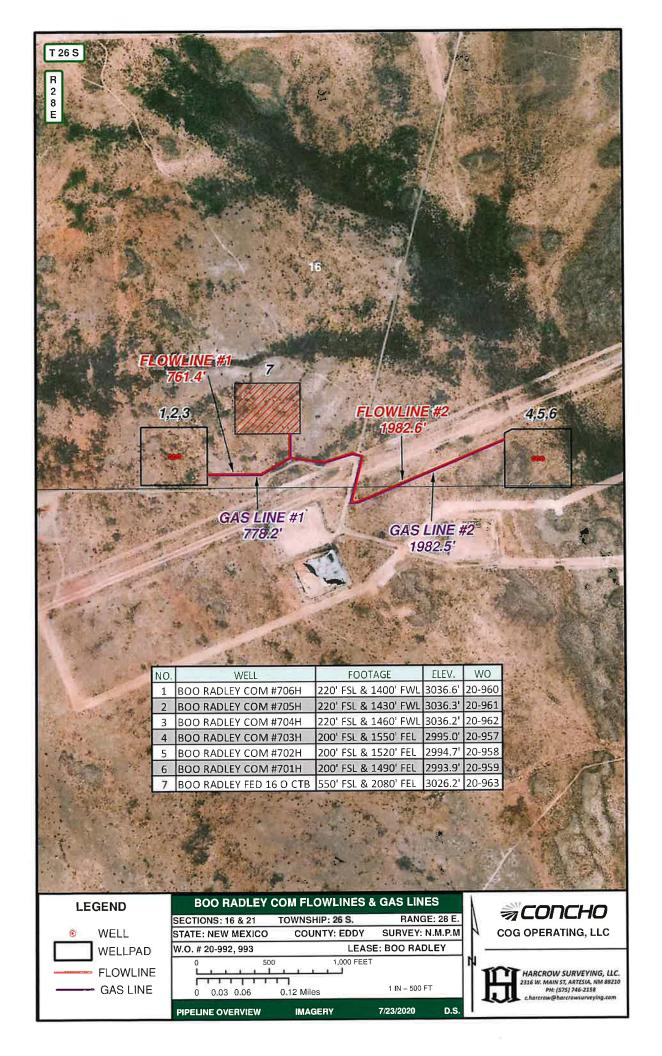


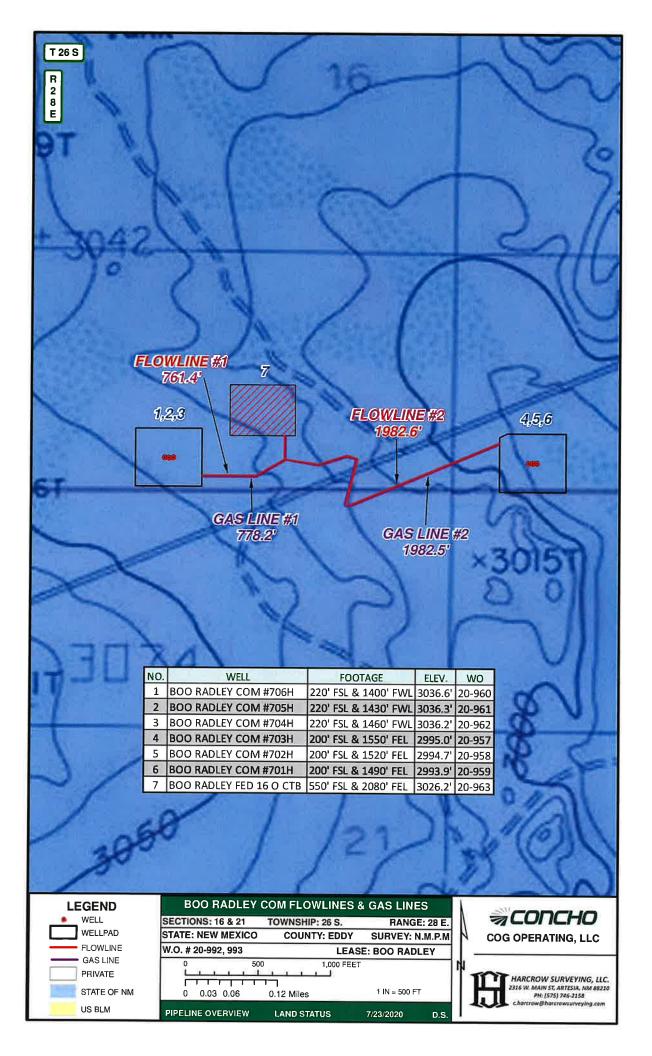
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COG OPERATING, LLC.

SURVEY OF A PROPOSED GAS LINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 20, 2020	GAS LINE #2
DRAFTING DATE:	JULY 22, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: DS	FILE: 20-993

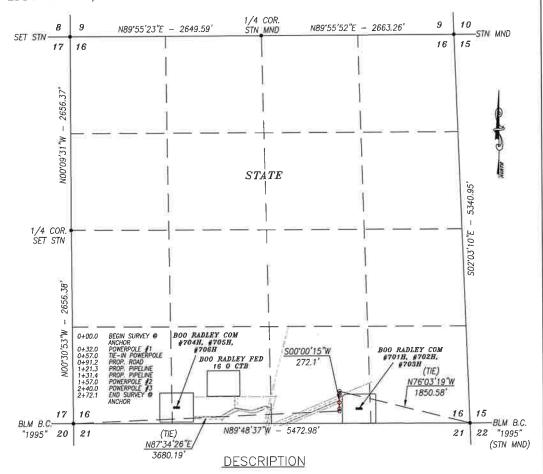




POWERLINE PLAT: LINE #1 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY;

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N76°03'19"W 1850.58 FEET FROM THE SOUTHEAST CORNER: THEN SOO'00'15"W 272.1 FEET, TO A POINT IN THE SW/4 SE/4 OF SAID SECTION, WHICH LIES N87°34'26"E 3680.19 FEET FROM SOUTHWEST CORNER.

SAID STRIP OF LAND BEING 272.1 FEET OR 16.49 RODS IN LENGTH, CONTAINING 0.187 ACRES MORE OR LESS AND BEING LOCATED ENTIRELY IN THE SW/4 SE/4 OF SAID SECTION.

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT WEST THE MINIMUM STANDARDS

L. HARCRO FOR SURVEYING IN NEW MEXICO. MEXIC POFESSIONAL 27/20 CHAD HARCROW N.M.P.S. NO. 17777

HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

c.harcrow@harcrowsurveying.com



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COG OPERATING, LLC.

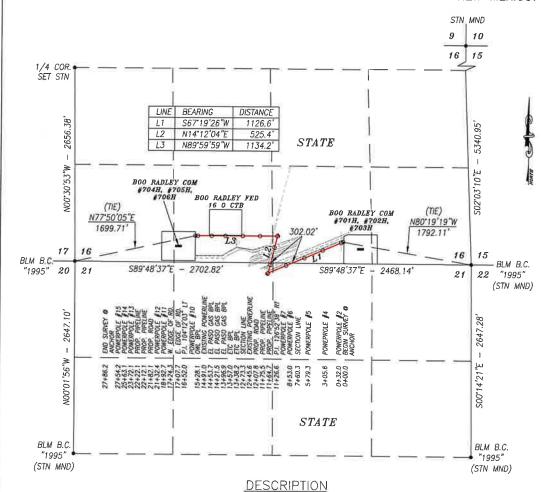
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTION 16, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

SURVEY DATE: J	ULY 17, 2020	POWERLINE #1
DRAFTING DATE:	TULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: JH	FILE: 20-994

POWERLINE PLAT: LINE #2 COG OPERATING, LLC.

A PROPOSED POWERLINE SERVICING THE BOO RADLEY COM WELLS & BOO RADLEY FEDERAL 16 O CENTRAL TANKBATTERY IN

SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY; WITH ANCHORS EXTENDING OUTSIDE THE CENTERLINE SURVEY; 14 FEET SOUTHERLY AND WESTERLY AT POLE 7 AND 17.0 FEET NORTHERLY AND EASTERLY AT POLE 10; WHICH HAVE BEEN ACCOUNTED FOR IN

BEGINNING AT A POINT IN THE SW/4 SE/4 OF SECTION 16, WHICH LIES N80'19'19"W 1792.11 FEET FROM THE SOUTHEAST CORNER OF SECTION 16; THEN S67:19'26"W 1126.6 FEET; THEN N14'12'04"E 525.4 FEET; THEN N89'59'59"W 1134.2 FEET, TO A POINT IN THE SE/4 SW/4 OF SECTION 16, WHICH LIES N77'50'05"E 1699.71 FEET FROM THE SOUTHWEST CORNER OF SECTION 16.

SAID STRIP OF LAND BEING 2848.2 FEET OR 172.62 RODS IN LENGTH, CONTAINING 1,962 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 16

SW/4 SE/4 67.53 RODS OR 0.767 ACRES SE/4 SW/4 72.30 RODS OR 0.822 ACRES

SECTION 21 NW/4 NE/4 NE/4 NW/4

17.61 RODS OR 0.200 ACRES 15.18 RODS OR 0.173 ACRES

BASIS OF BEARING:

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

CERTIFICATION

I, CHAD HARCROW, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS



HARCROW SURVEYING, LLC 2316 W. MAIN ST, ARTESIA, N.M. 88210 PH: (575) 746-2158

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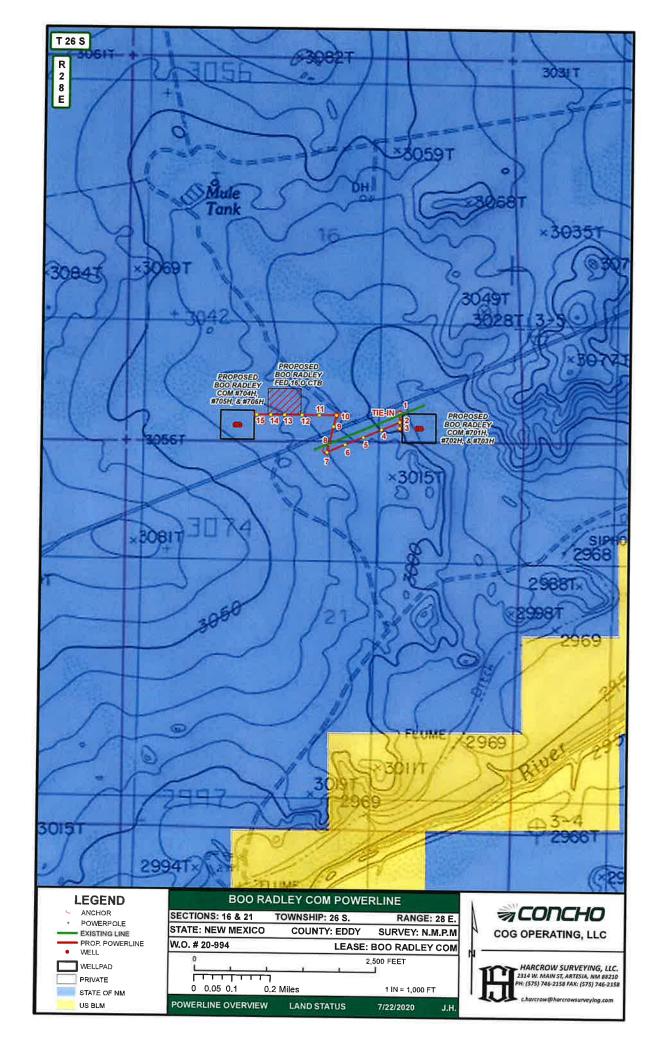
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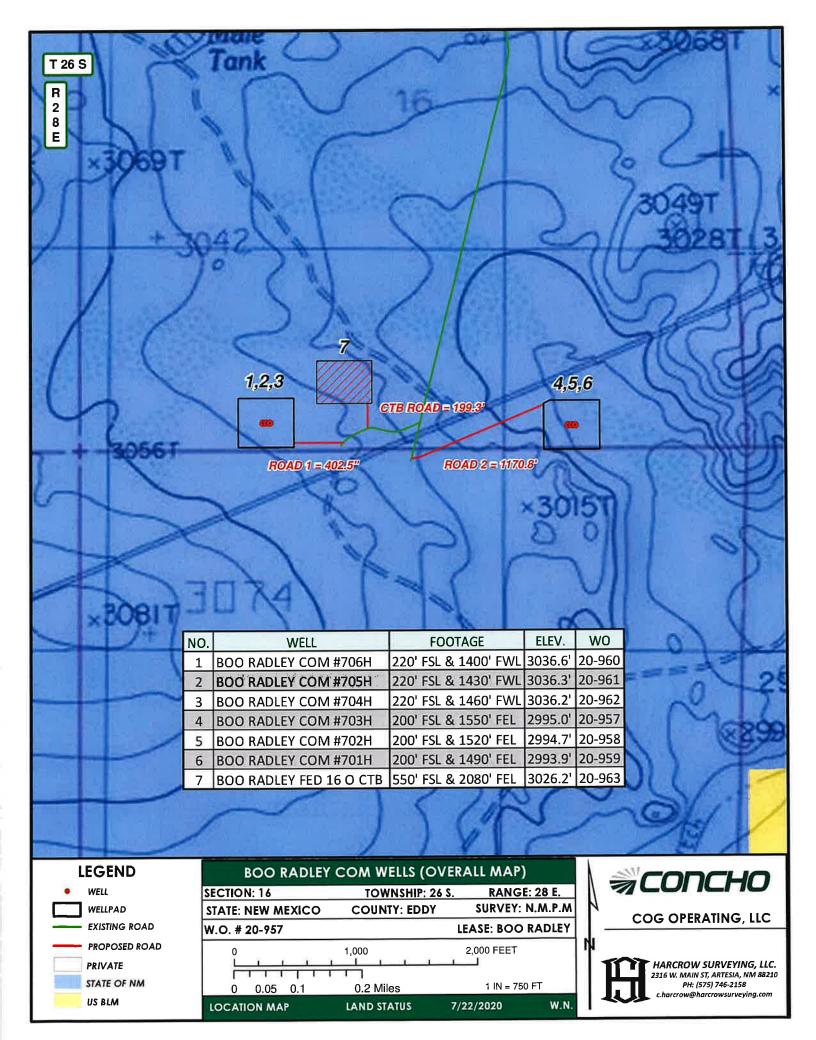
COG OPERATING. LLC.

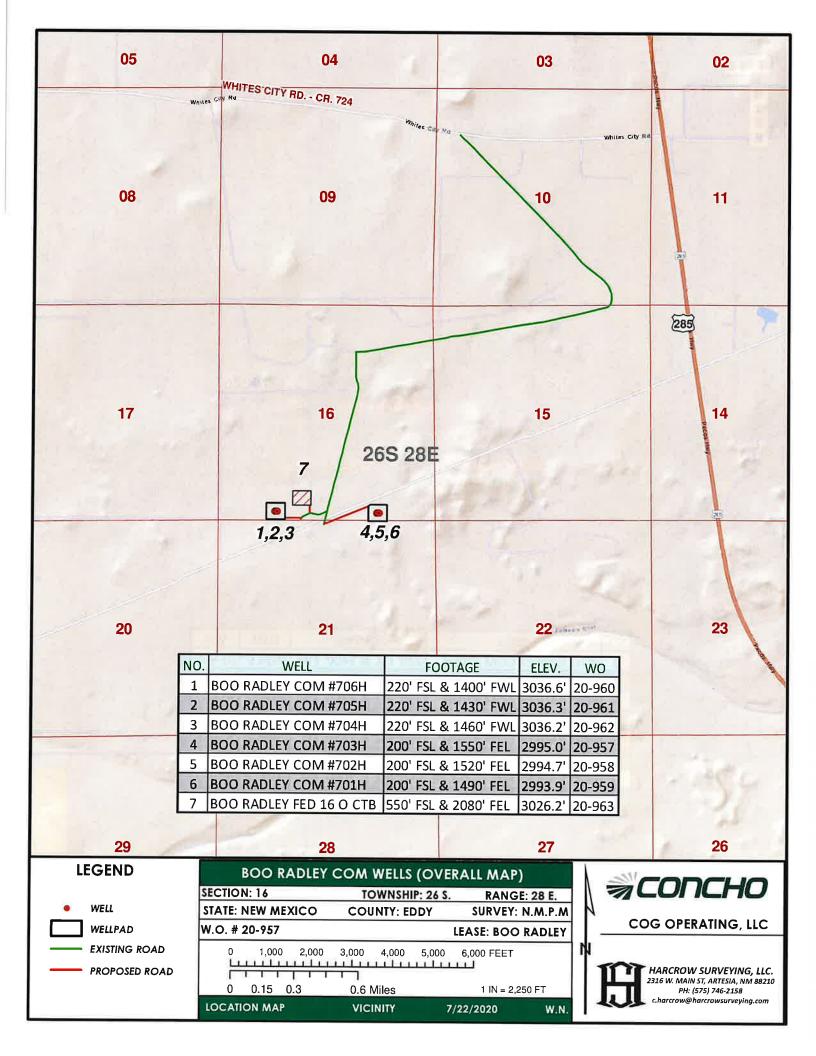
SURVEY OF A PROPOSED POWERLINE LOCATED IN SECTIONS 16 & 21, TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

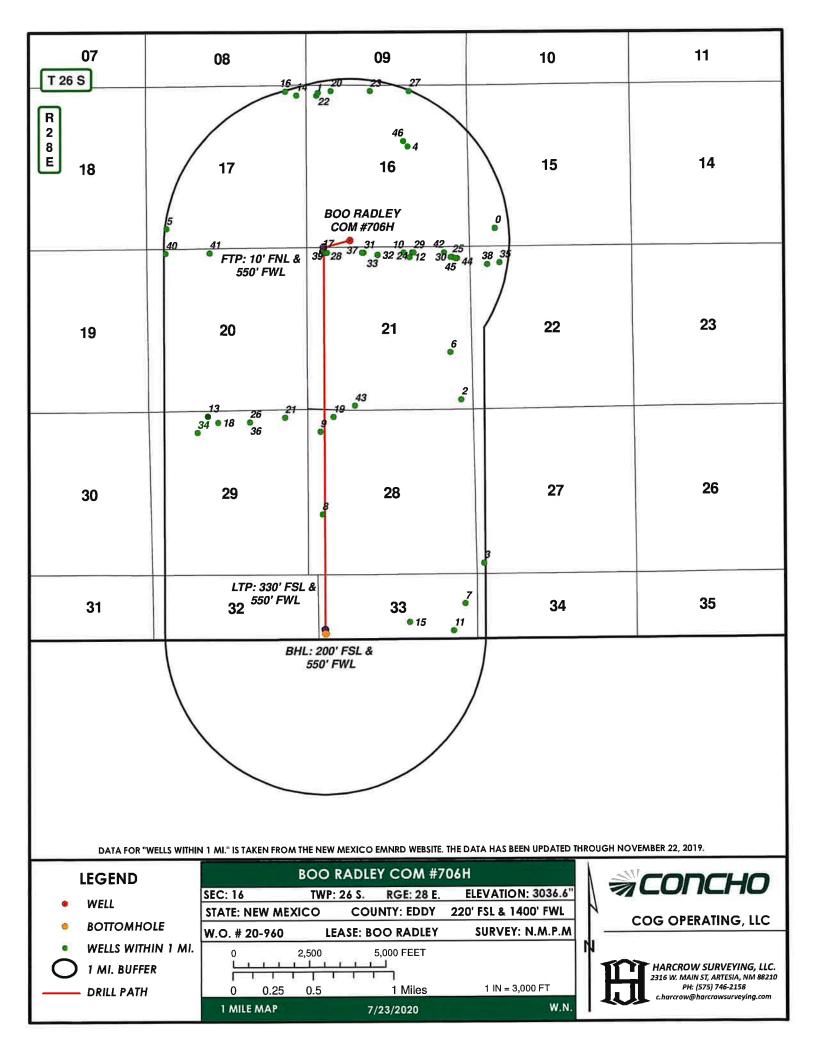
SURVEY DATE: J	ULY 17, 2020	POWERLINE #2
DRAFTING DATE:	TULY 23, 2020	PAGE 1 OF 1
APPROVED BY: CH	DRAWN BY: JH	FILE: 20-994







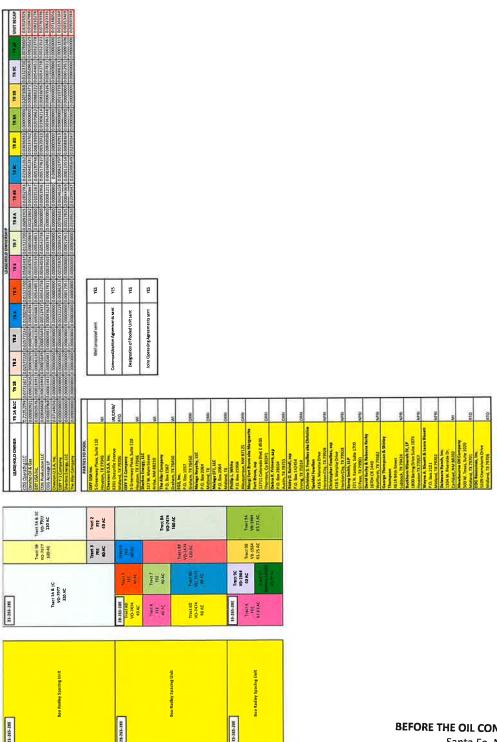




FID WELL NAME	OPERATOR	API SE	SECTION TOWNSHIP RANGE FTG NS NS CD FTG EW EW	RANGE	FTG NS INS CD	FTG EW EW CD	CO LATITUDE	LONGITUDE COMPL STAT	
0 STATE OF NM "B" 001	SUN OIL CO	3001502527	15 26.05	28E	900 S	860 W	32.036889	-104,080989 Plugged	
1 STATE OF NM 006	VANDERLAAN T	3001502528	16 26.05	28E	340 N	330 W	32.04886	-104,09997 Plugged	
2 HUMBLE STATE 001	GLENN BENNETT	3001502530	21 26.05	28E	330 S	330 E	32.021524	-104.084662 Plugged	
3 SUN ST 27 001	CHAPMAN FORD	3001502534	27 26.05	28E	330 S	330 W	32.006824	-104.082376 Plugged	
4 STATE LG 1175 001	JAKE L HAMON	3001521398	16 26.05	28E	1980 N	1980 E	32.044302	-104.090314 Plugged	
5 MANZANA UT 001	RAY H HASKINS	3001524462	17 26.05	28E	S 099	W 099	32.036938	-104,116004 Plugged	
6 GETTY STATE 001	RAY H HASKINS	3001524474	21 26.05	28E	1880 S	999 E	32.025777	-104,085782 Plugged	
7 POGO ST 001	SLEDGE OIL & GAS INC	3001523607	33 26.05	28E	N 066	330 E	32.003178	-104.084369 Plugged	
8 ALL STATE COM 002H	MARBOB ENERGY CORP	3001537499	28 26.05	28E	1980 S	330 W	32.011235	-104.099544 Unknown	
9 ALL STATE COM 001H	MARBOB ENERGY CORP	3001537498	28 26.05	28E	N 099	330 W	32,018698	-104.099698 Unknown	
10 SKEEN 21 B2BO STATE COM 001H	MEWBOURNE OIL CO	3001543247	21 26.05	28E	185 N	2180 E	32.034723	-104.090816 Unknown	
11 GRAHAM NASH STATE COM 005H	COG OPERATING LLC	3001542453	33 26.05	28E	280 S	760 E	32.000751	-104.085613 Unknown	
12 SKEEN 21 STATE COM 002H	MEWBOURNE OIL CO	3001539773	21 26.05	28E	330 N	1980 E	32.034324	-104.090162 Unknown	
13 HONEY GRAHAM STATE COM 002H	COG OPERATING LLC	3001541234	29 26.05	28E	130 N	1980 W	32.020094	-104.111677 Unknown	
14 SRO STATE UNIT 018H	COG OPERATING LLC	3001539999	17 26.05	28E	330 N	330 E	32.048888	-104.102111 Unknown	
15 GRAHAM NASH STATE COM 006H	COG OPERATING LLC	3001542464	33 26.05	28E	260 S	2200 E	32.001511	-104.090348 Unknown	
16 SRO STATE COM 068H	COG OPERATING LLC	3001543092	17 26.05	28E	200 N	690 E	32.049241	-104.103278 Unknown	
17 SKEEN 21 DM STATE 001	MEWBOURNE OIL CO	3001540863	21 26.05	28E	150 N	500 W	32.034828	-104.099418 Unknown	
18 HONEYGRAHAM STATE 006H	COG OPERATING LLC	3001538488	29 26.05	28E	330 N	2310 W	32.019549	-104.110608 Unknown	
19 GRAHAM NASH STATE COM 008H	COG OPERATING LLC	3001542203	28 26.05	28E	190 N	760 W	32.019999	-104.09833 Unknown	
20 GRAHAM CRACKER 16 STATE 001H	COG OPERATING LLC	3001541935	16 26,05	28E	190 N	800 W	32.049264	-104.098446 Unknown	
21 HONEY GRAHAM STATE COM 005H	COG OPERATING LLC	3001541608	29 26.05	28E	190 N	820 E	32.019969	-104,103453 Unknown	
22 GRAHAM CRACKER 16 STATE 009H	COG OPERATING LLC	3001543005	16 26.05	28E	250 N	380 W	32.049107	-104.099808 Unknown	
23 GRAHAM CRACKER 16 STATE 002H	COG OPERATING LLC	3001541533	16 26.05	28E	190 N	2080 W	32.049243	-104.094295 Unknown	
24 SKEEN 21 D3BO STATE COM 003H	MEWBOURNE OIL CO	3001542811	21 26.05	28E	185 N	1900 E	32.034722	-104.089908 Unknown	
25 SKEEN 21 B3AP STATE COM 001H	MEWBOURNE OIL CO	3001542810	21 26.05	28E	330 N	560 E	32.03432	-104.085558 Unknown	
26 HONEY GRAHAM 29 STATE 003H	COG OPERATING LLC	3001538274	29 26.05	28E	330 N	1980 E	32.019566	-104.107206 Unknown	
27 GRAHAM CRACKER 16 STATE 003H	COG OPERATING LLC	3001541633	16 26.05	28E	190 N	1910 E	32.049222	-104.090163 Unknown	
28 SKEEN 21 B3DM STATE COM 002H	MEWBOURNE OIL CO	3001542855	21 26.05	28E	185 N	610 W	32.034731	-104.09906 Unknown	
29 SKEEN 21 D3BO STATE COM 002H	MEWBOURNE OIL CO	3001542853	21 26.05	28E	185 N	1850 E	32.034722	-104.089746 Unknown	
30 SKEEN 21 D3AP STATE COM 002H	MEWBOURNE OIL CO	3001542856	21 26.05	38E	330 N	610 E	32.03432	-104.08572 Unknown	
31 SKEEN 21 B3CN STATE COM 001H	MEWBOURNE OIL CO	3001542854	21 26.05	28E	185 N	1850 W	32.034727	-104.095039 Unknown	
32 SKEEN 21 BZCN STATE 001H		3001542934	21 26.08	28E	266 N	2310 W	32.034503	-104.093543 Unknown	
33 SKEEN ZI STATE DUIH	CHESAPEAKE OPERATING, INC.	3001537802	21 26.05	28E	250 N	2310 W	32.034547	-104.093544 Unknown	
34 HUNEYGRAHAM SIAIE 00/H	COG OPERATING LLC	3001538595	29 26.05	28E	099	1650 W	32,018631	-104.11275 Unknown	
35 DIAMIONDBACK 22 STATE COM 006H	COG PRODUCTION, LLC	3001543195	22 26.05	28E	520 N	M 066	32.033812	-104.080526 Unknown	
36 HONEY GRAHAM STATE COM 004H	COG OPERATING LLC	3001541379	29 26.05	28E	330 N	1980 E	32.019566	-104.107206 Unknown	
37 SKEEN 21 D3CN STATE COM 002H	MEWBOURNE OIL CO	3001542857	21 26.05	28E	185 N	1800 W	32.034727	-104.095201 Unknown	
38 DIAMONDBACK 22 STATE COM 002H	OGX RESOURCES, LLC	3001539105	22 26.05	28E	280 N	280 W	32.03364	-104.081853 Unknown	
39 SKEEN 21 D3DM STATE COM 003H	MEWBOURNE OIL CO	3001542812	21 26.05	28E	185 N	W 099	32.034731	-104.098898 Unknown	
40 COTTONWOOD NORTH 20 STATE 001H	NEARBURG PRODUCING CO	3001543266	20 26.05	28E	150 N	640 W	32.034711	-104.116066 Unknown	
41 COTTONWOOD NORTH 20 STATE 002H	NEARBURG PRODUCING CO	3001543263	20 26.05	28E	150 N	2070 W	32.034747	-104,111429 Unknown	
42 SKEEN 21 B2AP STATE COM 001H	MEWBOURNE OIL CO	3001543246	21 26.05	28E	185 N	820 E		-104.086406 Unknown	
43 GRAHAM NASH FEDERAL COM 013H	COG OPERATING LLC	3001543811	21 26.05	28E	200 S	1550 W		-104.096034 Unknown	
44 SKEEN 21 WOAP STATE COM 002H	MEWBOURNE OIL CO	3001544553	21 26.05	28E	330 N	550 E		-104.085036 Unknown	
45 SKEEN 21 W2AP STATE COM 001H	MEWBOURNE OIL CO	3001544552	21 26.05	28E	330 N	600 E		-104.085198 Unknown	
46 SALT CEDAR 16 STATE SWD #001 001	COG OPERATING LLC	3001545826	16 265	28E	1850 N	2185 E	32.044761	-104.090784 New (Not drilled or compl)	ompl)

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KZ 06/29/2018



BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico
Exhibit No. C2
Submitted by: COG OPERATING LLC
Hearing Date: September 10, 2020
Case No. 21410

TOTAL COG ENTITIES TOTAL COG ENTITIES	Gross Working Interest Recapitulation Lessees Cod Operation 1 C	14TOT	SHITITIES OCC		
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Exhibit No. C3
Submitted by: COG OPERATING LLC
Hearing Date: September 10, 2020
Case No. 21410



May 20, 2020

Via CMRRR No. 9489 0090 0027 6245 1433 31 and via electronic mail to jack@allarcompany.com
The Allar Company
P.O. Box 1567
Graham, TX 76450
Attn: Jack Graham

Re: Boo Radley Fed Com 701H - 706H

Boo Radley Fed Com Unit All of Sections 21, 28, & 33, T26S-R28E Eddy County, New Mexico

Dear Mr. Graham:

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

Exhibit No. C4

Submitted by: COG OPERATING LLC

Hearing Date: September 10, 2020

Case No. 21410

COG Operating, LLC ("COG"), as Operator, hereby proposes the drilling of the following horizontal wells with productive laterals located in All of Sections 21, 28, & 33, Township 26 South, Range 28 East, Eddy County, New Mexico (collectively, the "Operation"). The surface pad locations will be located in Units N and P of Section 16, T26S-R28E (subject to change).

- Boo Radley Fed Com 701H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,500'. The surface location for this well is proposed at a legal location in Unit P of Section 16, and a bottom hole location at a legal location in Unit P of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached Authority for Expenditure ("AFE").
- Boo Radley Fed Com 702H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,490'. The surface location for this well is proposed at a legal location in Unit P of Section 16, and a bottom hole location at a legal location in Unit P of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.
- Boo Radley Fed Com 703H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,480'. The surface location for this well is proposed at a legal location in Unit P of Section 16, and a bottom hole location at a legal location in Unit O of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.
- Boo Radley Fed Com 704H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,470'. The surface location for this well is proposed at a legal location in Unit N of Section 16, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.

- Boo Radley Fed Com 705H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,460'. The surface location for this well is proposed at a legal location in Unit N of Section 16, and a bottom hole location at a legal location in Unit N of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.
- Boo Radley Fed Com 706H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,450'. The surface location for this well is proposed at a legal location in Unit N of Section 16, and a bottom hole location at a legal location in Unit M of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.

COG is proposing to drill these wells under the terms of a new Operating Agreements which will follow under separate cover.

In the interest of time, if we do not reach an agreement within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a horizontal spacing unit for the proposed wells.

Please indicate your participation elections in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFEs and a copy of your geologic requirements, to my attention at the letterhead address or by email to bunderwood@concho.com. Should you have any questions, please do not hesitate to contact me at 432.688.6644.

Sincerely,

COG Operating LLC

//Buck Underwood//

Buck Underwood Senior Landman

BU:bh Enc May 20, 2020 – Page 3 Boo Radley Fed Com 701H-706H

Please Indicate your election below:

WELL NAME	PARTICIPATE Elect to participate in drilling & completion of well	DO NOT PARTICIPATE Elect NOT to participate in drilling & completion of well
Boo Radley Fed Com 701H		
Boo Radley Fed Com 702H		
Boo Radley Fed Com 703H		
Boo Radley Fed Com 704H		
Boo Radley Fed Com 705H		
Boo Radley Fed Com 706H	ij.	

THE ALLAR COMPANY

Ву:	
Name:	
Title:	
Date:	

Well Name BOO RADLEY FED COM 701H
SHL 26S-R28E, Sec 16: 280 FSL, 1180 FEL, or Unit P
BHL 26S-R28E, Sec 33: 200 FSL, 330 FEL, or Lot 4
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,871 TVD 9,521

Cost Description	Code	PreSpud (PS)	Pre-Set Casing(PC)		Drilling (DR)	C	ompletions (C)	Tan	k Btty Constrctn(TB)	Pmpq Equip (PEQ)[Revision	To
Intangible Costs						_							
D-Lctn/Pits/Roads	205			\$	102,000.00						5	- S	102,000
D-Drilling Overhead	205			\$	9,000.00						5	- 5	9,000
D-Daywork Contract	209			\$	711,000.00			_			5	- 1 \$	711,000.
D-Directional Drlg Services	210	-		\$	340,000.00						\$	- S	340,000.
D-Fuel & Power	211			5	152,000.00	_					\$	- ls	152,000
D-Water	212			S	80,000,00						5	- IS	80,000
D-Bits	213			\$	112,000.00						S	· S	112,000
D-Mud & Chemicals	214			\$	269,000.00						\$	- S	269,000
D-Cement Surface	217			\$	21,000.00						5	- \$	21,000.
D-Cement Intermed	218			5	80,000.00						5		80,000
D-Prod-2nd Int Cmt	219			\$	118,000.00						3	- 5	118,000.
D-Float Equipment & Centralizers	221			\$	64,000.00	T		$\overline{}$			5	- S	64,000
D-Csg Crews & Equip	222			5	70,000.00						\$	- \$	70,000
D-Contract Labor	225			\$	7,000.00	1		-			15	- S	7,000.
D-Company Sprvsn	226			\$	54,000.00						1 5	- S	54,000
D-Contract Sprvsn	227			\$	127,000.00						5	· S	127,000
D-Tstg Csg/Tbg	228			\$	43,000.00	1		_			1 \$	- 15	43,000.
D-Mud Logging Unit	229			5	48,000.00	1					\$		48,000
D-Rentals-Surface	235			\$	209,000.00	1					\$		
D-Rentals-Subsrfc	236			S	97,000.00	1		-				- \$	209,000
D-Trucking/Forklift/Rig Mob	237			5	150,000.00	-		_			\$	- 1 \$	97,000.
D-Welding Services	238			5		1		_			\$	· \$	150,000.
D-Contingency	243			\$	4,000.00	-		-			\$		4,000
D. Enymmil/Cled Loop					65,000.00	-		-			S	- 5	65,000.
D-Envmmtl/Clsd Loop	244			\$	329,000.00	-	84 655 55	_			\$	- \$	329,000
C-Weilbore Frac Prep	304					S	81,000.00	_			5	. \$	81,000.
C-Lctn/Pits/Roads	305			_		\$	10,000.00				\$	- I S	10,000.
C-Completion OH	306					\$	15,000.00				5	. \$	15,000.
C-Frac Equipment	307					S	932,000.00				\$	- \$	932,000.
C-Frac Chemicals	308					\$	399,000.00				\$	- \$	399,000.
C-Frac Proppant	309					5	181,000.00				5	- 5	181,000.
C-Frac Proppant Transportation	310					\$	282,000.00				5	- 18	282,000
C-Fuel Delivery & Services	311					5	41,000.00				S	- \$	41,000
C-Water	312					5	552,000.00				5	- IS	552,000.
C-Frac Surface Rentals	315					S	306,000.00				s	. 8	306,000
C-Contract Labor	325					S	10,000.00				s		10,000.
C-Company Sprvsn	326					S	10,000.00				8	- \$	10,000.
C-Contract Sprvsn	327					s	145,000.00				\$	- \$	145,000.
C-Artificial Lift Install	329					5	44,000.00	-			\$. 5	44,000.
C-Perf/Wireline Svc	331			_		8	363,000.00	-			\$		
-Trucking/Forklift/Rig Mob	337					\$	10,000.00	_			5		363,000.
C-Water Disposal	339			_		S		-				* S	10,000.
C-Conlingency	343			_			39,000.00	-			\$. \$	39,000
2-Dyed Diesel	345			_		\$	144,000.00	_			\$	- \$	144,000.
C-Drillout	346			_		5	315,000.00	_			S	. \$	315,000.
				_		\$	325,000.00	_			5	- 18	325,000.
B-Damages/Right of Way	351			_		_		\$	2,000.00		5	. \$	2,000.
B-Location/Pits/Roads	353					_		5	41,000.00		S	- 1 s	41,000
B-Contract Labor	356					_		\$	172,000.00		5	- S	172,000.
PEQ-Contract Labor	374									\$ 38,000.00		- \$	38,000
PEQ-Water Disposal	387					_				\$ 179,000.00		+ 18	179,000.
PEQ-HRZ Well Offset Frac	391									\$ 18,000.00	\$	- S	18,000
otal Intangible Costs		\$.	\$	\$ 3	,261,000.00	\$	4,204,000.00	\$	215,000.00	\$ 235,000.00	\$	- \$	7,915,000
angible Costs													
EQ-Flowback Crews & Equip	392									5 115,000.00	5	. \$	115,000.
)-Surface Casing	401			\$	25,000.00					100000000000000000000000000000000000000	5	- S	25,000
>Intermed Csg	402			\$	228,000.00						\$	- 5	228,000
)-Production Casing/Liner	403				315,000.00						5	- \s	315,000
)-Wellhead Equip	405			\$	76,000.00						5	- S	76,000
-Tubing	504					S	52,000.00				\$	- is	52,000
-Wellhead Equip	505			_		S	28,000.00				5	. 5	28,000
B-Tanks	510					_		s	77,000.00		\$	- \$	77,000
B-Flowlines/Pipelines	511							S	29,000.00		5	- 5	
B-Htr Trtr/Seprtr	512			_				S					29,000
B-Electrical System/Equipment	513			_		_			176,000.00		S	- \$	176,000
-Pckrs/Anchors/Hgrs	514			_		\$	65,000.00	5	113,000.00		5	· S	113,000
B-Couplings/Fittings/Valves	515			_		9	05,000,00	•	464.000.55		S	- S	65,000.
	521			_		_		\$	194,000.00		\$	- \$	194,000
B-Pumps-Surface				_		_		\$	24,000.00		5	. \$	24,000
B-Instrumentation/SCADA/POC	522					_		\$	20,000.00		\$	- S	20,000
B-Miscellaneous	523							\$	20,000.00		S	- 8	20,000
B-Meters/Lacts	525							\$	24,000.00		S	· \$	24,000
B-Flares/Combusters/Emission	526							S	29,000.00		S	- 5	29,000
-Gas Lift/Compression	527	7				S	25,000.00				\$	- 5	25,000
EQ-Wellhead Equipment	531									\$ 41,000.00		- \$	41,000
E-44Cilliead Equipitient		s -	\$	•	644,000.00	S	170,000.00	5	706,000.00	\$ 156,000.00		. \$	1,676,000.
otal Tangible Costs		•	4 - 1										
otal Tangible Costs		•	•		,		170,000.00		700,000.00	100,000.00			1101 01000
otal Tangible Costs			\$ ·				4,374,000.00		921,000.00			- 3	9,591,000

COG Operating LLC	
By:	Date Prepared: 7/6/20
We approve:	COG Operating LLC
** Working Interest	By:
Gompany: By:	
Printed Name	
Title:	This ASS is only an astimate. By single your
Date:	This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

Well Name BOO RADLEY FED COM 702H
SHL 26S-R28E, Sec 16: 280 FSL, 1210 FEL, or Unit P
BHL 26S-R28E, Sec 33: 200 FSL, 1210 FEL, or Lot 4
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,855 TVD 9,505

AFE Numbers									
Cost Description	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drilling (DR)	Completions (C)	Tank Btty Constrctn(TB)	Pmpq Equip (PEQ)	Revision	
ntangible Costs	10000				. 1800				V-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
D-Lctn/Pits/Roads	205			\$ 102,000.00				\$ -	\$ 102,00
D-Drilling Overhead	206			\$ 9,000.00				s -	\$ 9,00
								S .	\$ 711,00
-Daywork Contract	209			5 711,000.00				S -	\$ 340,00
-Directional Drig Services	210			\$ 340,000.00					
-Fuel & Power	211			\$ 152,000.00				\$	\$ 152,00
-Water	212			\$ 80,000.00				\$	\$ 80,00
-Bits	213			\$ 112,000.00				s .	\$ 112,00
								\$ -	\$ 269,00
-Mud & Chemicals	214			\$ 269,000.00					
)-Cement Surface	217			\$ 21,000.00				\$	
Cement Intermed	218			\$ 80,000.00			6	\$	\$ 80,00
-Prod-2nd Int Cmt	219			\$ 118,000,00				\$	\$ 118,00
	221							\$.	\$ 64,00
-Float Equipment & Centralizers				\$ 64,000.00					
I-Csg Crews & Equip	222			\$ 70,000.00				\$.	
2-Contract Labor	225			S 7,000,00				5 -	\$ 7,00
I-Company Sprvsn	226			\$ 54,000.00				S .	\$ 54,00
Company operan	227			\$ 127,000.00				\$ -	5 127,00
-Contract Sprvsn									\$ 43,00
-Tstg Csg/Tbg	228			\$ 43,000.00				*	
-Mud Logging Unit	229			\$ 48,000,00				\$	\$ 48,00
-Rentals-Surface	235			\$ 209,000.00				\$.	\$ 209,00
-Rentals-Subsrfc	220			\$ 97,000.00				S	\$ 97,00
	236 237			\$ 150,000.00				\$ -	S 150,00
-Trucking/Forklift/Rig Mob									
-Welding Services	238			\$ 4,000,00				\$ -	
-Contingency	243			\$ 65,000.00				\$ -	\$ 65,00
-Envrnmtl/Clsd Loop	244			\$ 329,000.00			10	S	\$ 329,00
	304			200,000,00	\$ 81,000.00			S	\$ 81,00
-Wellbore Frac Prep								\$	s 10,00
-Lctn/Pits/Roads	305				\$ 10,000.00				
-Completion OH	306				\$ 15,000.00			\$	\$ 15,00
-Frac Equipment	307				\$ 932,000.00			\$ -	\$ 932,00
	308				\$ 399,000,00			\$	\$ 399,00
Frac Chemicals								\$ +	\$ 181,00
-Frac Proppant	309				\$ 181,000.00				
-Frac Proppant Transportation	310				\$ 282,000,00			\$ -	S 282,00
-Fuel Delivery & Services	311				\$ 41,000.00			\$	\$ 41,00
-Water	312				\$ 552,000,00			S -	\$ 552,00
					\$ 306,000.00		-	S	\$ 306,00
Frac Surface Rentals	315							\$ -	\$ 10,00
C-Contract Labor	325				\$ 10,000.00				
Company Sprvsn	326				\$ 10,000.00			\$ -	\$ 10,00
C-Contract Sprvsn	327				\$ 145,000.00			\$	\$ 145,00
-Artificial Lift Install	329				\$ 44,000.00			\$ -	S 44,00
								\$ -	\$ 363,0
-Perf/Wireline Svc	331				\$ 363,000.00				
-Trucking/Forklift/Rig Mob	337				\$ 10,000,00) \$ ·	\$ 10,00
-Water Disposal	339				\$ 39,000.00] \$ -	\$ 39.00
C-Contingency	343				\$ 144,000.00			1.5	\$ 144,0
					\$ 315,000.00			is -	\$ 315,0
-Dyed Diesel	345								\$ 325,0
-Drillout	346				\$ 325,000.00			\$ -	
B-Damages/Right of Way	351					\$ 2,000.00) S -	\$ 2,0
B-Location/Pits/Roads	353					\$ 41,000,00		S -	\$ 41,0
B-Contract Labor	356					\$ 172,000.00		IS -	\$ 172,0
W. STATE CO. HOLDER						7 172,000.00	\$ 38,000.00		\$ 38,0
PEQ-Contract Labor	374								
PEQ-Water Disposal	387						\$ 179,000.00		
PEQ-HRZ Well Offset Frac	391						\$ 18,000.00	1 \$	\$ 18,0
		\$.		\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 235,000.00	\$.	\$ 7,915,0
otal Intangible Costs		•	19.	4 3,201,000.00	* 4,254,000.00	210,000.00			1.4
angible Costs			,				\$ 115,000.00	15 -	S 115,0
EQ-Flowback Crews & Equip	392						\$ 115,000.00		\$ 25,0
-Surface Casing	401			\$ 25,000.00				\$	
Intermed Csg	402			\$ 228,000.00				\$.	\$ 228,0
Production Casing/Liner	403			\$ 315,000.00			f.	I S -	\$ 315,0
	405			\$ 76,000.00				\$ -	\$ 76,0
-Wellhead Equip				70,000.00	F F0 000 CT			S -	\$ 52,0
-Tubing	504				\$ 52,000.00				
-Wellhead Equip	505				\$ 28,000.00	77-027-		\$	\$ 28,0
B-Tanks	510					\$ 77,000.00		l s	\$ 77,0
B-Flowlines/Pipelines	511					\$ 29,000.00		S -	\$ 29,0
						\$ 176,000.00		š -	\$ 176,0
B-Hlr Trtr/Seprtr	512								
3-Electrical System/Equipment	513					\$ 113,000.00		\ S -	
Pckrs/Anchors/Hors	514				\$ 65,000.00		1-	S -	\$ 65,0
3-Couplings/Fittings/Valves	515					\$ 194,000.00		ls -	5 194,0
D. Champs Surface						\$ 24,000.00		\$ -	\$ 24,0
B-Pumps-Surface	521						-		\$ 20,0
B-Instrumentation/SCADA/POC	522					\$ 20,000.00		I S	
B-Miscellaneous	523					\$ 20,000.00] 5	\$ 20,0
B-Meters/Lacts	525					\$ 24,000.00		1 s -	\$ 24,0
	550					\$ 29,000.00		15 -	\$ 29.0
B-Flares/Combusters/Emission	526					29,000.00			\$ 25,0
-Gas Lift/Compression	527				\$ 25,000.00			s -	
	531						\$ 41,000.00		\$ 41,0
				The second second	Ex-1000000000000000000000000000000000000		\$ 156,000.00	\$.	\$ 1,676,0
EQ-Wellhead Equipment otal Tangible Costs		\$	\$ -	\$ 644,000.00	\$ 170,000.00	\$ 706,000.00	\$ 156,000.00	17	1,010,0
EQ-Wellhead Equipment			[\$ -	\$ 644,000.00		- United and a second			

COG Operating LLC	
ву:	Date Prepared: 7/6/20
	COG Operating LLC
We approve: % Working Interest	Ву:
Company:	
By:	
Printed Name:	
Title:	This AFE is only an estimate. By signing you agree to pay
Date:	your share of the actual costs incurred.

Well Name BOO RADLEY FED COM 703H
SHL 265-R28E, Sec 16: 280 FSL, 1240 FEL, or Unit P
BHL 265-R28E, Sec 33: 200 FSL, 2090 FEL, or L3
Formation WOLFCAMP
Legal 21, 28, & 33, T265-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,838 TVD 9,488

est Description angible Costs	Code	PreSpud (PS)	Pre-Set Casing(PC)		Drilling (DR)	C	ompletions (C)	Tank Bity Constrctn(TB	9)[Pmpq Equip (PEC	1	Revision		
Lctn/Pits/Roads	205	r		s	102,000.00	1			Т		Ts		s	102,0
Orilling Overhead	206			S	9,000,00				+		\$		\$	9,0
Daywork Contract	209			S	711,000.00				+		5		s	711,0
Directional Drig Services	210			S	340,000.00				+		5		S	340,0
uel & Power	211			S	152,000.00				+		S		\$	152,0
Water	212			s	80,000.00				+		8		s	80,0
Bits	213			\$	112,000.00				+-		5		5	112,0
Mud & Chemicals	214			S	269,000.00				+-		5		S	
Cement Surface	217			S	21,000.00				+-		5		_	269,0
Dement Intermed	218			S	80,000.00				+-				\$	21,0
Prod-2nd Int Cmt	219			s	118,000.00				+		5			80,0
loat Equipment & Centralizers	221			S	64,000.00				-		5		\$	118,0
Sg Crews & Equip	222			5					+-		\$		\$	64,0
Contract Labor	225			\$	70,000.00				-		5		\$	70,0
	226								-		5		\$	7.0
ompany Sprvsn ontract Sprvsn	227			\$	54,000.00				4		\$		\$	54,0
					127,000.00				-		S		\$	127,0
stg Csg/Tbg	228			S	43,000.00						\$		\$	43,0
Aud Logging Unit	229			\$	48,000.00				_		S		\$	48.0
entals-Surface	235			S	209,000,00						\$		\$	209,0
tentals-Subsrfc	236			\$	97,000.00						\$	3	\$	97.0
rucking/Forklift/Rig Mob	237			\$	150,000.00						S		\$	150,0
Velding Services	238			\$	4,000.00						S		\$	4,0
ontingency	243			\$	65,000.00						5		\$	65,0
nvmmtl/Clsd Loop	244			\$	329,000.00						5		\$	329,0
/elibore Frac Prep	304					5	81,000.00				5		\$	81,0
ctn/Pits/Roads	305					5	10,000.00				\$		\$	10,0
ompletion OH	305					S	15,000.00				5		s	15,0
rac Equipment	307					S	932,000.00		1		5		s	932,0
rac Chemicals	308					5	399,000.00		1		5		5	399,0
rac Proppant	309					5	181,000.00		1		5		\$	181.0
rac Proppant Transportation	310					S	282,000.00		+		\$		\$	282,0
uel Delivery & Services	311					\$	41,000.00		+-		5			
/ater	312			_		s	552,000.00		+		5		S	41,0 552,0
rac Surface Rentals	315			_		5	306,000.00		+-		5			
ontract Labor	325			_		\$	10,000.00		+				\$	306,0
ompany Sprvsn	326					5	10,000.00		+		\$		\$	10,0
ontract Sprvsn	327			_		\$	145,000.00		-		\$		\$	10,0
rtificial Lift Install	329			_					+-		\$		\$	145,0
erf/Wireline Svc	331			_		5	44,000.00		-		\$		\$	44,0
rucking/Forklift/Rig Mob	337			_		S	363,000.00		-		S		\$	363,0
/ater Disposal	339					\$	10,000.00		-		S		\$	10,0
	343			_		\$	39,000,00		-		\$		\$	39,0
ontingency	345					\$	144,000,00		-		8		\$	144,0
yed Diesel rillout	346					\$	315,000.00		1_		S		S	315,0
						5	325,000.00		1_		S		\$	325,0
Damages/Right of Way	351							\$ 2,000.00			1 5	40	S	2,0
ocation/Pits/Roads	353					_		\$ 41,000.00			S		\$	41,0
Contract Labor	356							\$ 172,000.00			S		\$	172,0
-Contract Labor	374							3179110094	\$	38,000.00	S	- 1	S	38,0
-Water Disposal	387								5	179,000.00	5		\$	179,0
-HRZ Well Offset Frac	391								\$	18,000.00	\$	1	S	18,0
I Intangible Costs		\$.	\$ -	\$ 3	3,261,000.00	\$	4,204,000.00	\$ 215,000.00	\$	235,000.00	\$	*	\$	7,915,0
gible Costs				-		_								
-Flowback Crews & Equip	392						i		s	115,000.00	s		5	115,0
rface Casing	401			\$	25,000.00						S	0.0	S	25,0
ermed Csg	402			s	228,000.00						\$		\$	228,0
oduction Casing/Liner	403			S	315,000.00						5		5	315,0
ellhead Equip	405			5	76,000.00				T		s		5	76.0
bing	504					5	52,000.00		-		S		\$	52.0
ellhead Equip	505					\$	28,000.00		1		5		S	28,0
anks	510					-	10,000,00	\$ 77,000.00	+		5		\$	77,0
lowlines/Pipelines	511							\$ 29,000.00	-		5		5	
tr Trtr/Seprir	512							\$ 176,000.00	-					29,0
lectrical System/Equipment	513			_		_			+		\$		\$	176,0
krs/Anchors/Hgrs	514			_		S		\$ 113,000.00	-		\$		S	113,0
ouplings/Fittings/Valves	515			_		3	65,000.00	6	+		S		\$	65,0
				_		_		\$ 194,000.00	-		S		\$	194,0
umps-Surface	521			_		_		\$ 24,000.00	-		5		\$	24,0
nstrumentation/SCADA/POC	522							\$ 20,000.00	_		5		S	20,0
Miscellaneous	523							\$ 20,000.00			\$		\$	20,0
Meters/Lacts	525							\$ 24,000.00			\$		S	24,0
lares/Combusters/Emission	526							\$ 29,000.00			8		s	29.0
as Lift/Compression	527					\$	25,000.00				\$	(*:	\$	25,0
-Wellhead Equipment	531								S	41,000.00			5	41,0
I Tangible Costs		\$ -	\$	\$	644,000.00	\$	170,000.00	\$ 706,000.00	\$	156,000.00			\$	1,676,0
														-
l Gross Cost		s -	\$ -			-	4,374,000.00	\$ 921,000.00		391,000.00				

COG Operating LLC	
By:	Date Prepared: 7/6/20
We approve: % Working Interest	COG Operating LLC By:
Company: By:	
Printed Name: Title: Date	This AFE is only an estimate, By signing you agree to pay your share of the actual costs incurred.
	,

Well Name BOO RADLEY FED COM 704H
SHL 26S-R28E, Sec 16: 220 FSL, 1460 FWL, or Unit N
BHL 26S-R28E, Sec 33: 200 FSL, 2325 FWL, or L2
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,827 TVD 9,477

April Property P	CONTRACTOR CONTRACTOR	0.4-1	Desperation (Des	Day Sat Caning (DO)	Delta	on (DD)	Completions (C)	Tank Bith Co	netreto/TO)	Pmpq Equip (PEQ)	NI .	Revision		Te
Learner Lear	ost Description	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drill	mg (DK)	Completions (C)	ank Buy Co	metretif(18)]	Filipy Equip (PEQ	4	Keysion		
District Control 200		2051			5 102	1 00 000 C					15		\$	102,000
Symptot Control													5	9,000
Section Sect						000.00								711,000
Field Fewer (1997) Water (1997)														340,000
Water														152,000
Ban														80,000
March 2 Chemicals														112,000
Comment Districts Street														269,000
Comment increase	Mud & Chemicals	214												21,000
Prince 19														80,000
Find Control														118,000
Common Equip Common Co	Prod-2nd Int Cmt	219												64,000
Command Elphore	Float Equipment & Centralizers													70,000
Secretary Service		222									-			7,000
Section Sect		225												54,000
Contract System	Company Sprvsn													
Section Sect	Contract Sprvsn					7,000,00						-		
Made Coagney Unit Francis-Gurinoce 229 S 200,000,000 S 200 S 200,000,000 S 200,000 S 20	Tstg Csg/Tbg	228												
Renales-Subrice (225) \$ 200,000 \$ 1		229												48,000
Remails Absolute	Rentals-Surface	235												209,000
Tracking Part (1997)	Rentals-Subsrfc					7,000.00								97,000
Weldern Springers 288	Trucking/Forklift/Rig Mob													150,000
Contingency 249 \$ 6,500,000 \$ 5 . \$. \$. \$. \$. \$. \$. \$. \$. \$														4,000
Environment Section												(91)		85,000
Wellboar Price Preprice											1 \$			329,00
Completion Color							\$ 81,000.00				15			81,00
Compation OH												(*)		10,00
Fig. Equipment 307														15,00
Section Sect												- 3		932,00
Fine Propopal												393		399,00
Fine Propriets Fine														181,00
Table Proposed Temporation Section Sec														282,00
Number Section Secti	Tel Deliver & Control													41,00
Value														552,00
Table Tabl					_							1921		306,00
Section Sect					_									10,00
Semplary Sprivary Semp														10,00
Section Sect														145,00
Section Sect														44,00
Performance System														363,00
Tricking retaining with Section														10,00
Section Sect	Trucking/Forklift/Rig Mob													39,00
Sample S														144,00
Section Sect										-				
String S														325,00
Dumages/regin of vay 351							\$ 325,000.00							2.00
Contract Labor 356									2,000.00					
Contract Labor	Location/Pits/Roads													
2-Contract Cabin 34-7	Contract Labor							S	172,000,00					
Service Construction Service	Q-Contract Labor													
Carrier Carr	Q-Water Disposal	387												179,00
Section Sect		391												18,00
S	tal Intangible Costs		\$.	\$ -	\$ 3,25	1,000.00	\$ 4,204,000.00	\$	215,000.00	\$ 235,000.00	1 5	•	\$	7,915,00
S	alble Contr				_									
Section Sect		202								\$ 115,000.00	ols		S	115,00
Section Sect					e 2	5 000 00				1.10,000,00				25,00
Tended Casing/Liner Casing/Lin														228,00
Velihead Equip So5 S														315,00
Seminary														76,0
Selection Sele					3 7		£ 50.000.00							52,0
Section Sect					_		6 20,000,00							28,0
Sinks Sink					_		a 28,000.00		77 000 00					77.0
Hir Trir/Seprir 512 \$ 176,000.00 \$ - \$ 176														29,0
S												<u>:</u>		176,0
Section Systemytophrent State														113.0
Securior	Electrical System/Equipment							5	113,000.00					
S						1	\$ 65,000.00							
S S S S S S S S S S														
Instrumentation/SCADAPCC \$ 20,000.00 \$ - \$ 20	Pumps-Surface												_	24,0
Miscellaneous 523	Instrumentation/SCADA/POC								20,000.00					20,0
Meters/Lacts 5.25								\$	20,000.00					20,0
Flares/Combusters/Emission 526								\$	24,000.00					24,0
Sas LiR/Compression 527 S 25,000.00 S - \$ 25 2-Wellhead Equipment 531 S 41,000.00 S - \$ 41 al Tangible Costs \$ - \$ 644,000.00 \$ 170,000.00 \$ 706,000.00 \$ 156,000.00 \$ - \$ 1,676								\$	29,000.00					29,0
O-Wellhead Equipment 531 S 41,000.00 S - S 41 at Tangible Costs S - S - S 644,000.00 S 170,000.00 S 705,000.00 S 156,000.00 S - S 1,676							\$ 25,000.00							25,0
al Tangible Costs \$ - \$ - \$ 644,000.00 \$ 170,000.00 \$ 705,000.00 \$ 156,000.00 \$ - \$ 1,676	Sas Lift/Compression									IS 41,000.00	0 S			41,0
		.99.1	_			4 000 00	\$ 170,000,00	5	706,000.00			102	\$	1,676,0
tal Gross Cost \$ - \$ - \$ 3,905,000.00 \$ 4,374,000.00 \$ 921,000.00 \$ 391,000.00 \$ - \$ 9,591	Q-Wellhead Equipment		3	3 -	3 94									
	Q-Wellhead Equipment		3		3 04	4,000.00	110,000.00			Inc.				

The desired and de	
COG Operating LLC	
Ву:	Date Prepared: 7/6/20
	COG Operating LLC
We approve:	By:
Company: By:	
Printed Name: Title:	This AFE is only an estimate. By signing you agree to pay

Well Name BOO RADLEY FED COM 705H
SHL 265-R28E, Sec 16: 220 FSL, 1430 FWL, or Unit N
BHL 265-R28E, Sec 33: 200 FSL, 1430 FWL, or L2
Formation WOLFCAMP
Legal 21, 28, & 33, T265-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,808 TVD 9,458

AFE Numbers											
Cost Description	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drilling (DR	Completions (Tank Bity Constrcti	(TB)	Pmpq Equip (PEQ) Revisio	n	Tota
Intangible Costs D-Lctn/Pits/Roads	205			£ 400 000 0	er -					Japan .	100000000000000000000000000000000000000
D-Drilling Overhead	205			\$ 102,000.00					\$.	\$	102,000.00
D-Daywork Contract	209			\$ 9,000.00			_		\$.	S	9,000,00
D-Directional Drig Services							_		\$.	5	711,000.00
	210			\$ 340,000.00			\rightarrow		\$ -	5	340,000.00
D-Fuel & Power	211			\$ 152,000.00			_		S -	\$	152,000.00
D-Water D-Bits	212			\$ 80,000.00			_		\$ -	\$	80,000.00
D-Mud & Chemicals	213			\$ 112,000.00					5 -	\$	112,000,00
				\$ 269,000,00					\$.	5	269,000.00
D-Cement Surface	217			\$ 21,000.00					\$	\$	21,000.00
D-Cement Intermed	218			\$ 80,000,00					S -	5	80,000.00
D-Prod-2nd Int Cmt	219			\$ 118,000.00	0				\$ -	\$	118,000.00
D-Float Equipment & Centralizers	221			\$ 64,000.00					s -	5	64,000.00
D-Csg Crews & Equip	222			\$ 70,000,00					5 -	5	70,000.00
D-Contract Labor	225			\$ 7,000.00					S -	S	7,000,00
D-Company Sprvsn	226			\$ 54,000,00			_		s .	S	54,000.00
D-Contract Sprvsn	227			\$ 127,000.00					5 -	S	127,000,00
D-Tsla Csa/Tba	228			\$ 43,000.00					5	\$	43,000.00
D-Mud Logging Unit	229			\$ 48,000.00					\$ -	S	48,000.00
D-Rentals-Surface	235			\$ 209,000.00					\$.	5	209,000.00
D-Rentals-Subsrfc	236			\$ 97,000.00					\$	\$	97,000.00
D-Trucking/Forklift/Rig Mob	237			\$ 150,000.00					5 .	\$	150,000.00
D-Welding Services	238			\$ 4,000,00					\$.	\$	4,000.00
D-Contingency	243			\$ 65,000.00					\$.	\$	65,000.00
D-Envmmtl/Clsd Loop	244			\$ 329,000.00					\$.	5	329,000.00
C-Wellbore Frac Prep	304				\$ 81,000.00)			\$.	S	81,000.00
C-Lctn/Pits/Roads	305				\$ 10,000.00				S .	\$	10,000.00
C-Completion OH	306				\$ 15,000.00				s .	5	15,000.00
C-Frac Equipment	307				\$ 932,000.00				\$.	8	932,000.00
C-Frac Chemicals	308				\$ 399,000.00				S -	\$	399,000.00
C-Frac Proppant	309				\$ 181,000.00		-		\$.	5	181,000,00
C-Frac Proppant Transportation	310				\$ 282,000.00		\rightarrow		S .		
C-Fuel Delivery & Services	311				\$ 41,000.00		\rightarrow			S	282,000.00 41,000.00
C-Water	312				\$ 552,000.00		-+		S -		
C-Frac Surface Rentals	315				\$ 306,000.00		-+		\$	\$	552,000.00
C-Contract Labor	325				\$ 10,000.00		-			\$	306,000.00
C-Company Sprvsn	326				\$ 10,000.00		\rightarrow		s .	\$	10,000.00
C-Contract Sprvsn	327						-		S -	\$	10,000.00
C-Artificial Lift Install	329				\$ 145,000.00 \$ 44,000.00		-		s .	\$	145,000.00
C-Perf/Wireline Svc	331						_		\$ -	\$	44,000.00
C-Trucking/Forklift/Rig Mob	337				\$ 363,000,00		-		\$.	S	363,000.00
C-Water Disposal	339				\$ 10,000,00		-		5 -	\$	10,000.00
C-Conlingency	343				\$ 39,000.00		_		S -	\$	39,000,00
C-Dyed Diesel	345				\$ 144,000.00		_		S .	5	144,000.00
C-Drillout	346				\$ 315,000.00		_		\$ -	\$	315,000.00
	351				\$ 325,000.00		_		\$.	S	325,000.00
TB-Damages/Right of Way						\$ 2,000			\$ -	\$	2,000.00
TB-Location/Pits/Roads	353					S 41,000			5 .	S	41,000.00
TB-Contract Labor	356					S 172,000	0.00		\$ -	\$	172,000.00
PEQ-Contract Labor	374							\$ 38,000.00		5	38,000.00
PEQ-Water Disposal	387							\$ 179,000.00		\$	179,000.00
PEQ-HRZ Well Offset Frac	391							\$ 18,000.00		\$	18,000.00
Total Intangible Costs		\$.	\$ -	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000	0.00	\$ 235,000.00	\$	\$	7,915,000.00
and the second second					**				-		
Tangible Costs						71					
PEQ-Flowback Crews & Equip	392	- 1					1:	\$ 115,000.00	\$ -	S	115,000.00
D-Surface Casing	401			\$ 25,000.00					\$	5	25,000.00
D-Intermed Csg	402			S 228,000.00					5 .	5	228,000.00
D-Production Casing/Liner	403			\$ 315,000.00					S	\$	315,000.00
D-Wellhead Equip	405			\$ 76,000.00					\$.	\$	76,000.00
C-Tubing	504				\$ 52,000.00				\$ -	\$	52,000,00
C-Wellhead Equip	505				\$ 28,000.00				\$.	5	28,000.00
TB-Tanks	510				100	\$ 77,000	.00		S	5	77,000.00
T8-Flowlines/Pipelines	511					\$ 29,000			\$	S	29,000.00
TB-Htr Trtr/Seprtr	512					\$ 176,000			\$ -	S	176,000.00
B-Electrical System/Equipment	513					\$ 113,000	00		\$.	\$	113,000.00
C-Pckrs/Anchors/Hgrs	514				S 65,000.00	1.10,000			\$.	S	65,000.00
B-Couplings/Fittings/Valves	515				37,102,00	\$ 194,000	00		S	S	194,000.00
IB-Pumps-Surface	521					\$ 24,000	00		\$.		
B-Instrumentation/SCADA/POC	522					\$ 20,000				\$	24,000.00
TB-Miscellaneous	523					\$ 20,000			5 .	5	20,000.00
TB-Meters/Lacis	525					\$ 24,000	00		\$.	S	20,000.00
B-Flares/Combusters/Emission	526					\$ 29,000				\$	24,000.00
C-Gas Lift/Compression	527				\$ 25,000.00	Za'000	_00		\$	S	29,000.00
EQ-Wellhead Equipment	531				25,000,00		-	11.000.00	s -	S	25,000.00
Total Tangible Costs				5 644 000 00			200	\$ 41,000.00		S	41,000.00
Vini milliple ocara			*	5 644,000.00	\$ 170,000.00	\$ 706,000	.00 1	156,000.00	\$	\$	1,676,000.00
Total Green Cont	r				12						
Total Gross Cost			\$	\$ 3,905,000.00	\$ 4,374,000.00	\$ 921,000	.00	391,000.00	\$.	\$	9,591,000.00
lote: The above costs are estimate	s only. Ac	tual costs will be I	billed as incurred.								

COG Operating LLC	
Ву:	Date Prepared: 7/6/20
We approve:	COG Operating LLC
% Working Interest	_By:
Company: By:	
Printed Name:	
Title: Date:	This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

Well Name BOO RADLEY FED COM 706H
SHL 26S-R28E, Sec 16: 220 FSL, 1400 FWL, or Unit N
BHL 26S-R28E, Sec 33: 200 FSL, 550 FWL, or L1
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,791 TVD 9,441

Cost Description Intangible Costs	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drilling (DR)	Completions (C)	Tank Btty Constrctn(TB)	Pmpq Equip (PEQ)	Revision	Tot
D-Lctn/Pits/Roads	205			5 102,000.00				S -	\$ 102,000,0
D-Drilling Overhead	206			S 9,000.00					\$ 9,000.0
	209			\$ 711,000.00				\$ -	\$ 711,000.0
D-Daywork Contract				\$ 340,000.00					\$ 340,000,0
Directional Drig Services	210							\$.	\$ 152,000.0
2-Fuel & Power	211			\$ 152,000.00					
0-Water	212			\$ 80,000.00				5 -	\$ 80,000.0
D-Bits	213			\$ 112,000.00				s -	\$ 112,000.0
O-Mud & Chemicals	214			\$ 269,000.00				s -	\$ 269,000.0
				\$ 21,000.00				S -	\$ 21,000.0
D-Cement Surface	217							\$ -	5 80,000.0
D-Cement Intermed	218			\$ 80,000.00					
D-Prod-2nd Int Cmt	219			\$ 118,000.00				\$.	S 118,000.0
D-Float Equipment & Centralizers	221			\$ 64,000.00				\$	\$ 64,000.0
D-Csq Crews & Equip	222			\$ 70,000.00				\$.	s 70,000.0
3-Csq Clews a Equip	225			\$ 7,000.00				\$.	\$ 7,000.0
O-Contract Labor				3 7,000,00				\$.	\$ 54,000.0
D-Company Sprvsn	226			\$ 54,000.00				\$.	\$ 127,000.0
D-Contract Sprvsn	227			\$ 127,000.00					
D-Tstg Csg/Tbg	228			\$ 43,000.00				\$ -	\$ 43,000.0
-Mud Loaging Unit	229			\$ 48,000.00				\$.	S 48,000.0
	235			\$ 209,000.00				s -	\$ 209,000.0
O-Rentals-Surface								\$ -	\$ 97,000.0
D-Rentals-Subsrfc	236			5 97,000.00					S 150,000.0
D-Trucking/Forklift/Rig Mob	237			\$ 150,000.00				s -	
D-Welding Services	238			\$ 4,000.00				5 .	\$ 4,000.0
)-Contingency	243			\$ 65,000.00				s -	\$ 65,000.0
	244			\$ 329,000.00				s -	\$ 329,000.0
D-Envmmtl/Clsd Loop					\$ 81,000.00			\$.	\$ 81,000.0
-Wellbore Frac Prep	304							\$.	\$ 10,000.0
C-Lctn/Pits/Roads	305				S 10,000.00				
Completion OH	306				\$ 15,000.00			\$.	
C-Frac Equipment	307				\$ 932,000.00			\$.	\$ 932,000.0
-Frac Chemicals	308				\$ 399,000.00			\$ -	\$ 399,000.0
	300				\$ 181,000.00			\$.	\$ 181,000.0
C-Frac Proppant	309							\$.	\$ 282,000.0
C-Frac Proppant Transportation	310				\$ 282,000.00				
C-Fuel Delivery & Services	311				\$ 41,000,00			\$.	\$ 41,000.0
>-Water	312				\$ 552,000.00			\$	\$ 552,000.0
C-Frac Surface Rentals	315				\$ 306,000.00			\$	\$ 306,000.0
					S 10,000.00			\$.	\$ 10,000.0
Contract Labor	325							S .	\$ 10,000.0
C-Company Sprvsn	326				\$ 10,000,00				
C-Contract Sprvsn	327				\$ 145,000.00			\$.	\$ 145,000 0
C-Artificial Lift Install	329				\$ 44,000.00			\$	\$ 44,000.0
C-Perf/Wireline Svc	331				\$ 363,000.00			\$	\$ 363,000.0
	337				\$ 10,000.00			\$.	\$ 10,000.0
C-Trucking/Forklift/Rig Mob					\$ 39,000,00			\$ -	\$ 39,000.0
C-Water Disposal	339							\$	\$ 144,000.0
C-Contingency	343				\$ 144,000.00				
C-Dyed Diesel	345				\$ 315,000.00			\$	\$ 315,000.0
C-Drilloul	346				\$ 325,000.00			\$ -	\$ 325,000.0
	351				S. Sastendina.	\$ 2,000.00		S	\$ 2,000.0
FB-Damages/Right of Way	331					\$ 41,000.00		\$.	\$ 41,000.0
TB-Location/Pits/Roads	353							S -	\$ 172,000.0
TB-Contract Labor	356					\$ 172,000.00			
PEQ-Contract Labor	374						\$ 38,000.00		\$ 38,000.0
PEQ-Water Disposal	387							s -	
PEQ-HRZ Well Offset Frac	391						\$ 179,000.00	9	\$ 179,000.0
PEG-RKZ Well Oliset Flac	201								
		741	120	2 2222222			\$ 18,000.00	\$	\$ 18,000.0
		\$.	\$.	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 18,000.00		
Total Intangible Costs		\$.	\$	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 18,000.00	\$	\$ 18,000.0
		\$	\$	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.0
Total Intangible Costs Tangible Costs	392	\$	\$	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 18,000.00	\$	\$ 18,000.0 \$ 7,915,000.0
Total Intangible Costs Fangible Costs PEQ-Flowback Crews & Equip	392 401	\$	\$		\$ 4,204,000.00	\$ 215,000,00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.0 \$ 7,915,000.0 \$ 115,000.0 \$ 25,000.0
Fotal Intangible Costs Fangible Costs PEQ-Flowback Crews & Equip D-Surface Casing	401	\$.		\$ 25,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 18,000.00 \$ 235,000.00	\$.	\$ 18,000.0 \$ 7,915,000.0
Total Intangible Costs Fangible Costs PEQ-Flowback Crews & Equip D-Surface Casing D-Intermed Csg	401 402		S	\$ 25,000.00 \$ 228,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 18,000.00 \$ 235,000.00	\$ - \$ - \$ - \$ -	\$ 18,000.6 \$ 7,915,000.6 \$ 115,000.6 \$ 25,000.6 \$ 228,000.6
Fotal Intangible Costs Fangible Costs PEQ-Flowback Crews & Equip D-Surface Casing D-Intermed Csg D-Production Casing/Liner	401 402 403		\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.6 \$ 7,915,000.6 \$ 115,000.6 \$ 25,000.6 \$ 228,000.1 \$ 315,000.6
Fotal Intangible Costs Fangible Costs PEQ-Flowback Crews & Equip D-Surface Casing D-Intermed Csg D-Production Casing/Liner	401 402 403 405		\$	\$ 25,000.00 \$ 228,000.00		\$ 215,000.00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.6 \$ 7,915,000.6 \$ 115,000.6 \$ 25,000.6 \$ 228,000.6 \$ 76,000.6
Fotal Intangible Costs Fangible Costs FEQ-Flowback Crews & Equip D-Surface Casing D-Intermed Csg D-Production Casing/Liner D-Wellhead Equip	401 402 403 405		\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00	\$ 4,204,000.00 \$ 52,000.00	\$ 215,000.00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.0 \$ 7,915,000.1 \$ 115,000.1 \$ 25,000.1 \$ 228,000.1 \$ 315,000.1 \$ 76,000.1
Fotal Intangible Costs Fangible Costs PEQ-Flowback Crews & Equip -Surface Casing -Intermed Csg -Production Casing/Liner -Vellhead Equip -Tubing	401 402 403 405 504		\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00 \$ 76,000.00	\$ 52,000.00	\$ 215,000.00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.6 \$ 7,915,000.6 \$ 115,000.6 \$ 25,000.6 \$ 228,000.6 \$ 315,000.6 \$ 76,000.6
Fotal Intangible Costs Fangible Costs PEQ-Flowback Crews & Equip D-Surface Casing D-Intermed Csg D-Production Casing/Liner D-Wellhead Equip D-Tubing D-Wellhead Equip D-Wellhead Equip	401 402 403 405 504 505		\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00 \$ 76,000.00			\$ 18,000.00 \$ 235,000.00	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 18,000.1 \$ 7,915,000.1 \$ 115,000.5 \$ 25,000.5 \$ 228,000.5 \$ 76,000.5 \$ 52,000.5
Total Intangible Costs Fangible Costs FEC-Flowback Crews & Equip -Surface Casing -Indermed Csg -Production Casing/Liner -Wellhead Equip -Tubling -Wellhead Equip -Wellhead Equip	401 402 403 405 504 505 510		\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00 \$ 76,000.00	\$ 52,000.00	\$ 77,000.00	\$ 18,000.00 \$ 235,000.00	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 18,000.0 \$ 7,915,000.1 \$ 115,000.1 \$ 25,000.1 \$ 228,000. \$ 315,000. \$ 76,000. \$ 52,000.1 \$ 72,000.1
angible Costs angible Costs EQ-Flowback Crews & Equip -Surface Casing -Intermed Csg -Production Casing/Liner -Wellhead Equip -Tubing -Wellhead Equip -Tankis B-Flowlines/Pipelines	401 402 403 405 504 505 510 511	\$.	\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00 \$ 76,000.00	\$ 52,000.00	\$ 77,000.00 \$ 29,000.00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.1 \$ 7,915,000.1 \$ 115,000.1 \$ 25,000.1 \$ 228,000.5 \$ 76,000.5 \$ 28,000.1 \$ 77,000.1 \$ 29,000.1
otal Intangible Costs angible Costs EQ-Flowback Crews & Equip Surface Casing -Intermed Csg -Production Casing/Liner -Wellhead Equip 3-Tubing -Wellhead Equip B-Tanks B-Flowlines/Pipelines B-HID Trit/Sept/r	401 402 403 405 504 505 510 511 512	\$.	\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00 \$ 76,000.00	\$ 52,000.00	\$ 77,000.00 \$ 29,000.00 \$ 176,000.00	\$ 18,000.00 \$ 235,000.00	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 18,000.1 \$ 7,915,000.1 \$ 115,000.1 \$ 25,000.1 \$ 228,000.1 \$ 76,000.1 \$ 52,000.1 \$ 77,000.1 \$ 28,000.1 \$ 29,000.1 \$ 176,000.1
otal Intangible Costs angible Costs EQ-Flowback Crews & Equip Surface Casing -Intermed Csg -Production Casing/Liner -Wellhead Equip 3-Tubing -Wellhead Equip B-Tanks B-Flowlines/Pipelines B-HID Trit/Sept/r	401 402 403 405 504 505 510 511 512 513	5	\$	\$ 25,000.00 \$ 228,000.00 \$ 315,000.00 \$ 76,000.00	\$ 52,000.00 \$ 28,000.00	\$ 77,000.00 \$ 29,000.00	\$ 18,000.00 \$ 235,000.00	\$	\$ 18,000.0 \$ 7,915,000.1 \$ 115,000.1 \$ 25,000.1 \$ 228,000.1 \$ 315,000.1 \$ 76,000.1 \$ 28,000.1 \$ 29,000.1 \$ 176,000.1 \$ 113,000.1
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COG Operating LLC

By:

Date Prepared: 7/8/20

COG Operating LLC

We approve:

% Working Interest

By:

Company:

By:

Printed Name:
Trills:
Date:
This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.



July 7, 2020

Via CMRRR No. 9489 0090 0027 6152 5942 95 Via electronic mail to jack@allarcompany.com The Allar Company P.O. Box 1567 Graham, TX 76450 Attn: Jack Graham

Re: Revised Boo Radley Fed Com 701H – 706H

Boo Radley Fed Com Unit All of Sections 21, 28, & 33, T26S-R28E Eddy County, New Mexico

Dear Mr. Graham:

Reference is herein made to the proposal letter dated May 20, 2020 covering the Boo Radley Fed Com wells, wherein COG Operating, LLC ("COG"), as Operator, proposed the drilling of the Boo Radley Fed Com 701H – 706H wells, located with productive laterals in All of Sections 21, 28, & 33, Township 26 South, Range 28 East, Eddy County, New Mexico. At this time COG would like to re-propose these wells to correct and amend the bottom hole legal descriptions detailed in the original proposal. The TVD's, formations and AFE costs remain the same. Please see attached revised AFEs which reflect the corrected bottom hole location and the details of each well outlined below:

- Boo Radley Fed Com 701H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,521'. The surface location for this well is proposed at a legal location in 280 FSL, 1180 FEL or Unit P of Section 16, and a bottom hole location at a legal location in 200 FSL, 330 FEL or Lot 4 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached Authority for Expenditure ("AFE").
- Boo Radley Fed Com 702H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,505'. The surface location for this well is proposed at a legal location 280 FSL, 1210 FEL or Unit P of Section 16, and a bottom hole location at a legal location 200 FSL, 1210 FEL or Lot 4 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.
- Boo Radley Fed Com 703H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,488'. The surface location for this well is proposed at a legal location 280 FSL 1240 FEL or Unit P of Section 16, and a bottom hole location at a legal location 200 FSL, 2090 FEL or Lot 3 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.

- Boo Radley Fed Com 704H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,476.5'. The surface location for this well is proposed at a legal location 220 FSL, 1460 FWL or Unit N of Section 16, and a bottom hole location at a legal location 200 FSL, 2325 FWL or Lot 2 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.
- Boo Radley Fed Com 705H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,458'. The surface location for this well is proposed at a legal location 220 FSL, 1430 FWL or Unit N of Section 16, and a bottom hole location at a legal location 200 FSL, 1430 FWL or Lot 2 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.
- Boo Radley Fed Com 706H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,441'. The surface location for this well is proposed at a legal location 220 FSL, 1400 FWL or Unit N of Section 16, and a bottom hole location at a legal location 200 FSL, 550 FWL or Lot 1 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico. The total estimated cost to drill and complete said well is \$9,591,100.00, as shown on the attached AFE.

COG is proposing to drill these wells under the terms of the proposed Boo Radley Fed Com Unit Operating Agreement dated June 1, 2020.

In the interest of time, if we do not reach an agreement within 30 days of this letter dated July 7, 2020, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a horizontal spacing unit for the proposed wells.

Should you have any questions, please do not hesitate to contact me at 432.221.0470 or elaufer@concho.com.

Sincerely,

COG Operating LLC

//Lizzy Laufer//

Lizzy Laufer Landman II

LL:bh Enc July 7, 2020 – Page 3 Boo Radley Fed Com 701H-706H

Please Indicate your election below:

<u>WELL NAME</u>	PARTICIPATE Elect to participate in drilling & completion of well	DO NOT PARTICIPATE Elect NOT to participate in drilling & completion of well
Boo Radley Fed Com 701H		
Boo Radley Fed Com 702H		
Boo Radley Fed Com 703H		
Boo Radley Fed Com 704H		
Boo Radley Fed Com 705H		
Boo Radley Fed Com 706H		

THE ALLAR COMPANY

Ву:	 	
Name:		
Title:		
Date:		

Well Name BOO RADLEYFED COM 701H
SHL 265-R28E, Sec 16: 280 FSL, 1180 FEL, or Unit P
BHL 265-R28E, Sec 33: 200 FSL, 330 FEL, or Lot 4
Formation WOLFCAMP
Legal 21, 28, & 33, T265-R28E
AFE Numbers

Prospect ATLAS 2628
State & County NEW MEXICO, EDDY
Objective DRILL & COMPLETE
Depth 22,871
TVD 9,521

AFE Numbers									
Cost Description	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drilling (DR)	Completions (C)	Tank Btty Constrctn(TB)	Pmpq Equip (PEQ)	Revision	Total
Intangible Costs							And Alberta and		400 000 00
D-Lctn/Pits/Roads	205			\$ 102,000.00				\$.	\$ 102,000.00
D-Drilling Overhead	206			\$ 9,000.00					\$ 9,000.00
D-Daywork Contract	209			\$ 711,000.00					\$ 711,000,00
D-Directional Drig Services	210			\$ 340,000.00					\$ 340,000,00
D-Fuel & Power	211			\$ 152,000.00				s ·	\$ 152,000.00
D-Water	212			\$ 80,000.00					\$ 80,000,00
D-Bits	213			\$ 112,000.00				\$ -	S 112,000.00
D-Mud & Chemicals	214			\$ 269,000.00				\$ -	\$ 269,000.00
D-Cement Surface	217			\$ 21,000.00					\$ 21,000.00
D-Cement Intermed	218			\$ 80,000.00				5	\$ 80,000.00
D-Prod-2nd Int Cmt	219			\$ 118,000.00				\$ -	\$ 118,000.00
D-Float Equipment & Centralizers	221			\$ 64,000.00				\$ -	\$ 64,000.00
D-Csq Crews & Equip	222			S 70,000.00				\$	\$ 70,000.00
D-Contract Labor	225			\$ 7,000.00				\$ -	\$ 7,000.00
D-Company Sprvsn	226			\$ 54,000.00				\$	\$ 54,000.00
D-Contract Sprvsn	227			\$ 127,000.00				\$.	\$ 127,000.00
D-Tstg Csg/Tbg	228			\$ 43,000.00				\$.	5 43,000.00
D-Mud Logging Unit	229			\$ 48,000.00				\$	\$ 48,000.00
D-Rentals-Surface	235			\$ 209,000.00				5 -	\$ 209,000.00
	238			\$ 97,000.00				\$.	\$ 97,000.00
D-Rentals-Subsrfc D-Trucking/Forklift/Rig Mob	237			\$ 150,000.00				\$.	\$ 150,000.00
	238			\$ 4,000,00				\$.	5 4,000,00
D-Welding Services				\$ 65,000.00				s .	\$ 65,000.00
D-Contingency	243			\$ 329,000.00				\$.	\$ 329,000.00
D-Envmmtl/Clsd Loop	244			a 258,000,00	\$ 81,000.00			\$.	\$ 81,000.00
C-Wellbore Frac Prep	304 305				\$ 81,000.00 \$ 10,000.00			\$	\$ 10,000.00
C-Lctn/Pits/Roads								\$ -	\$ 15,000.00
C-Completion OH	306				\$ 15,000.00			\$ -	\$ 932,000.00
C-Frac Equipment	307				\$ 932,000.00			\$.	\$ 399,000.00
C-Frac Chemicals	308				\$ 399,000.00				\$ 181,000.00
C-Frac Proppant	309				\$ 181,000.00			\$.	\$ 282,000.00
C-Frac Proppant Transportation	310				\$ 282,000.00			\$.	\$ 41,000.00
C-Fuel Delivery & Services	311				\$ 41,000.00				
C-Water	312				\$ 552,000.00			\$.	
C-Frac Surface Rentals	315				\$ 306,000.00			\$.	\$ 306,000.00
C-Contract Labor	325				\$ 10,000.00			\$.	S 10,000.00
C-Company Sprvsn	326				\$ 10,000.00			\$ -	\$ 10,000.00
C-Contract Sprvsn	327				\$ 145,000,00			\$	\$ 145,000.00
C-Artificial Lift Install	329				\$ 44,000.00			\$.	\$ 44,000,00
C-Perl/Wiretine Svc	331				\$ 363,000.00			\$.	\$ 363,000.00
C-Trucking/Forklift/Rig Mob	337				\$ 10,000.00			\$.	\$ 10,000.00
C-Water Disposal	339				\$ 39,000.00			S -	\$ 39,000.00
C-Conlingency	343				\$ 144,000.00			\$.	\$ 144,000.00
C-Dyed Diesel	345				\$ 315,000.00			\$.	\$ 315,000.00
C-Drillout	348				\$ 325,000,00			\$.	\$ 325,000.00
TB-Damages/Right of Way	351					\$ 2,000.00		\$ -	\$ 2,000.00
TB-Location/Pits/Roads	353					\$ 41,000.00		\$ -	\$ 41,000.00
TB-Contract Labor	356					\$ 172,000.00		\$.	\$ 172,000.00
PEQ-Contract Labor	374						\$ 38,000.00	\$	\$ 38,000.00
PEQ-Water Disposal	387						\$ 179,000.00		S 179,000.00
PEQ-HRZ Well Offset Frac	391						\$ 18,000.00	5 .	\$ 18,000.00
	001	•	3	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00			\$ 7,915,000.00
Total Intangible Costs				4 0,201,000.00	4,204,000.00	* 5.0,100.05	300,100,000		Aut Startman
Tangible Costs	n Env								12 22 200 00
PEQ-Flowback Crews & Equip	392						\$ 115,000.00		\$ 115,000.00
D-Surface Casing	401			\$ 25,000.00				s .	\$ 25,000.00
D-Intermed Csg	402			\$ 228,000.00				s .	\$ 228,000.00
D-Production Casing/Liner	403			\$ 315,000.00				\$.	\$ 315,000.00
D-Wellhead Equip	405			\$ 76,000.00				\$	\$ 76,000.00
C-Tubing	504				\$ 52,000,00			S -	\$ 52,000.00
C-Wellhead Equip	505				\$ 28,000,00			\$.	\$ 28,000.00
TB-Tanks	510					\$ 77,000.00		\$	\$ 77,000.00
TB-Flowlines/Pipelines	511					\$ 29,000.00		\$.	\$ 29,000.00
TB-Htr Trtr/Seprtr	512					\$ 176,000.00		S -	\$ 176,000.00
TB-Electrical System/Equipment	513					\$ 113,000.00		S -	\$ 113,000,00
C-Pckrs/Anchors/Hgrs	514				\$ 65,000,00			S -	\$ 65,000.00
TB-Couplings/Fittings/Valves	515				30,555,50	\$ 194,000,00		\$.	\$ 194,000.00
	521					\$ 24,000.00		S -	\$ 24,000.00
TB-Pumps-Surface	522					\$ 20,000.00		\$.	\$ 20,000.00
TB-Instrumentation/SCADA/POC	523					\$ 20,000.00		S =	\$ 20,000.00
TB-Miscellaneous TB-Meters/Lacts	525					\$ 24,000.00		\$.	\$ 24,000.00
			ļ			\$ 29,000.00		s -	\$ 29,000.00
TB-Flares/Combusters/Emission	526 527				\$ 25,000.00	20,000,00		s .	\$ 25,000.00
C-Gas Lift/Compression					₩ ∠5,000,00		\$ 41,000.00		\$ 41,000.00
PEQ-Wellhead Equipment	531					\$ 706,000.00	\$ 156,000.00		\$ 1,676,000.00
Total Tangible Costs		\$ 3	•	\$ 644,000.00	\$ 170,000.00	708,000.00	150,000.00	1.00	1,010,000.00
Total Gross Cost		s -	\$ -	S 3 905 000 00	\$ 4,374,000.00	\$ 921,000.00	\$ 391,000.00	s -	\$ 9,591,000.00
	ton only			3,800,000.00	4,574,000,00	- SE1,000,00	1. 00,,000.00		
Note: The above costs are estima	res only. A	Gual Costs Will De	owed as incurred.						

COG Operating LLC	
Ву:	Date Prepared: 7/6/20
	COG Operating LLC
We approve: % Working Interest	By:
Company:	
Ву:	
Printed Name:	
Title: Date:	This AFE is only an estimate. By signing you agree to pay
Date:	your share of the actual costs incurred,

Well Name BOO RADLEY FED COM 702H SHL 26S-R28E, Sec 18: 280 FSL, 1210 FEL, or Unit P BHL 26S-R28E, Sec 33: 200 FSL, 1210 FEL, or Lot 4 Formation WOLFCAMP

Legal 21, 28, & 33, T26S-R28E AFE Numbers Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,855 TVD 9,505

Cost Description Intangible Costs Code PreSpud (PS) Pre-Set Casing(PC) Drilling (DR) | Completions (C) | Tank Bitty Constrctn(TB) | Pmpq Equip (PEQ) Revision Total D-Lctn/Pits/Roads 102,000.00 D-Drilling Overhead D-Daywork Contract D-Directional Drig Services D-Fuel & Power 9,000.00 711,000.00 340,000.00 209 210 211 711,000,00 340,000.00 152,000.00 80,000.00 152,000.00 80,000.00 112,000.00 D-Water 112,000.00 D-Mud & Chemicals 214 217 218 219 269,000.00 21,000.00 D-Cement Surface D-Cement Intermed 21,000,00 80,000.00 118,000.00 80,000,00 Prod-2nd Int Cmt 118,000.00 D-Float Equipment & Centralizers D-Csg Crews & Equip 64,000.00 70,000.00 7,000.00 64,000.00 70,000.00 Contract Labor 7,000.00 54,000.00 127,000.00 Company Sprvsn 54,000.00 127,000.00 Contract Sprvsn D-Tstg Csg/Tbg D-Mud Logging Unit 43,000.00 48,000.00 228 229 43,000.00 48,000.00 235 236 237 -Rentals-Surface 209,000.00 97,000.00 209,000.00 97,000.00 150,000.00 D-Rentals-Subsrfc D-Trucking/Forklift/Rig Mob 150,000.00 D-Welding Services 4,000.00 65,000.00 243 Contingency D-Envmmtl/Cisd Loop 329,000.00 329,000,00 81,000,00 10,000,00 -Lctn/Pits/Roads 10 000 00 -Completion OH -Frac Equipment 306 15,000.00 932,000.00 15,000.00 932,000.00 399,000.00 307 399,000.00 181,000.00 -Frac Chemicals C-Frac Proppant C-Frac Proppant Transportation 309 310 181,000.00 282,000.00 41,000.00 552,000.00 282,000 00 41,000.00 552,000 00 306,000 00 311 312 315 Fuel Delivery & Services -Water -Frac Surface Rentals 306,000.00 10,000.00 10,000.00 145,000.00 325 326 327 C-Contract Labor Company Sprvsn 10,000.00 C-Contract Sprvsn C-Artificial Lift Install 145,000.00 44,000.00 363,000,00 10,000,00 39,000,00 Perf/Wireline Svc 331 C-Trucking/Forklift/Rig Mob 10,000.00 339 343 Water Disposal 39,000.00 Contingency 144,000.00 315,000.00 Dyed Diesel C-Dnilout TB-Damages/Right of Way 325,000.00 351 2,000.00 2,000.00 41,000.00 TB-Location/Pits/Roads TB-Contract Labor 353 356 172,000.00 PEQ-Contract Labor PEQ-Water Disposal PEQ-HRZ Well Offset Frac 38,000,00 \$ 38,000.00 387 179,000.00 S 391 18,000.00 **Total Intangible Costs** \$ 3,261,000.00 \$ 4,204,000.00 \$ 215,000,00 8 235,000,00 | 5 Tangible Costs PEQ-Flowback Crews & Equip 392 401 115,000.00 S 115,000.00 D-Surface Casing D-Intermed Csg 25,000.00 228,000.00 25,000.00 228,000.00 402 D-Production Casing/Liner D-Wellhead Equip 315,000.00 76,000.00 403 315,000.00 76,000.00 52,000.00 28,000.00 C-Tubing 52,000.00 C-Wellhead Equip 505 TB-Tanks TB-Flowlines/Pipelines 511 512 TB-Hir Trtr/Seprir 29,000.00 176,000.00 29,000.00 176,000.00 TB-Electrical System/Equipment 513 113,000.00 65,000.00 C-Pckrs/Anchors/Hgrs TB-Couplings/Fittings/Valve 65,000.00 194,000,00 194,000.00 TB-Pumps-Surface 24,000.00 TB-Instrumentation/SCADA/POC 24,000.00 20,000.00 B-Miscellaneous 20,000.00 525 526 527 TB-Meters/Lacts 24,000.00 29,000.00 24,000.00 TB-Flares/Combusters/Emission C-Gas Lift/Compression 29,000.00 25,000.00 PEQ-Wellhead Equipment 531 41,000.00 S 644,000.00 S 170,000.00 \$ Total Tangible Costs 706,000.00 \$ 156,000.00 \$ 1,676,000.00 **Total Gross Cost** - \$ 3,905,000.00 \$ 4,374,000.00 \$ 921,000.00 \$ 391,000.00 \$ 9,591,000,00 - 5 Note: The above costs are estimates only. Actual costs will be billed as incurred.

COG Operating LEC	
Ву:	Date Prepared: 7/6/20
We approve:	COG Operating LLC
% Working Interest	By:
Company:	
Ву:	
Printed Name:	
Title:	This AFE is only an estimate. By signing you agree to pay
Date:	your share of the actual costs incurred

Well Name BOO RADLEY FED COM 703H
SHL 26S-R28E, Sec 16: 280 FSL, 1240 FEL, or Unit P
BHL 26S-R28E, Sec 33: 200 FSL, 2090 FEL, or L3
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,838 TVD 9,488

The company of the	PEQ-Wellhead Equipment Total Tangible Costs Total Gross Cost									
The common	PEQ-Wellhead Equipment		\$		1 3 045.000.00					1,070,000.
Table		531			e 644 000 00	* 470 000 00	* 706 000 00			
Table	C-Gas Lift/Compression	527				\$ 25,000,00		\$ 41,000.00		
Temporary Temp	TB-Flares/Combusters/Emission					e 25.000.00	\$ 29,000.00			
Imaginary Imag	B-Melers/Lacts	525								
Imaginar Content		523					\$ 20,000,00			
Section Committee Commit		522					\$ 20,000.00			\$ 20,000.0
Section Sect							\$ 24,000,00		\$ -	
Section Sect	B-Couplings/Fittings/Valves					-5,555,35	\$ 194,000.00		\$.	\$ 194,000.0
Section Sect	Prkrs/Anchors/Hors					\$ 65.000.00	112,243,00			\$ 65,000.0
Section Sect		512								\$ 113,000.0
Section Sect										
Section Sect										\$ 29,000.0
						3 28,000,00	\$ 77,000,00			
Interplace										
Section Sect	D-Wellhead Equip				\$ 76,000.00	6 50 000 50				
Section Sect	-Production Casing/Liner									
International Context	-Intermed Csg									
Sample Costs					\$ 25,000,00			W =	S .	
Sample Costs		392						\$ 115,000.00		\$ 115,000.0
Section Sect	angible Costs									VIII.
Section Sect	orar nitangible Costs				T 0,201,000.00	7,204,000,00	2.0,000			
Standard Standard		291	\$ 11 S	\$	\$ 3.261 000 00	\$ 4,204,000,00	\$ 215,000.00			
LampBish Codes	EQ-VValer Disposal	307								
		374								
Section Sect							5 172,000,00	\$ 38,000.00		
Lang Description S	B-Location/Pits/Roads	353					\$ 41,000.00			
Lamples Costs										
LampRes Section Sect		346								
Imaginary Control Co	Dyed Diesel					\$ 315,000.00				
Imaginary Services Services	-Contingency					\$ 144,000,00	1.0			
Sample Costs										\$ 39,000.
LumpHistRoads 205						\$ 10,000.00				\$ 10,000.
Lang Services Se						\$ 363,000,00				\$ 363,000
Langlish Costs										
Langlishe Costs S		326				\$ 145,000,00				
Lang Dec Cost		325								
Langlable Costs S										
Lang										
Langlabe Costs	Fuel Delivery & Services									
Langlible Costs S	Frac Proppant Transportation									\$ 262,000
Langlabe Costs S		309				\$ 181,000.00				
Langhble Costs S										
Langhble Costs S										
Langhist Costs 205 \$ 102,000.00 \$. \$. \$ 102,000.00 \$. \$. \$. \$. \$. \$. \$. \$. \$. \$									\$ -	
Itangbib Costs S										\$ 10,000.0
						\$ 81,000.00				\$ 81,000,0
Name)-Environti/Cisd Loop									\$ 329,000.0
Stangable Costs Stangable										
Nampble Costs S										
Name										
Name	-Rentals-Surface									
Interpretate State State	-Mud Logging Unit									
Sample Costs Samp	-Tsla Csa/Tba									
Sample Costs Samp	-Contract Sprvsn	227								
Sample Costs Samp	-Company Sprvsn								\$.	
Stangble Costs Stan	-Contract Labor									
Sample Costs Samp										\$ 70,000,0
Langlible Costs S		219								\$ 64,000.
Sample Costs Samp					\$ 118,000,00					
Lctn/Pits/Roads 205 \$ 102,000.00 \$ - \$ 102,000.00										\$ 80,000
Sample Costs Samp										
Sample Costs Samp										
S		212								
titangble Costs 1.cdn/Pits/Roads 205 \$ 102,000.00 \$. \$ 102,000.00 1.cdn/Pits/Roads 206 \$ 9,000.00 \$. \$ 9,000.00 1.cdn/Pits/Roads 206 \$ 9,000.00 \$. \$ 711,000.00 1.cdn/Pits/Roads 209 \$ 711,000.00 \$. \$ 711,000.00 1.cdn/Pits/Roads 209 \$ 711,000.00 \$. \$. \$ 711,000.00 1.cdn/Pits/Roads 210 \$ 340,000.00 \$. \$. \$. \$. \$. \$. \$. \$. \$. \$.										
httmgible Costs Lctn/Pis/Roads 205 \$ 102,000.00 \$ - \$ 102,000.00 Drilling Overhead 206 \$ 9,000.00 \$ - \$ 9,000.00 Dawwork Contract 209 \$ 711,000.00 \$ - \$ 711,000.00										
htangible Costs \$ 102,000.00 \$ 5 \$ 102,000.00 -Lctn/Pits/Roads 205 \$ 102,000.00 \$ 6 \$ 000.00	-Daywork Contract									
tangible Costs										
tugalille Corre		T ansi			s 102,000,00 l				S -	5 102,000.0
ost Description Code PreSpud (PS) Pre-Set Casing(PC) Drilling (DR) Completions (C) Tank Bitly Construtn(TB) Pmpq Equip (PEQ) Revision To	angiore costs	//		110 con castingly cy			1			

Well Name BOO RADLEY FED COM 704H
SHL 26S-R28E, Sec 16: 220 FSL, 1460 FWL, or Unit N
BHL 26S-R28E, Sec 33: 200 FSL, 2325 FWL, or L2
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E

Prospect ATLAS 2628
State & County NEW MEXICO, EDDY
Objective DRILL & COMPLETE
Depth 22,827
TVD 9,477

AFE Numbers

ntangible Costs	Code	PreSpud (PS)	Pre-Set Casing(PC)	1 1	Drilling (DR) C	empletions (C)	Tank	Btty Constrctn(TB)	Pm	pq Equip (PEC	1	Revisio	n	
-Lctn/Pits/Roads	205			s	102,000.00	T		T				T S		s	102,0
-Drilling Overhead	206			S	9,000.00			_				s	-	\$	
-Daywork Contract	209			S	711,000.00							S	- :	\$	9,0 711,0
Directional Drig Services	210				340,000.00			-				Š		5	
-Fuel & Power	211				152,000.00			-				\$		8	340.0
-Water	212			S	80,000.00			-				5	:		152,0
-Bits	213			_	112,000.00			-						S	80,0
-Mud & Chemicals	214				269,000.00			-				5		\$	112.0
-Cement Surface	217			5	21,000.00			-				\$		S	269_0
-Cement Intermed	218			S	80,000.00			-				\$		\$	21.0
-Prod-2nd int Cmt	219				118,000.00			-				\$		\$	80,0
Float Equipment & Centralizers	221			s	64,000.00	-		-				\$		8	118,0
-Csg Crews & Equip	222			S		-		-				\$		\$	64,0
-Contract Labor	225				70,000.00			_				\$	×	S	70,0
				S	7,000.00	-		_				\$		\$	7.0
-Company Sprvsn	226			\$	54,000.00	-		_				\$		\$	54,0
-Contract Sprvsn	227				127,000.00	-		_				\$		\$	127,0
-Tstg Csg/Tbg	228			S	43,000.00	_						\$		5	43,00
-Mud Logging Unit	229			\$	48,000.00							S		5	48,00
-Rentals-Surface	235				209,000.00							\$	- 2	S	209,0
-Rentals-Subsrfc	236			\$	97,000.00							5		\$	97.0
-Trucking/Forklift/Rig Mob	237			\$	150,000.00							\$		\$	150,00
-Welding Services	238			\$	4,000.00							S		S	4,00
Contingency	243			\$	65,000.00							S		S	65,01
Envmmtl/Clsd Loop	244				329,000.00	1						S		_	
Weilbore Frac Prep	304					S	81,000,00					5		S	329,0
Lctn/Pits/Roads	305					s	10,000.00							_	81,0
Completion OH	306					\$	15,000.00	_				\$		\$	10,0
Frac Equipment	307					5	932,000.00					5		\$	15,0
-Frac Chemicals	308					S						\$		\$	932,0
Frac Proppant	309					5	399,000.00	_		-		\$		5	399,00
							181,000.00	_				\$		\$	181,0
Frac Propoant Transportation	310					5	282,000.00	_				\$		S	282,0
Fuel Delivery & Services						S	41,000,00					S		5	41,0
Water	312					5	552,000.00	_				\$		S	552,0
rac Surface Rentals	315					\$	306,000.00					S		1 5	306,0
Contract Labor	325					\$	10,000.00					S		S	10.0
Company Sprvsn	326					\$	10,000.00					\$		1 5	10.0
Contract Sprvsn	327					\$	145,000.00					S		\$	145.0
Artificial Lift Install	329					\$	44,000.00					\$		S	44,0
Perf/Wireline Svc	331					\$	363,000.00					S		5	363,0
Trucking/Forklift/Rig Mob	337					\$	10,000.00					S		\$	10,0
Water Disposal	339					S	39,000,00					s		5	
Contingency	343				-	S	144,000.00					5		_	39.0
Dyed Diesel	345					5	315,000.00					s		\$	144,0
Drillout	346					5	325,000.00					S		5	315,0
-Damages/Right of Way	351					-	020,000.00	5	2,000.00					\$	325,0
Location/Pils/Roads	353							\$				5		\$	2,0
-Contract Labor	356			_		-			41,000.00			5		\$	41,0
Q-Contract Labor	374					_		\$	172,000.00	-		S	100	S	172,0
Q-Water Disposal	387					-		_		5	38,000.00			\$	38,0
2-HRZ Well Offset Frac	391									\$	179,000.00		16	S	179,0
						-	PROPERTY OF THE			\$	18,000.00			S	18,0
al Intangible Costs		\$	\$ -	\$ 3,3	261,000.00	\$	4,204,000.00	\$	215,000.00	\$	235,000.00	\$		\$	7,915,0
gible Costs	TANA														
2-Flowback Crews & Equip orface Casing	392					_				\$	115,000.00			\$	115,0
	401				25,000.00	_						\$		S	25,0
termed Csg	402			\$ 2	228,000.00							\$	(£)	\$	228,0
roduction Casing/Liner	403				315,000.00							\$		\$	315,0
fellhead Equip	405			5	76,000.00							\$		\$	76.0
ubing	504					\$	52,000.00					\$		\$	52.0
fellhead Equip	505					\$	28,000.00					\$		5	28.0
Tanks	510							\$	77,000.00			5		\$	77,0
Flowlines/Pipelines	511							\$	29,000.00			\$		s	29,0
tr Trtr/Seprtr	512							\$	176,000.00			\$		S	176,0
lectrical System/Equipment	513							5	113,000.00			S	- 2	\$	113.0
ckrs/Anchors/Hgrs	514					\$	65,000.00					\$	- :	\$	65,0
Couplings/Fittings/Valves	515					-		s	194,000.00			5		S	194,0
Pumps-Surface	521							s	24,000.00			ŝ	-	S	
nstrumentation/SCADA/POC	522							Š	20,000.00			\$			24.0
Miscellaneous	523					_		\$	20,000.00		_	_		\$	20,0
Meters/Lacts	525					_						5	-	S	20,0
Plares/Combusters/Emission	526					_		\$	24,000.00			\$		\$	24,0
as Lift/Compression	527						25 000 00	\$	29,000.00			\$		\$	29,0
				_		.\$	25,000.00	_				\$	-341	5	25,0
2-Wellhead Equipment al Tangible Costs	531				Market Comment	-				S	41,000.00	\$	(*)	\$	41,0
			\$ -	\$ 6	44,000.00	\$	170,000.00	\$	706,000.00	\$	156,000.00	\$		\$	1,676,0
rangible Costs															

COG Operating LLC	
By:	Date Prepared: 7/6/20
We approve:	COG Operating LLC
% Working Interest	By:
Company: By:	
Printed Name:	
Title: Date:	This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred. $\label{eq:costs}$

Well Name BOO RADLEY FED COM 705H
SHL 265-R28E, Sec 16: 220 FSL, 1430 FWL, or Unit N
BHL 265-R28E, Sec 33: 200 FSL, 1430 FWL, or L2
Formation WOLFCAMP
Legal 21, 28, & 33, T265-R28E
AFE Numbers

Prospect ATLAS 2628
State & County NEW MEXICO, EDDY
Objective DRILL & COMPLETE
Depth 22,808
TVD 9,458

ost Description	Code	PreSpud (PS)	Pre-Set Casing(PC)	Drilling (DR)	Completions (C)	Tank Btty Constrctn(TB)	Pmpq Equip (PEQ)	Revision		
tangible Costs										
-Lctn/Pits/Roads	205			\$ 102,000.00				\$ -		102,000
-Drilling Overhead	206			\$ 9,000.00				\$.	\$	9,000
-Daywork Contract	209			\$ 711,000.00				\$	5	711,000
Directional Drig Services	210			\$ 340,000.00				S +		340,000
Fuel & Power	211			\$ 152,000.00				\$ -	5	152,000
								\$.	S	80,000
Water	212							s -		112,000
Bils	213			\$ 112,000.00						
Mud & Chemicals	214			\$ 269,000,00				\$.		269,000
Cement Surface	217			\$ 21,000.00				\$ -	S	21,00
Cement Intermed	218			\$ 80,000,00				\$ -	\$	80,000
Prod-2nd Int Cmt	219			\$ 118,000.00				\$	\$	118,000
								\$.	5	64,00
Float Equipment & Centralizers	221			\$ 64,000.00						70,00
Osa Crews & Equip	222			\$ 70,000.00				*	S	
Contract Labor	225			\$ 7,000.00				\$.	S	7,00
Company Sprvsn	226			\$ 54,000.00				\$	S	54,00
Contract Sprvsn	227			\$ 127,000.00				\$.	\$	127,00
Tola Cas(Tha	228			\$ 43,000.00				\$.	S	43,00
Tsla Csa/Tba								\$.	\$	48,00
Mud Logging Unit	229			\$ 48,000.00						209.00
Rentals-Surface	235			\$ 209,000.00				\$ -		
Rentals-Subsrfc	236			\$ 97,000.00				\$.	S	97,00
Frucking/Forklift/Rig Mob	237			\$ 150,000.00				5 .		150,00
	238			\$ 4,000,00				\$.	S	4,00
Welding Services								\$.	S	65,00
Contingency	243			\$ 65,000.00						329.00
=nvmmtl/Clsd Loop	244			\$ 329,000.00						
Vellbore Frac Prep	304				\$ 81,000.00			s .	\$	81,00
cln/Pits/Roads	305				\$ 10,000,00			\$	\$	10,00
Completion OH	306				\$ 15,000.00			\$.	\$	15,0
					\$ 932,000,00			\$.		932,0
rac Equipment	307							\$.		399,0
rac Chemicals	308				\$ 399,000.00					181.0
rac Proppant	309				\$ 181,000.00			\$.	\$	
rac Proppant Transportation	310				\$ 282,000.00			\$ -		282,0
uel Delivery & Services	311				\$ 41,000.00			\$ -	5	41.0
	312				\$ 552,000.00			\$.	S	552,0
Vater								\$.		306,0
rac Surface Rentals	315				\$ 306,000.00					300,01
Contract Labor	325				\$ 10,000,00			s .	5	10,0
Company Sprvsn	326				\$ 10,000.00			\$	\$	10,0
Contract Sprvsn	327				\$ 145,000,00			s .	\$	145,0
					\$ 44,000.00			s -	\$	44,0
Artificial Lift Install	329							\$ -	S	363,0
Perf/Wireline Svc	331				\$ 363,000.00			\$.	s	10,0
Trucking/Forklift/Rig Mob	337				\$ 10,000.00					
Water Disposal	339				\$ 39,000.00		1	s .	S	39.0
Contingency	343				\$ 144,000.00			s .	S	144,0
Oyed Diesel	345				\$ 315,000.00			s .	S .	315,0
	240				\$ 325,000,00			S .	\$	325.0
Drillout	346				5 323,000,00	0.000.00		s -	S	2,0
Damages/Right of Way	351					\$ 2,000.00				
Location/Pits/Roads	353					\$ 41,000.00		\$ -	5	41,0
Contract Labor	356					\$ 172,000.00		s .	\$	172,0
Q-Contract Labor	374					7447004	\$ 38,000.00	s .	\$	38,0
							\$ 179,000,00	\$.	\$	179,0
Q-Waler Disposal	387								S	18,0
Q-HRZ Well Offsel Frac	391									
tal Intangible Costs		\$ -	\$.	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 235,000.00	\$.	\$ 7	,915,0
- TUE Sales										
gible Costs 2-Flowback Crews & Equip	392						Ts 115,000.00	s .	s	115,0
	401			S 25,000.00				5 -	\$	25,0
surface Casing								S +	S	228.0
	402			\$ 228,000.00					S	315,0
	403			\$ 315,000,00				\$.		313,0
	700			\$ 76,000.00				\$.	S	76,0
roduction Casing/Liner	405			3 70,000,00				\$.	\$	52,0
reduction Casing/Liner Vellhead Equip	405			3 70,000.00	\$ 52,000.00				1 0	
roduction Casing/Liner Vellhead Equip ubing	405 504							s -	\$	28,0
roduction Casing/Liner Vellhead Equip ubing Vellhead Equip	405 504 505				\$ 52,000.00 \$ 28,000.00	\$ 77,000,00				
roduction Casing/Liner /ellhead Equip ubing /ellhead Equip Tanks	405 504 505 510					\$ 77,000.00		\$.	\$	77,
reduction Casing/Liner Vellhead Equip ubing Vellhead Equip Tanks Flowlines/Pipelines	405 504 505 510 511					\$ 29,000.00		\$ -	\$	77,0
reduction Casing/Liner Vellhead Equip ubing Vellhead Equip Tanks Flowlines/Pipelines	504 505 510 511 512					\$ 29,000.00 \$ 176,000.00		S - S -	\$ \$	77,0 29,0 176,0
roduction Casing/Liner Jellhead Equip Jellhead Equip Jellhead Equip Tanks Flowlines/Pipelines Ht Trt/Septr	504 505 510 511 512				\$ 28,000.00	\$ 29,000.00		\$. \$.	\$ \$ \$	77,0 29,0 176,0 113,0
roduction Casing/Liner Jellhead Equip Jubing Jeilhead Equip Jeilhead Equip Fanks Flowlines/Pipelines HIT Trtr/Seprtr	504 505 510 511 512 513				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00		S - S -	\$ \$	77,0 29,0 176,0 113,0 65,0
roduction Casing/Liner //ellhead Equip //ellhead Equip //ellhead Equip //ellhead Equip //enks //ellhead Equip //enks //ellhead Equip //enks //ellhead Equip //enks //ellhead Equip //ellhead E	504 505 510 511 512 513 514				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00		\$ - \$ - \$ - \$ - \$ -	\$ \$ \$	77, 29, 176, 113, 65,
roduction Casing/Liner Jellhead Equip Jellhead Equip Jellhead Equip Tanks Tiowlines/Pipelines HIr Trtr/Seprt Electrical System/Equipment Ckrs/Anchors/Hgrs Couplings/Fithings/Valves	405 504 505 510 511 512 513 514 515				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00		5 · · · · · · · · · · · · · · · · · · ·	\$ \$ \$ \$	77, 29, 176, 113, 65, 194,
roduction Casing/Liner Veilhead Equip Ueilhead Equip Tanks Flowlines/Pipelines Hir Trit/Septr Electrical System/Equipment ckrs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface	405 504 505 510 511 512 513 514 515 521				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00		5 ·	\$ \$ \$ \$ \$	77,0 29,1 176,0 113,0 65,0 194,0 24,0
roduction Casing/Liner Veilhead Equip Ubing Veilhead Equip Tanks Flowlines/Pipelines Hir Trit/Septr Electrical System/Equipment ckrs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface instrumentation/SCADA/POC	405 504 505 510 511 512 513 514 515 521				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00		\$	\$ \$ \$ \$ \$ \$	77,0 29,0 176,0 113,0 65,0 194,0 24,0
roduction Casing/Liner Veilhead Equip Ubing Veilhead Equip Tanks Flowlines/Pipelines Hir Trit/Septr Electrical System/Equipment ckrs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface instrumentation/SCADA/POC	405 504 505 510 511 512 513 514 515 521				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00 \$ 20,000.00		5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	\$ \$ \$ \$ \$ \$ \$ \$	77,0 29,1 176,0 113,0 65,0 194,0 24,1 20,0
roduction Casing/Liner Veilhead Equip Ubling Veilhead Equip Tanks Flowlines/Pipelines HIT Titr/Septr Electrical System/Equipment ckrs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface Insurementalion/SCADA/POC Miscellaneous	405 504 505 510 511 512 513 514 515 521 522 523				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00 \$ 20,000.00		\$	\$ \$ \$ \$ \$ \$	77, 29, 176, 113, 65, 194, 24, 20, 20,
Production Casing/Liner Velihead Equip Ubling Velihead Equip Tanks Flowlines/Pipelines Hitr Titr/Septr Electrical System/Equipment Pokrs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Meters/Lacts	405 504 506 510 511 512 513 514 515 521 522 523 525				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00 \$ 24,000.00		\$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	77,0 29,0 176,0 113,0 65,0 194,0 24,0 20,0 24,0 24,0
roduction Casing/Liner Vellhead Equip ubing Vellhead Equip Tanks Flowlines/Pipelines Hir Trit/Septr Electrical System/Equipment ckrs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface instrumentation/SCADA/POC Miscellaneous Meters/Lacts Flares/Combusters/Emission	405 504 505 510 511 512 513 514 515 521 522 523 525 526				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00 \$ 20,000.00		\$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	77,0 29,1 176,0 113,1 65,1 194,1 20,1 20,1 24,1 29,1
roduction Cassing/Liner Velihead Equip Ubling Velihead Equip Tanks Flowlines/Pipelines Hit Tirt/Septr Electrical System/Equipment ckrs/Anchors/Hgrs Couplings/Fittings/Valves Pumps-Surface instrumentation/SCADA/POC Miscellaneous Meters/Lacts Flares/Combusters/Emission ass Lift/Compression	405 504 505 510 511 512 513 514 515 521 522 523 525 526 527				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00 \$ 24,000.00		\$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	77,0 29,1 176,0 113,1 65,1 194,1 20,1 20,2 24,1 29,1 25,1
Production Casing/Liner Velihead Equip Ubling Velihead Equip Tanks Flowlines/Pipelines Hir Trit/Septr Electrical System/Equipment Pokrs/Anchors/Hgrs Coupings/Fittings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Miscellaneous Flares/Combusters/Emission Sas Lift/Compression O-Wellhead Equipment	405 504 505 510 511 512 513 514 515 521 522 523 525 526				\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00 \$ 20,000.00 \$ 29,000.00	\$ 41,000.00	\$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	77,0 29,0 176,0 113,0 65,0 194,0 20,0 20,0 24,0 29,0 41,0
Production Casing/Liner Velihead Equip Ubling Velihead Equip Tanks Flowlines/Pipelines Hir Trit/Septr Electrical System/Equipment Pokrs/Anchors/Hgrs Coupings/Fittings/Valves Pumps-Surface Instrumentation/SCADA/POC Miscellaneous Miscellaneous Flares/Combusters/Emission Sas Lift/Compression O-Wellhead Equipment	405 504 505 510 511 512 513 514 515 521 522 523 525 526 527	\$ -	\$		\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 24,000.00 \$ 20,000.00 \$ 24,000.00	\$ 41,000.00	\$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	28,0 77,0 29,0 176,0 113,0 65,0 194,0 20,0 24,0 20,0 24,0 41,0 41,676,0
ntermed Csg Production Casing/Liner Veilhead Equip Ubing Veilhead Equip Tanks Flowlines/Pipelines Hir Trtr/Septr Electrical System/Equipment Electrical System/Electrical Syst	405 504 505 510 511 512 513 514 515 521 522 523 525 526 527 531	\$	\$	\$ 644,000.00	\$ 28,000.00	\$ 29,000.00 \$ 176,000.00 \$ 113,000.00 \$ 194,000.00 \$ 20,000.00 \$ 20,000.00 \$ 24,000.00 \$ 29,000.00 \$ 29,000.00	\$ 41,000.00 \$ 158,000.00	\$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	77, 29, 176, 113, 113, 113, 113, 113, 113, 113, 11

COG Operating LLC	
Ву:	Date Prepared: 7/6/20
	COG Operating LLC
We approve: % Working Interest	By:
Company: By:	
Printed Name:	This AFE is only an estimate. By signing you agree to pay
Tale:	your share of the actual costs incurred.

Well Name BOO RADLEY FED COM 706H
SHL 26S-R29E, Sec 16: 220 FSL, 1400 FWL, or Unit N
BHL 26S-R29E, Sec 33: 200 FSL, 550 FWL, or L1
Formation WOLFCAMP
Legal 21, 26, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective ORILL & COMPLETE Depth 22,791 TVD 9,441

ost Description Itangible Costs	Code	PreSpud (PS)	Pre-Set Casing(PC))] D	rilling (DR	C	ompletions (C	Tank	Btty Constrctn(TB)	Pmpq Equip (PEC	0	Revision		
-Lctn/Pits/Roads	205	·		Ts .	102.000.00	1		-			772			
-Drilling Overhead	206							-			\$		\$	102,0
	200			S	9,000.00						S		\$	9,01
-Daywork Contract	209			S	711,000,00						\$		S	711,0
-Directional Drlg Services	210			S :	340,000.00						5		\$	340,0
-Fuel & Power	211				152,000.00			-			5			
-Water	212			s				-					5	152,0
Oi-					80,000.00			_			\$		S	80,08
Bits	213			\$	112,000.00						5	-	\$	112,00
-Mud & Chemicals	214			S :	269,000,00	Т					S		\$	269.00
Cement Surface	217			\$	21,000.00	1				-				
Cement Intermed	218			S	80,000.00	+-		-			8		5	21.00
						-		_			\$		S	80,00
Prod-2nd Int Cmt	219				118,000.00						\$	-	S	118,00
Float Equipment & Centralizers	221			S	64,000,00						S		5	64.00
Csg Crews & Equip	222			s	70,000.00			-						
Contract Labor	225				70,000,00	+		-			5		S	70,00
				5	7,000.00	_		_			S		\$	7.00
Company Sprvsn	226			S	54,000.00						\$		\$	54,00
Contract Sprvsn	227			\$	127,000.00						s		S	
Tstg Csg/Tbg	228					+-		_		-				127_0
				\$	43,000,00	-		_			S		\$	43,0
Mud Logging Unit	229			\$	48,000.00						\$		S	48,0
Rentals-Surface	235			\$ 2	209,000,00	1					3	- 2	_	
Rentals-Subsrfc	236				97,000.00	+		_				-	\$	209,0
	200					-		_			\$		\$	97,0
rucking/Forklift/Rig Mob	237				150,000.00	_		_			S		\$	150,0
Velding Services	238			\$	4,000.00	1					S	2.	S	4.0
ontingency	243				65,000.00						S			
nvmmtl/Clsd Loop	244					1		-					5	65,0
				\$ 3	329,000.00	-	No. of the last of	_			\$		S	329.0
Vellbore Frac Prep	304					1 8	81,000.00	1		1	S		S	81,0
ctn/Pits/Roads	305					S	10,000.00				\$			
ompletion OH	306							_					\$	10,0
				_		S	15,000.00	-			\$		\$	15,0
rac Equipment	307					\$	932,000.00				S	•	\$	932,0
rac Chemicals	308					S	399,000.00				\$		\$	399,0
rac Proppant	309					S	181,000.00	_						
na Dranansi Transas delia-				_				_			5		\$	181,0
rac Propoant Transportation	310					S	282,000.00				\$		S	282.0
iel Delivery & Services	311			1		\$	41,000.00				S		S	41,0
/ater	312					5	552,000.00				S		\$	F50.0
rac Surface Rentals	315			_				_						552,0
ac Surrace Rentals						\$	306,000.00				5		\$	306,0
ontract Labor	325					S	10,000.00				S		\$	10,0
ompany Sprvsn	326					S	10,000.00				\$		s	
ontract Sprvsn	327			_				_				41		10,0
						\$	145,000.00	_			\$		5	145.0
rtificial Lift Install	329					5	44,000.00				5		S	44,0
erf/Wireline Svc	331					S	363,000.00				S		S	363,0
rucking/Forklift/Rig Mob	337					\$	10,000.00							
/ater Disposal	339			_				_			\$		\$	10.0
						5	39,000,00				\$	¥7	\$	39,0
onlingency	343					S	144,000.00				\$		\$	144,0
ved Diesel	345					5	315,000.00				\$	-	S	
rillout	346			_		S		_						315,0
	340					3	325,000.00				S		\$	325,0
Damages/Right of Way	351							S	2,000.00		8		S	2,0
.ocation/Pits/Roads	353							\$	41,000.00		S		s	
Contract Labor	356							5			_			41,0
	374			_		-		3	172,000,00		\$		\$	172,0
-Contract Labor										\$ 38,000.00	1 5		\$	38,0
-Water Disposal	387			i						\$ 179,000.00	S		\$	179,0
-HRZ Well Offset Frac	391													
11-1-1-1-1-2					SPANIOUS PRINT		and the same of th	_					\$	18,0
il Intangible Costs	- 48	5	\$ -	\$ 3,2	61,000.00	\$	4,204,000.00	\$	215,000.00	\$ 235,000.00	\$		\$	7,915,0
The Acres													-	14.00.40
lible Costs	392													2000
Flowback Crews & Equip				_						\$ 115,000.00	S	1.00	S	115,0
rrface Casing	401			\$	25,000.00				V		S		S	25,0
ermed Csq	402			\$ 2	28,000.00						S		s	228.0
oduction Casing/Liner	403				15,000.00									228.0
ellhead Equip								_			S		5	315,0
emredu Equip	405			\$	76,000.00						5		\$	76,0
bing	504					\$	52,000.00	1			5		\$	52,0
elihead Equip	505					5	28,000.00				5			
anks	510					-	20,000.00	-	77 000 00				\$	28,0
				_		_		\$	77,000.00		5		\$	77,0
lowlines/Pipelines	511							\$	29,000.00		S	(€:	S	29.0
	512							\$	176,000.00		S		\$	176,0
lr Trlr/Seprir	513							S						
Ir Trir/Seprir				_		-		D	113,000.00		\$		S	113,0
lectrical System/Equipment	514					\$	65,000.00				S	: e:	\$	65,0
lectrical System/Equipment krs/Anchors/Hgrs	E4E1							\$	194,000.00		\$		5	194.0
lectrical System/Equipment krs/Anchors/Hgrs ouplings/Fittings/Valves	515					_		\$	24,000.00		S			194,0
lectrical System/Equipment krs/Anchors/Hgrs ouplings/Fittings/Valves	521					_							\$	24,0
lectrical System/Equipment krs/Anchors/Hgrs couplings/Fittings/Valves umps-Surface	521							\$	20,000.00		5	340	S	20,0
lectrical System/Equipment krs/Anchors/Hgrs couplings/Fittings/Valves umps-Surface istrumentation/SCADA/POC	521 522							S	20,000.00		\$		\$	20,0
lectrical System/Equipment krs/Anchors/Hgrs couplings/Fittings/Valves umps-Surface istrumentation/SCADA/POC liscelfaneous	521 522 523					_		S	24,000.00		s		S	
Electrical System/Equipment kirs/Anchors/Hgrs couplings/Fittings/Valves rumps-Surface instrumentation/SCADA/POC fiscellaneous	521 522 523			-					24,000,00				-3	24,0
Electrical System/Equipment krs/Anchors/Hgrs Couplings/Fittings/Valves Fumps-Surface sitrumentation/SCADA/POC fiscellaneous leters/Lacts	521 522 523 523					_								
ilectrical System/Equipment krs/Anchors/Hgrs clouplings/Fittings/Valves umps-Surface ustrumentation/SCADA/POC liscellianeous leters/Lacts lares/Combusters/Emission	521 522 523 525 526							\$	29,000.00		\$		\$	29,0
Itr Trt/Septr Identrical System/Equipment krs/Anchors/Hgrs Couplings/Fittings/Valves tumps-Surface surface strumentation/SCADA/POC fiscellaneous leters/Lacts lares/Combusters/Emission as LifVCompression	521 522 523 525 526 526					s	25,000.00	5					\$	29,0
ilectrical System/Equipment krs/Anchors/Hgrs louplings/Fittings/Valves umps-Surface ustrumentation/SCADA/POC itscellaneous leters/Lacts lares/Combusters/Emission is LIM/Compression	521 522 523 525 526					s	25,000.00	\$		\$ 41,000,00	\$		\$	29,0
ilectrical System/Equipment krs/Anchors/Hgrs Couplings/Fittings/Valves rumps-Surface strumentation/SCADA/POC fiscellaneous leters/Lacts lares/Combusters/Emission st_lif/Compression -Weilhead Equipment	521 522 523 525 526 527 531	\$	\$	\$ 2	44 000 00				29,000 00	\$ 41,000.00	\$	•	\$ \$ \$	29,00 25,00 41,00
ilectrical System/Equipment krs/Anchors/Hgrs louplings/Fittings/Valves umps-Surface ustrumentation/SCADA/POC itscellaneous leters/Lacts lares/Combusters/Emission is LIM/Compression	521 522 523 525 526 527 531	\$.	\$ -	\$ 64	44,000.00	\$	25,000.00 170,000.00	\$		\$ 41,000.00 \$ 156,000.00	\$	•	\$	29,00
lectrical System/Equipment krs/Anchors/Hgrs oupfings/Fittings/Valves umps-Surface strumentation/SCADA/POC iscellaneous leters/Lacts lares/Combusters/Emission st.li/Compression Wellhead Equipment	521 522 523 525 526 527 531					\$		5	29,000.00	\$ 156,000.00	\$ \$: : : : : :	\$ \$ \$	29,0 25,0 41,0

COG Operating LLC	
Ву:	Date Prepared: 7/6/20
We approve:	COG Operating LLC
% Working Interest	Ву:
Company:	
Ву:	
Printed Name:	
Title:	This AFE is only an estimate. By signing you agree to pay
Dale	The state of the s



August 6, 2020

Via electronic mail to jack@allarcompany.com
The Allar Company
P.O. Box 1567
Graham, TX 76450

Attn: Jack Graham

Re: Revised Boo Radley Fed Com 701H & 702H

Boo Radley Fed Com Unit All of Sections 21, 28, & 33, T26S-R28E Eddy County, New Mexico

Dear Mr. Graham:

Please allow this correspondence to serve as an informational letter regarding the well proposals referenced above, previously revised on July 6, 2020. COG is correcting a typographical error to the measured depth ("MD") and total vertical depth ("TVD") of the Boo Radley Fed Com 701H and 702H. The Boo Radley Fed Com 701H MD should be 22,821' and the TVD should be 9,471'. The Boo Radley Fed Com 702H MD should be 22,805' and the TVD should be 9,455', each within the Wolfcamp A formation, respectively. The AFE costs remain the same as previously provided, but I have enclosed new copies for your review which reflects these described depths.

Should you have any questions, please do not hesitate to contact me at 432.221.0470 or elaufer@concho.com.

Sincerely,

COG Operating LLC

//Lizzy Laufer//

Lizzy Laufer Landman II

LL:bh Enc

Well Name BOO RADLEY FED COM 701H
SHL 26S-R28E, Sec 16: 280 FSL, 1180 FEL, or Unit P
BHL 26S-R28E, Sec 33: 200 FSL, 330 FEL, or Lot 4
Formation WOLFCAMP
Legal 21, 28, & 33, 726S-R28E
AFE Numbers

Prospect ATLAS 2628
State & County NEW MEXICO, EDDY
Objective DRILL & COMPLETE
Depth 22,821
TVD 9,471

Cost Description	Code	PreSpud (PS	Pre-Set Casing(PC	Drilling (DR	() Completions (C) Tank Bity Constrctn(TE	Pmpq Equip (PEC	Revision	Tot
Intangible Costs	15	A 11 11 11			Att III and the	uther			
D-Lctn/Pits/Roads	203			\$ 102,000.00				5 .	5 102,000.0
D-Drilling Overhead	200	3		\$ 9,000.00					\$ 9,000.
D-Daywork Contract	209	á		\$ 711,000.00				\$.	
D-Directional Drlo Services	210			\$ 340,000.00					
D-Fuel & Power	21							\$.	\$ 340,000.0
				\$ 152,000.00				\$ -	\$ 152,000.0
D-Water	212			\$ 80,000.00				S -	\$ 80,000.0
D-Bits	213	5		\$ 112,000.00				S -	\$ 112,000,1
D-Mud & Chemicals	214	4		\$ 269,000.00				s -	\$ 269,000.0
D-Cement Surface	217			\$ 21,000.00					
D-Cement Intermed	218			\$ 80,000.00					\$ 21,000.0
								5 -	\$ 80,000.0
D-Prod-2nd Int Cmt	219			\$ 118,000,00				\$ -	\$ 118,000.0
D-Float Equipment & Centralizers				\$ 64,000.00				S -	\$ 64,000.0
D-Csg Crews & Equip	222	2		\$ 70,000.00				\$.	\$ 70,000.0
D-Contract Labor	225			\$ 7,000.00				š .	
D-Company Sprvsn	226			\$ 54,000.00					
D-Contract Sprvsn	227							S .	\$ 54,000.0
									\$ 127,000.0
D-Tstg Csg/Tbg	228			\$ 43,000.00				S -	\$ 43,000.0
D-Mud Logging Unit	229			\$ 48,000.00				\$ -	\$ 48,000.0
0-Rentals-Surface	235			\$ 209,000.00				s .	\$ 209,000.0
D-Rentals-Subsrfc	236			\$ 97,000.00					
D-Trucking/Forklift/Rig Mob	237							\$.	\$ 97,000.0
Melding Sources	237			\$ 150,000.00					\$ 150,000.0
D-Welding Services	238			\$ 4,000.00				\$ -	\$ 4,000.0
D-Contingency	243			\$ 65,000.00			1	S -	\$ 65,000.0
D-Envrnmtl/Cisd Loop	244			\$ 329,000.00					\$ 329,000
C-Wellbore Frac Prep	304			1	\$ 81,000.00			S -	
C-Lctn/Pits/Roads	305								
C-Completion OH	306							s -	\$ 10,000.0
					\$ 15,000.00			\$.	\$ 15,000.0
2-Frac Equipment	307				5 932,000.00			S -	\$ 932,000.0
2-Frac Chemicals	308				\$ 399,000.00			\$.	\$ 399,000.0
-Frac Proppant	309				\$ 181,000.00			\$.	
-Frac Propoant Transportation	310								\$ 181,000,0
								\$ -	\$ 282,000.0
-Fuel Delivery & Services	311				\$ 41,000.00			-	\$ 41,000.0
2-Water	312				\$ 552,000.00			\$	\$ 552,000.0
-Frac Surface Rentals	315	I			\$ 306,000.00			5 -	\$ 306,000.0
C-Contract Labor	325				\$ 10,000.00			S .	\$ 10,000.0
Company Sprvsn	326				\$ 10,000.00				
-Contract Sprvsn	327							\$	\$ 10,000.0
					\$ 145,000.00			5 -	\$ 145,000.0
C-Artificial Lift Install	329				\$ 44,000.00			S .	\$ 44,000.0
2-Perf/Wireline Svc	331				\$ 363,000.00			\$ -	\$ 363,000.0
-Trucking/Forklift/Rig Mob	337	4			\$ 10,000.00			\$.	\$ 10,000.0
-Water Disposal	339				\$ 39,000.00				
-Conlingency	343							5	\$ 39,000.0
Dund Dinnel									\$ 144,000.0
-Dyed Diesel	345				\$ 315,000.00			S -	\$ 315,000.0
-Drillout	346				\$ 325,000.00			5 -	\$ 325,000.0
B-Damages/Right of Way	351					\$ 2,000.00			\$ 2,000.0
B-Location/Pits/Roads	353					\$ 41,000,00			
B-Contract Labor	356					\$ 172,000.00			
EQ-Contract Labor	374					3 172,000.00			\$ 172,000.0
							IS 38,000.00		\$ 38,000.0
EQ-Water Disposal	387						IS 179,000.00	s .	\$ 179,000.0
EQ-HRZ Well Offset Frac	391						IS 18,000.00		\$ 18,000.0
otal Intangible Costs		s -	\$	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00			
				4 0,201,000.00	4 4,204,000,00	215,000.00	235,000.00	\$.	\$ 7,915,000.0
angible Costs									
EQ-Flowback Crews & Equip	392		r				The second secon	V-0-	
Surface Cooles							\$ 115,000.00		\$ 115,000.0
-Surface Casing	401			\$ 25,000.00				s -	\$ 25,000.0
-Intermed Csg	402			\$ 228,000.00					\$ 228,000.0
-Production Casing/Liner	403			\$ 315,000.00					\$ 315,000.0
-Wellhead Equip	405			\$ 76,000.00					
-Tubing	504			.0,000.00	e co.ooc.co	1			\$ 76,000.0
Wollhood Coule					\$ 52,000.00			\$ -	\$ 52,000.0
-Wellhead Equip	505				\$ 28,000.00				\$ 28,000.0
B-Tanks	510					\$ 77,000.00			\$ 77,000.0
B-Flowlines/Pipelines	511					\$ 29,000.00			\$ 29,000.0
B-Htr Trtr/Seprtr	512					\$ 176,000.00			
B-Electrical System/Equipment	513	-							\$ 176,000.0
						\$ 113,000.00			\$ 113,000.0
-Pckrs/Anchors/Hgrs	514				\$ 65,000.00				\$ 65,000.0
D. O I' (Fin)	515					\$ 194,000.00			\$ 194,000.0
B-Couplings/Fittings/Valves	521					\$ 24,000.00			\$ 24,000.0
B-Couplings/Fittings/Valves B-Pumps-Surface						\$ 20,000.00			
B-Pumps-Surface	522								\$ 20,000.0
B-Pumps-Surface B-Instrumentation/SCADA/POC						\$ 20,000.00			\$ 20,000.0
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous	523					\$ 24,000.00		\$	\$ 24,000.0
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts	523 525								
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts B-Flares/Combusters/Emission	523 525 526					\$ 29,000.00		I S .	
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts B-Flares/Combusters/Emission	523 525 526 527				S 25,000.00	\$ 29,000.00			\$ 29,000.0
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts 3-Flares/Combusters/Emission -Gas Lift/Compression	523 525 526 527				\$ 25,000.00	\$ 29,000.00	44 000 00	š .	\$ 29,000.0 \$ 25,000.0
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts 3-Flares/Combusters/Emission -Gas Lift/Compression EQ-Wellhead Equipment	523 525 526						\$ 41,000.00	S -	\$ 29,000.0 \$ 25,000.0 \$ 41,000.0
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts 3-Flares/Combusters/Emission -Gas Lift/Compression	523 525 526 527	•	\$.	\$ 644,000.00	\$ 25,000.00 \$ 170,000.00		\$ 41,000.00 \$ 156,000.00	S -	\$ 29,000.0 \$ 25,000.0 \$ 41,000.0
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts B-Meters/Lacts B-Plares/Combusters/Emission -Gas Lift/Compression EC-Wellhead Equipment otal Tangible Costs	523 525 526 527				\$ 170,000.00	\$ 705,000.00	\$ 156,000.00	\$. \$.	\$ 29,000.00 \$ 25,000.00 \$ 41,000.00
B-Pumps-Surface B-Instrumentation/SCADA/POC B-Miscellaneous B-Meters/Lacts 3-Flares/Combusters/Emission -Gas Lift/Compression EQ-Wellhead Equipment	523 525 526 527 531	\$	5 -	\$ 644,000.00 \$ 3,905,000.00	\$ 170,000.00	\$ 705,000.00	\$ 156,000.00	\$. \$.	\$ 29,000.0 \$ 25,000.0 \$ 41,000.0

COG Operating LLC	
By:	Date Prepared: 5/20/20
We approve:	COG Operating LLC
% Working Interest	Ву:
Company: By:	
By:	
Printed Name:	
Title:	This AFE is only an estimate. By signing you agree to pay
Date:	your share of the adual each insured

Weil Name BOO RADLEY FED COM 702H SHL 26S-R28E, Sec 16: 280 FSL, 1210 FEL, or Unit P BHL 26S-R28E, Sec 33: 200 FSL, 1210 FEL, or Lot 4 Formation WOLFCAMP Legal 21: 28 & 33. T26S-R28E

AFE Numbers

Note: The above costs are estimates only, Actual costs will be billed as incurred.

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Prospect ATLAS 2628
State & County NEW MEXICO, EDDY
Objective DRILL & COMPLETE
Depth 22,805

Drilling (DR) | Completions (C) | Tank Btty Constrctn(TB) | Pmpq Equip (PEQ) | Total Revision Cost Description Intangible Costs D-Lctn/Pits/Roads | Code | PreSpud (PS) | Pre-Set Casing(PC)| 9,000.00 205 206 209 9,000.00 711,000.00 cilling Overhead 711,000.00 D-Daywork Contract D-Directional Drig Services 210 211 340,000.00 152,000.00 80,000.00 112,000.00 152,000.00 D-Fuel & Power 212 80,000.00 112,000,00 269,000.00 269,000.00 21,000.00 D-Mud & Chemicals D-Cement Surface 217 21,000.00 80,000.00 D-Cement Intermed D-Prod-2nd Int Cmt 80,000,00 118,000,00 64,000,00 70,000,00 54,000,00 127,000,00 43,000,00 48,000,00 219 221 222 D-Float Equipment & Centralizers 70,000.00 7,000.00 54,000.00 -Csg Crews & Equip -Contract Labor D-Company Sprvsn D-Contract Sprvsn 127,000.00 227 228 229 235 43,000,00 D-Tstg Csg/Tbg 48,000.00 209,000.00)-Mud Logging Unit 209,000.00 97,000.00 150,000.00 -Rentals-Surface -Rentals-Subsrfc 97,000.00 D-Trucking/Forklift/Rig Mob 237 238 4,000,00 65,000,00 329,000.00 4,000.00 D-Welding Services D-Contingency D-Envrnmtl/Clsd Loop C-Wellbore Frac Prep 243 329,000.00 81,000.00 10,000.00 15,000.00 Lctn/Pits/Roads Completion OH 305 306 10,000.00 932,000.00 399,000.00 181,000.00 -Frac Equipment -Frac Chemicals 308 181,000.00 C-Frac Proppant 282,000.00 -Frac Proppant Transportation -Fuel Delivery & Services 310 311 282,000.00 41,000.00 552,000.00 41,000.00 306,000.00 10,000.00 Frac Surface Rentals 325 326 327 10,000.00 C-Contract Labor 10,000.00 145,000.00 44,000.00 -Company Sprvsn -Contrad Sprvsn -Artificial Lift Install 145,000.00 44,000.00 363,000.00 329 363,000.00 10,000.00 39,000.00 Perf/Wireline Svc -Trucking/Forklift/Rig Mot 337 339 343 345 10,000.00 39,000.00 144,000.00 -Water Disposal 144,000.00 Contingency 315,000.00 325,000.00 315,000.00 Dyed Diesel 325,000.00 346 B-Damages/Right of Way TB-Location/Pits/Roads 172,000.00 38,000.00 179,000.00 18,000.00 3B,000.00 \$ 172,000.00 Contract Labor PEQ-Contract Labor PEQ-Water Disposal PEQ-HRZ Well Offset Frac 391 3,261,000.00 \$ 4,204,000.00 \$ 215,000.00 \$ 235,000.00 7,915,000.00 **Total Intangible Costs** Tangible Costs 115,000.00 25,000.00 228,000.00 315,000.00 76,000.00 52,000.00 28,000.00 PEQ-Flowback Crews & Equip D-Surface Casing 392 401 115,000.00 | \$ 402 403 405 D-Intermed Csg D-Production Casing/Liner 315,000.00 D-Wellhead Equip C-Tubing 504 505 -Wellhead Equip 77,000.00 29,000.00 176,000.00 TB-Tanks TB-Flowlines/Pipelines 510 29,000.00 176,000.00 TB-Htr Trtr/Seprtr TB-Electrical System/Equipment 113,000.00 65,000.00 Pckrs/Anchors/Hgrs 194,000.00 515 521 522 TB-Couplings/Fittings/Valves 24,000.00 B-Pumps-Surface 20,000.00 20,000.00 TB-Instrumentation/SCADA/POC 525 526 527 531 Meters/Lacts 29,000.00 25,000.00 TB-Flares/Combusters/Emission C-Gas Lift/Compression 25,000.00 41.000.00 S 41,000.00 PEQ-Wellhead Equipment 5 1,676,000.00 706,000.00 \$ **Total Tangible Costs** 644,000.00 \$ 170,000,00 \$ 156,000.00 \$ - 5 9,591,000.00 391,000.00 \$ - \$ 3,905,000.00 \$ 4,374,000.00 \$ 921,000.00 \$ **Total Gross Cost** - \$ \$

COG Operating LLC	
Зу:	Date Prepared: 5/20/20
	COG Operating LLC
We approve: % Working Interest	Ву:
Company. Sy:	
Printed Name:	
lītle:	This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.



August 12, 2020

Via electronic mail to jack@allarcompany.com
The Allar Company
P.O. Box 1567
Graham, TX 76450
Attn: Jack Graham

Re:

Amended Boo Radley Fed Com 701H, 702H, 703H, and 706H Boo Radley Fed Com Unit All of Sections 21, 28, & 33, T26S-R28E Eddy County, New Mexico

Dear Mr. Graham:

COG Operating LLC ("COG") previously proposed the Boo Radley Fed Com 701H-706H. Please allow this correspondence to serve as an informational letter regarding the following amendments to the wells described below. A copy of each respective AFE is attached which has only been revised to show the amended location. Due to an existing pipeline and other surface constraints, COG has made the following amendments in bold:

- Boo Radley Fed Com 701H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,471'. The surface location for this well is proposed at a legal location in 200' FSL, 1490' FEL or Unit O of Section 16, and a bottom hole location at a legal location in 200 FSL, 330 FEL or Lot 4 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico.
- Boo Radley Fed Com 702H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,455'. The surface location for this well is proposed at a legal location in 200' FSL, 1520' FEL or Unit O of Section 16, and a bottom hole location at a legal location in 200 FSL, 1210 FEL or Lot 4 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico.
- Boo Radley Fed Com 703H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,488'. The surface location for this well is proposed at a legal location in 200' FSL, 1550' FEL or Unit O of Section 16, and a bottom hole location at a legal location in 200 FSL, 2090 FEL or Lot 3 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico.
- Boo Radley Fed Com 706H, to be drilled to a depth sufficient to test the Wolfcamp A Sand formation at an approximate total vertical depth of 9,441'. The surface location for this well is proposed at a legal location in 220' FSL, 1400' FWL or Unit N of Section 16, and a bottom hole location at a legal location in 200' FSL, 550' FWL or Lot 5 of Section 33. The dedicated horizontal spacing unit will be All of Sections 21, 28, & 33 of T26S-R28E, Eddy County, New Mexico.

Should you have any questions, please do not hesitate to contact me at 432.221.0470 or elaufer@concho.com.

August 12, 2020 Page 2

Sincerely,

COG Operating LLC

//Lizzy Laufer//

Lizzy Laufer Landman II

LL:bh Enc

COG OPERATING LLC AUTHORITY FOR EXPENDITURE Drill & Complete

Well Name BOO RADLEY FED COM 701H
SHL 26S-R28E, Sec 16: 200' FSL, 1490' FEL, or Unit O
BHL 26S-R28E, Sec 33: 200 FSL, 330 FEL, or Lot 4
Formation WOLFCAMP
Legal 21, 28, & 33, 726S-R28E

AFE Numbers

COG Operating LLC

Prospect ATLAS 2628
State & County NEW MEXICO, EDDY
Objective DRILL & COMPLETE
Depth 22,821
TVD 9,471

Cost Description Intangible Costs Code PreSpud (PS) Pre-Set Casing(PC) Drilling (DR) | Completions (C) | Tank Btty Constrctn(TB) | Pmpq Equip (PEQ) | Revision Total D-Lctn/Pits/Roads
D-Drilling Overhead
D-Daywork Contract
D-Directional Drig Services
D-Fuel & Power 102,000.00 9,000.00 711,000.00 340,000.00 152,000.00 102,000.00 209 210 211 212 213 152,000.00 80,000.00 112,000.00 D-Water D-Bits D-Mud & Chemicals 214 217 269,000.00 269,000.00 21,000.00 80,000.00 D-Cement Surface Cement Intermed 218 D-Prod-2nd Int Cmt D-Float Equipment & Centralizers 80,000.00 118,000.00 64,000.00 70,000.00 54,000.00 64,000.00 70,000.00 7,000.00 D-Csg Crews & Equip D-Contract Labor D-Company Sprvs.
D-Contract Sprvsn
D-Tstg Csg/Tbg
D-Mud Logging Unit
D-Rentals-Surface 54,000.00 127,000.00 127,000.00 43,000.00 48,000.00 43,000.00 48,000.00 209,000.00 97,000.00 150,000.00 D-Trucking/Forklift/Rig Mob 237 238 243 244 304 305 150,000.00 4,000.00 65,000.00 D-Welding Services D-Contingency 4,000.00 D-Envmmtl/Clsd Loop C-Wellbore Frac Prep 81,000.00 10,000.00 15,000.00 C-Lctn/Pits/Roads C-Completion OH C-Frac Equipment C-Frac Chemicals
C-Frac Proppant
C-Frac Proppant Transportation
C-Fuel Delivery & Services 932,000.00 399,000.00 181,000.00 282,000.00 41,000.00 552,000.00 399,000.00 310 311 41,000.00 552,000.00 306,000.00 10,000.00 Water C-Water
C-Frac Surface Rentals
C-Contract Labor
C-Company Sprvsn 306,000.00 10,000.00 10,000.00 Contract Sprvsn Artificial Lift Install 145,000.00 C-Perf/Wireline Svc C-Trucking/Forklif/Rig Mob C-Water Disposal 363,000.00 363,000.00 10,000.00 Contingency
Dyed Diesel 144,000.00 315,000.00 315,000.00 325,000.00 Drillout 325.000.00 2.000.00 41.000.00 TB-Damages/Right of Way 2,000.00 TB-Location/Pits/Roads TB-Contract Labor 172,000.00 38,000.00 179,000.00 PEQ-Contract Labor PEQ-Water Disposal PEQ-HRZ Well Offset Frac 38,000.00 \$ 179,000.00 \$ 18,000.00 \$ \$ 3,261,000.00 \$ 4,204,000.00 \$ Total Intangible Costs 215,000.00 \$ 235,000.00 \$ 7,915,000.00 \$ Tangible Costs PEQ-Flowback Crews & Equip D-Surface Casing 392 115,000.00 | \$ 5 115,000.00 25,000.00 228,000.00 401 D-Intermed Csg

115,000.00 25,000.00 228,000.00 315,000.00 76,000.00 52,000.00 77,000.00 29,000.00 176,000.00 113,000.00 65,000.00 194,000.00 24,000.00 402 403 405 D-Production Casing/Liner D-Wellhead Equip 315,000.00 76,000.00 C-Tubing C-Wellhead Equip 52,000.00 28,000.00 C-Preminear ExporTB-Tanks
TB-Tanks
TB-Howlines/Pipelines
TB-Her Trin/Seprir
TB-Electical System/Equipment
C-Pckrs/Anchors/Hgrs
TB-Couplings/Fittings/Valves
TB-Couplings/Fittings/Valves 510 77,000.00 65,000.00 194,000.00 TB-Pumps-Surface Instrumentation/SCADA/POC 20,000.00 20,000.00 TB-Miscellaneous 20,00D.00 TB-Meters/Lacts TB-Flares/Combusters/Emission 24,000.00 29,000.00 C-Gas Lift/Compression PEQ-Wellhead Equipment 25,000.00 25,000.00 41,000.00 **Total Tangible Costs** \$ 644,000.00 \$ 170,000.00 \$ 706,000.00 \$ 156,000.00 \$ \$ 1,676,000.00 1 \$ - \$ 3,905,000.00 \$ 4,374,000.00 \$ 921,000.00 \$ 391,000.00 \$ - \$ 9,591,000.00 Note: The above costs are estimates only. Actual costs will be billed as incurred.

By:	Date Prepared: 5/20/20
We approve:	COG Operating LLC
% Working Interest	Ву:
Company: By:	
Printed Name:	
Title: Date:	This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

COG OPERATING LLC AUTHORITY FOR EXPENDITURE Drill & Complete

Well Name BOO RADLEY FED COM 702H
SHL 26S-R28E, Sec 16: 200 FSL, 1490 FEL, or Unit O
BHL 26S-R28E, Sec 33: 200 FSL, 1210 FEL, or Lol 4
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,805 TVD 9,455

Intangible Costs D-Lctn/Pits/Roads D-Lctn/Pits/Roads D-Dniling Overhead D-Daywork Contract D-Directional Drig Services D-Fuel & Power D-Water D-Water D-Bits D-Mut & Chernicals D-Cement Surface D-Cement Surface D-Food-2nd Int Cmt D-Float Equipment & Centralizers D-Cog Crews & Equip D-Contract Labor D-Contract Labor D-Contract Sprvsn D-Contract Sprvsn D-Tostg Csg/Tbg D-Mut Logging Unit D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forklift/Rig Mob D-Widding Services D-Contingency D-Envmntl/Clsd Loop C-Wellbore Frac Prep C-Lctn/Pits/Roads C-Completion OH C-Frac Equipment C-Frac Requipment C-Frac Chemicals C-Frac Proppant Transportation C-Fuel Delivery & Services C-Water C-Frac Surface Rentals	205 206 209 211 212 213 214 217 218 219 222 225 226 227 228 229 235 236 237 238 244 305 306 307 308 309 310 311 312 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 309 310 311 312 306 307 308 309 310 311 312	pydu (F3)		\$ 102,000.00 \$ 9,000.00 \$ 711,000.00 \$ 340,000.00 \$ 152,000.00 \$ 152,000.00 \$ 21,000.00 \$ 225,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 30,000.00 \$ 7,000.00 \$ 7,000.00	\$ 81,000.00 \$ 10,000.00 \$ 15,000.00 \$ 392,000.00	Tank Bitly Constrictn(TB)		Revision	\$ 102,000 \$ 9,000 \$ 711,000 \$ 340,001 \$ 152,000 \$ 152,000 \$ 269,000 \$ 21,000 \$ 27,000 \$ 70,000 \$ 77,000 \$ 127,000 \$ 127,000 \$ 72,000 \$ 72,000 \$ 127,000 \$ 12
D-Lcn/Pita/Roads D-Drilling Overhead D-Daywork Contract D-Directional Drig Services D-Fuel & Power D-Water D-Water D-Mid & Chemicals D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cmt D-Float Equipment & Centralizers D-Csg Crews & Equip D-Contract Labor D-Company Sprvsn D-Contract Sprvsn D-Tistg Csg/Tbg D-Mid Logging Unit D-Rentals-Surface D-Rentals	206 209 210 211 211 211 212 213 214 217 218 219 221 221 222 225 226 227 228 229 229 235 236 244 305 307 308 307 308 309 310 311			\$ 9,000,00 \$ 711,000,00 \$ 340,000,00 \$ 152,000,00 \$ 152,000,00 \$ 152,000,00 \$ 112,000,00 \$ 259,000,00 \$ 21,000,00 \$ 21,000,00 \$ 80,000,00 \$ 70,000,00 \$ 70,000,00 \$ 7,000,00 \$ 43,000,00 \$ 43,000,00 \$ 43,000,00 \$ 43,000,00 \$ 43,000,00 \$ 209,000,00 \$ 50,000,00 \$ 329,000,00 \$ 329,000,00 \$ 329,000,00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 9,000 \$ 711,000 \$ 340,001 \$ 152,000 \$ 80,000 \$ 80,000 \$ 269,000 \$ 27,000 \$ 80,000 \$ 112,000 \$ 80,000 \$ 127,000 \$ 127,000 \$ 140,000 \$ 70,000 \$ 127,000 \$ 12
D-Drilling Overhead D-Daywork Contract D-Daywork Contract D-Directional Drig Services D-Fuel & Power D-Water D-Bits D-Mud & Chemicals D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cmt D-Fioat Equipment & Centralizers D-Cos Grews & Equip D-Contract Labor D-Company Sprvsn D-Totg Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forkfit/fixig Mob D-Welding Services D-Contract Capton D-Company Sprvsn D-Totg Csg/Tbg D-Mud Logging Unit D-Rentals-Subsrfc D-Rentals-Subsrfc D-Rentals-Subsrfc D-Trucking/Forkfit/fixig Mob D-Welding Services D-Contingency D-EnvmrMI/Clsd Loop C-Wellbore Frac Prep C-Lctm/Plis/Roads C-Completion OH C-Frac Equipment C-Frac Repopant Transportation C-Fruel Delivery & Services C-Water C-Frac Surface Rentals	206 209 210 211 211 211 212 213 214 217 218 219 221 221 222 225 226 227 228 229 229 235 236 244 305 307 308 307 308 309 310 311			\$ 9,000,00 \$ 711,000,00 \$ 340,000,00 \$ 152,000,00 \$ 152,000,00 \$ 152,000,00 \$ 112,000,00 \$ 259,000,00 \$ 21,000,00 \$ 21,000,00 \$ 80,000,00 \$ 70,000,00 \$ 70,000,00 \$ 7,000,00 \$ 43,000,00 \$ 43,000,00 \$ 43,000,00 \$ 43,000,00 \$ 43,000,00 \$ 209,000,00 \$ 50,000,00 \$ 329,000,00 \$ 329,000,00 \$ 329,000,00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 711,000 \$ 340,001 \$ 152,000 \$ 80,000 \$ 112,000 \$ 21,000 \$ 21,000 \$ 21,000 \$ 64,000 \$ 64,000 \$ 70,000 \$ 127,000 \$ 150,000 \$
D-Daywork Contract D-Directional Drig Services D-Fuel & Power D-Water D-Bits D-Mud & Chemicals D-Gement Surface D-Prod-2nd Int Cmt D-Frod-2nd Int Cmt D-Frod-2nd Int Cmt D-Frod-2nd Int Cmt D-Frod-2nd Sprysn D-Contract Labor D-Comprany Sprysn D-Contract Sprysn D-Contract Sprysn D-Total Csgr/Tbg D-Mud Logging Unit D-Rentals-Subsrfc D-Trucking/Forkfitt/Rig Mob D-Welding Services D-Trucking/Forkfitt/Rig Mob D-Welding Services D-Contingency D-Envmntl/Clsd Loop C-Wellbore Frac Prep C-Lctn/PlistRoads C-Completion OH C-Frac Cequipment C-Frac Proppant C-Frac Proppant C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Surface Rentals	209 210 211 212 213 214 217 218 218 219 221 222 225 227 228 229 229 235 236 237 238 244 305 306 307 308 307 309 310 311 311 312 311 312 312 311			\$ 711,000.00 \$ 340,000.00 \$ 152,000.00 \$ 80,000.00 \$ 289,000.00 \$ 289,000.00 \$ 289,000.00 \$ 289,000.00 \$ 70,000.00 \$ 7,000.00 \$ 7,000.00 \$ 127,000.00 \$ 24,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 54,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 340,000 \$ 152,000 \$ 80,000 \$ 289,000 \$ 21,000 \$ 112,000 \$ 118,000 \$ 70,000 \$ 57,000 \$ 127,000 \$ 127,000 \$ 127,000 \$ 127,000 \$ 127,000 \$ 329,000 \$ 348,000 \$ 349,000 \$ 349,000 \$ 349,000 \$ 35,000 \$ 329,000 \$
D-Directional Drig Services D-Fuel & Power D-Water D-Bits D-Bits D-Cement Surface D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cmt D-Float Equipment & Centralizers D-Cog Crews & Equip D-Contract Labor D-Company Sprvs D-Contract Labor D-Company Sprvs D-Total Cagling Unit D-Rentals-Surface D-Rentals-Surface D-Rentals-Subsrfc D-Tucking/Forkift/Fixing Mob D-Welding Services D-Contract Labor D-Contract Labor D-Tucking/Forkift/Fixing Mob D-Welding Services D-Contingency D-Envmrmil/Cisd Loop C-Wellbore Frac Prep C-Lctin/Pilix/Roads C-Completion OH C-Frac Cequipment C-Frac Cremicals C-Frac Proppant C-Frac Proppant Transportation C-Fuel Delivery & Services C-Water C-Frac Virace Rentals	210 211 212 213 214 217 218 219 221 222 225 226 227 228 229 228 229 235 236 237 238 244 243 244 305 306 307 308 309 310 311			\$ 340,000.00 \$ 152,000.00 \$ 80,000.00 \$ 112,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 64,000.00 \$ 70,000.00 \$ 70,000.00 \$ 127,000.00 \$ 43,000.00 \$ 42,000.00 \$ 43,000.00 \$ 42,000.00 \$ 43,000.00 \$ 54,000.00 \$ 54,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 152,000 \$ 60,000 \$ 112,000 \$ 127,000 \$ 269,000 \$ 118,000 \$ 118,000 \$ 70,000 \$ 77,000 \$ 127,000 \$ 13,000 \$ 150,000
D-Fuel & Power D-Water D-Water D-Water D-Bits D-Mud & Chemicals D-Cement Surface D-Cement Surface D-Coment Surface D-Fore Agent Management D-Fore Surface D-Fore Surface D-Congary Sprvs D-Contract Labor D-Company Sprvs D-Contract Sprvs D-Contract Sprvs D-Contract Sprvs D-Tstg Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Trucking/Forklift/Rig Mob D-Welding Services D-Trucking/Forklift/Rig Mob D-Welding Services D-Contingency D-Envmmll/Clsd Loop C-Wellbore Frac Prep C-Lctn/Plis/Roads C-Completion OH C-Frac Equipment C-Frac Chemicals C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Surface Rentals	212 213 214 217 218 219 221 222 225 225 227 228 229 235 235 236 237 238 243 305 306 307 309 310 311			\$ 80,000.00 \$ 112,000.00 \$ 269,000.00 \$ 21,000.00 \$ 30,000.00 \$ 118,000.00 \$ 118,000.00 \$ 70,000.00 \$ 7,000.00 \$ 7,000.00 \$ 127,000.00 \$ 127,000.00 \$ 127,000.00 \$ 127,000.00 \$ 127,000.00 \$ 127,000.00 \$ 329,000.00 \$ 329,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 80,000 \$ 112,000 \$ 269,000 \$ 80,000 \$ 80,000 \$ 64,000 \$ 7,000 \$ 7,000 \$ 127,000 \$ 43,000 \$ 43,000 \$ 127,000 \$ 3,000 \$ 3,000
D-Water D-Water D-Bits D-Mud & Chemicals D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cml D-Float Equipment & Centralizers D-Csg Crews & Equip D-Contract Labor D-Contract Sprvsn D-Contract Sprvsn D-Totic Csg/Tbg D-Mud Logging Unit D-Rentals-Subsfrc D-Trucking/Forklift/Rig Mob D-Welding Services D-Continger Sprvsn D-Totic Csg/Tbg D-Trucking/Forklift/Rig Mob D-Welding Services D-Contingency D-Envmrnll/Clsd Loop C-Wellbore Frac Prep C-Lctal/Plis/Roads C-Completion OH C-Frac Cequipment C-Frac Proppant C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Surface Rentals	212 213 214 217 218 219 221 222 225 225 227 228 229 235 235 236 237 238 243 305 306 307 309 310 311			\$ 112,000.00 \$ 269,000.00 \$ 21,000.00 \$ 80,000.00 \$ 80,000.00 \$ 64,000.00 \$ 7,000.00 \$ 7,000.00 \$ 127,000.00 \$ 127,000.00 \$ 43,000.00 \$ 209,000.00 \$ 97,000.00 \$ 97,000.00 \$ 329,000.00 \$ 329,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 112,000 \$ 269,001 \$ 21,000 \$ 80,000 \$ 118,000 \$ 118,000 \$ 70,000 \$ 77,000 \$ 127,001 \$ 127,001 \$ 43,000 \$ 44,000 \$ 329,000 \$ 45,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 150,000
D-Bits D-Mud & Chemicals D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cmt D-Float Equipment & Centralizers D-Cosp Crews & Equip D-Contract Labor D-Company Sprvsn D-Company Sprvsn D-Tota Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Surface D-Rentals-Surface D-Rentals-Surface D-Rentals-Surface D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forkft/fr/Rig Mob D-Welding Services D-Contingency D-EnwmmI/Cisd Loop C-Wellbore Frac Prep C-Lctin/Pils/Roads C-Completion OH C-Frac Cequipment C-Frac Chemicals C-Frac Proppant C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Varface Rentals	214 217 218 219 219 221 222 225 226 227 228 229 229 235 236 237 238 243 243 243 305 306 307 308 309 310			\$ 269,000.00 \$ 21,000.00 \$ 80,000.00 \$ 118,000.00 \$ 70,000.00 \$ 70,000.00 \$ 70,000.00 \$ 127,000.00 \$ 43,000.00 \$ 43,000.00 \$ 209,000.00 \$ 150,000.00 \$ 209,000.00 \$ 150,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 269,000 \$ 21,000 \$ 80,000 \$ 118,000 \$ 64,000 \$ 7,000 \$ 7,000 \$ 127,000 \$ 127,000 \$ 127,000 \$ 43,000 \$ 48,000 \$ 48,000 \$ 3,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 329,000 \$ 329,000 \$ 310,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 329,000
D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cml D-Float Equipment & Centralizers D-Cog Crews & Equip D-Contract Labor D-Contract Sprvsn D-Contract Sprvsn D-Tost Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forktift/Rig Mob D-Welding Services D-Contingency D-Envirnmil/Cisd Loop C-Wellbore Frac Prep C-Letn/Plis/Roads C-Completion OH C-Frac Chemicals C-Frac Proppant C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Virgonat Transportation	217 218 219 221 222 225 226 227 228 229 235 236 237 238 243 244 305 306 307 308 309 310 311			\$ 21,000.00 \$ 80,000.00 \$ 118,000.00 \$ 54,000.00 \$ 70,000.00 \$ 7,000.00 \$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 40,000.00 \$ 40,000.00 \$ 50,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00 \$ 150,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 21,000 \$ 80,000 \$ 118,000 \$ 64,000 \$ 70,000 \$ 77,000 \$ 127,000 \$ 127,000 \$ 45,000 \$ 209,000 \$ 209,000 \$ 329,000 \$
D-Cement Surface D-Cement Intermed D-Prod-2nd Int Cml D-Float Equipment & Centralizers D-Cog Crews & Equip D-Contract Labor D-Contract Sprvsn D-Contract Sprvsn D-Tost Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forktift/Rig Mob D-Welding Services D-Contingency D-Envirnmil/Cisd Loop C-Wellbore Frac Prep C-Letn/Plis/Roads C-Completion OH C-Frac Chemicals C-Frac Proppant C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Virgonat Transportation	218 219 221 222 222 225 226 227 228 229 235 236 237 238 243 244 305 305 307 307 308 309 310			\$ 80,000.00 \$ 118,000.00 \$ 64,000.00 \$ 70,000.00 \$ 70,000.00 \$ 54,000.00 \$ 43,000.00 \$ 43,000.00 \$ 209,000.00 \$ 97,000.00 \$ 97,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 80,000 \$ 118,000 \$ 64,000 \$ 70,000 \$ 127,000 \$ 127,000 \$ 43,000 \$ 209,000 \$ 9,700 \$ 150,000 \$ 329,000 \$ 329,000
D-Prod-2nd Int Cml D-Flost Equipment & Centralizers D-Cosg Crews & Equip D-Contract Labor D-Contract Sprvsn D-Contract Sprvsn D-Contract Sprvsn D-Isig Csg/Tbg D-Mud Legging Unit D-Rentals-Subsrfc D-Trucking/Forkitif/Rig Mob D-Welding Services D-Trucking/Forkitif/Rig Mob D-Welding Services D-Contingency D-Envrnmil/Clsd Loop D-Welding Services D-Contract Sprvsn D-Envrnmil/Clsd Loop D-En	219 221 221 222 225 226 227 228 229 229 235 236 237 238 244 305 306 307 308 307 309 310 311			\$ 118,000.00 \$ 54,000.00 \$ 70,000.00 \$ 7,000.00 \$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 150,000.00 \$ 150,000.00 \$ 5,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 118,000 \$ 64,000 \$ 70,000 \$ 7,000 \$ 127,000 \$ 127,000 \$ 43,000 \$ 209,000 \$ 97,000 \$ 150,000 \$ 329,000 \$ 329,000
D-Float Equipment & Centralizers D-Csg Crews & Equip D-Contract Labor D-Company Sprvan D-Company Sprvan D-Total Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Surface D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/ForktifurRig Mob D-Wielding Services D-Contingency D-Enwmmil/Cisd Loop C-Wellbore Frac Prep C-Lctin/Pils/Roads C-Completion OH C-Frac Cequipment C-Frac Proppant C-Frac Proppant C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Virface C-Fra	221 222 225 226 227 228 229 235 235 236 237 238 243 243 244 305 306 307 308 309 310 311			\$ 64,000.00 \$ 70,000.00 \$ 7,000.00 \$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 43,000.00 \$ 209,000.00 \$ 29,000.00 \$ 150,000.00 \$ 4,000.00 \$ 150,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 64,000 \$ 70,000 \$ 77,000 \$ 127,000 \$ 127,000 \$ 48,000 \$ 209,000 \$ 97,000 \$ 150,000 \$ 329,000 \$
D-Csg Crews & Equip D-Contract Labor D-Contract Labor D-Contract Sprvsn D-Contract Sprvsn D-Tstg Csg/Tbg D-Mud Logging Unit D-Renlats-Surface D-Renlats-Subsrfc D-Trucking/Forklift/Rig Mob D-Welding Services D-Contingency D-Envent/Uclsd Loop C-Wellbore Frac Prep C-Lcln/Pils/Roads C-Completion OH C-Frac Equipment C-Frac Chemicals C-Frac Proppant Transportation C-Frac Delivery & Services C-Water C-Frac Surface Rentals	225 226 227 228 227 228 229 235 236 237 238 243 244 304 305 306 307 308 307 308 310 311 311 312			\$ 70,000.00 \$ 7,000.00 \$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 70,000 \$ 7,000 \$ 127,000 \$ 43,000 \$ 48,000 \$ 97,000 \$ 150,000 \$ 150,000 \$ 150,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 15,000 \$ 329,000 \$ 3
D-Csg Crews & Equip D-Contract Labor D-Contract Labor D-Contract Sprvsn D-Contract Sprvsn D-Tstg Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forklift/Rig Mob D-Contingency D-Contingency D-Enverntll/Clsd Loop C-Wellbore Frac Prep D-Lctin/Plis/Roads D-Completion OH D-Frac Equipment D-Frac Chemicals D-Frac Proppant D-Frac Proppant D-Frac Proppant D-Frac Proppant Transportation D-Fuel Delivery & Services D-Water D-Frac Surface Rentals	225 226 227 228 227 228 229 235 236 237 238 243 244 304 305 306 307 308 307 308 310 311 311 312			\$ 7,000.00 \$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 65,000.00 \$ 65,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 7,000 \$ 54,001 \$ 127,001 \$ 43,000 \$ 28,000 \$ 97,000 \$ 150,000 \$ 329,001 \$ 329,001 \$ 15,000 \$ 15,000 \$ 329,001 \$ 329,001 \$ 329,001 \$ 329,001
D-Company Sprvsn D-Contract Sprvsn D-Tistg Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forkliff/Rig Mob D-Wielding Services D-Contingency D-Envinrul/Clsd Loop C-Wellbore Frac Prep C-Lctur/Plis/Roads C-Completion OH C-Frac Equipment C-Frac Chemicals C-Frac Proppant Transportation C-Fruel Delivery & Services C-Water C-Frac Surface Rentals	226 227 228 229 235 236 237 238 243 243 244 304 305 306 307 308 309 310 311			\$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 54,000 \$ 127,000 \$ 48,000 \$ 209,000 \$ 97,000 \$ 150,000 \$ 65,000 \$ 329,000 \$ 329,000 \$ 329,000 \$ 10,000 \$ 15,000 \$ 15,000 \$ 332,000
D-Contract Sprvsn D-Tstg Csq/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forkift/Rig Mob D-Welding Services D-Contingency D-Enrymml/Clsd Loop C-Wellbore Frac Prep C-Lctn/Plis/Roads C-Completion OH C-Frac Equipment C-Frac Chemicals C-Frac Proppant Transportation C-Frae Incompant Transportation C-Frae Incompant Transportation C-Frae Incompant Transportation C-Frae Proppant C-Frae Proppant Transportation C-Frae Incompant Transportation C-Frae Proppant Transportation C-Frae Propont Transpo	227 228 229 235 236 237 238 243 244 304 305 306 307 308 309 310 311			\$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 127,000 \$ 43,000 \$ 48,000 \$ 209,000 \$ 97,000 \$ 150,000 \$ 65,000 \$ 329,000 \$ 10,000 \$ 10,000 \$ 15,000 \$ 329,000 \$ 3
D-Tstg Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Surface D-Rentals-Subsrfc D-Trucking/Forkfifr/Rig Mob D-Welding Services D-Conlingency D-EnvmmII/Cisd Loop C-Wellibore Frac Prep C-Ldm/Pils/Roads C-Completion OH C-Frac Equipment C-Frac Rentals C-Frac Proppant Transportation C-Frae Identification C-Frae Deponant Transportation C-Frae Delivery & Services C-Water C-Frac Surface Rentals	228 229 235 236 237 238 243 244 304 305 306 307 308 309 310 311			\$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 43,000 \$ 48,000 \$ 209,000 \$ 97,000 \$ 150,000 \$ 4,000 \$ 65,000 \$ 329,000 \$ 10,000 \$ 15,000 \$ 15,000
D-Mud Logging Unit D-Rentals-Surface D-Rentals-Surface D-Trucking/Forklift/Rig Mob D-Welding Services D-Contingency D-Environmil/Clsd Loop D-Environmil/Clsd Loop D-Environmil/Clsd Loop D-Letn/Pils/Roads D-Completion OH D-Frac Equipment C-Frac Chemicals D-Frac Proppant Transportation D-Frac Polypant Transportation D-Frac Surface Rentals D-Frac Surface Rentals	229 235 236 237 238 243 244 304 305 306 307 308 309 310 311			\$ 48,000.00 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 48,000 \$ 209,000 \$ 97,000 \$ 150,000 \$ 4,000 \$ 65,000 \$ 329,000 \$ 10,000 \$ 15,000 \$ 322,000
-Rentals-Surface -Rentals-Surface -Trucking/Forklift/Rig Mob -Weiding Services -Weiding Services -Contingency -Envmmil/Clsd Loop -Weilbore Frac Prep -Lcfu/Plis/Roads -Completion OH -Frac Equipment -Frac Chemicals -Frac Proppant -Frac Proppant Transportation -Frac Delivery & Services -Water -Frac Surface Rentals	235 236 237 238 243 244 304 305 306 307 308 309 310 311			\$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ 209,001 \$ 97,001 \$ 150,000 \$ 65,001 \$ 329,000 \$ 10,000 \$ 15,000 \$ 32,000 \$ 32,000 \$ 32,000
D-Rentals-Subsric D-Trucking/Forklift/Rig Mob D-Welding Services D-Contingency D-Envirmil/Clsd Loop D-Welldore Frac Prep C-Lotin/Pits/Roads C-Completion OH D-Frac Equipment C-Frac Chemicals C-Frac Proppant C-Frac Proppant C-Frac Proppant Transportation C-Frac Poppart C-Frac Propant	236 237 238 243 244 304 305 306 307 308 309 310 311 312			\$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$	\$ 97,000 \$ 150,000 \$ 4,000 \$ 65,000 \$ 329,000 \$ 10,000 \$ 15,000 \$ 932,000
D-Trucking/Forklif/Wilg Mob D-Weiding Services D-Contingency D-Enviroll/Wilsd Loop C-Wellbors Frac Prep D-Lctn/Pils/Roads D-Grac Equipment C-Frac Celupment C-Frac Celupment C-Frac Coppant C-Frac Proppant Transportation C-Frac Polyment C-Frac Services C-Water D-Frac Surface Rentals	237 238 243 244 304 305 306 307 308 309 310 311 312			\$ 150,000.00 \$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			S	\$ 150,000 \$ 4,000 \$ 65,000 \$ 329,000 \$ 81,000 \$ 10,000 \$ 15,000 \$ 932,000
D-Welding Services D-Contingency D-Envmmil/Clsd Loop S-Wellbore Frac Prep J-Cldin/Plis/Roads C-Completion OH C-Frac Equipment G-Frac Chemicals C-Frac Proppant C-Frac Proppant Transportation C-Frae Delivery & Services S-Water C-Frac Surface Rentals	238 243 244 304 305 306 307 308 309 310 311 312			\$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$.	\$ 4,000 \$ 65,000 \$ 329,000 \$ 81,000 \$ 10,000 \$ 15,000 \$ 932,000
D-Contingency D-Envirmil/Cisd Loop D-Envirmil/Cisd Loop D-Wellbore Frac Prep D-Control Frac Prep D-Frac Equipment Frac Chemicals Frac Proppant Frac Proppant Frac Proppant Transportation D-Full Delivery & Services D-Water Frac Surface Rentals	243 244 304 305 306 307 308 309 310 311 312			\$ 65,000.00 \$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ - \$ - \$ -	\$ 65,000 \$ 329,000 \$ 81,00 \$ 10,00 \$ 15,00 \$ 932,00
D-Envimml/Clsd Loop C-Wellbore Frac Prep C-Lotin/Plis/Roads C-Completion OH C-Frac Equipment C-Frac Chemicals C-Frac Proppant C-Frac Proppant Transportation C-Frac Polyment C-Frac Proprant Transportation C-Frac Proprant Transportation C-Frac Proprant Transportation C-Frac Proprant Transportation C-Frac Surface Rentals	244 304 305 306 307 308 309 310 311 312			\$ 329,000.00	\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$. \$. \$.	\$ 329,00 \$ 81,00 \$ 10,00 \$ 15,00 \$ 932,00
	304 305 306 307 308 309 310 311 312				\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ -	\$ 81,00 \$ 10,00 \$ 15,00 \$ 932,00
C-LctriPits/Roads C-Completion OH Frac Equipment Frac Chemicals Frac Proppant Frac Proppant Transportation Frac Proppant Services Water Frac Surface Rentals	305 306 307 308 309 310 311 312				\$ 10,000.00 \$ 15,000.00 \$ 932,000.00			\$ - \$ -	\$ 10,00 \$ 15,00 \$ 932,00
Completion OH Frac Equipment Frac Chemicals Frac Proppant Frac Proppant Transportation Frac Proppant Transportation Fuel Delivery & Services Water Frac Surface Rentals	306 307 308 309 310 311 312				\$ 15,000.00 \$ 932,000.00			\$ -	\$ 15,00 \$ 932,00
C-Frac Equipment C-Frac Chemicals C-Frac Propant C-Frac Propant Transportation C-Frac Propant Transportation C-Fuel Delivery & Services C-Water C-Frac Surface Rentals	307 308 309 310 311 312				\$ 932,000.00				\$ 932,00
C-Frac Chemicals C-Frac Proppant C-Frac Proppant Transportation C-Fuel Delivery & Services C-Water C-Frac Surface Rentals	308 309 310 311 312							S -	
C-Frac Proppant C-Frac Proppant Transportation C-Fuel Delivery & Services C-Water C-Frac Surface Rentals	309 310 311 312							\$ -	\$ 399,00
C-Frac Proppant Transportation C-Fuel Delivery & Services C-Water C-Frac Surface Rentals	310 311 312				\$ 181,000,00			\$ -	\$ 181,00
C-Fuel Delivery & Services C-Water C-Frac Surface Rentals	311				\$ 282,000.00			\$ -	\$ 282,00
C-Water C-Frac Surface Rentals	312				\$ 41,000.00			\$.	\$ 41,00
C-Frac Surface Rentals					\$ 552,000.00			\$ -	S 552,00
Frac Surface Rentals					\$ 306,000.00			\$ -	\$ 306,00
	315				\$ 10,000.00			\$ -	\$ 10,00
C-Contract Labor	326				\$ 10,000.00			\$.	\$ 10,00
C-Company Sprvsn	327	\rightarrow			\$ 145,000.00			\$ -	\$ 145,00
C-Contract Sprvsn C-Artificial Lift Install	329				\$ 44,000.00			\$ -	\$ 44,00
C-Perf/Wireline Svc	331				\$ 363,000.00			S	\$ 363,00
C-Trucking/Forklift/Rig Mob	337				\$ 10,000.00			S -	\$ 10,00
C-Water Disposal	339				\$ 39,000.00			\$ -	\$ 39,00
C-Conlingency	343				\$ 144,000.00			\$ -	\$ 144,00
C-Dyed Diesel	345				\$ 315,000.00			\$ -	\$ 315,00
C-Drillout	346	-			\$ 325,000.00			\$ -	\$ 325,00
TB-Damages/Right of Way	351					\$ 2,000.00		\$	\$ 2.00
TB-Location/Pits/Roads	353					\$ 41,000.00		S -	5 41,00
TB-Contract Labor	356					\$ 172,000,00		S -	\$ 172,00
PEQ-Contract Labor	374						\$ 38,000.00	\$.	\$ 38,00
PEQ-Water Disposal	387						\$ 179,000.00		\$ 179,00
PEQ-HRZ Well Offset Frac	391						\$ 18,000.00		\$ 18,00
Total Intangible Costs	\$		5 -	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 235,000.00	\$ 80	\$ 7,915,00
Tangible Costs	392	- 1					\$ 115,000.00	S -	S 115,00
PEQ-Flowback Crews & Equip	401			\$ 25,000.00			1.12/200100	\$.	\$ 25,00
D-Surface Casing	401			\$ 228,000.00				5 .	5 228,00
0-Intermed Csg 0-Production Casing/Liner	403			\$ 315,000.00				\$ -	S 315.00
-Wellhead Equip	405			\$ 76,000.00				\$.	\$ 76,00
	504			10,000,00	\$ 52,000.00			5 -	\$ 52,00
>Tubing >Wellhead Equip	505				\$ 28,000.00			\$	\$ 28,00
B-Tanks	510				20,000.00	\$ 77,000.00		\$ -	\$ 77,00
B-Flowlines/Pipelines	511					\$ 29,000.00		\$ -	\$ 29,00
B-Hir Trir/Seprir	512					\$ 176,000.00		S -	\$ 176,00
B-Electrical System/Equipment	513					\$ 113,000.00		\$ -	\$ 113,00
-Pckrs/Anchors/Hars	514				\$ 65,000.00			\$.	\$ 65,00
B-Couplings/Fittings/Valves	515					\$ 194,000.00		\$.	\$ 194,00
B-Pumps-Surface	521					\$ 24,000.00		S -	\$ 24,00
B-Instrumentation/SCADA/POC	522					\$ 20,000.00		\$ -	\$ 20,00
B-Miscellaneous	523					\$ 20,000.00	j	\$.	\$ 20,00
B-Meters/Lacts	525					\$ 24,000.00		\$.	\$ 24,00
B-Flares/Combusters/Emission	526					\$ 29,000.00		\$	\$ 29,00
C-Gas Lift/Compression	527				\$ 25,000.00			\$ -	\$ 25,00
EQ-Wellhead Equipment	531						\$ 41,000.00		\$ 41,00
Total Tangible Costs	\$	20	\$ -	\$ 644,000.00	\$ 170,000.00	\$ 706,000.00	\$ 156,000.00	\$	\$ 1,676,00
		- 4	- /-				[a	1.	1 0 0000
Total Gross Cost	\$			\$ 3,905,000.00	\$ 4,374,000.00	\$ 921,000.00	\$ 391,000.00	\$: •	\$ 9,591,00
Note: The above costs are estimates of	only. Actual	costs will be	e billed as incurred.						

COG Operating LLC	
By:	Date Prepared: 5/20/20
	COG Operating LLC
We approve:	By:
Company: By:	
Printed Name: Title:	This AFE is only an estimate. By signing you agree to pay

COG OPERATING LLC AUTHORITY FOR EXPENDITURE Drill & Complete

Well Name BOO RADLEY FED COM 703H
SHL 26S-R28E, Sec 16: 200 FSL, 1550 FEL, or Unit O
BHL 26S-R28E, Sec 33: 200 FSL, 330 FEL, or Lot 4
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,805 TVD 9,488

ost Description tangible Costs	Code	PreSpud (PS)	Pre-Set Casing(PC)		orilling (DR)	Completions (C	Tank Btty Constrctn(TE) Pmpq	Equip (PEO)	Revisio	n)	
Lctn/Pits/Roads	205			5	102,000.00			T		I S		Te	102,000
Drilling Overhead	206			S	9,000.00			-		\$		8	9,000
Daywork Contract	209			S	711,000.00					\$		5	711,000
Directional Drlg Services	210			S	340,000.00					S	- :	\$	340,000
Fuel & Power	211				152,000.00					S		S	152,000
Water	212			S	80,000.00					S	-	1 8	80.000
Bits	213			S	112,000.00					S		\$	112,000
Mud & Chemicals	214				269,000.00					\$		\$	269,000
Cement Surface	217			\$	21,000.00		N-			\$	-	S	21,000
Cement Intermed	218			\$	80,000.00					S		1 8	80,000
Prod-2nd Int Crnt	219				118,000.00					\$	- 2	\$	118,000
Float Equipment & Centralizers	221			\$	64,000.00					S		5	64,000
Csg Crews & Equip	222			5	70,000.00					\$		5	70,000
Contract Labor	225			\$	7,000.00					\$		\$	7,000
Company Sprvsn	226			\$	54,000.00					\$		\$	54,000
Contract Sprvsn	227				127,000.00					5		\$	127,000
Tstg Csg/Tbg	228			\$	43,000.00					\$		S	43,000
Mud Logging Unit Rentals-Surface	229 235			\$	48,000.00					\$		\$	48,000
					09,000.00					S		\$	209,000
Rentals-Subsrfc	236			\$	97,000.00					S		\$	97,000
Trucking/Forklift/Rig Mob	237				150,000.00					\$		S	150,000
Welding Services	238			\$	4,000.00					\$		\$	4,000
Contingency	243			\$	65,000.00					5	¥:	\$	65,000
Envmmtl/Clsd Loop	244 304			\$ 3	29,000.00					\$		\$	329,000
Wellbore Frac Prep						\$ 81,000.00				\$	167	S	81,000
Lctn/Pits/Roads Completion OH	305 306					\$ 10,000.00				\$		\$	10,000
	305					\$ 15,000.00				\$		\$	15,000
Frac Equipment				_		\$ 932,000.00				\$	141	\$	932,000
Frac Chemicals Frac Propoant	308			_		\$ 399,000.00				\$		S	399,000
Frac Proppant Transportation	310			_		\$ 181,000.00				\$		S	181,000
Fuel Delivery P. September	311			_		\$ 282,000.00				S	1.6	3	282,000
Fuel Delivery & Services Water				_		\$ 41,000.00				\$		5	41,000
Frac Surface Rentals	312 315			_		\$ 552,000.00				S		\$	552,000
Contract Labor	325			_		\$ 306,000.00				\$	1.60	\$	306,00
Company Sprvsn	328					\$ 10,000.00				\$		\$	10,000
Contract Sprvsn	327			_		\$ 10,000.00 \$ 145,000.00				\$		5	10,000
Artificial Lift Install	329			_						S		\$	145,000
Perf/Wireline Svc	331			_		\$ 44,000.00				S	•	\$	44,000
rucking/Forklift/Rig Mob	337					\$ 363,000.00 \$ 10,000.00				\$	(%)	\$	363,000
Water Disposal	339	-		_		\$ 10,000.00 \$ 39,000.00		_		S		\$	10,000
Contingency	343			_						S		\$	39,000
Dyed Diesel	345					\$ 144,000.00 \$ 315,000.00				\$		5	144,000
Drillout	346					\$ 325,000.00				\$		\$	315,00
-Damages/Right of Way	351					3 320,000.00	\$ 2,000.00			5		\$	325,00
-Location/Pits/Roads	353			_			\$ 41,000.00			\$		S	2,000
-Contract Labor	356						\$ 172,000.00			S		\$	41,000
Q-Contract Labor	374						172,000.00	e	38,000.00		5.45	\$	172,000
Q-Water Disposal	387							5	470,000,00	\$		S	38,000
Q-HRZ Well Offset Frac	391							S	179,000.00 18,000.00	3		\$	179,00
tal Intangible Costs		s .	\$ -	£ 22	61,000.00	\$ 4,204,000.00	\$ 215,000.00				5.4.0	\$	18,00
		100	•	4 3,2	01,000.00	3 4,204,000.00	\$ 215,000.00	,	235,000.00	2		\$	7,915,00
ngible Costs	7227				0				272522503	105-		w	
Q-Flowback Crews & Equip Surface Casing	392			_				\$	115,000.00			S	115,00
	401				25,000.00					\$		\$	25,00
ntermed Csg	402		- 3		28,000.00					\$	- 7	\$	228,00
Production Casing/Liner Vellhead Equip	403				15,000.00					\$	1943	\$	315,00
veinead Ednib	405			3	76,000.00					S		S	76,00
ubing	504			_		\$ 52,000.00				\$	-	\$	52,00
Vellhead Equip Tanks	505 510					\$ 28,000.00				\$	(*)	\$	28.00
							5 77,000,00			\$		\$	77,00
Flowlines/Pipelines Htr Trtr/Seprtr	511 512						\$ 29,000.00			\$	-	\$	29.00
Electrical System/Equipment	513						\$ 176,000.00			S		\$	176,00
ckrs/Anchors/Hgrs							\$ 113,000.00			\$		Š	113,00
Couplings/Fittings/Valves	514 515			_		\$ 65,000.00				S	40	\$	65,00
ouplings/ritings/valves oumps-Surface	515						\$ 194,000.00			\$		\$	194,00
Instrumentation/SCADA/POC	521						\$ 24,000.00			\$		S	24,00
Miscellaneous							\$ 20,000.00			\$	(\$)	\$	20,00
	523						\$ 20,000.00			\$		S	20,00
Meters/Lacts	525						\$ 24,000.00			\$		5	24,00
Flares/Combusters/Emission	526 527						\$ 29,000.00			S	381	\$	29,00
as Lift/Compression 2-Wellhead Equipment						S 25,000.00				S		S	25,00
	531					V		S	41,000.00			\$	41,00
		5 -	5 - 5	6.	14,000.00	\$ 170,000.00	\$ 706,000.00	S	156,000.00	\$	-	5	1,678,00
					NA COLUMN STATE	S. HARLESSEE							1101010
al Tangible Costs			5 - 15			\$ 4,374,000.00	\$ 921,000.00		391,000.00	7,5		5	9,591,00

COG Operating LLC	
By:	Date Prepared: 5/20/20
We approve:	COG Operating LLC
% Working Interest	Ву:
Company: By:	
Printed Name:	
Title: Date:	This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

COG OPERATING LLC AUTHORITY FOR EXPENDITURE Drill & Complete

Well Name BOO RADLEY FED COM 706H
SHL 26S-R28E, Sec 16: 220 FSL, 1400 FWL, or Unil N
BHL 26S-R28E, Sec 33: 200 FSL, 550 FWL, or Lot 5
Formation WOLFCAMP
Legal 21, 28, & 33, T26S-R28E
AFE Numbers

Prospect ATLAS 2628 State & County NEW MEXICO, EDDY Objective DRILL & COMPLETE Depth 22,791 TVD 9,441

Intangible Costs	5 6 9 9 9 1 1 1 1 1 1 1		\$ 102,000.00 \$ 9,000.00 \$ 711,000.00 \$ 340,000.00 \$ 152,000.00 \$ 112,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 32,000.00 \$ 32,000.00 \$ 48,000.00 \$ 32,000.00 \$ 32,000.00	\$ 81,000.00 \$ 10,000.00 \$ 15,000.00 \$ 932,000.00 \$ 932,000.00 \$ 181,000.00 \$ 282,000.00 \$ 41,000.00 \$ 10,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 365,000.00	Tank Bity Constrctn(TB)	Pmpq Equip (PEC	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	102,000.00 9,000.00 711,000.00 80,000.00 152,000.00 80,000.00 112,000.00 80,000.00 112,000.00 80,000.00 113,000.00 114,000.00 114,000.00 114,000.00 115,000.00
D-Letn/Pits/Roads D-Drilling Overhead D-Float Surface D-Bits D-Gement Surface D-Cement Surface D-Cement Intermed D-Cement Intermed D-Prod-2nd Int Cmt D-Float Equipment & Centralizers D-Congany Sprvsn D-Contract Labor D-Company Sprvsn D-Contract Sprvsn D-Contract Sprvsn D-Contract Sprvsn D-Contract Sprvsn D-Contract Sprvsn D-Contract Sprvsn D-Strig Csg/Tbg D-Mud Logging Unit D-Rentals-Surface D-Rentals-Surface D-Rentals-Surface D-Trucking/Forkliff/Rig Mob D-Rentals-Subsrfc D-Trucking/Forkliff/Rig Mob D-Enverned/Clsd Loop D-Enverned/Clsd Loop D-Enverned/Clsd Loop D-Enverned/Clsd Loop D-Enverned/Clsd Loop C-Completion OH C-Frac Equipment 30 C-Frac Equipment 31 C-Frac Equipment 32 C-Frac Proppant Transportation 33 C-Frac Proppant Transportation 34 C-Frac Surface Rentals 35 C-Frac Proppant Transportation 36 C-Frac Proppant Transportation 37 C-Frac Surface Rentals 38 C-Frac Proppant Services 39 C-Contract Labor C-Contract Labor C-Contract Labor D-Deliver Disposal 30 C-Vater Disposal 31 C-D-Contract Labor 32 C-D-Contract Labor 34 D-C-Contract Labor 35 D-C-Contract Labor 36 D-C-Contract Labor 37 D-C-Contract Labor 38 D-C-Contract Labor 39 D-C-Contract Labor 39 D-C-Contract Labor 30 D-C-Contract Labor 30 D-C-Contract Labor 31 D-C-Contract Labor 32 D-C-Contract Labor 34 D-C-C-Contract Labor 35 D-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C	66 99 00 11 22 33 44 77 88 99 11 12 25 56 66 77 77 88 83 34 44 44 44 45 56 66 77 77 77 77 77 77 77 77 77 77 77 77		\$ 9,000.00 \$ 711,000.00 \$ 340,000.00 \$ 152,000.00 \$ 152,000.00 \$ 112,000.00 \$ 255,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 64,000.00 \$ 77,000.00 \$ 77,000.00 \$ 127,000.00 \$ 343,000.00 \$ 343,000.00 \$ 97,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	9,000.00 711,000.00 30,000.00 152,000.00 112,000.00 269,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 64,000.00 65,000.00 66,000.00 66,000.00 67,000.00 68,
D-Drilling Overhead 20. Daywork Contract 21. Daywork Contract 22. D-Buel & Power 23. D-Fuel & Power 24. D-Buel & Power 25. D-Buel & Power 26. D-Buel & Power 27. D-Bits 28. D-Cement Surface 29. D-Cement Surface 20. D-Cement Intermed 20. D-Cement Intermed 20. D-Cement Intermed 21. D-Fotal Equipment & Centralizers 22. D-Cognition of the Contract 23. D-Cognition of the Company Sprvsn 24. D-Contract Labor 25. D-Contract Labor 26. D-Contract Sprvsn 27. D-Contract Sprvsn 28. D-Contract Sprvsn 29. D-Contract Sprvsn 20. D-Contract Sprvsn 20. D-Contract Sprvsn 20. D-Contract Sprvsn 21. D-Contract Sprvsn 22. D-Contract Sprvsn 23. D-Contract Sprvsn 24. D-Contract Sprvsn 25. D-Contract Sprvsn 26. D-Contract Sprvsn 27. D-Rentals-Surface 28. D-Contract Sprvsn 29. D-Contract Sprvsn 20. D-Contract Sprvsn 20. C-Completion OH 20. C-Completion OH 20. C-Frac Chemicals 20. C-Frac Proppant 21. C-Frac Proppant 22. C-Frac Proppant 23. C-Frac Proppant 24. C-Frac Proppant 25. C-Frac Proppant 26. C-Frac Proppant 27. C-Frac Proppant 28. C-Contract Labor 29. C-Ompletion Sprvsn 20. C-Ompletion Sprvs	66 99 00 11 22 33 44 77 88 99 11 12 25 56 66 77 77 88 83 34 44 44 44 45 56 66 77 77 77 77 77 77 77 77 77 77 77 77		\$ 9,000.00 \$ 711,000.00 \$ 340,000.00 \$ 152,000.00 \$ 152,000.00 \$ 112,000.00 \$ 255,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 64,000.00 \$ 77,000.00 \$ 77,000.00 \$ 127,000.00 \$ 343,000.00 \$ 343,000.00 \$ 97,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	711,000.00 340,000.00 152,000.00 80,000.00 112,000.00 269,000.00 21,000.00 80,000.00 118,000.00 70,000.00 70,000.00 70,000.00 70,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 150,000
Daywork Centract 20	99		\$ 711,000,00 \$ 340,000,00 \$ 152,000,00 \$ 80,000.00 \$ 122,000,00 \$ 269,000,00 \$ 21,000,00 \$ 269,000,00 \$ 118,000,00 \$ 70,000,00 \$ 70,000,00 \$ 70,000,00 \$ 54,000,00 \$ 127,000,00 \$ 43,000,00 \$ 43,000,00 \$ 209,000,00 \$ 329,000,00 \$ 329,000,00 \$ 329,000,00 \$ 329,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	711,000.00 340,000.00 152,000.00 80,000.00 112,000.00 269,000.00 211,000.00 80,000.00 118,000.00 70,000.00 70,000.00 70,000.00 40,000.00 127,000.00 43,000.00 150,000
Directional Drig Services 2	0 1 1 1 2 2 3 3 4 4 7 7 8 8 9 9 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2		\$ 340,000.00 \$ 152,000.00 \$ 80,000.00 \$ 112,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 21,000.00 \$ 64,000.00 \$ 70,000.00 \$ 70,000.00 \$ 70,000.00 \$ 343,000.00 \$ 48,000.00 \$ 197,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	340,000.00 152,000.00 122,000.00 269,000.00 112,000.00 21,000.00 21,000.00 21,000.00 21,000.00 21,000.00 21,000.00 21,000.00 21,000.00 21,000.00 21,000.00 21,000.00 20,000.00 2
Display Disp	1 2 2 3 3 4 4 7 7 8 8 9 9 1 1 1 2 2 5 5 6 6 6 7 7 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9		\$ 152,000.00 \$ 80,000.00 \$ 112,000.00 \$ 25,000.00 \$ 269,000.00 \$ 118,000.00 \$ 64,000.00 \$ 70,000.00 \$ 70,000.00 \$ 127,000.00 \$ 48,000.00 \$ 48,000.00 \$ 29,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	152,000.00 80,000.00 112,000.00 112,000.00 269,000.00 80,000.00 80,000.00 80,000.00 118,000.00 70,000.00 64,000.00 70,000.00 127,000.00 43,000.00 43,000.00 43,000.00 43,000.00 44,000.00 150,000.00 1
Description	2 2 3 3 4 4 7 7 8 8 9 9 1 1 2 2 2 5 5 6 6 6 7 7 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		\$ 80,000.00 \$ 112,000.00 \$ 269,000.00 \$ 21,000.00 \$ 80,000.00 \$ 118,000.00 \$ 70,000.00 \$ 70,000.00 \$ 43,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	80,000.00 112,000.00 21,000.00 21,000.00 21,000.00 80,000.00 118,000.00 64,000.00 77,000.00 77,000.00 48,000.00 127,000.00 48,000.00 127,000.00 48,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 127,000.00 128,000.00 150,000.00
Delits 2	3 4 4 7 7 8 8 9 9 11 1 2 2 2 2 5 5 6 6 7 7 7 8 8 8 8 9 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1		\$ 112,000.00 \$ 269,000.00 \$ 21,000.00 \$ 80,000.00 \$ 118,000.00 \$ 70,000.00 \$ 77,000.00 \$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 209,000.00 \$ 127,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	112,000.00 269,000.00 80,000.00 80,000.00 118,000.00 64,000.00 70,000.00 64,000.00 55,000.00 127,000.00 209,000.00 43,000.00 48,000.00 48,000.00 150,000.0
O-Mud & Chemicals 2	4 4 7 7 8 8 9 9 9 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2		\$ 269,000.00 \$ 21,000.00 \$ 80,000.00 \$ 118,000.00 \$ 70,000.00 \$ 70,000.00 \$ 7,000.00 \$ 127,000.00 \$ 48,000.00 \$ 209,000.00 \$ 37,000.00 \$ 48,000.00 \$ 397,000.00 \$ 397,000.00 \$ 397,000.00 \$ 397,000.00 \$ 397,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	269,000.00 21,000.00 80,000.01 118,000.00 64,000.01 70,000.00 7,000.00 127,000.00 43,000.00 43,000.00 127,000.00 48,000.00 150,000.00 1552,000.00 100,000.00 100,000.00 145,000.00 145,000.00 145,000.00 145,000.00 145,000.00 145,000.00 165,000.
D-Mud & Chemicals 2	7 8 8 9 9 1 1 1 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3		\$ 21,000.00 \$ 80,000.00 \$ 118,000.00 \$ 64,000.00 \$ 70,000.00 \$ 7,000.00 \$ 127,000.00 \$ 43,000.00 \$ 43,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 45,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	21,000.00 80,000.00 118,000.00 64,000.00 70,000.00 70,000.00 70,000.00 127,000.00 43,000.00 43,000.00 97,000.00 97,000.00 4,000.00 150,000.00 4,000.00 150
Cement Surface 2	7 8 8 9 9 1 1 1 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3		\$ 60,000.00 \$ 118,000.00 \$ 64,000.00 \$ 70,000.00 \$ 70,000.00 \$ 7,000.00 \$ 127,000.00 \$ 43,000.00 \$ 43,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 40,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	80,000,00 118,000,00 64,000,00 70,000,00 70,000,00 127,000,00 43,000,00 48,000,00 209,000,00 97,000,00 150,000,00 4,000,00 10,000,00 10,000,00 11,000,00
D-Cement Intermed 2	8 9 9 9 11 1 22 2 15 15 16 16 17 7 7 17 17 17 17 17 17 17 17 17 17 17		\$ 60,000.00 \$ 118,000.00 \$ 64,000.00 \$ 70,000.00 \$ 70,000.00 \$ 7,000.00 \$ 127,000.00 \$ 43,000.00 \$ 43,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 40,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	118,000.00 64,000.00 70,000.00 70,000.00 70,000.00 70,000.00 64,000.00 127,000.00 48,000.00 127,000.00 150,000
O-Prod-2nd Int Cmt 2-	9 9 11 12 12 13 14 14 15 15 15 16 16 16 16 16		\$ 118,000.00 \$ 64,000.00 \$ 70,000.00 \$ 7,000.00 \$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 97,000.00 \$ 150,000.00 \$ 150,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	118,000.00 64,000.00 70,000.00 70,000.00 70,000.00 70,000.00 64,000.00 127,000.00 48,000.00 127,000.00 150,000
D-Float Equipment & Centralizers 2-Cocsg Crews & Equip 2-Contract Labor 2-Company Sprvsn 2-Company Sprvsn 2-Company Sprvsn 2-Company Sprvsn 2-Contract Sprvsn 2-Contract Sprvsn 2-Contract Surface 3-Completion OH 3-Frac Proppant 3-Frac Proppant Transportation 3-Frac Proppant Transportation 3-Frac Proppant Transportation 3-Frac Surface Rentals 3-Contract Labor 3-Contract Labor 3-Contract Labor 3-Contract Sprvsn 3	11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		\$ 64,000.00 \$ 70,000.00 \$ 7,000.00 \$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			64,000.00 70,000.00 70,000.00 54,000.00 54,000.00 43,000.00 43,000.00 48,000.00 97,000.00 150,000.0
D-Contract Labor 2: D-Company Sprvsn 2: D-Contract Sprvsn 2: D-Contract Sprvsn 2: D-Tstp Csg/Tbq 2: D-Tstp Csg/Tbq 2: D-Rentals-Surface 3: D-Contingency 2: D-Contingency 2: D-Contingency 2: D-Contingency 3: D-Contingency 3: D-Contract Contingency 3: D-Frac Proppant 3: D-Frac Proppant 3: D-Frac Proppant 3: D-Frac Proppant Transportation 3: D-Frac Proppant Transportation 3: D-Frac Surface Rentals 3: D-Frac Proposition 3: D-Frac Surface Rentals 3: D-Frac Surface Rentals 3: D-Frac Proposition 3: D-Frac Surface Rentals 3: D-Frac Surface Rentals 3: D-Frac Propos	.55 .56 .57 .58		\$ 70,000.00 \$ 7,000.00 \$ 54,000.00 \$ 127,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 40,000.00 \$ 329,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70,000.00 7,000.00 54,000.00 127,000.00 43,000.00 48,000.00 209,000.00 150,000.00 4,000.00 65,000.00 329,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 16,000.00 18,000.00 18,000.00 18,000.00 18,000.00 18,000.00 10,0
Contract Labor 22	.55 .56 .57 .58		\$ 7,000,00 \$ 54,000,00 \$ 127,000,00 \$ 43,000,00 \$ 48,000,00 \$ 209,000,00 \$ 97,000,00 \$ 150,000,00 \$ 4,000,00 \$ 65,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		S S S S S S S S S S S S S S S S S S S	7,000.00 54,000.00 127,000.01 43,000.00 48,000.00 97,000.00 97,000.00 150,000.01 4,000.00 329,000.00 329,000.00 15,000.01
D-Company Sprvsn D-Contract Sprvsn 22: D-Contract Sprvsn 22: D-Tstg Csg/Tbg 22: D-Mud Logging Unit D-Rentals-Surface 23: D-Rentals-Surface 24: D-Rentals-Subsrfc 25: D-Rentals-Subsrfc 26: D-Trucking/Forkilf/Rig Mob 27: D-Contract Lobor 26: D-Contract Lobor 27: D-Contract Lobor 28: D-Contract Lobor 29: D-Contract Lobor 20: D-Completion OH 30: D-Frac Proppant 30: D-Frac Proppant 31: D-Frac Proppant 32: D-Frac Proppant 33: D-Frac Proppant 34: D-Frac Proppant 35: D-Frac Proppant 36: D-Frac Proppant 37: D-Frac Proppant 38: D-Frac Proppant 39: D-Frac Proppant 30: D-F	66 66 77 78 88 99 99 99 99 99		\$ 54,000.00 \$ 127,000.00 \$ 43,000.00 \$ 48,000.00 \$ 209,000.00 \$ 97,000.00 \$ 150,000.00 \$ 4,000.00 \$ 4,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	54,000.00 127,000.00 48,000.00 48,000.00 209,000.00 97,000.00 150,000.00 65,000.00 329,000.00 10,000.00 11,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 16,000.00 17,000.00 181,000.
D-Company Sprvsn 22 D-Contract Sprvsn 22 D-Contract Sprvsn 22 D-Tstg Csg/Tbg 27 D-Mud Logging Unit 22 D-Rentals-Surface 22 D-Rentals-Surface 22 D-Rentals-Surface 22 D-Rentals-Surface 22 D-Rentals-Subsrfc 22 D-Rentals-Subsrfc 22 D-Rentals-Subsrfc 22 D-Contingency 22 D-Contingency 22 D-Contingency 22 D-Contingency 24 D-Contingency 32 C-Completion OH 33 C-Completion OH 33 C-Frac Equipment 33 C-Frac Equipment 33 C-Frac Proppant Transportation 34 C-Frac Proppant 33 C-Frac Proppant Transportation 35 C-Frac Surface Rentals 33 C-Frac Surface Rentals 33 C-Contract Labor 33 C-Contract Labor 33 C-Perf/Wireline Svc 33 C-Perf/Wireline Svc 33 C-Perf/Wireline Svc 33 C-Dental Delised 33 C-Contract Labor 33 C-Donitout 15 D-Damages/Right of Way 33 T-D-Damages/Right of Way 33 T-D-Contract Labor 33 T-D-C-Ontract Labor 33 T-D-C-Ontract Labor 34 T-D-C-Ontract Labor 35 T-D-C-Ontract Labor 36 T-D-C-Ontract Labor 37 T-D-C-Ontract Labo	77 17 18 18 19 19 19 19 19 19		\$ 127,000,00 \$ 43,000,00 \$ 48,000,00 \$ 209,000,00 \$ 150,000,00 \$ 150,000,00 \$ 65,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	127,000.00 43,000.00 48,000.00 209,000.00 150,000.00 150,000.00 4,000.00 329,000.00 11
Contract Sprvsn 22	77 17 18 18 19 19 19 19 19 19		\$ 43,000,00 \$ 48,000,00 \$ 209,000,00 \$ 97,000,00 \$ 150,000,00 \$ 4,000,00 \$ 65,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	43,000.00 48,000.00 209,000.00 97,000.00 150,000.00 4,000.00 65,000.00 10,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 15,000.00 16,000.00 17,000.00 181,000.00
2-15tg Csg/Tbq 22	.88		\$ 43,000,00 \$ 48,000,00 \$ 209,000,00 \$ 97,000,00 \$ 150,000,00 \$ 4,000,00 \$ 65,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	48,000.00 209,000.00 97,000.00 150,000.00 4,000.00 65,000.00 329,000.00 10,000.00 11,000.00 181,000.00
Description	99 199 199 199 199 199 199 199 199 199		\$ 48,000,00 \$ 209,000,00 \$ 97,000,00 \$ 150,000,00 \$ 4,000,00 \$ 65,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	209,000,00 97,000,00 150,000,00 4,000.00 65,000,00 81,000,00 10,000,00 15,000,00 399,000,00 41,000,00 41,000,00 10,000,00 10,000,00 10,000,00 10,000,00
O-Rentals-Surface 22	15 15 15 15 15 15 15 15		\$ 209,000,00 \$ 97,000,00 \$ 150,000,00 \$ 4,000,00 \$ 65,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	209,000,00 97,000,00 150,000,00 4,000.00 65,000,00 81,000,00 10,000,00 15,000,00 399,000,00 41,000,00 41,000,00 10,000,00 10,000,00 10,000,00 10,000,00
D-Rentals-Subsrfc 2: D-Trucking/Forkilf/Rig Mob 2: D-Trucking/Forkilf/Rig Mob 2: D-Trucking/Forkilf/Rig Mob 2: D-Contingency 2: D-Envmrtl/Clsd Loop 2: C-Envmrtl/Clsd Loop 3: C-Wellbore Frac Prep 3: C-Wellbore Frac Prep 3: C-Completion OH 3: C-Frac Equipment 3: C-Frac Equipment 3: C-Frac Proppant 3: Frac Proppant Transportation 3: C-Frac Proppant Transportation 3: C-Frac Surface Rentals 3: C-Frac Surface Rentals 3: C-Contract Labor 3: C-Perf/Wireline Svc 3: C-Trucking/Forkitr/Rig Mob 3: C-Marker Disposal 3: C-Drillout 3: TB-Damages/Right of Way 3: TB-Contract Labor 3: TB-Contract Labor 3: TEQ-HZ Well Offset Frac 3: TG-HZ Well Offset Frac	66 177 188 1		\$ 97,000,00 \$ 150,000.00 \$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	97,000,00 150,000,00 4,000,00 65,000,00 329,000,00 10,000,00 15,000,00 932,000,00 932,000,00 932,000,00 181,000,00 141,000,00 552,000,00 10,000,00 10,000,00 145,000,00 145,000,00 145,000,00 145,000,00 145,000,00 145,000,00 145,000,00 145,000,00 145,000,00 145,000,00 145,000,00
D-Trucking/ForklifVRig Mob 2:0-Welding Services 2:12-Welding Services 2:22-Benymmtl/Clsd Loop 2:22-Benymmtl/Clsd Loop 2:23-Benymmtl/Clsd Loop 2:24-Benymmtl/Clsd Loop 2:25-Benymmtl/Clsd Loop 2:25-Benymmtl/Clsd Loop 2:26-Benymmtl/Clsd Loop 2:26-Benymmtl/Clsd Loop 2:26-Benymmtl/Clsd Loop 2:26-Benymmtl/Services 3:26-Benymmtl/Services 3:26-Benymmt	77 88 88 83 33 44 44 45 45 46 46 46 46		\$ 150,000,00 \$ 4,000,00 \$ 65,000,00 \$ 329,000,00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	150,000,01 4,000,00 55,000,00 329,000,00 11,000,00 15,000,00 399,000,00 399,000,00 41,000,00 41,000,00 552,000,00 10,000,00 11,000,00 10,000,00 10,000,00
D-Trucking/Forkil/t/Rig Mob 2:	18 13 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		\$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	4,000.00 65,000.00 329,000.00 81,000.00 19,000.00 15,000.00 392,000.00 181,000.00 282,000.00 41,000.00 41,000.00 10,000.00 10,000.00 145,000.00 145,000.00 145,000.00 145,000.00 145,000.00 145,000.00 145,000.00
D-Welding Services 22	18 13 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		\$ 4,000.00 \$ 65,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	65,000.01 329,000.01 10,000.01 15,000.01 15,000.01 932,000.01 399,000.01 181,000.01 41,000.01 552,000.01 10,000.01 10,000.01 145,000.01
2-0-Contingency 2-0-Contingency 2-0-Contingency 2-0-Contingency 2-0-Contingency 2-0-Contingency 2-0-Contingency 3-0-Contingency 3-0-Contin	3 4 4 4 4 5 5 5 6 6 7 7 7 8 8 8 9 9 9 0 0 1 1 1 2 2 2 5 5 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		\$ 65,000.00 \$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 145,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	329,000,00 81,000,00 19,000,00 15,000,00 932,000,00 181,000,00 282,000,00 41,000,00 552,000,00 306,000,00 10,000,00 145,000,00 145,000,00 44,000,00 363,000,00 363,000,00
D-EnvimmII/Clsd Loop 2-	44 44 55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ 329,000.00	\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 41,000,00 \$ 10,000,00 \$ 10,000,00 \$ 11,000,00 \$ 144,000,00 \$ 44,000,00 \$ 365,000,00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	329,000.00 81,000.00 10,000.00 15,000.00 932,000.00 181,000.00 282,000.00 41,000.00 552,000.00 306,000.00 10,000.00 145,000.00 44,000.00
Wellbore Frac Prep 3	144 155 156 166 177 188 199 10 11 12 22 155 156 167 177 199 191 111 157			\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 41,000,00 \$ 10,000,00 \$ 10,000,00 \$ 11,000,00 \$ 144,000,00 \$ 44,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	81,000.0 10,000.0 15,000.0 932,000.0 399,000.0 181,000.0 41,000.0 306,000.0 10,000.0 145,000.0 145,000.0 363,000.0
Completion OH 30	155 156 157			\$ 10,000,00 \$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 41,000,00 \$ 10,000,00 \$ 10,000,00 \$ 11,000,00 \$ 144,000,00 \$ 44,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	10,000.01 15,000.01 392,000.01 389,000.01 181,000.01 282,000.01 552,000.01 308,000.01 10,000.01 145,000.01 44,000.01 363,000.01
Completion OH 34	66 77 78 78 79 99 90 11 12 22 55 55 66 77 79 99 99 99 11 11 12 13 14 15 15 15 15 15 15 15 15 15 15			\$ 15,000,00 \$ 932,000,00 \$ 399,000,00 \$ 181,000,00 \$ 282,000,00 \$ 41,000,00 \$ 552,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 44,000,00 \$ 365,000,00			\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,000.0 932,000.0 339,000.0 181,000.0 282,000.0 41,000.0 552,000.0 10,000.0 10,000.0 145,000.0 44,000.0 363,000.0
Completion OH 30	77 88 89 99 0 1 1 2 2 5 5 5 5 6 6 7 7 7 9 9			\$ 932,000.00 \$ 399,000.00 \$ 181,000.00 \$ 282,000.00 \$ 41,000.00 \$ 552,000.00 \$ 306,000.00 \$ 10,000.00 \$ 11,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		5 5 5 5 5 5 5 5 5 5 5	932,000.01 399,000.01 181,000.01 282,000.01 41,000.01 552,000.01 306,000.01 10,000.01 145,000.01 44,000.01 363,000.01
2-Frac Equipment 30 -Frac Chemicals 30 -Frac Proppant 31 -Frac Proppant 32 -Frac Proppant 33 -Frac Proppant 34 -Frac Proppant 35 -Frac Proppant 35 -Frac Proppant 36 -Frac Proppant 37 -Frac Proppant 36 -Frac Surface Rentals 32 -Frac Surface Rentals 33 -Frac Surface Rentals 33 -Contract Labor 35 -Frac Surface Rentals 36 -Frac Surface Rentals 37 -Frac Surface Rentals 38 -Frac Surface Rentals	77 88 89 99 0 1 1 2 2 5 5 5 5 6 6 7 7 7 9 9			\$ 932,000.00 \$ 399,000.00 \$ 181,000.00 \$ 282,000.00 \$ 41,000.00 \$ 552,000.00 \$ 306,000.00 \$ 10,000.00 \$ 11,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	* * * * * * * * * * * * * * * * * * *	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	399,000,00 181,000,00 282,000,00 41,000,00 552,000,00 10,000,00 10,000,00 145,000,00 44,000,00 363,000,00
C-Frac Chemicals 34 C-Frac Proppant 31 C-Frac Proppant 3 C-Frac Proppant Transportation 3 C-Frac Proppant 3 C-Frac Surface Rentals 3 C-Contract Labor 3 C-Company Sprvsn 3 C-Contract Sprvsn 3 C-Artificial Lift Install 3 C-Perff/Wrieline Svc 3 C-Trucking/Forklift/Rig Mob 3 C-Tucking/Forklift/Rig Mob 3 C-Outlangency 3 C-Dyed Diesel 3 C-Drillout 3 TB-Damages/Right of Way 3 TB-Contract Labor 3 FEQ-Vater Disposal 3 FEQ-Vater Disposal 3 FEQ-HZZ Well Offset Frac 3 FOL-HZZ Well Offset Frac 3 Fotal Intangible Costs 1	18			\$ 399,000.00 \$ 181,000.00 \$ 282,000.00 \$ 41,000.00 \$ 552,000.00 \$ 306,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	181,000,00 282,000,00 41,000,00 552,000,00 306,000,00 10,000,00 145,000,00 44,000,00 363,000,00
2-Frac Proppant 30	99 0 0 1 1 1 2 2 5 5 5 6 6 6 77 9 9 1			\$ 181,000,00 \$ 282,000,00 \$ 41,000,00 \$ 552,000,00 \$ 306,000,00 \$ 10,000,00 \$ 10,000,00 \$ 145,000,00 \$ 44,000,00 \$ 363,000,00			5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	181,000,00 282,000,00 41,000,00 552,000,00 10,000,00 10,000,00 145,000,00 44,000,00 363,000,00
C-Frac Proppant Transportation 3 C-Fuel Delivery & Services 3 C-Fuel Delivery & Services 3 C-Water 3 C-Frac Surface Rentals 3 C-Contract Labor 3 C-Company Sprvsn 3 C-Contract Sprvsn 3 C-Contract Sprvsn 3 C-Prof/Wireline Svc 3 C-Trucking/Forkit/Rig Mob 3 C-Water Disposal 3 C-Contingency 3 C-Drillout 3 C-Drillout 3 IB-Doamages/Right of Way 3 IB-Location/Pits/Roads 3 IB-Contract Labor 3 FEQ-Vater Disposal 3 PEQ-HRZ Well Offset Frac 3 Total Intangible Costs 1	0 1 1 2 2 5 5 5 5 6 6 7 7 9 9 1 1 1 7 7			\$ 282,000.00 \$ 41,000.00 \$ 552,000.00 \$ 306,000.00 \$ 10,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$: ::	\$ \$ \$ \$ \$ \$ \$	282,000.00 41,000.00 552,000.00 306,000.00 10,000.00 10,000.00 145,000.00 44,000.00 363,000.00
C-Fuel Delivery & Services 3	1 2 5 5 5 5 6 7 7 9 11 11 11 11 11			\$ 41,000.00 \$ 552,000.00 \$ 306,000.00 \$ 10,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$: ::	\$ \$ \$ \$ \$ \$ \$	41,000.00 552,000.00 306,000.00 10,000.00 145,000.00 44,000.00 363,000.00
C-Water 3 C-Frac Surface Rentals 3 C-Contract Labor 3 C-Contract Labor 3 C-Combract Sprvsn 3 C-Contract Sprvsn 3 C-Artificial Lift Install 3 C-Perf/Wirelline Svc 3 C-Perf/Wirelline Svc 3 C-Water Disposal 3 C-Contingency 3 C-Dyed Diesel 3 C-Drillout 3 IB-Damages/Right of Way 3 IB-Contract Labor 3 IB-Contract Labor 3 IEQ-HZ Water Disposal 3 IEQ-HZ Well Offset Frac 3 ITCG-HZ Well Offset Frac 3 Total Intangible Costs 1	2 5 5 5 6 6 27 29 11			\$ 552,000.00 \$ 306,000.00 \$ 10,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$ \$ \$ \$	•	\$ \$ \$ \$ \$ \$	552,000.00 306,000.00 10,000.00 10,000.00 145,000.00 44,000.00 363,000.00
C-Frac Surface Rentals 3	5 25 26 27 29 21 21 21 21 21 21 21			\$ 306,000.00 \$ 10,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$ \$ \$:	\$ \$ \$ \$ \$	306,000.00 10,000.00 10,000.00 145,000.00 44,000.00 363,000.00
2-Frac Surface Rentals 3	25 26 27 29 31			\$ 10,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$ \$:	\$ \$ \$ \$ \$	10,000.00 10,000.00 145,000.00 44,000.00 363,000.00
C-Contract Labor 3: C-Company Sprvsn 3: C-Company Sprvsn 3: C-Conflict Sprvsn 3: C-Conflict Sprvsn 3: C-Artificial Lift Install 3: C-Perf/Writeline Svc 3: C-Trucking/Forklift/Rig Mob 3: C-Coultingency 3: C-Outingency 3: C-Optiout 3: C-Drillout 3: TB-Damages/Right of Way 3: TB-Location/Pits/Roads 3: TB-Contract Labor 3: TB-Contract Labor 3: TB-C-HRZ Well Offset Frac 3: TC-Lift Vell Offset Frac 3: Total Intangible Costs	25 26 27 29 31			\$ 10,000.00 \$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$		\$ \$ \$	10,000.00 145,000.00 44,000.00 363,000.00
Company Sprvsn 3:	26 27 29 31			\$ 10,000.00 \$ 145,000.00 \$ 44,000.00 \$ 363,000.00			\$ \$ \$	•	\$ \$ \$	145,000.00 44,000.00 363,000.00
C-Contract Sprvsn 3.	27 29 31			\$ 145,000.00 \$ 44,000.00 \$ 363,000.00			S	•	\$ \$ \$	44,000.00 363,000.00
C-Artificial Lift Install 3: - Perf/Wireline Svc 3: - Perf/Wireline Svc 3: - Trucking/Forklift/Rig Mob 3: - Water Disposal 3: - Contingency 3: - Double Dissel 3: - Dillout 3: - Dillout 4: - B-Damages/Right of Way 3: - B-Location/Pits/Roads 3: - B-Location/Pits/Roads 3: - B-Contract Labor 3: - PEQ-Vater Disposal 3: - PEQ-Vater Disposal 3: - PEQ-HZ Well Offset Frac 3: - Total Intangible Costs	9 31 37			\$ 44,000.00 \$ 363,000.00			S	-:-	\$	44,000.00 363,000.00
C-Perf/Wireline Svc 3:	31			\$ 363,000.00			S	14	\$	363,000.00
C-Trucking/Forklift/Rig Mob C-Cwater Disposal C-Cwater Disposal C-Contingency C-Dyed Diesel C-Drillout 3: TB-Damages/Right of Way 3: TB-Location/Pats/Roads 3: TB-Contract Labor PEQ-Contract Labor PEQ-Water Disposal PEQ-HRZ Well Offset Frac Total Intangible Costs Tangible Costs	37									
C-Trucking/Forklift/Rig Mob 3: C-CWater Disposal 3: C-Contingency 3: C-Dyed Diesel 3: C-Drillout 3: TB-Damages/Right of Way 3: TB-Location/Pits/Roads 3: TB-Contract Labor 3: PEQ-Water Disposal 3: PEQ-HRZ Well Offset Frac 3: Total Intangible Costs Tangible Costs										
C-Water Disposal 3:				\$ 10,000.00			S		\$	
C-Contingency 3. C-Dyed Diesel 3. C-Dyed Diesel 3. C-Drillout 3. TB-Damages/Right of Way 3. TB-Damages/Right of Way 3. TB-Contract Labor 3. TB-Contract Labor 3. TB-Contract Labor 3. TB-CO-HRZ Well Offset Frac 3. Total Intangible Costs Tangible Costs	191			\$ 39,000.00			5	-	\$	39,000.00
C-Dyed Diesel 3. C-Dillout 3. F-Damages/Right of Way 3. T8-Location/Pits/Roads 3. T8-Location/Pits/Roads 3. T8-Contract Labor 3. PEQ-Contract Labor 3. PEQ-Water Disposal 3. PEQ-HRZ Well Offset Frac 3. Total Intangible Costs Tangible Costs		1		\$ 144,000.00			S	- Q -	\$	144,000.00
C-Drillout 3- TB-Damages/Right of Way 3- TB-Location/Pits/Roads 3- TB-Contract Labor 3- PEQ-Contract Labor 3- PEQ-Water Disposal 3- PEQ-HRZ Well Offset Frac 3- Total Intangible Costs Tangible Costs							5		S	315,000.00
TB-Damages/Right of Way. 3:							S		S	325,000.00
TB-Location/Pits/Roads 3 TB-Contract Labor 3 TB-Contract Labor 3 TB-Contract Labor 3 TB-Co-Water Disposal 3 TB-Co-Water Disposal 3 TB-Co-Water Disposal 3 TOtal Intangible Costs 3 Tangible Costs 3	6			\$ 325,000.00					S	2,000.00
T8-Location/Pits/Roads 3. T8-Contract Labor 3. T9-Contract La	51				\$ 2,000.00		S			
TB-Contract Labor 3.	3				\$ 41,000.00		\$		\$	41,000.00
PEQ-Contract Labor PEQ-Water Disposal PEQ-HRZ Well Offset Frac Total Intangible Costs Tangible Costs	6				\$ 172,000.00		\$		5	172,000.00
PEQ-Water Disposal 3: PEQ-HRZ Well Offset Frac 3: Total Intangible Costs Tangible Costs	14					\$ 38,000.0	0 \$	(m)	S	38,000.00
PEQ-HRZ Well Offset Frac 3: Total Intangible Costs Tangible Costs						\$ 179,000.0		-	S	179,000.00
Total Intangible Costs Tangible Costs	27					\$ 18,000.0			\$	18,000.00
Tangible Costs	M-7-	4							\$	7,915,000.00
	\$ -	\$ -	\$ 3,261,000.00	\$ 4,204,000.00	\$ 215,000.00	\$ 235,000.0	0 \$	(4):	•	7,815,000,00
	32	N				\$ 115,000.0	0 S		\$	115,000.00
D-Surface Casing 4			\$ 25,000.00				S	-	\$	25,000.0
			\$ 228,000.00				\$		S	228,000.0
							S		\$	315,000.0
D-Production Casing/Liner 4			\$ 315,000.00						S	76,000.0
D-Wellhead Equip 4	35		\$ 76,000.00				\$			
>Tubing 5	04			\$ 52,000.00			\$		\$	52,000.0
C-Wellhead Equip 5				\$ 28,000.00			\$		\$	28,000.0
TB-Tanks 5	10				\$ 77,000.00		S		\$	77,000.0
					\$ 29,000,00		S		5	29,000.0
					\$ 176,000.00		S		S	176,000.0
B-Hir Trtr/Seprir 5							\$		\$	113,000.0
B-Electrical System/Equipment 5					\$ 113,000.00					
C-Pckrs/Anchors/Hgrs 5				\$ 65,000,00			5		\$	65,000.0
B-Couplings/Fittings/Valves 5					\$ 194,000.00		S		\$	194,000.0
B-Pumps-Surface 5	21				\$ 24,000.00		\$		\$	24,000.0
					\$ 20,000.00		S	120	S	20,000.0
					\$ 20,000.00		S		S	20,000.0
	23						S		5	24,000.0
	25				\$ 24,000.00					
B-Flares/Combusters/Emission 5	26			a componen	\$ 29,000.00		\$		5	29,000.0
-Gas Lift/Compression 5				\$ 25,000.00			S		5	25,000.0
PEQ-Wellhead Equipment 5	27					\$ 41,000.0	0 5	-	\$	41,000.0
The same of the sa		\$.	* 044 000 00	# 470 000 00	\$ 706,000.00			1/21	\$	1,676,000.0
Total Tangible Costs	31		\$ 644,000.00	\$ 170,000.00	706,000.00	156,000.0	• •	-	*	1,070,000.0
		9)			1	12 22 22 22			7.45	0.504.000.0
otal Gross Cost	\$ -	80					n i S	•	\$	9,591,000.0
Note: The above costs are estimates only	31	80	\$ 3,905,000.00	\$ 4,374,000.00	\$ 921,000.00	\$ 391,000.0	-			

COG Operating LLC	
By:	Date Prepared: 5/20/20
	COG Operating LLC
We approve: % Working Interest	.By:
Company: Bv:	
Printed Name:	This AFE is only an estimate. By signing you agree to pay
Title: Date:	your share of the actual costs incurred.

Chronology Exhibit

5/20/20: Well proposals and AFE's sent to Chevron, Allar, Sharbro, Oxy USA, Oxy Y-1. Sent via CMRRR & Email.

6/23/20: JOA emailed to Chevron, Allar, Sharbro, Oxy USA, Oxy Y-1.

6/26/20: Designation of Pooled Unit and Communitization Agreements mailed to Chevron, Allar, Sharbro, Oxy USA, Oxy Y-1.

7/7/20: Revised wells proposals & AFE's sent to Chevron, Allar, Sharbro, Oxy USA, Oxy Y-1. Sent via CMRRR & Email.

8/6/20: Informational letter addressing MD and TVD for the 701H and 702H sent to Chevron, Allar, Sharbro, Oxy USA, Oxy Y-1.

<u>8/12/20:</u> Informational letter addressing SHL on the 701H, 702H, 703H and 706H sent to Chevron, Allar, Sharbro, Oxy USA, Oxy Y-1.

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 21410

AFFIDAVIT OF BENJAMIN DAVIS, GEOLOGIST

Benjamin Davis, of lawful age and being first duly sworn, declares as follows:

1. My name is Benjamin Davis. I work for COG Operating, LLC ("COG") as a

Geologist.

2. I have previously testified before the New Mexico Oil Conservation Division as an

expert witness in petroleum geology, and my credentials have been accepted by the Division and

made a matter of record.

3. I am familiar with the application filed by COG in this case, and I have conducted

a geologic study of the lands in the subject area.

4. In Case No. 21410, COG is targeting the Wolfcamp formation.

5. COG Exhibit D-1 is a project location map outlining Sections 21, 28, and 33

comprising the proposed spacing unit in Case No. 21410.

6. **COG Exhibit D-2** is a subsea structure map off the top of the Wolfcamp Structure.

Within Sections 21, 28, and 33, there are pink lines on the map that reflect the path of the proposed

wellbores for the Boo Radley Com 701H-706H Wells. The contour interval is 50 feet. The

structure map shows that the Wolfcamp Structure is dipping gently to the east. The structure

appears consistent in this section. I do not observe any faulting, pinchouts, or other geologic

hazards to developing a horizontal well.

BEFORE THE OIL CONSERVATION DIVISION

Santa Fe, New Mexico

- 7. COG Exhibit D-3 is a map that shows the location of the three wells that were used to construct a cross-section from A to A'. I consider these wells to be representative of the geology of the area.
- 8. COG Exhibit D-4 is a stratigraphic cross section for the three representative wells from A to A'. The exhibit shows logs for gamma ray, resistivity, density, and neutron for the wells. The proposed target interval in the Upper Wolfcamp for these wells is labeled and depicted with a green bracket. The logs in the cross-section demonstrate that the targeted interval within the Wolfacmp formation is consistent in thickness, across the entire spacing unit.
- 9. Based on my geologic study of the areas, I have not identified any geologic impediments to drilling horizontal wells in the area.
- 10. In my opinion, each tract comprising the proposed spacing unit will be productive and contribute more-or-less equally to production from the wellbores.
- 11. In my opinion, the stand-up orientation of the proposed wells is the preferred orientation for horizontal well development in this area and is appropriate to efficiently and effectively develop the subject acreage.
- 12. In my opinion, the granting of COG's application in this case is in the best interest of conservation, the prevention of waste, and protection of correlative rights.
- 13. COG Exhibits D-1 through D-4 were prepared by me or compiled from COG's business records and are true and accurate to the best of my knowledge.

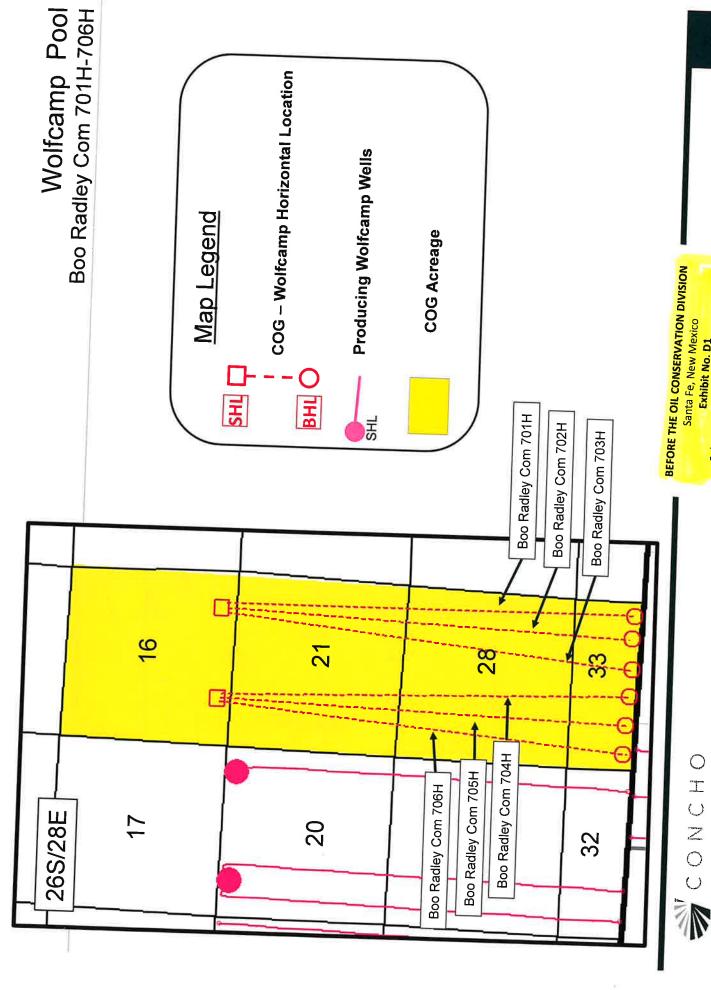
FURTHER AFFIANT SAYETH NOT.

BENJAMIN DAVIS

STATE OF TEXAS)
COUNTY OF MIDLAND)
SUBSCRIBED and S	WORN to before me this day of 2020 by
Benjamin Davis.	,
	Colle
	NOTARY PUBLIC

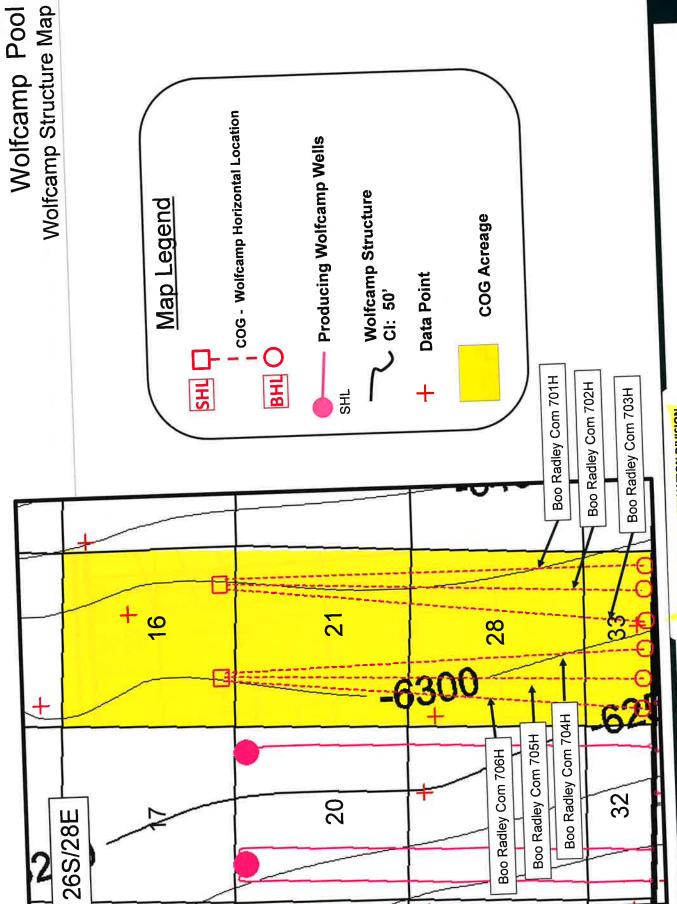
Nov. 12, 2023

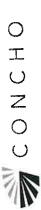
OFFICIAL SEAL
Carla Garcia
NOTARY PUBLIC - STATE OF NEW MEXICO
My Commission Expires: 12, 2023



BEFORE THE OIL CONSERVATION DIVISION Santa Fe, New Mexico Exhibit No. D1

Submitted by: COG OPERATING LLC Hearing Date: September 10, 2020





BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. D2
Submitted by: COG OPERATING LLC
Hearing Date: September 10, 2020

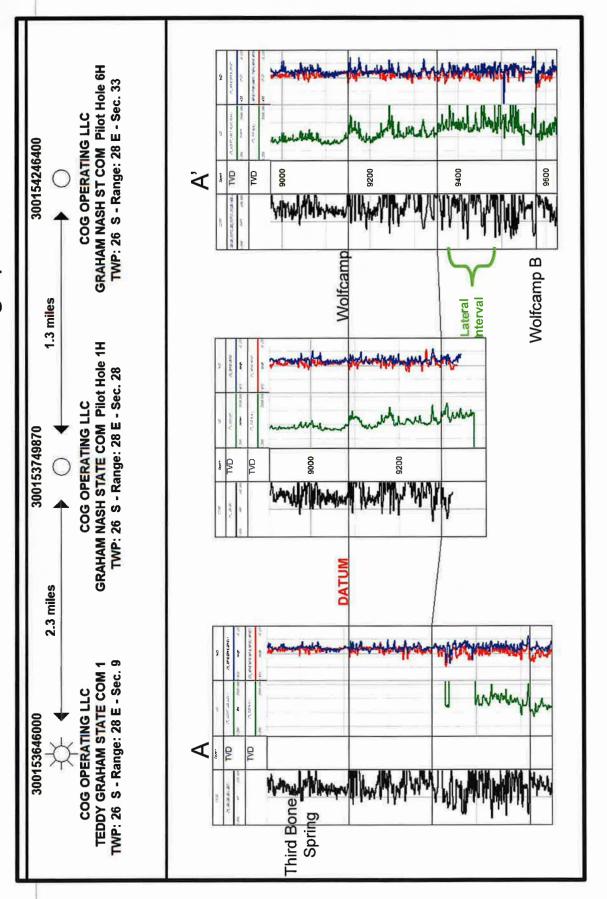


Submitted by: COG OPERATING LLC Hearing Date: September 10, 2020

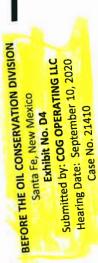
Exhibit No. D3

Case No. 21410

Stratigraphic Cross Section A – A'







STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF COG OPERATING LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 21410

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STATE OF NEW MEXICO)	
) s	S
COUNTY OF SANTA FE)	

Kaitlyn A. Luck, attorney in fact and authorized representative of COG Operating LLC, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application has been provided under the notice letters and proof of receipts attached hereto.

Kaitlyn A. Luck

SUBSCRIBED AND SWORN to before me this 8th day of September, 2020 by Kaitlyn A. Luck.

My Commission Expires:

Nov. 12, 2023

OFFICIAL SEAL
Carla Garcia
NOTARY PUBLIC-STATE OF NEW MEXICO
My Commission Expires: 2023



Michael H. Feldewert Phone (505) 988-4421 Fax (505) 983-6043 mfeldewert@hollandhart.com

August 21, 2020

VIA CERTIFIED MAIL CERTIFIED RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Application of COG Operating, LLC for Compulsory Pooling, Eddy County,

New Mexico.

Boo Radley Com 701H-706H wells

Ladies & Gentlemen:

This letter is to advise you that COG Operating LLC has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on September 10, 2020, and the status of the hearing can be monitored through the Division's website at http://www.emnrd.state.nm.us/ocd/.

During the COVID-19 Pubic Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. To participate in the electronic hearing, please see the instructions posted on the OCD Hearings website: http://www.emnrd.state.nm.us/OCD/announcements.html.

You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date. Parties appearing in cases are required by Division Rule 19.15.4.13.B to file a Prehearing Statement four business days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter, please contact Lizzy Laufer, at (512) 587-6873 or ELaufer@concho.com.

Sincerely,

Michael H. Feldewert

ATTORNEY FOR COG OPERATING LLC

COG - Boo Radley 701H-706H Case No. 21410 Postal Delivery Report

TrackingNo	DeliveryAddress	AddressLine2	State	Zip	EDCReportURL	USPS_History
9414811898765829957966	Buckhorn Minerals IV, LP	1800 Bering Dr Ste 1075	Houston	тх	77057-3148	Your item was delivered at Aug 26 in HOUSTON,TX 77057.
9414811898765829957157	EOG Resources Inc.	5509 Champions Dr	Midland	тх	79706-2843	Your item was delivered at Aug 25 in MIDLAND,TX 79702.
9414811898765829957126	George Thompson & Shirley Thompson	4619 94th St	Lubbock	тх	79424-5015	Your item was delivered at Aug 25 in LUBBOCK,TX 79424.
9414811898765829957195	Kemp Smith, LLP	221 N Kansas St Ste 1700	El Paso	TX	79901-1401	Your item was delivered at Aug 26 in EL PASO,TX 79901.
9414811898765829957188	Malaga EF7, LLC	PO Box 2064	Midland	TX	79702-2064	Your item was delivered at Aug 31 in MIDLAND,TX 79701.
9414811898765829957171	Malaga Royalty, LLC	PO Box 2064	Midland	тх	79702-2064	Your item was delivered at Aug 31 in MIDLAND,TX 79701.
9414811898765829957355	Margie Fort Burns a/k/a Marguerite Fort Burns	12711 Colorado Blvd Unit 505	Thornton	со	80241-2869	Your item was delivered at Aug 24 in THORNTON,CO 80241.
9414811898765829957324	Mewbourne Oil Company	500 W Texas Ave Ste 1020	Midland	TX	79701-4279	In Transit, Arriving Late at Aug 29 in , .
9414811898765829957393	OXY USA Inc.	5 Greenway Plz Ste 110	Houston	тх	77046-0521	Your item was delivered at Aug 26 in HOUSTON,TX 77046.
9414811898765829957348	OXY Y-1 Company	5 Greenway Plz Ste 110	Houston	TX	77046-0521	Your item was delivered at Aug 26 in HOUSTON,TX 77046.
9414811898765829957379	Philip L. White	PO Box 25968	Albuquerque	NM	87125-0968	Your item was delivered at Aug 27 in ALBUQUERQUE,NM 87101.
9414811898765829957904	Chevron U.S.A. Inc.	6301 Deauville	Midland	тх	79706-2964	Your item was delivered at Aug 25 in MIDLAND,TX 79706.

COG - Boo Radley 701H-706H Case No. 21410 Postal Delivery Report

9414811898765829957058	Ricky D Raindl	PO Box 142454	Irving	тх	75014-2454	Your item was delivered at Aug 25 in IRVING,TX 75014.
9414811898765829957027	Sharbro Energy LLC	327 W Main St	Artesia	NM	88210-2160	Your item was delivered at Aug 26 in ARTESIA,NM 88210
9414811898765829957003	The Allar Company	PO Box 1567	Graham	TX	76450-7567	Your item was delivered at Aug 24 in GRAHAM,TX 76450.
9414811898765829957096	Wayne A Bissett and Laura Bissett	PO Box 2101	Midland	TX	79702-2101	Your item was delivered at Aug 31 in MIDLAND,TX 79701.
9414811898765829957942	Chevron U.S.A. Inc.	6301 Deauville	Midland	тх	79706-2964	Your item was delivered at Aug 25 in MIDLAND,TX 79706.
9414811898765829957935	Christine S. Fowlkes Aka Christine Speidel Fowlkes	416 S. Manzita Drive	Horizon City	TX	79928	Your item was delivered at Aug 24 in EL PASO,TX 79928.
9414811898765829957614	Christopher Fowlkes	416 S. Manzita Drive	Horizon City	TX	79928	Your item was delivered at Aug 24 in EL PASO,TX 79928.
9414811898765829957669	David Kerby & Rebecca Kerby	16704 County Road 1440	Wolfforth	TX	79382-4704	Your item was delivered at Aug 26 in WOLFFORTH,TX 79382.
9414811898765829957690	Debra Kay Primera	PO Box 28504	Austin	TX	78755-8504	Your item was delivered at Aug 28 in AUSTIN,TX 78731.
9414811898765829957683	Delaware Ranch, Inc.	1304 W Riverside Dr	Carlsbad	NM	88220-4033	Your item was delivered at Aug 26 in CARLSBAD,NM 88220.
9414811898765829957676	EG3, Inc	PO Box 1567	Graham	TX	76450-7567	Your item was delivered at Aug 24 in GRAHAM,TX 76450.



Affidavit of Publication Ad # 0004345384 This is not an invoice

HOLLAND & HART POBOX 2208

SANTA FE, NM 87504

I, a legal clerk of the Carlsbad Current Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

08/25/2020

Legal Clerk

Subscribed and sworn before me this August 25,

2020:

State of WI, County of Brown

NOTARY PUBLIC

M

My commission expires

SHELLY HORA Notary Public State of Wisconsin

Ad # 0004345384 PO #: Boo # of Aff dav ts1

This is not an invoice

Santa Fe, New Mexico Exhibit No. F

Submitted by: **COG OPERATING LLC**Hearing Date: September 10, 2020

Case No. 21410

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION SANTA FE, NEW MEXICO

The State of New Mexico, Energy Minerals and Natural Re-sources Department, Oil Conservation Division ("Division") hereby gives notice that the Division will hold public hearhereby gives notice that the Division will hold public hearings before a hearing examiner on the following case. During the COVID-19 Public Health Emergency, state buildings are closed to the public and Division hearings will be conducted remotely. The remote electronic public hearing will be conducted remotely on the following case. The hearing will be conducted on Thursday, September 10, 2020, beginning at 8:15 a.m. To participate in the electronic hearing, see the instructions posted below. The docket may be viewed at http://www.emrd.state.nm.us/OCD/hearings.html or obtained from Marlene Salvidrez, at Marlene Salvidrez@s viewed at http://www.emnrd.state.nm.us/Octonearings.ntmi or obtained from Marlene Salvidrez, at Marlene.Salvidrez@s tate.nm.us. Documents filed in the case may be viewed at ht tp://ocdimage.emnrd.state.nm.us/imaging/CaseFileCriteria.as px. If you are an individual with a disability who needs a reader, amplifier, qualified sign language interpreter, or other form of auxiliary aid or service to attend or participate in a hearing, contact Marlene Salvidrez at Marlene Salv idrez@state.nm.us, or the New Mexico Relay Network at 1-800-659-1779, no later than Monday, August 31, 2020 .

Persons may view and participate in the hearings through the following link and as indicated below:

https://nmemnrd.webex.com/nmemnrd/onstage/g.php?MTID meb341e0bce66f096439328d9faf7f2575 Event number: 146 302 1001 Event password: sPP2Cx4x38D

Join by video: 1463021001@nmemnrd.webex.com You can also dial 173.243.2.68 and enter your meeting num-

Join by audio: +1-408-418-9388 United States Toll Access code: 146 302 1001

> STATE OF NEW MEXICO TO: All named parties and persons having any right, title, interest or claim in the following case and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Maridian whether or not so stated.)

To: All overriding royalty interest owners and pooled parties, including: OXY Y-1 Company; OXY USA Inc.; Sharbro Energy LLC; The Allar Company; Chevron U.S.A. Inc.; EG3, Inc; Malaga Royalty, LLC; Malaga EF7, LLC; Philip L. White, his heirs and devisees; Margie Fort Burns a/k/a Marguerite Fort Burns; Debra Kay Primera, her heirs and devisees; Ricky D. Raindl, his heirs and devisees; Christine S. Fowlkes, aka Christine Speidel Fowlkes, her heirs and devisees; Christo-Christine Speidel Fowlkes, her heirs and devisees; Christopher Fowlkes, his heirs and devisees; Kemp Smith, LLP; David Kerby & Rebecca Kerby, their heirs and devisees; George Thompson & Shirley Thompson, their heirs and devisees; Buckhorn Minerals IV, LP; Wayne A. Bissett and Laura Bissett, their heirs and devisees; Delaware Ranch, Inc.; Mewbourne Oil Company; and EOG Resources Inc.

Case No. 21410: Application of COG Operating LLC for compulsory pooling, Eddy County, New Mexico. Applicant in the above-styled cause seeks an order pooling all uncommitted interest owners in the Wolfcamp formation [Purple Sage Wolfcamp Gas Pool (98220)] underlying a standard 1,538.88-acre, more or less, horizontal spacing unit comprised of all of Sections 21, 28, and 33, Township 26 South, Range 28 East, Eddy County, New Mexico. Applicant seeks to dedicate the above-referenced horizontal spacing unit to the following proposed wells:

to dedicate the above-referenced horizontal spacing unit to the to the following proposed wells:

• The Boo Radley Com 701H well, and the Boo Radley Com 702H well to be drilled from a common surface hole location in SW/4 SE/4 (Unit O) of Section 16 to bottom hole locations in the SE/4 NE/4 (Lot 4) of Section 33;

• The Boo Radley Com 703H well to be drilled from a surface hole location in SW/4 SE/4 (Unit O) of Section 16 to a bottom hole location in the SW/4 NE/4 (Lot 3) of Section 33;

• The Boo Radley Com 704H well and the Boo Radley Com 705H well to be drilled from a common surface hole location in SE/4 SW/4 (Unit N) of Section 16 to bottom hole locations in the SE/4 NW/4 (Lot 2) of Section 33; and

• The Boo Radley Com 706H well to be drilled from a surface hole location in SE/4 SW/4 (Unit N) of Section 16 to a bottom hole location in the SW/4 NW/4 (Lot 1) of Section 33. The completed interval for the proposed Boo Radley Com 704H well will be within 330' of the quarter-quarter line separating the W/2 and the E/2 of Sections 21, 28, and 33 into a allow inclusion of the E/2 of Sections 21, 28, and 33 into a allow inclusion of the E/2 of Sections 21, 28, and 33 into a

ered will be the cost of drilling and completing the wells, the allocation of the cost thereof, the actual operating costs and charges for supervision, the designation of applicant as operator, and the imposition of 200% charge for risk involved in drilling and completing each well. Said area is located approximately 15 miles south of Malaga, New Mexico.

August 25, 2020