

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAR 09 2020

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM112941

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
COBBER 21-33 FED COM 8H

9. API Well No.
30-025-46900-00-X1

10. Field and Pool or Exploratory Area
WC-025 G09 S263619C-WOLFCAMP

11. County or Parish, State
LEA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY
Contact: REBECCA DEAL
Email: Rebecca.Deal@dvn.com

3a. Address
333 WEST SHERIDAN AVENUE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405-228-8429

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 21 T26S R34E NENE 383FNL 520FEL
32.035137 N Lat, 103.467972 W Lon

OCD - HOBBS
03/30/2020
RECEIVED

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original APD
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Devon Energy Production Co., L.P. respectfully requests the following changes to the approved APD:

BHL change from 2618 FNL & 1010 FEL, 28-26S-34E to 20 FSL & 1010 FEL 33-26S-34E.

TVD/MD change from 12,777'/20,398' to 12,777'/25,549'

Name change from Cobber 21-28 Fed 8H to Cobber 21-33 Fed Com 8H.

Please see attached revised C-102, drilling & directional plan.

NEW PROP-ID 327351

Carlsbad Field Office
Operator Copy

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #504842 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION COMPANY, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/02/2020 (20PP1494SE)

Name (Printed/Typed) REBECCA DEAL Title REGULATORY COMPLIANCE PROFESSI

Signature (Electronic Submission) Date 02/27/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By LONG VO Title PETROLEUM ENGINEER Date 03/02/2020

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company LP
LEASE NO.:	NMNM112941
LOCATION:	Section 21, T.26 S., R.34 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Cobber 21-33 Fed Com 5H
SURFACE HOLE FOOTAGE:	234'/N & 1502'/W
BOTTOM HOLE FOOTAGE:	20'/S & 1010'/W

WELL NAME & NO.:	Cobber 21-33 Fed Com 7H
SURFACE HOLE FOOTAGE:	216'/N & 1323'/E
BOTTOM HOLE FOOTAGE:	20'/S & 1980'/E

WELL NAME & NO.:	Cobber 21-33 Fed Com 8H
SURFACE HOLE FOOTAGE:	383'/N & 520'/E
BOTTOM HOLE FOOTAGE:	20'/S & 1010'/E

WELL NAME & NO.:	Cobber 21-33 Fed Com 10H
SURFACE HOLE FOOTAGE:	234'/N & 646'/W
BOTTOM HOLE FOOTAGE:	20'/S & 460'/W

WELL NAME & NO.:	Cobber 21-33 Fed Com 13H
SURFACE HOLE FOOTAGE:	216'/N & 1353'/E
BOTTOM HOLE FOOTAGE:	20'/S & 2300'/E

COA

H2S	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Potash	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Secretary	<input type="checkbox"/> R-111-P
Cave/Karst Potential	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Cave/Karst Potential	<input type="checkbox"/> Critical		
Variance	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Other
Wellhead	<input type="checkbox"/> Conventional	<input checked="" type="checkbox"/> Multibowl	<input type="checkbox"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input checked="" type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

All Previous COAs Still Apply

A. CASING

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

1. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down 13-3/8" X 8-5/8" annulus. Operator must run a CBL from TD of the 8-5/8" casing to surface. Submit results to BLM.

Production casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
Cement excess is less than 25%, more cement might be required.

B. PRESSURE CONTROL

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

C. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	48.0	H40	STC	0	725 800	0	725 800
9 7/8	8 5/8	32.0	P110	TLW	0	12250	0	12250
7 7/8	5 1/2	17.0	P110	BTC	0	25549	0	12777

Fluid Filled

* All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

3. Cementing Program (Primary Design) *ok*

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	563	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	483	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	483	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Production	117	10223	9.0	3.3	Lead: Class H / C + additives
	1764	12223	13.2	1.4	Tail: Class H / C + additives

250% excess

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

4. Pressure Control Equipment (Three String Design) ^{OK}

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-58"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	10M	Annular (5M)	X	100% of rated working pressure
			Blind Ram	X	10M
			Pipe Ram		
			Double Ram	X	
			Other*		
			Annular (5M)		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.				
Y	A variance is requested to run a 5 M annular on a 10M system				

5. Mud Program (Three String Design)

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	10-10.5

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures**Logging, Coring and Testing**

X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned	Interval
Resistivity	Int. shoe to KOP
Density	Int. shoe to KOP
X CBL	Production casing
X Mud log	Intermediate shoe to TD
PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH pressure at deepest TVD	6976
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.

N	H ₂ S is present
Y	H ₂ S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed

from the pad until all wells have production casing run/cemented.

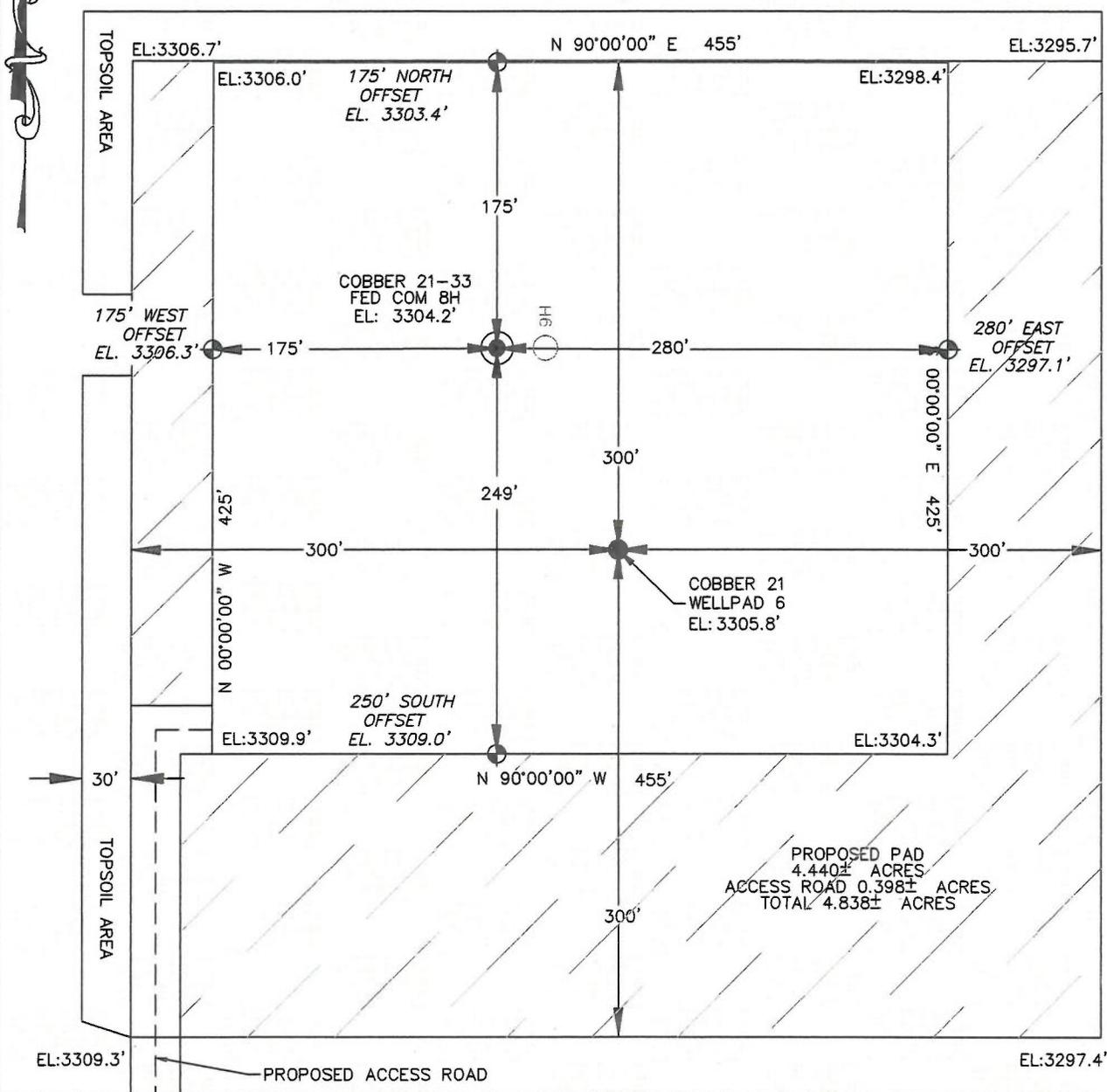
Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
 - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

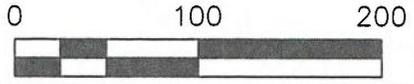
X Directional Plan
 Other, describe

SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP



Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

DEVON ENERGY PRODUCTION COMPANY, L.P.
COBBER 21-33 FED COM 8H
LOCATED 383 FT. FROM THE NORTH LINE
AND 520 FT. FROM THE EAST LINE OF
SECTION 21, TOWNSHIP 26 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF BATTLE AXE ROAD AND DINWIDDIE ROAD, HEAD EAST ON AN EXISTING LEASE ROAD FOR 3.91 MILES. TURN RIGHT AND HEAD SOUTH ONTO AN EXISTING ACCESS ROAD FOR 2.59 MILES. TURN RIGHT AND HEAD WEST ONTO A PROPOSED ACCESS ROAD FOR 0.42 MILES TO THE POINT OF BEGINNING OF A PROPOSED ACCESS ROAD. TURN RIGHT AND HEAD NORTH FOR 578 FEET TO THE SOUTHWEST CORNER OF THE COBBER 21 WELLPAD 6.

HORIZON ROW LLC

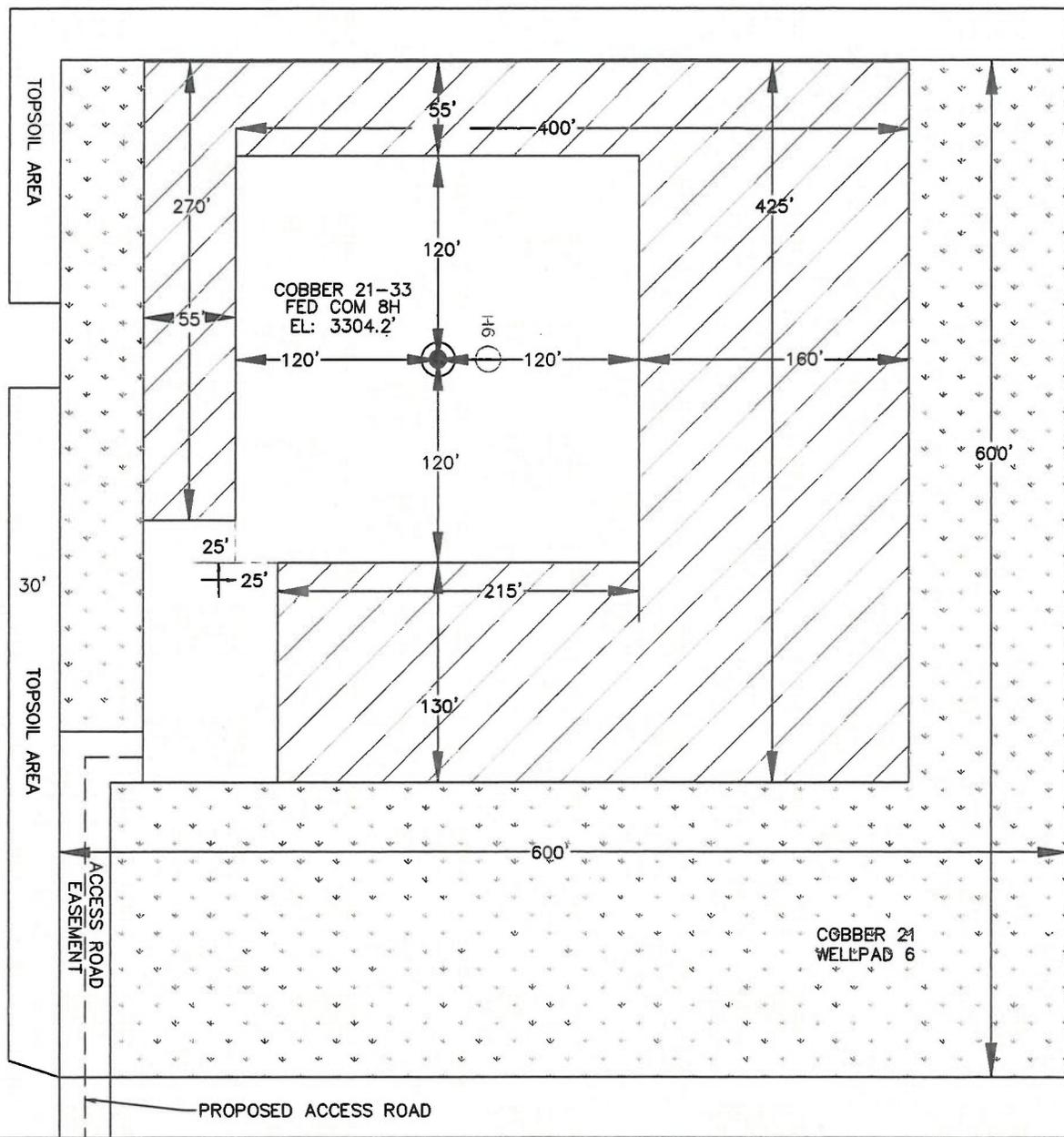
DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS
Date: 11/22/2019

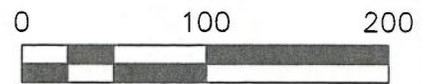
Drawn for:

devon

SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO
 INTERIM SITE BUILD PLAN



 DENOTES INTERIM PAD RECLAMATION AREA
 DENOTES GRADING SITE RECLAMATION AREA
 2.848± ACRES INTERIM PAD RECLAMATION AREA
 3.670± ACRES GRADING SITE RECLAMATION AREA
 1.746± ACRES NON-RECLAIMED AREA
 8.264± ACRES GRADING SITE RECLAMATION AREA

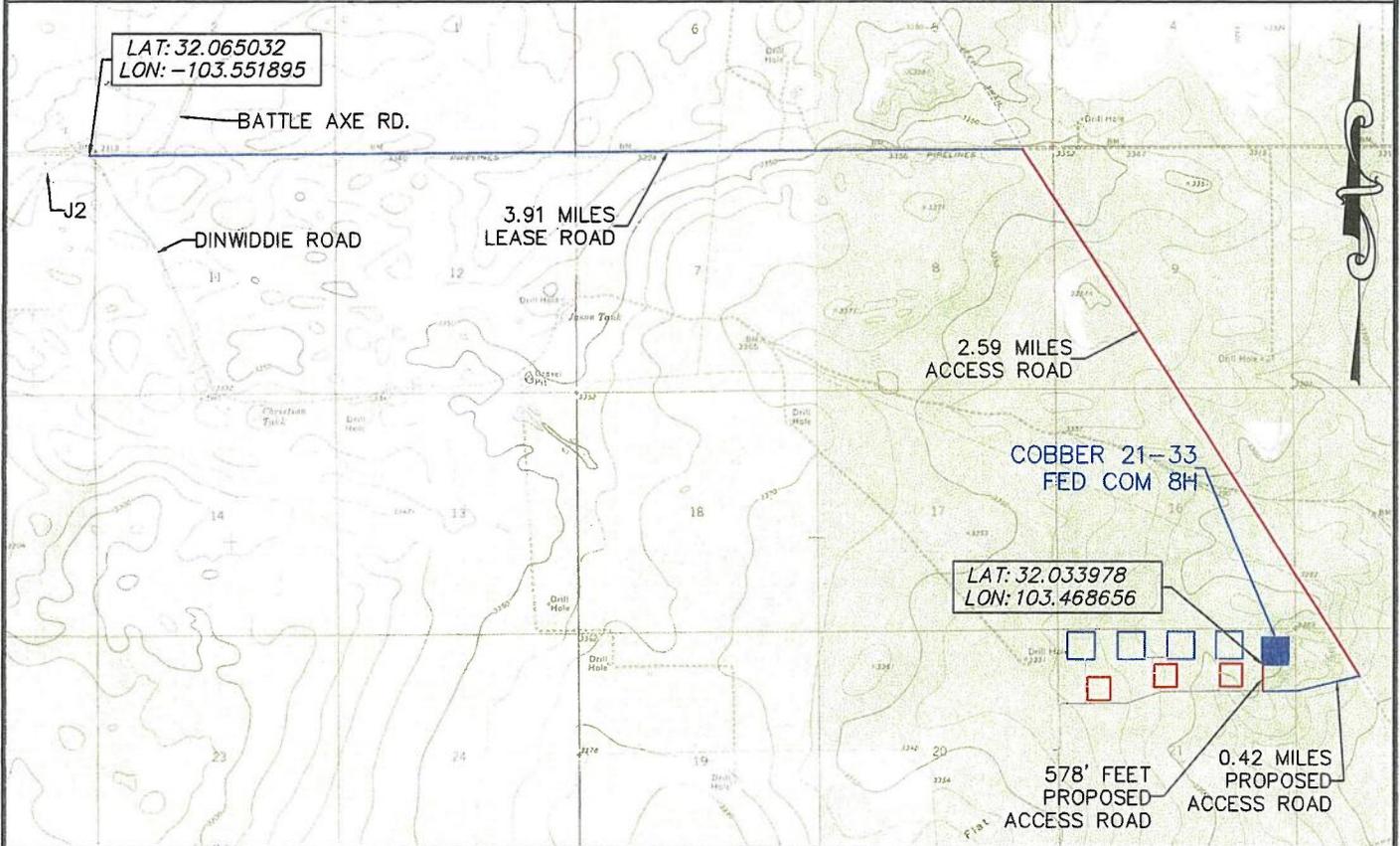


DEVON ENERGY PRODUCTION COMPANY, L.P.
 COBBER 21-33 FED COM 8H
 LOCATED 383 FT. FROM THE NORTH LINE
 AND 520 FT. FROM THE EAST LINE OF
 SECTION 21, TOWNSHIP 26 SOUTH,
 RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO

HORIZON ROW LLC
 DEVON ENERGY PRODUCTION CO., L.P.
 Drawn by:
 CHRIS MAAS
 Date: 11/22/2019



SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO
 VICINITY MAP



NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
 COBBER 21-33 FED COM 8H
 LOCATED 383 FT. FROM THE NORTH LINE
 AND 520 FT. FROM THE EAST LINE OF
 SECTION 21, TOWNSHIP 26 SOUTH,
 RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF BATTLE AXE ROAD AND DINWIDDIE ROAD, HEAD EAST ON AN EXISTING LEASE ROAD FOR 3.91 MILES. TURN RIGHT AND HEAD SOUTH ONTO AN EXISTING ACCESS ROAD FOR 2.59 MILES. TURN RIGHT AND HEAD WEST ONTO A PROPOSED ACCESS ROAD FOR 0.42 MILES TO THE POINT OF BEGINNING OF A PROPOSED ACCESS ROAD. TURN RIGHT AND HEAD NORTH FOR 578 FEET TO THE SOUTHWEST CORNER OF THE COBBER 21 WELLPAD 6.

HORIZON ROW LLC

Drawn for:

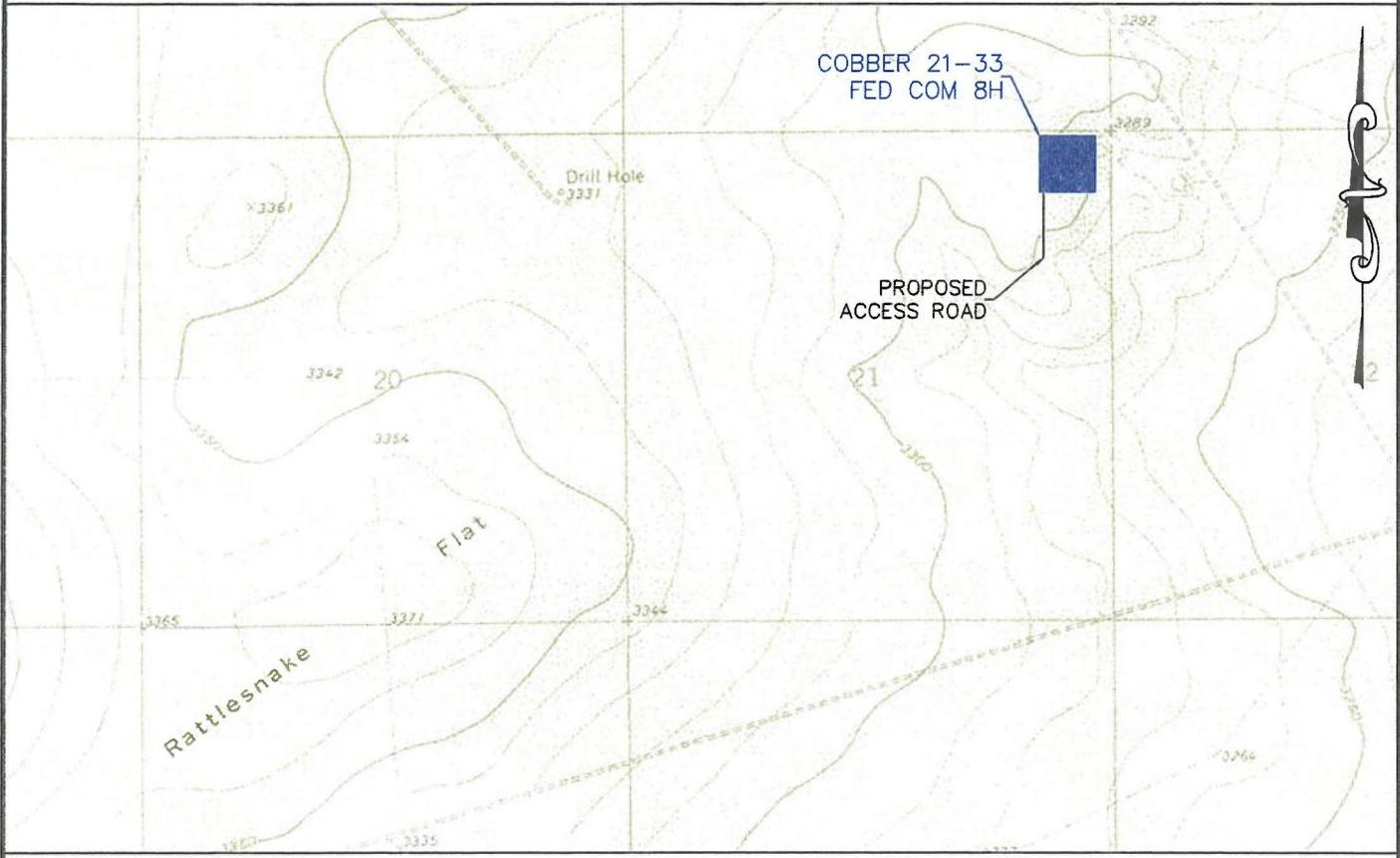
DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:
 CHRIS MAAS

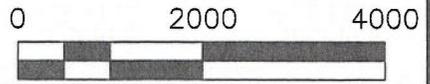
Date: 11/22/2019



SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP

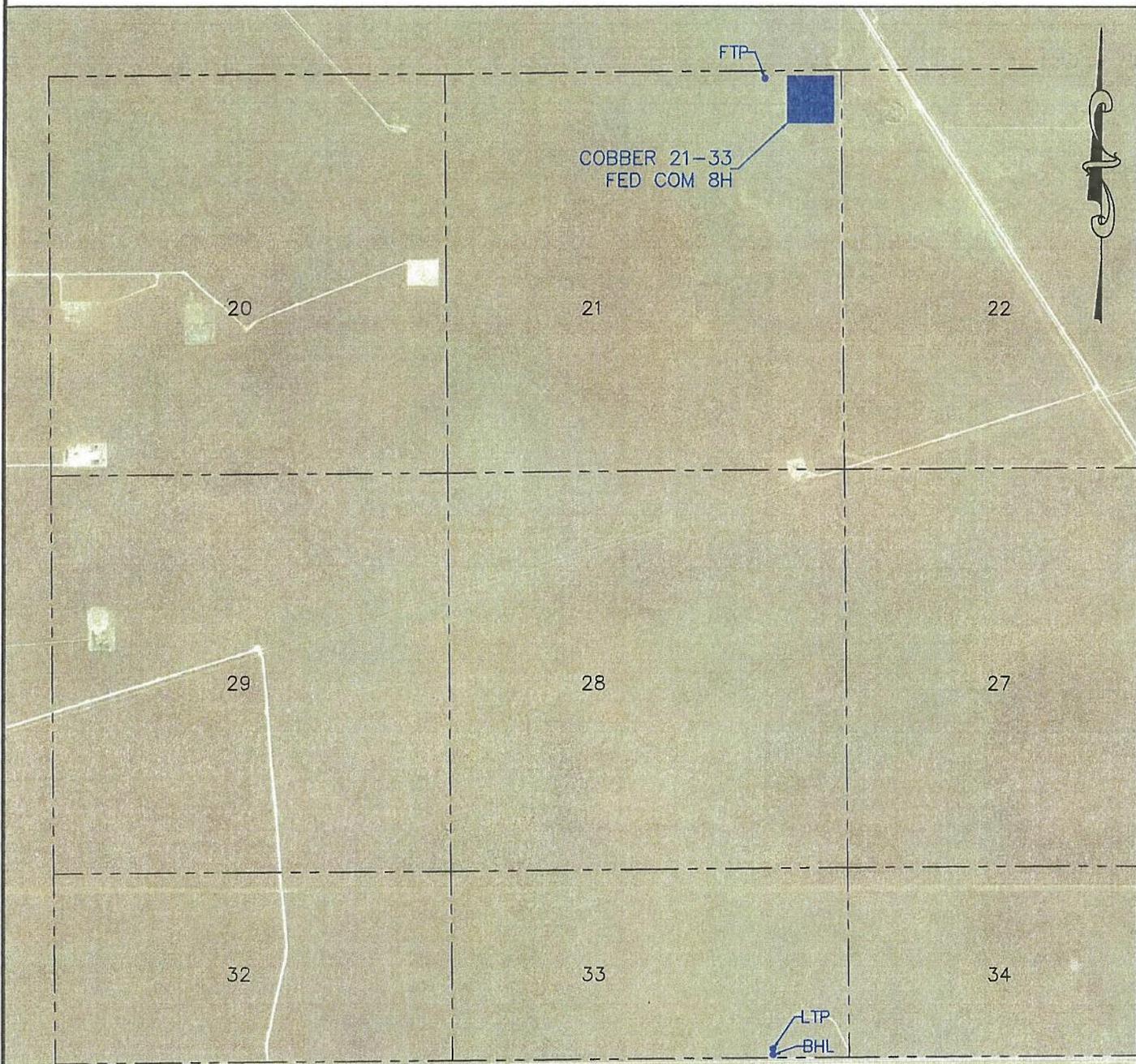


DEVON ENERGY PRODUCTION COMPANY, L.P.
 COBBER 21-33 FED COM 8H
 LOCATED 383 FT. FROM THE NORTH LINE
 AND 520 FT. FROM THE EAST LINE OF
 SECTION 21, TOWNSHIP 26 SOUTH,
 RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO

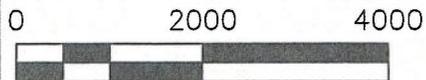


HORIZON ROW LLC		Drawn for:
DEVON ENERGY PRODUCTION CO., L.P.		
Drawn by: CHRIS MAAS	Date: 11/22/2019	

SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO
 AERIAL PHOTO



DEVON ENERGY PRODUCTION COMPANY, L.P.
 COBBER 21-33 FED COM 8H
 LOCATED 383 FT. FROM THE NORTH LINE
 AND 520 FT. FROM THE EAST LINE OF
 SECTION 21, TOWNSHIP 26 SOUTH,
 RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO



HORIZON ROW LLC

Drawn for:

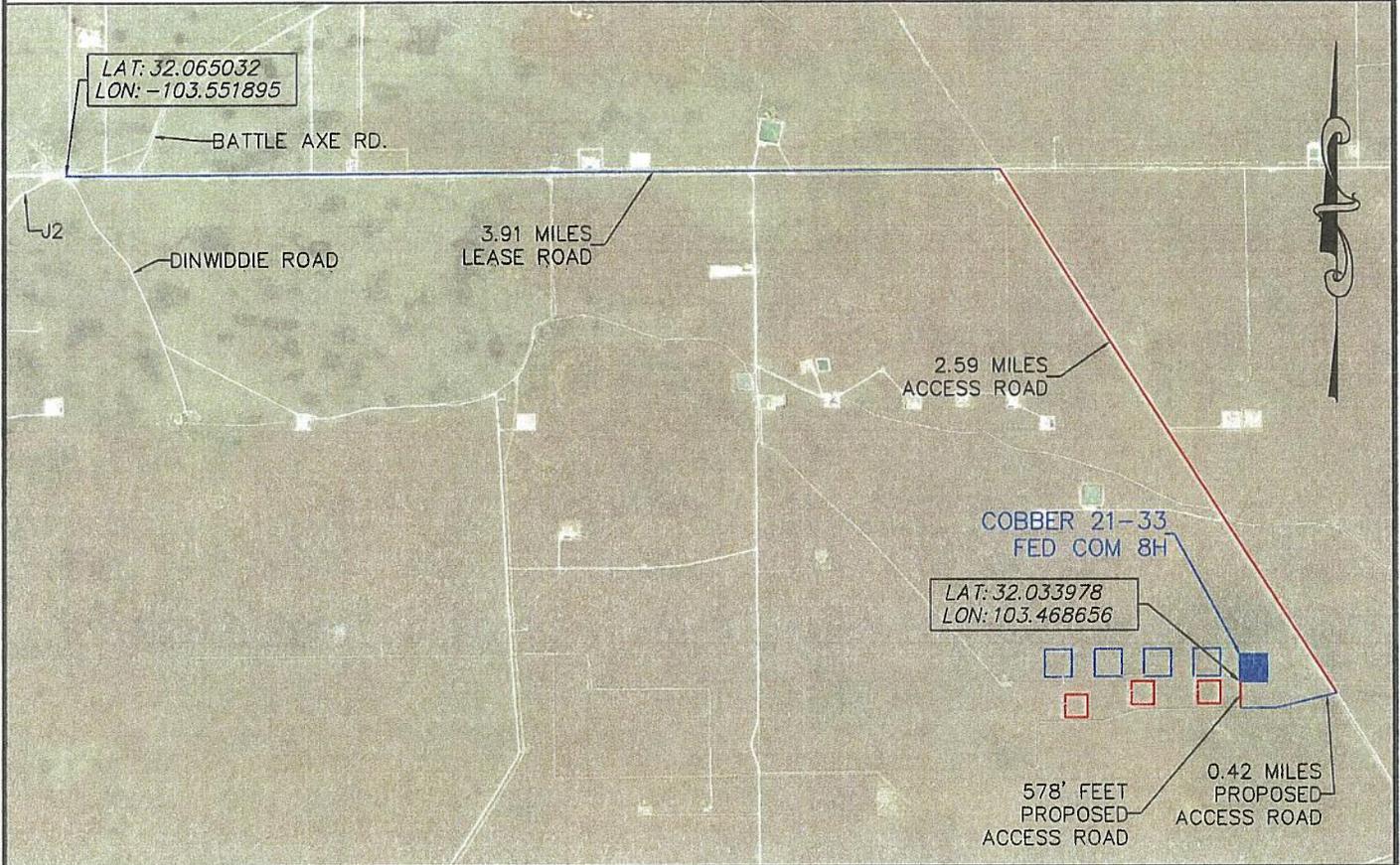
DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:
CHRIS MAAS

Date: 11/22/2019



SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO
 AERIAL ACCESS ROUTE MAP



NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
 COBBER 21-33 FED COM 8H
 LOCATED 383 FT. FROM THE NORTH LINE
 AND 520 FT. FROM THE EAST LINE OF
 SECTION 21, TOWNSHIP 26 SOUTH,
 RANGE 34 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO

FROM THE INTERSECTION OF BATTLE AXE ROAD AND DINWIDDIE ROAD,
 HEAD EAST ON AN EXISTING LEASE ROAD FOR 3.91 MILES. TURN
 RIGHT AND HEAD SOUTH ONTO AN EXISTING ACCESS ROAD FOR 2.59
 MILES. TURN RIGHT AND HEAD WEST ONTO A PROPOSED ACCESS
 ROAD FOR 0.42 MILES TO THE POINT OF BEGINNING OF A PROPOSED
 ACCESS ROAD. TURN RIGHT AND HEAD NORTH FOR 578 FEET TO THE
 SOUTHWEST CORNER OF THE COBBER 21 WELLPAD 6.

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

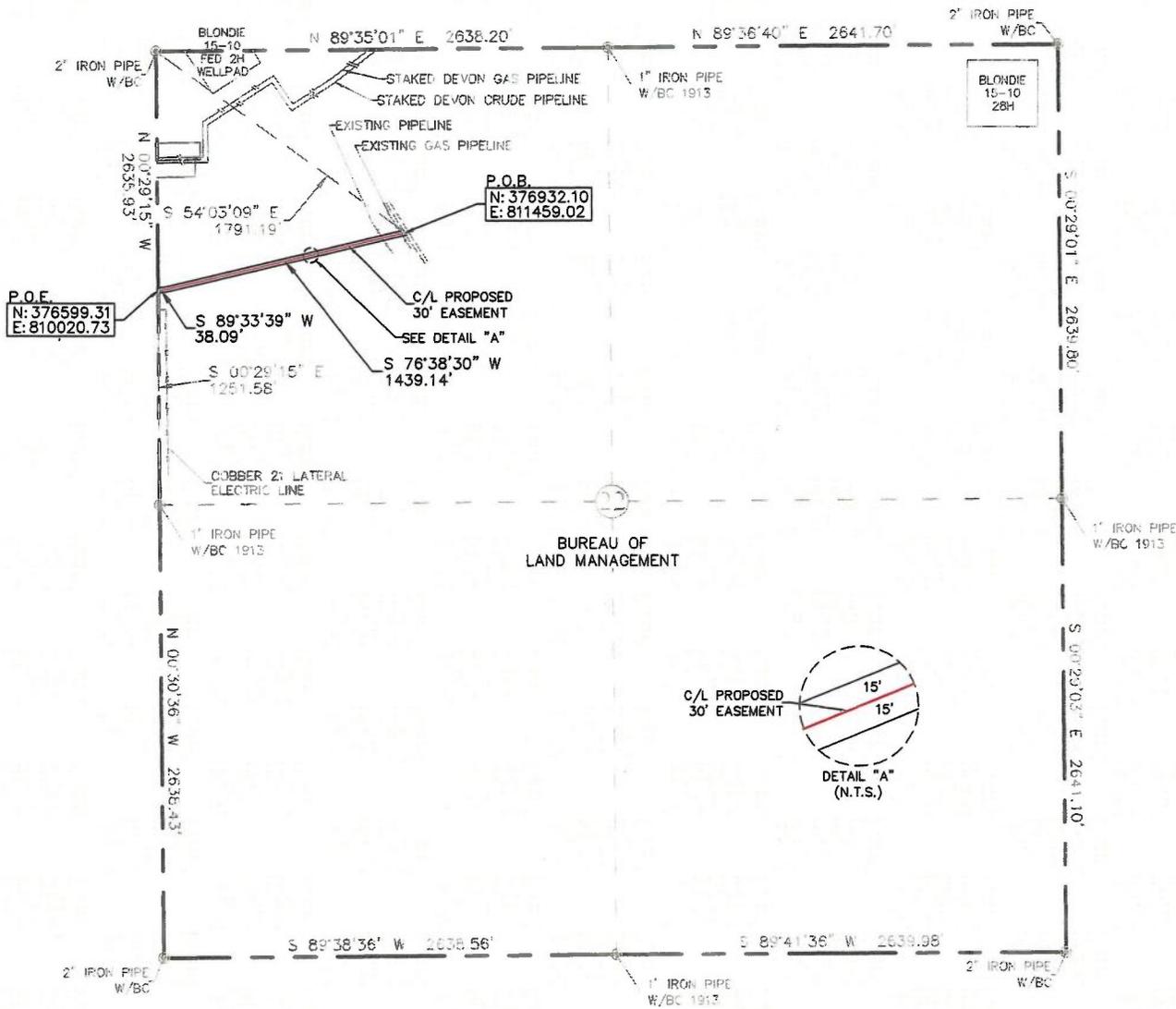
Drawn by:
CHRIS MAAS

Date: 11/22/2019

Drawn for:



EXHIBIT "A"
 ACCESS ROAD PLAT
 SECTION 22, T26S-R34E, N.M.P.M.
 LEA COUNTY, NEW MEXICO



30' EASEMENT AREA = 1.017 ACRE(S)
 1477.23 FEET OR 89.53 RODS

0+00.0 P.O.B./EXISTING ACCESS ROAD
 0+03.9 EDGE OF EXISTING ACCESS ROAD
 0+23.2 EXISTING GAS PIPELINE
 1+36.4 EXISTING PIPELINE
 14+77.2 SECTION LINE

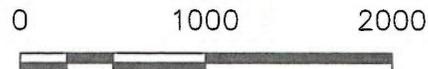
SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman
 Date Signed: 01-10-2019
 P.O. Box 548, Dry Creek, La.
 (903) 388-3045 70637
 Employee of Horizonrow, LLC



HORIZON ROW LLC		DEVON ENERGY PRODUCTION COMPANY, L.P.	LINE NUMBER: 784021BR
Drawn for:		COBBER 21 PRIMARY ACCESS ROAD	WBS NUMBER: XX-131093.01.SLC
Drawn by: STEVE LONDON	Date: 12/19/2018	PROPOSED 30' EASEMENT ON THE PROPERTY OF BUREAU OF LAND MANAGEMENT SECTION 22, T26S-R34E, N.M.P.M.	SCALE: 1" = 1000' REVISIONS: DATE OF SURVEY: 10/22/2018

SECTION 22, T26S-R34E, N.M.P.M.,
LEA COUNTY, NEW MEXICO

ACCESS ROAD PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northwest quarter (NW ¼) of Section 22, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 2" iron pipe w/BC for the northwest corner of Section 22, T26S-R34E, N.M.P.M., Lea County, New Mexico;

Thence S 54°03'09" E a distance of 1791.19' to the **Point of Beginning** of this easement having coordinates of Northing=376932.10, Easting=811459.02 feet and continuing the following courses;

Thence S 76°38'30" W a distance of 1439.14' to an angle point;

Thence S 89°33'39" W a distance of 38.09' to the **Point of Ending** having coordinates of Northing=376599.31, Easting=810020.73 feet from said point a 1" iron pipe w/BC for the west quarter corner of Section 22, T26S-R34E bears S 00°29'15" E a distance of 1251.58', covering **1477.23' or 89.53 rods** and having an area of **1.017 acres**.

NOTES:

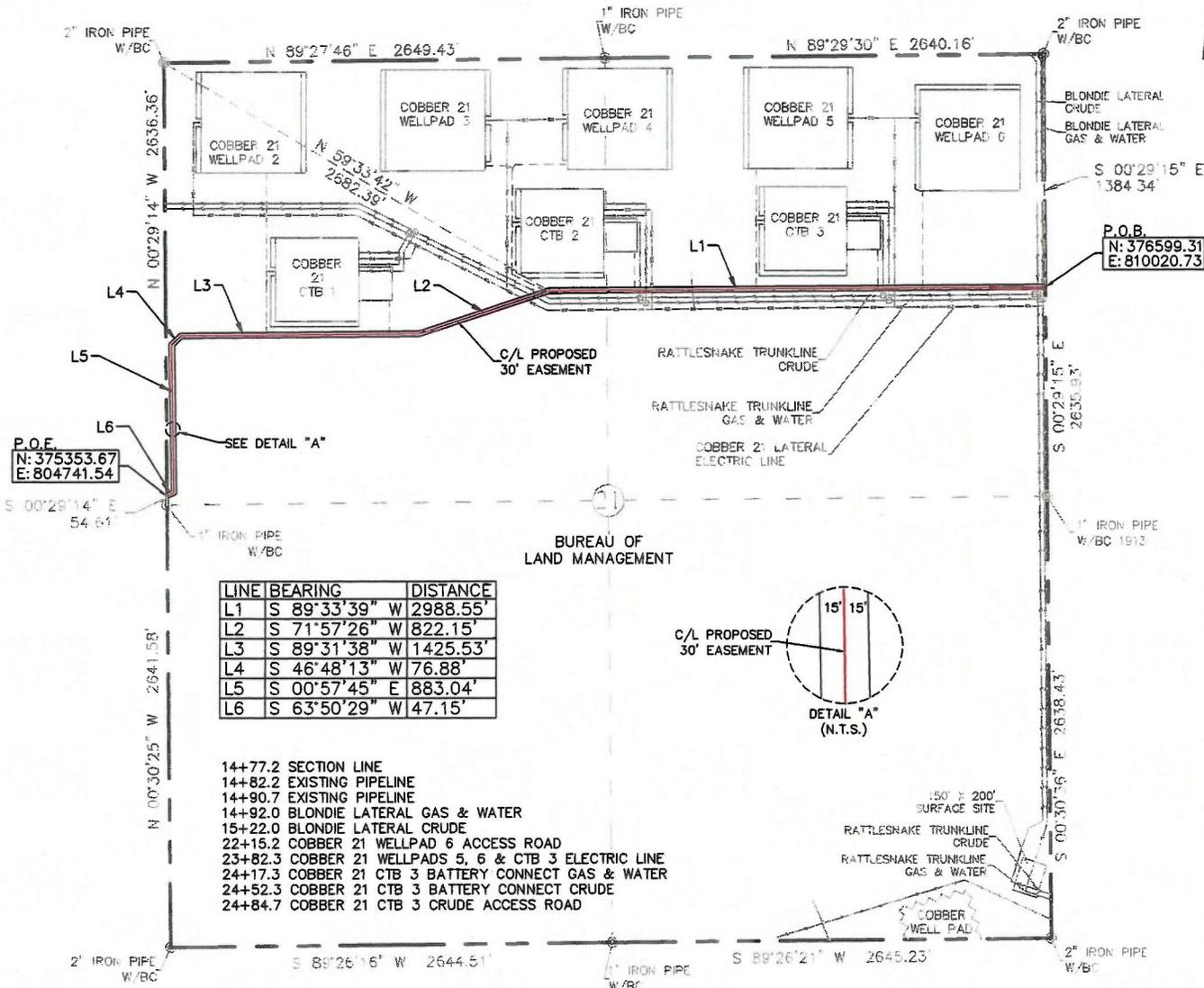
Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.


B.L. Laman PLS 22404
Date Signed: 01/10/2019
Horizon Row, LLC
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizon Row, LLC



EXHIBIT "A"
ACCESS ROAD PLAT
SECTION 21, T26S-R34E, N.M.P.M.
LEA COUNTY, NEW MEXICO

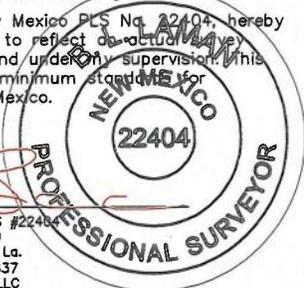


30' EASEMENT AREA = 4.300 ACRE(S)
6243.30 FEET OR 378.38 RODS

SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman PLS #22404
Date Signed: 01-10-2019
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizonrow, LLC

HORIZON ROW LLC

Drawn for:

Drawn by: STEVE LONDON Date: 12/18/2018

DEVON ENERGY PRODUCTION COMPANY, L.P.

COBBER 21
PRIMARY ACCESS ROAD

PROPOSED 30' EASEMENT
ON THE PROPERTY OF
BUREAU OF LAND MANAGEMENT
SECTION 21, T26S-R34E, N.M.P.M.

LINE NUMBER: 7640218R
WBS NUMBER: XX-131093.01.SL.C
SCALE: 1" = 1000'
REVISIONS:
DATE OF SURVEY: 10/22/2018



SECTION 21, T26S-R34E, N.M.P.M.,
LEA COUNTY, NEW MEXICO

ACCESS ROAD PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northeast quarter (NE ¼) and the northwest quarter (NW ¼) of Section 21, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 2" iron pipe w/BC for the northeast corner of Section 21, T26S-R34E, N.M.P.M., Lea County, New Mexico;

Thence S 00°29'15" E a distance of 1384.34' to the **Point of Beginning** of this easement having coordinates of Northing=376599.31, Easting=810020.73 feet and continuing the following courses;

Thence S 89°33'39" W a distance of 2988.55' to an angle point;

Thence S 71°57'26" W a distance of 822.15' to an angle point;

Thence S 89°31'38" W a distance of 1425.53' to an angle point;

Thence S 46°48'13" W a distance of 76.88' to an angle point;

Thence S 00°57'45" E a distance of 883.04' to an angle point;

Thence S 63°50'29" W a distance of 47.15' to the **Point of Ending** having coordinates of Northing=375353.67, Easting=804741.54 feet from said point a 1" iron pipe w/BC for the west quarter corner of Section 21, T26S-R34E bears S 00°29'14" E a distance of 54.61', covering **6243.30' or 378.38 rods** and having an area of **4.300 acres**.

NOTES:

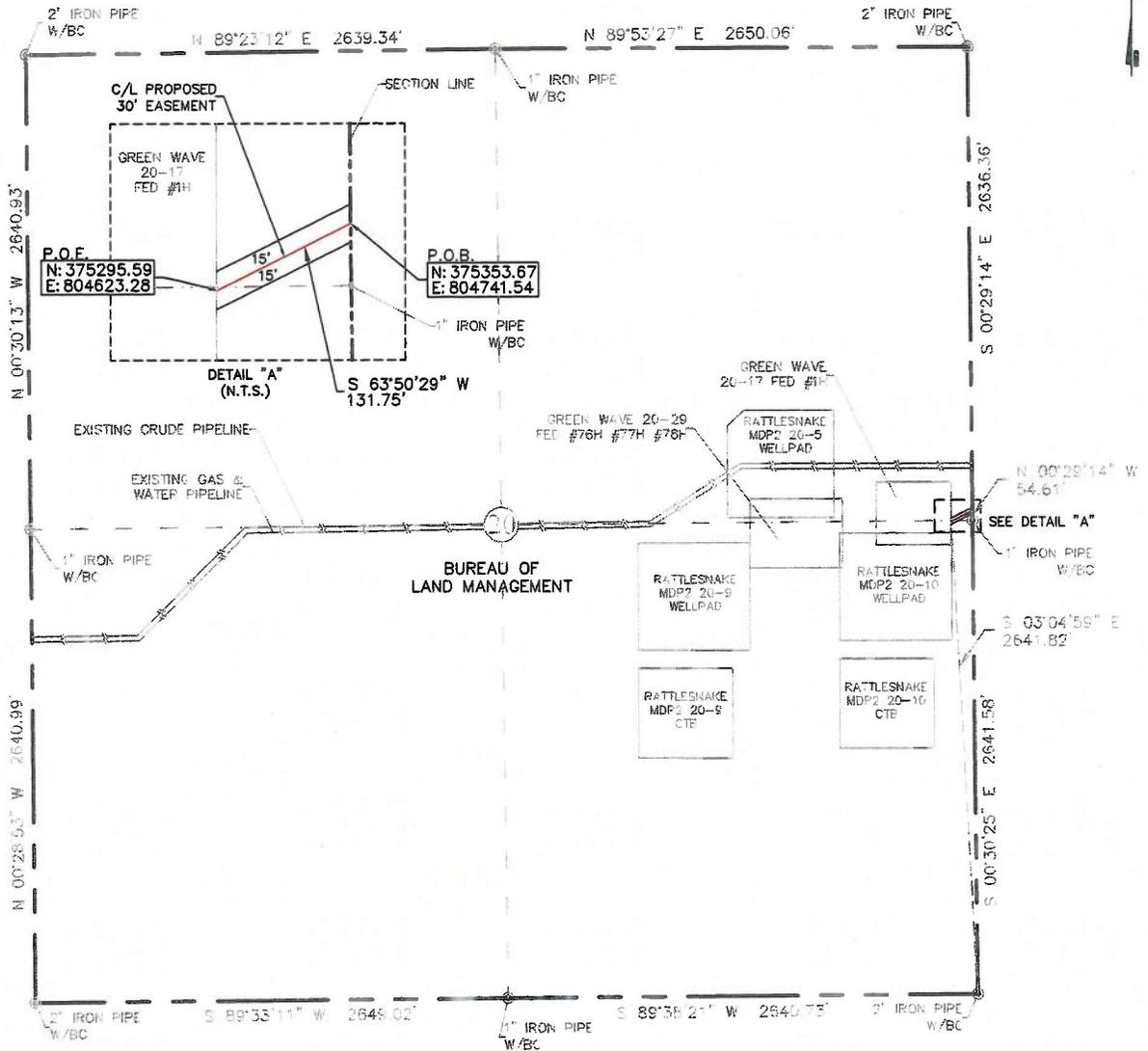
Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.


B.L. Laman PLS 22404
Date Signed: 01/10/2019
Horizon Row, LLC
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizon Row, LLC



EXHIBIT "A"
ACCESS ROAD PLAT
SECTION 20, T26S-R34E, N.M.P.M.
LEA COUNTY, NEW MEXICO

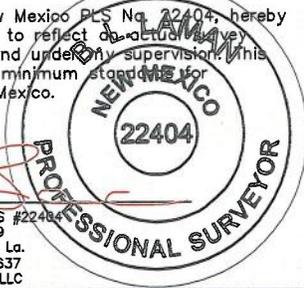


30' EASEMENT AREA = 0.091 ACRE(S)
 131.75 FEET OR 7.98 RODS

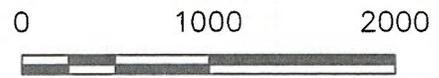
77+20.5 SECTION LINE
 78+52.3 P.O.E./GREEN WAVE 20-17 FED #1H

SEE THE ATTACHED LEGAL DESCRIPTION
 Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect the actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman PLS #22404
 Date Signed: 01-10-2019
 P.O. Box 548, Dry Creek, La.
 (903) 388-3045 70637
 Employee of Horizonrow, LLC



HORIZON ROW LLC		DEVON ENERGY PRODUCTION COMPANY, L.P.	LINE NUMBER: 764021BR
Drawn for:		COBBER 21 PRIMARY ACCESS ROAD	WBS NUMBER: XX-131093.01.SLC
Drawn by: STEVE LONDON	Date: 12/19/2018	PROPOSED 30' EASEMENT ON THE PROPERTY OF BUREAU OF LAND MANAGEMENT SECTION 20, T26S-R34E, N.M.P.M.	SCALE: 1" = 1000' REVISIONS:
			DATE OF SURVEY: 10/22/2018

SECTION 20, T26S-R34E, N.M.P.M.,
LEA COUNTY, NEW MEXICO

ACCESS ROAD PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northeast quarter (NE ¼) and the southeast quarter (SE ¼) of Section 20, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1" iron pipe w/BC for the east quarter corner of Section 20, T26S-R34E, N.M.P.M., Lea County, New Mexico;

Thence N 00°29'14" W a distance of 54.61' to the **Point of Beginning** of this easement having coordinates of Northing=375353.67, Easting=804741.54 feet and continuing the following course;

Thence S 63°50'29" W a distance of 131.75' to the **Point of Ending** having coordinates of Northing=375295.59, Easting=804623.28 feet from said point a 2" iron pipe w/BC for the southeast corner of Section 20, T26S-R34E bears S 03°04'59" E a distance of 2641.82', covering 131.75' or 7.98 rods and having an area of 0.091 acres.

NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman PLS 22404

Date Signed: 01/10/2019

Horizon Row, LLC

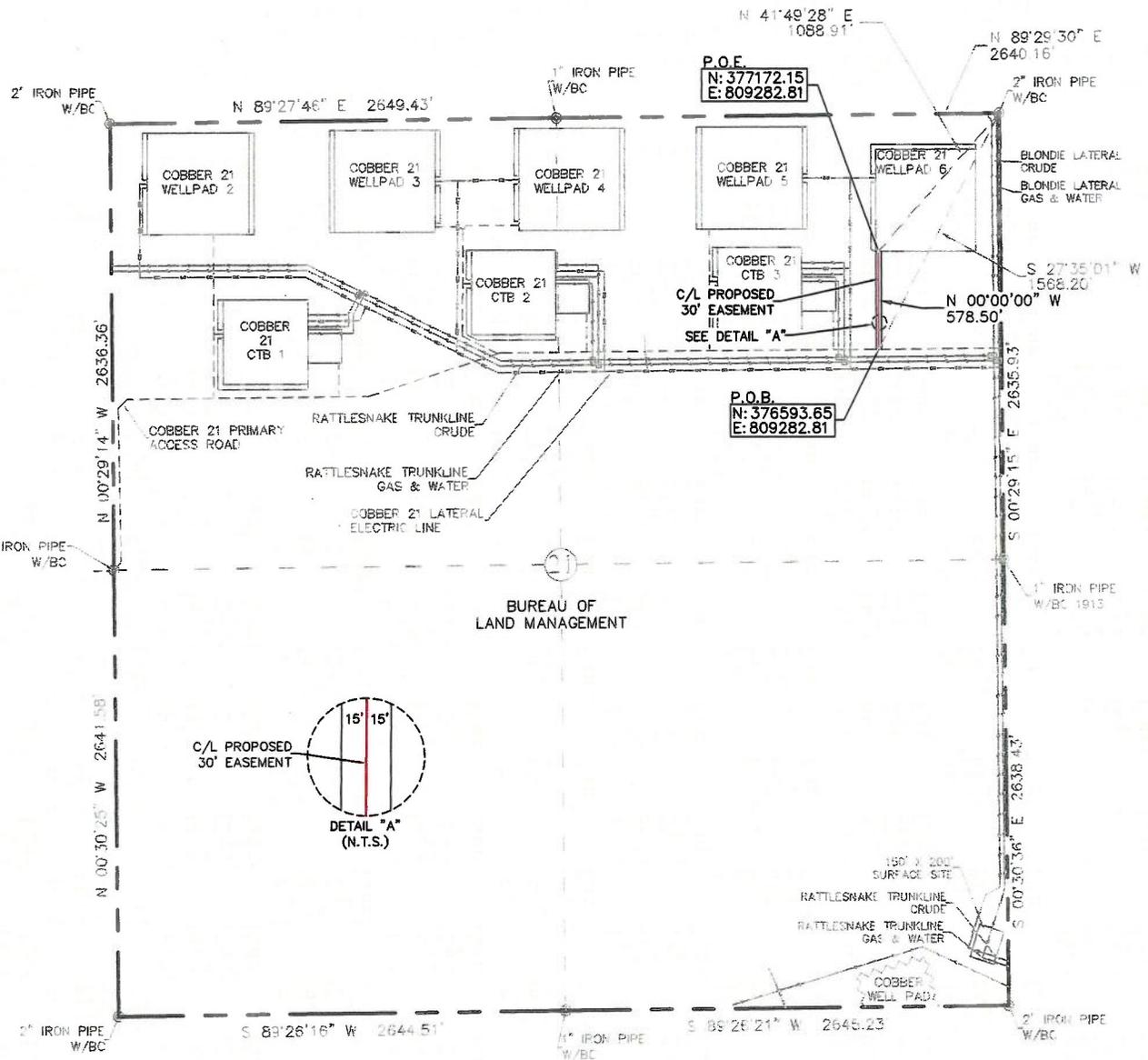
P.O. Box 548, Dry Creek, La.

(903) 388-3045 70637

Employee of Horizon Row, LLC



EXHIBIT "A"
ACCESS ROAD PLAT
SECTION 21, T26S-R34E, N.M.P.M.
LEA COUNTY, NEW MEXICO



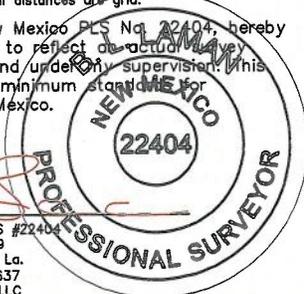
30' EASEMENT AREA = 0.398 ACRE(S)
 578.50 FEET OR 35.06 RODS

0+00.0 P.O.B./COBBER 21 PRIMARY ACCESS ROAD
 5+78.5 COBBER 21 WELLPAD 6

SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.



B.L. Laman PLS #22404
 Date Signed: 01-06-2019
 P.O. Box 548, Dry Creek, La.
 (903) 388-3045 70637
 Employee of Horizonrow, LLC



HORIZON ROW LLC		DEVON ENERGY PRODUCTION COMPANY, L.P.	LINE NUMBER: 7640226R
Drawn for:		COBBER 21 WELLPAD 6 ACCESS ROAD	WBS NUMBER: XX-131093.01.SLC
Drawn by: STEVE LONDON	Date: 12/13/2018	PROPOSED 30' EASEMENT ON THE PROPERTY OF BUREAU OF LAND MANAGEMENT SECTION 21, T26S-R34E, N.M.P.M.	SCALE: 1" = 1000' REVISIONS: DATE OF SURVEY: 10/22/2018

SECTION 21, T26S-R34E, N.M.P.M.,
LEA COUNTY, NEW MEXICO

ACCESS ROAD PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the northeast quarter (NE ¼) of Section 21, Township 26 South, Range 34 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 2" iron pipe w/BC for the northeast corner of Section 21, T26S-R34E, N.M.P.M., Lea County, New Mexico;

Thence S 27°35'01" W a distance of 1568.20' to the **Point of Beginning** of this easement having coordinates of Northing=376593.65, Easting=809282.81 feet and continuing the following course;

Thence N 00°00'00" W a distance of 578.50' to the **Point of Ending** having coordinates of Northing=377172.15, Easting=809282.81 feet from said point a 2" iron pipe w/BC for the northeast corner of Section 21, T26S-R34E bears N 41°49'28" E a distance of 1088.91', covering **578.50' or 35.06 rods** and having an area of **0.398 acres**.

NOTES:

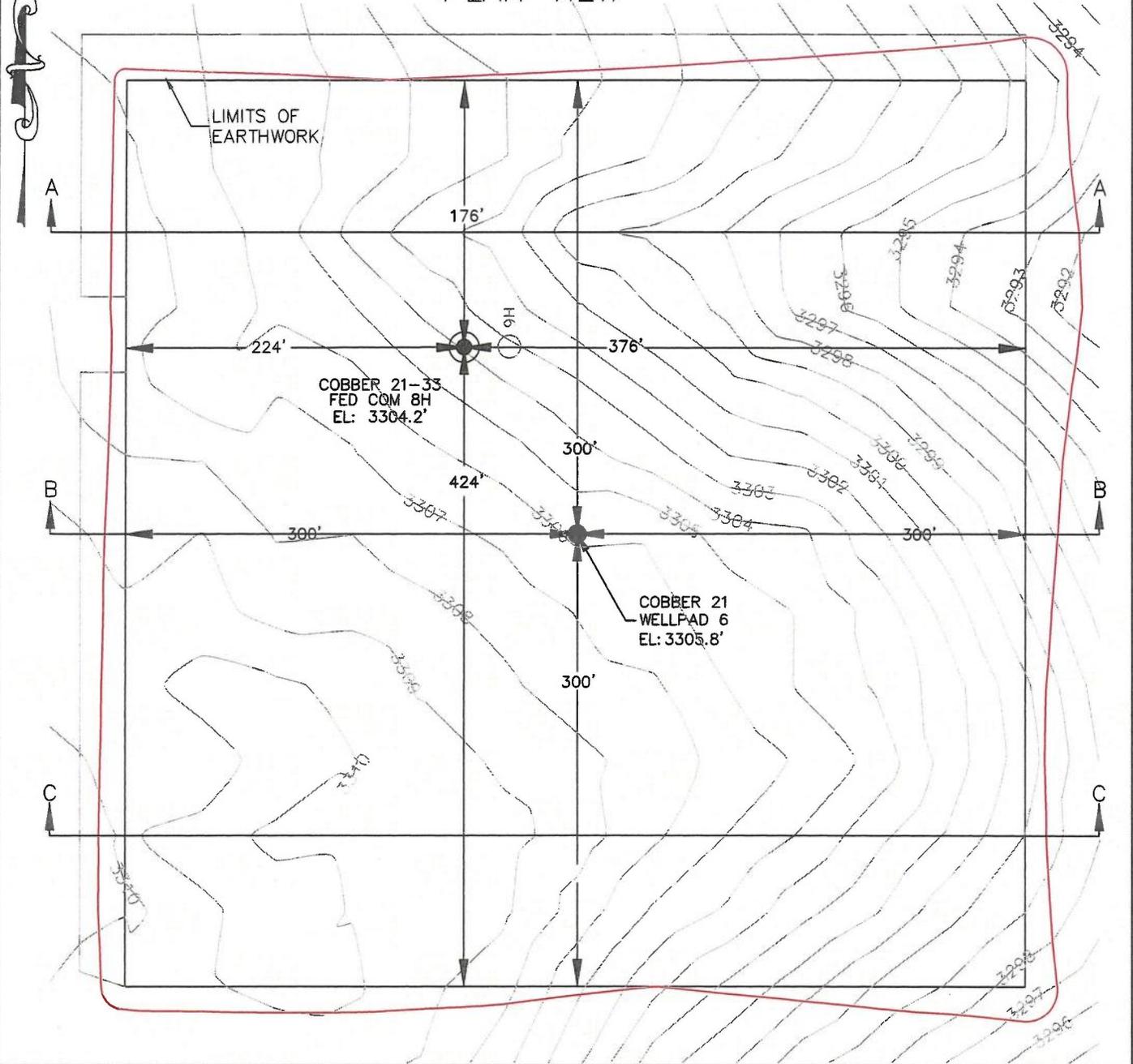
Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

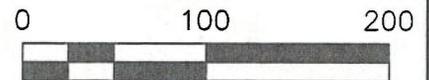

B.L. Laman PLS 22404
Date Signed: 01/06/2019
Horizon Row, LLC
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizon Row, LLC



SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
PLAN VIEW



DEVON ENERGY PRODUCTION COMPANY, L.P.
COBBER 21-33 FED COM 8H
LOCATED 383 FT. FROM THE NORTH LINE
AND 520 FT. FROM THE EAST LINE OF
SECTION 21, TOWNSHIP 26 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO



EARTHWORK QUANTITIES FOR
COBBER 21 WELLPAD 6

CUT	FILL	NET
25,749 CY	25,749 CY	0 CY

EARTHWORK QUANTITIES ARE ESTIMATED

HORIZON ROW LLC

Drawn for:

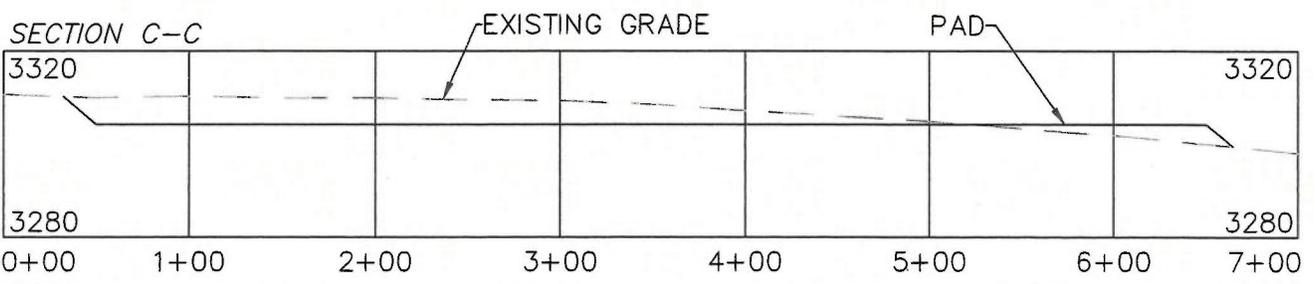
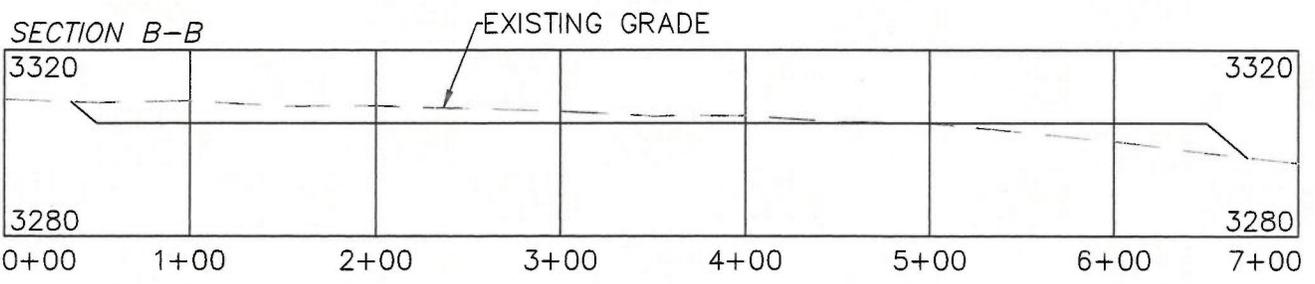
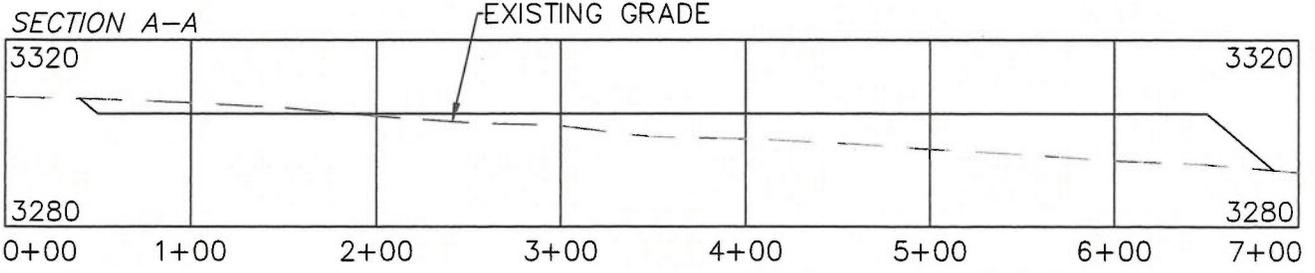
DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:
CHRIS MAAS

Date: 11/22/2019



SECTION 21, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
CROSS SECTIONS



DEVON ENERGY PRODUCTION COMPANY, L.P.
COBBER 21-33 FED COM 8H
LOCATED 383 FT. FROM THE NORTH LINE
AND 520 FT. FROM THE EAST LINE OF
SECTION 21, TOWNSHIP 26 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

SCALE 1" = 100' HORIZONTAL
SCALE 1" = 40' VERTICAL

EARTHWORK QUANTITIES FOR
COBBER 21 WELLPAD 6

CUT	FILL	NET
25,749 CY	25,749 CY	0 CY

EARTHWORK QUANTITIES ARE ESTIMATED

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:
CHRIS MAAS

Date: 11/22/2019

Drawn for:

devon

WCDSC Permian NM

Lea County (NAD83 New Mexico East)

Sec 21-T26S-R34E

Cobber 21-33 Fed Com 8H

Wellbore #1

Plan: Permit Plan 3

Standard Planning Report - Geographic

05 February, 2020

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Cobber 21-33 Fed Com 8H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3329.20ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3329.20ft
Site:	Sec 21-T26S-R34E	North Reference:	Grid
Well:	Cobber 21-33 Fed Com 8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 3		

Project	Lea County (NAD83 New Mexico East)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 21-T26S-R34E				
Site Position:		Northing:	372,767.99 usft	Latitude:	32.021870
From:	Map	Easting:	809,394.37 usft	Longitude:	-103.468410
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.46 °

Well	Cobber 21-33 Fed Com 8H					
Well Position	+N-S	0.00 ft	Northing:	377,596.00 usft	Latitude:	32.035138
	+E-W	0.00 ft	Easting:	809,492.23 usft	Longitude:	-103.467969
Position Uncertainty		0.50 ft	Wellhead Elevation:		Ground Level:	3,304.20 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/18/2019	6.65	59.88	47,606.14086691

Design	Permit Plan 3			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
	0.00	0.00	0.00	181.73

Plan Survey Tool Program	Date	2/5/2020		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	25,549.28 Permit Plan 3 (Wellbore #1)	MWD+HDGM	OWSG MWD + HDGM

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,874.90	3.75	304.20	2,874.63	6.89	-10.14	1.00	1.00	0.00	304.20	
11,623.24	3.75	304.20	11,604.25	328.41	-483.24	0.00	0.00	0.00	0.00	
11,873.17	0.00	0.00	11,854.00	333.00	-490.00	1.50	-1.50	0.00	180.00	
12,223.21	0.00	0.00	12,204.04	333.00	-490.00	0.00	0.00	0.00	0.00	
13,123.21	90.00	179.52	12,777.00	-239.94	-485.24	10.00	10.00	0.00	179.52	PBHL2 - Cobber 21-3
25,549.28	90.00	179.52	12,777.00	-12,665.59	-381.91	0.00	0.00	0.00	0.00	PBHL2 - Cobber 21-3

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Cobber 21-33 Fed Com 8H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3329.20ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3329.20ft
Site:	Sec 21-T26S-R34E	North Reference:	Grid
Well:	Cobber 21-33 Fed Com 8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 3		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
100.00	0.00	0.00	100.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
200.00	0.00	0.00	200.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
300.00	0.00	0.00	300.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
400.00	0.00	0.00	400.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
500.00	0.00	0.00	500.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
600.00	0.00	0.00	600.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
700.00	0.00	0.00	700.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
800.00	0.00	0.00	800.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
900.00	0.00	0.00	900.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	377,596.00	809,492.23	32.035138	-103.467969	
2,600.00	1.00	304.20	2,599.99	0.49	-0.72	377,596.49	809,491.51	32.035140	-103.467972	
2,700.00	2.00	304.20	2,699.96	1.96	-2.89	377,597.96	809,489.34	32.035144	-103.467979	
2,800.00	3.00	304.20	2,799.86	4.41	-6.49	377,600.41	809,485.73	32.035151	-103.467990	
2,874.90	3.75	304.20	2,874.63	6.89	-10.14	377,602.89	809,482.09	32.035158	-103.468002	
2,900.00	3.75	304.20	2,899.68	7.81	-11.50	377,603.81	809,480.73	32.035160	-103.468006	
3,000.00	3.75	304.20	2,999.46	11.49	-16.91	377,607.49	809,475.32	32.035170	-103.468024	
3,100.00	3.75	304.20	3,099.25	15.16	-22.31	377,611.16	809,469.91	32.035181	-103.468041	
3,200.00	3.75	304.20	3,199.04	18.84	-27.72	377,614.84	809,464.51	32.035191	-103.468058	
3,300.00	3.75	304.20	3,298.82	22.51	-33.13	377,618.51	809,459.10	32.035201	-103.468076	
3,400.00	3.75	304.20	3,398.61	26.19	-38.54	377,622.19	809,453.69	32.035211	-103.468093	
3,500.00	3.75	304.20	3,498.39	29.86	-43.95	377,625.86	809,448.28	32.035222	-103.468110	
3,600.00	3.75	304.20	3,598.18	33.54	-49.35	377,629.54	809,442.87	32.035232	-103.468128	
3,700.00	3.75	304.20	3,697.97	37.22	-54.76	377,633.21	809,437.47	32.035242	-103.468145	
3,800.00	3.75	304.20	3,797.75	40.89	-60.17	377,636.89	809,432.06	32.035252	-103.468162	
3,900.00	3.75	304.20	3,897.54	44.57	-65.58	377,640.56	809,426.65	32.035262	-103.468180	
4,000.00	3.75	304.20	3,997.33	48.24	-70.98	377,644.24	809,421.24	32.035273	-103.468197	
4,100.00	3.75	304.20	4,097.11	51.92	-76.39	377,647.91	809,415.84	32.035283	-103.468215	
4,200.00	3.75	304.20	4,196.90	55.59	-81.80	377,651.59	809,410.43	32.035293	-103.468232	
4,300.00	3.75	304.20	4,296.68	59.27	-87.21	377,655.26	809,405.02	32.035303	-103.468249	
4,400.00	3.75	304.20	4,396.47	62.94	-92.62	377,658.94	809,399.61	32.035314	-103.468267	
4,500.00	3.75	304.20	4,496.26	66.62	-98.02	377,662.61	809,394.20	32.035324	-103.468284	
4,600.00	3.75	304.20	4,596.04	70.29	-103.43	377,666.29	809,388.80	32.035334	-103.468301	
4,700.00	3.75	304.20	4,695.83	73.97	-108.84	377,669.96	809,383.39	32.035344	-103.468319	
4,800.00	3.75	304.20	4,795.61	77.64	-114.25	377,673.64	809,377.98	32.035354	-103.468336	
4,900.00	3.75	304.20	4,895.40	81.32	-119.66	377,677.32	809,372.57	32.035365	-103.468353	
5,000.00	3.75	304.20	4,995.19	84.99	-125.06	377,680.99	809,367.16	32.035375	-103.468371	
5,100.00	3.75	304.20	5,094.97	88.67	-130.47	377,684.67	809,361.76	32.035385	-103.468388	
5,200.00	3.75	304.20	5,194.76	92.34	-135.88	377,688.34	809,356.35	32.035395	-103.468405	
5,300.00	3.75	304.20	5,294.54	96.02	-141.29	377,692.02	809,350.94	32.035406	-103.468423	

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Cobber 21-33 Fed Com 8H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3329.20ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3329.20ft
Site:	Sec 21-T26S-R34E	North Reference:	Grid
Well:	Cobber 21-33 Fed Com 8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 3		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,400.00	3.75	304.20	5,394.33	99.69	-146.69	377,695.69	809,345.53	32.035416	-103.468440	
5,500.00	3.75	304.20	5,494.12	103.37	-152.10	377,699.37	809,340.13	32.035426	-103.468457	
5,600.00	3.75	304.20	5,593.90	107.04	-157.51	377,703.04	809,334.72	32.035436	-103.468475	
5,700.00	3.75	304.20	5,693.69	110.72	-162.92	377,706.72	809,329.31	32.035446	-103.468492	
5,800.00	3.75	304.20	5,793.47	114.39	-168.33	377,710.39	809,323.90	32.035457	-103.468510	
5,900.00	3.75	304.20	5,893.26	118.07	-173.73	377,714.07	809,318.49	32.035467	-103.468527	
6,000.00	3.75	304.20	5,993.05	121.74	-179.14	377,717.74	809,313.09	32.035477	-103.468544	
6,100.00	3.75	304.20	6,092.83	125.42	-184.55	377,721.42	809,307.68	32.035487	-103.468562	
6,200.00	3.75	304.20	6,192.62	129.09	-189.96	377,725.09	809,302.27	32.035497	-103.468579	
6,300.00	3.75	304.20	6,292.40	132.77	-195.37	377,728.77	809,296.86	32.035508	-103.468596	
6,400.00	3.75	304.20	6,392.19	136.44	-200.77	377,732.44	809,291.45	32.035518	-103.468614	
6,500.00	3.75	304.20	6,491.98	140.12	-206.18	377,736.12	809,286.05	32.035528	-103.468631	
6,600.00	3.75	304.20	6,591.76	143.79	-211.59	377,739.79	809,280.64	32.035538	-103.468648	
6,700.00	3.75	304.20	6,691.55	147.47	-217.00	377,743.47	809,275.23	32.035549	-103.468666	
6,800.00	3.75	304.20	6,791.33	151.14	-222.41	377,747.14	809,269.82	32.035559	-103.468683	
6,900.00	3.75	304.20	6,891.12	154.82	-227.81	377,750.82	809,264.42	32.035569	-103.468700	
7,000.00	3.75	304.20	6,990.91	158.50	-233.22	377,754.49	809,259.01	32.035579	-103.468718	
7,100.00	3.75	304.20	7,090.69	162.17	-238.63	377,758.17	809,253.60	32.035589	-103.468735	
7,200.00	3.75	304.20	7,190.48	165.85	-244.04	377,761.84	809,248.19	32.035600	-103.468753	
7,300.00	3.75	304.20	7,290.26	169.52	-249.44	377,765.52	809,242.78	32.035610	-103.468770	
7,400.00	3.75	304.20	7,390.05	173.20	-254.85	377,769.19	809,237.38	32.035620	-103.468787	
7,500.00	3.75	304.20	7,489.84	176.87	-260.26	377,772.87	809,231.97	32.035630	-103.468805	
7,600.00	3.75	304.20	7,589.62	180.55	-265.67	377,776.54	809,226.56	32.035641	-103.468822	
7,700.00	3.75	304.20	7,689.41	184.22	-271.08	377,780.22	809,221.15	32.035651	-103.468839	
7,800.00	3.75	304.20	7,789.19	187.90	-276.48	377,783.89	809,215.74	32.035661	-103.468857	
7,900.00	3.75	304.20	7,888.98	191.57	-281.89	377,787.57	809,210.34	32.035671	-103.468874	
8,000.00	3.75	304.20	7,988.77	195.25	-287.30	377,791.24	809,204.93	32.035681	-103.468891	
8,100.00	3.75	304.20	8,088.55	198.92	-292.71	377,794.92	809,199.52	32.035692	-103.468909	
8,200.00	3.75	304.20	8,188.34	202.60	-298.12	377,798.59	809,194.11	32.035702	-103.468926	
8,300.00	3.75	304.20	8,288.12	206.27	-303.52	377,802.27	809,188.71	32.035712	-103.468943	
8,400.00	3.75	304.20	8,387.91	209.95	-308.93	377,805.95	809,183.30	32.035722	-103.468961	
8,500.00	3.75	304.20	8,487.70	213.62	-314.34	377,809.62	809,177.89	32.035733	-103.468978	
8,600.00	3.75	304.20	8,587.48	217.30	-319.75	377,813.30	809,172.48	32.035743	-103.468995	
8,700.00	3.75	304.20	8,687.27	220.97	-325.15	377,816.97	809,167.07	32.035753	-103.469013	
8,800.00	3.75	304.20	8,787.05	224.65	-330.56	377,820.65	809,161.67	32.035763	-103.469030	
8,900.00	3.75	304.20	8,886.84	228.32	-335.97	377,824.32	809,156.26	32.035773	-103.469048	
9,000.00	3.75	304.20	8,986.63	232.00	-341.38	377,828.00	809,150.85	32.035784	-103.469065	
9,100.00	3.75	304.20	9,086.41	235.67	-346.79	377,831.67	809,145.44	32.035794	-103.469082	
9,200.00	3.75	304.20	9,186.20	239.35	-352.19	377,835.35	809,140.03	32.035804	-103.469100	
9,300.00	3.75	304.20	9,285.98	243.02	-357.60	377,839.02	809,134.63	32.035814	-103.469117	
9,400.00	3.75	304.20	9,385.77	246.70	-363.01	377,842.70	809,129.22	32.035825	-103.469134	
9,500.00	3.75	304.20	9,485.56	250.37	-368.42	377,846.37	809,123.81	32.035835	-103.469152	
9,600.00	3.75	304.20	9,585.34	254.05	-373.83	377,850.05	809,118.40	32.035845	-103.469169	
9,700.00	3.75	304.20	9,685.13	257.72	-379.23	377,853.72	809,113.00	32.035855	-103.469186	
9,800.00	3.75	304.20	9,784.91	261.40	-384.64	377,857.40	809,107.59	32.035865	-103.469204	
9,900.00	3.75	304.20	9,884.70	265.07	-390.05	377,861.07	809,102.18	32.035876	-103.469221	
10,000.00	3.75	304.20	9,984.49	268.75	-395.46	377,864.75	809,096.77	32.035886	-103.469238	
10,100.00	3.75	304.20	10,084.27	272.42	-400.86	377,868.42	809,091.36	32.035896	-103.469256	
10,200.00	3.75	304.20	10,184.06	276.10	-406.27	377,872.10	809,085.96	32.035906	-103.469273	
10,300.00	3.75	304.20	10,283.84	279.77	-411.68	377,875.77	809,080.55	32.035917	-103.469291	
10,400.00	3.75	304.20	10,383.63	283.45	-417.09	377,879.45	809,075.14	32.035927	-103.469308	
10,500.00	3.75	304.20	10,483.42	287.13	-422.50	377,883.12	809,069.73	32.035937	-103.469325	
10,600.00	3.75	304.20	10,583.20	290.80	-427.90	377,886.80	809,064.32	32.035947	-103.469343	
10,700.00	3.75	304.20	10,682.99	294.48	-433.31	377,890.47	809,058.92	32.035957	-103.469360	
10,800.00	3.75	304.20	10,782.77	298.15	-438.72	377,894.15	809,053.51	32.035968	-103.469377	

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Cobber 21-33 Fed Com 8H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3329.20ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3329.20ft
Site:	Sec 21-T26S-R34E	North Reference:	Grid
Well:	Cobber 21-33 Fed Com 8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 3		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,900.00	3.75	304.20	10,882.56	301.83	-444.13	377,897.82	809,048.10	32.035978	-103.469395	
11,000.00	3.75	304.20	10,982.35	305.50	-449.54	377,901.50	809,042.69	32.035988	-103.469412	
11,100.00	3.75	304.20	11,082.13	309.18	-454.94	377,905.17	809,037.29	32.035998	-103.469429	
11,200.00	3.75	304.20	11,181.92	312.85	-460.35	377,908.85	809,031.88	32.036009	-103.469447	
11,300.00	3.75	304.20	11,281.70	316.53	-465.76	377,912.52	809,026.47	32.036019	-103.469464	
11,400.00	3.75	304.20	11,381.49	320.20	-471.17	377,916.20	809,021.06	32.036029	-103.469481	
11,500.00	3.75	304.20	11,481.28	323.88	-476.58	377,919.87	809,015.65	32.036039	-103.469499	
11,600.00	3.75	304.20	11,581.06	327.55	-481.98	377,923.55	809,010.25	32.036049	-103.469516	
11,623.24	3.75	304.20	11,604.25	328.41	-483.24	377,924.40	809,008.99	32.036052	-103.469520	
11,700.00	2.60	304.20	11,680.89	330.79	-486.75	377,926.79	809,005.47	32.036058	-103.469531	
11,800.00	1.10	304.20	11,780.84	332.61	-489.42	377,928.60	809,002.81	32.036063	-103.469540	
11,873.17	0.00	0.00	11,854.00	333.00	-490.00	377,929.00	809,002.23	32.036065	-103.469542	
11,900.00	0.00	0.00	11,880.83	333.00	-490.00	377,929.00	809,002.23	32.036065	-103.469542	
12,000.00	0.00	0.00	11,980.83	333.00	-490.00	377,929.00	809,002.23	32.036065	-103.469542	
12,100.00	0.00	0.00	12,080.83	333.00	-490.00	377,929.00	809,002.23	32.036065	-103.469542	
12,200.00	0.00	0.00	12,180.83	333.00	-490.00	377,929.00	809,002.23	32.036065	-103.469542	
12,223.21	0.00	0.00	12,204.04	333.00	-490.00	377,929.00	809,002.23	32.036065	-103.469542	
KOP @ 12223' MD, 50' FNL, 1010' FEL										
12,300.00	7.68	179.52	12,280.60	327.86	-489.96	377,923.86	809,002.27	32.036050	-103.469542	
12,400.00	17.68	179.52	12,378.04	305.94	-489.78	377,901.94	809,002.45	32.035990	-103.469542	
12,464.35	24.11	179.52	12,438.13	283.00	-489.58	377,879.00	809,002.64	32.035927	-103.469542	
FTP @ 12464' MD, 100' FNL, 1010' FEL										
12,500.00	27.68	179.52	12,470.19	267.43	-489.45	377,863.43	809,002.77	32.035884	-103.469542	
12,600.00	37.68	179.52	12,554.26	213.51	-489.01	377,809.51	809,003.22	32.035736	-103.469542	
12,700.00	47.68	179.52	12,627.68	145.81	-488.44	377,741.81	809,003.79	32.035550	-103.469542	
12,800.00	57.68	179.52	12,688.23	66.39	-487.78	377,662.39	809,004.45	32.035332	-103.469542	
12,900.00	67.68	179.52	12,734.07	-22.34	-487.05	377,573.66	809,005.18	32.035088	-103.469542	
13,000.00	77.68	179.52	12,763.80	-117.68	-486.25	377,478.32	809,005.98	32.034826	-103.469541	
13,100.00	87.68	179.52	12,776.53	-216.74	-485.43	377,379.26	809,006.80	32.034553	-103.469541	
13,123.21	90.00	179.52	12,777.00	-239.94	-485.24	377,356.06	809,006.99	32.034490	-103.469541	
13,200.00	90.00	179.52	12,777.00	-316.73	-484.60	377,279.27	809,007.63	32.034279	-103.469541	
13,300.00	90.00	179.52	12,777.00	-416.73	-483.77	377,179.27	809,008.46	32.034004	-103.469541	
13,400.00	90.00	179.52	12,777.00	-516.72	-482.93	377,079.28	809,009.29	32.033729	-103.469541	
13,500.00	90.00	179.52	12,777.00	-616.72	-482.10	376,979.28	809,010.13	32.033454	-103.469541	
13,600.00	90.00	179.52	12,777.00	-716.71	-481.27	376,879.29	809,010.96	32.033179	-103.469541	
13,700.00	90.00	179.52	12,777.00	-816.71	-480.44	376,779.29	809,011.79	32.032904	-103.469541	
13,800.00	90.00	179.52	12,777.00	-916.71	-479.61	376,679.29	809,012.62	32.032629	-103.469541	
13,900.00	90.00	179.52	12,777.00	-1,016.70	-478.78	376,579.30	809,013.45	32.032354	-103.469540	
14,000.00	90.00	179.52	12,777.00	-1,116.70	-477.95	376,479.30	809,014.28	32.032080	-103.469540	
14,100.00	90.00	179.52	12,777.00	-1,216.70	-477.11	376,379.30	809,015.12	32.031805	-103.469540	
14,200.00	90.00	179.52	12,777.00	-1,316.69	-476.28	376,279.31	809,015.95	32.031530	-103.469540	
14,300.00	90.00	179.52	12,777.00	-1,416.69	-475.45	376,179.31	809,016.78	32.031255	-103.469540	
14,400.00	90.00	179.52	12,777.00	-1,516.69	-474.62	376,079.31	809,017.61	32.030980	-103.469540	
14,500.00	90.00	179.52	12,777.00	-1,616.68	-473.79	375,979.32	809,018.44	32.030705	-103.469540	
14,600.00	90.00	179.52	12,777.00	-1,716.68	-472.96	375,879.32	809,019.27	32.030430	-103.469540	
14,700.00	90.00	179.52	12,777.00	-1,816.68	-472.12	375,779.33	809,020.10	32.030155	-103.469540	
14,800.00	90.00	179.52	12,777.00	-1,916.67	-471.29	375,679.33	809,020.94	32.029881	-103.469540	
14,900.00	90.00	179.52	12,777.00	-2,016.67	-470.46	375,579.33	809,021.77	32.029606	-103.469539	
15,000.00	90.00	179.52	12,777.00	-2,116.67	-469.63	375,479.34	809,022.60	32.029331	-103.469539	
15,100.00	90.00	179.52	12,777.00	-2,216.66	-468.80	375,379.34	809,023.43	32.029056	-103.469539	
15,200.00	90.00	179.52	12,777.00	-2,316.66	-467.97	375,279.34	809,024.26	32.028781	-103.469539	
15,300.00	90.00	179.52	12,777.00	-2,416.66	-467.14	375,179.35	809,025.09	32.028506	-103.469539	
15,400.00	90.00	179.52	12,777.00	-2,516.65	-466.30	375,079.35	809,025.93	32.028231	-103.469539	
15,500.00	90.00	179.52	12,777.00	-2,616.65	-465.47	374,979.35	809,026.76	32.027956	-103.469539	

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Cobber 21-33 Fed Com 8H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3329.20ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3329.20ft
Site:	Sec 21-T26S-R34E	North Reference:	Grid
Well:	Cobber 21-33 Fed Com 8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 3		

Planned Survey									
Measured			Vertical			Map	Map		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
15,600.00	90.00	179.52	12,777.00	-2,716.65	-464.64	374,879.36	809,027.59	32.027682	-103.469539
15,700.00	90.00	179.52	12,777.00	-2,816.64	-463.81	374,779.36	809,028.42	32.027407	-103.469539
15,800.00	90.00	179.52	12,777.00	-2,916.64	-462.98	374,679.37	809,029.25	32.027132	-103.469539
15,900.00	90.00	179.52	12,777.00	-3,016.64	-462.15	374,579.37	809,030.08	32.026857	-103.469538
16,000.00	90.00	179.52	12,777.00	-3,116.63	-461.31	374,479.37	809,030.91	32.026582	-103.469538
16,100.00	90.00	179.52	12,777.00	-3,216.63	-460.48	374,379.38	809,031.75	32.026307	-103.469538
16,200.00	90.00	179.52	12,777.00	-3,316.62	-459.65	374,279.38	809,032.58	32.026032	-103.469538
16,300.00	90.00	179.52	12,777.00	-3,416.62	-458.82	374,179.38	809,033.41	32.025757	-103.469538
16,400.00	90.00	179.52	12,777.00	-3,516.62	-457.99	374,079.39	809,034.24	32.025483	-103.469538
16,500.00	90.00	179.52	12,777.00	-3,616.61	-457.16	373,979.39	809,035.07	32.025208	-103.469538
16,600.00	90.00	179.52	12,777.00	-3,716.61	-456.33	373,879.39	809,035.90	32.024933	-103.469538
16,700.00	90.00	179.52	12,777.00	-3,816.61	-455.49	373,779.40	809,036.73	32.024658	-103.469538
16,800.00	90.00	179.52	12,777.00	-3,916.60	-454.66	373,679.40	809,037.57	32.024383	-103.469537
16,900.00	90.00	179.52	12,777.00	-4,016.60	-453.83	373,579.41	809,038.40	32.024108	-103.469537
17,000.00	90.00	179.52	12,777.00	-4,116.60	-453.00	373,479.41	809,039.23	32.023833	-103.469537
17,100.00	90.00	179.52	12,777.00	-4,216.59	-452.17	373,379.41	809,040.06	32.023558	-103.469537
17,200.00	90.00	179.52	12,777.00	-4,316.59	-451.34	373,279.42	809,040.89	32.023284	-103.469537
17,300.00	90.00	179.52	12,777.00	-4,416.59	-450.51	373,179.42	809,041.72	32.023009	-103.469537
17,400.00	90.00	179.52	12,777.00	-4,516.58	-449.67	373,079.42	809,042.56	32.022734	-103.469537
17,500.00	90.00	179.52	12,777.00	-4,616.58	-448.84	372,979.43	809,043.39	32.022459	-103.469537
17,600.00	90.00	179.52	12,777.00	-4,716.58	-448.01	372,879.43	809,044.22	32.022184	-103.469537
17,700.00	90.00	179.52	12,777.00	-4,816.57	-447.18	372,779.44	809,045.05	32.021909	-103.469537
17,778.00	90.00	179.52	12,777.00	-4,894.57	-446.53	372,701.44	809,045.70	32.021695	-103.469536
Cross section @ 17778' MD, 0' FNL, 1010' FEL									
17,800.00	90.00	179.52	12,777.00	-4,916.57	-446.35	372,679.44	809,045.88	32.021634	-103.469536
17,900.00	90.00	179.52	12,777.00	-5,016.57	-445.52	372,579.44	809,046.71	32.021359	-103.469536
18,000.00	90.00	179.52	12,777.00	-5,116.56	-444.68	372,479.45	809,047.54	32.021085	-103.469536
18,100.00	90.00	179.52	12,777.00	-5,216.56	-443.85	372,379.45	809,048.38	32.020810	-103.469536
18,200.00	90.00	179.52	12,777.00	-5,316.56	-443.02	372,279.45	809,049.21	32.020535	-103.469536
18,300.00	90.00	179.52	12,777.00	-5,416.55	-442.19	372,179.46	809,050.04	32.020260	-103.469536
18,400.00	90.00	179.52	12,777.00	-5,516.55	-441.36	372,079.46	809,050.87	32.019985	-103.469536
18,500.00	90.00	179.52	12,777.00	-5,616.55	-440.53	371,979.46	809,051.70	32.019710	-103.469536
18,600.00	90.00	179.52	12,777.00	-5,716.54	-439.70	371,879.47	809,052.53	32.019435	-103.469536
18,700.00	90.00	179.52	12,777.00	-5,816.54	-438.86	371,779.47	809,053.37	32.019160	-103.469536
18,800.00	90.00	179.52	12,777.00	-5,916.54	-438.03	371,679.48	809,054.20	32.018885	-103.469535
18,900.00	90.00	179.52	12,777.00	-6,016.53	-437.20	371,579.48	809,055.03	32.018611	-103.469535
19,000.00	90.00	179.52	12,777.00	-6,116.53	-436.37	371,479.48	809,055.86	32.018336	-103.469535
19,100.00	90.00	179.52	12,777.00	-6,216.52	-435.54	371,379.49	809,056.69	32.018061	-103.469535
19,200.00	90.00	179.52	12,777.00	-6,316.52	-434.71	371,279.49	809,057.52	32.017786	-103.469535
19,300.00	90.00	179.52	12,777.00	-6,416.52	-433.87	371,179.49	809,058.35	32.017511	-103.469535
19,400.00	90.00	179.52	12,777.00	-6,516.51	-433.04	371,079.50	809,059.19	32.017236	-103.469535
19,500.00	90.00	179.52	12,777.00	-6,616.51	-432.21	370,979.50	809,060.02	32.016961	-103.469535
19,600.00	90.00	179.52	12,777.00	-6,716.51	-431.38	370,879.50	809,060.85	32.016686	-103.469535
19,700.00	90.00	179.52	12,777.00	-6,816.50	-430.55	370,779.51	809,061.68	32.016412	-103.469534
19,800.00	90.00	179.52	12,777.00	-6,916.50	-429.72	370,679.51	809,062.51	32.016137	-103.469534
19,900.00	90.00	179.52	12,777.00	-7,016.50	-428.89	370,579.52	809,063.34	32.015862	-103.469534
20,000.00	90.00	179.52	12,777.00	-7,116.49	-428.05	370,479.52	809,064.17	32.015587	-103.469534
20,100.00	90.00	179.52	12,777.00	-7,216.49	-427.22	370,379.52	809,065.01	32.015312	-103.469534
20,200.00	90.00	179.52	12,777.00	-7,316.49	-426.39	370,279.53	809,065.84	32.015037	-103.469534
20,300.00	90.00	179.52	12,777.00	-7,416.48	-425.56	370,179.53	809,066.67	32.014762	-103.469534
20,400.00	90.00	179.52	12,777.00	-7,516.48	-424.73	370,079.53	809,067.50	32.014487	-103.469534
20,500.00	90.00	179.52	12,777.00	-7,616.48	-423.90	369,979.54	809,068.33	32.014213	-103.469534
20,600.00	90.00	179.52	12,777.00	-7,716.47	-423.06	369,879.54	809,069.16	32.013938	-103.469534
20,700.00	90.00	179.52	12,777.00	-7,816.47	-422.23	369,779.54	809,070.00	32.013663	-103.469533

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Cobber 21-33 Fed Com 8H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3329.20ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3329.20ft
Site:	Sec 21-T26S-R34E	North Reference:	Grid
Well:	Cobber 21-33 Fed Com 8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 3		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
20,800.00	90.00	179.52	12,777.00	-7,916.47	-421.40	369,679.55	809,070.83	32.013388	-103.469533	
20,900.00	90.00	179.52	12,777.00	-8,016.46	-420.57	369,579.55	809,071.66	32.013113	-103.469533	
21,000.00	90.00	179.52	12,777.00	-8,116.46	-419.74	369,479.56	809,072.49	32.012838	-103.469533	
21,100.00	90.00	179.52	12,777.00	-8,216.46	-418.91	369,379.56	809,073.32	32.012563	-103.469533	
21,200.00	90.00	179.52	12,777.00	-8,316.45	-418.08	369,279.56	809,074.15	32.012288	-103.469533	
21,300.00	90.00	179.52	12,777.00	-8,416.45	-417.24	369,179.57	809,074.98	32.012014	-103.469533	
21,400.00	90.00	179.52	12,777.00	-8,516.45	-416.41	369,079.57	809,075.82	32.011739	-103.469533	
21,500.00	90.00	179.52	12,777.00	-8,616.44	-415.58	368,979.57	809,076.65	32.011464	-103.469533	
21,600.00	90.00	179.52	12,777.00	-8,716.44	-414.75	368,879.58	809,077.48	32.011189	-103.469533	
21,700.00	90.00	179.52	12,777.00	-8,816.43	-413.92	368,779.58	809,078.31	32.010914	-103.469532	
21,800.00	90.00	179.52	12,777.00	-8,916.43	-413.09	368,679.58	809,079.14	32.010639	-103.469532	
21,900.00	90.00	179.52	12,777.00	-9,016.43	-412.26	368,579.59	809,079.97	32.010364	-103.469532	
22,000.00	90.00	179.52	12,777.00	-9,116.42	-411.42	368,479.59	809,080.81	32.010089	-103.469532	
22,100.00	90.00	179.52	12,777.00	-9,216.42	-410.59	368,379.60	809,081.64	32.009815	-103.469532	
22,200.00	90.00	179.52	12,777.00	-9,316.42	-409.76	368,279.60	809,082.47	32.009540	-103.469532	
22,300.00	90.00	179.52	12,777.00	-9,416.41	-408.93	368,179.60	809,083.30	32.009265	-103.469532	
22,400.00	90.00	179.52	12,777.00	-9,516.41	-408.10	368,079.61	809,084.13	32.008990	-103.469532	
22,500.00	90.00	179.52	12,777.00	-9,616.41	-407.27	367,979.61	809,084.96	32.008715	-103.469532	
22,600.00	90.00	179.52	12,777.00	-9,716.40	-406.43	367,879.61	809,085.79	32.008440	-103.469531	
22,700.00	90.00	179.52	12,777.00	-9,816.40	-405.60	367,779.62	809,086.63	32.008165	-103.469531	
22,800.00	90.00	179.52	12,777.00	-9,916.40	-404.77	367,679.62	809,087.46	32.007890	-103.469531	
22,900.00	90.00	179.52	12,777.00	-10,016.39	-403.94	367,579.63	809,088.29	32.007616	-103.469531	
23,000.00	90.00	179.52	12,777.00	-10,116.39	-403.11	367,479.63	809,089.12	32.007341	-103.469531	
23,059.00	90.00	179.52	12,777.00	-10,175.39	-402.62	367,420.63	809,089.61	32.007178	-103.469531	
Cross section @ 23059' MD, 0' FNL, 1010' FEL										
23,100.00	90.00	179.52	12,777.00	-10,216.39	-402.28	367,379.63	809,089.95	32.007066	-103.469531	
23,200.00	90.00	179.52	12,777.00	-10,316.38	-401.45	367,279.64	809,090.78	32.006791	-103.469531	
23,300.00	90.00	179.52	12,777.00	-10,416.38	-400.61	367,179.64	809,091.61	32.006516	-103.469531	
23,400.00	90.00	179.52	12,777.00	-10,516.38	-399.78	367,079.64	809,092.45	32.006241	-103.469531	
23,500.00	90.00	179.52	12,777.00	-10,616.37	-398.95	366,979.65	809,093.28	32.005966	-103.469531	
23,600.00	90.00	179.52	12,777.00	-10,716.37	-398.12	366,879.65	809,094.11	32.005691	-103.469530	
23,700.00	90.00	179.52	12,777.00	-10,816.37	-397.29	366,779.65	809,094.94	32.005417	-103.469530	
23,800.00	90.00	179.52	12,777.00	-10,916.36	-396.46	366,679.66	809,095.77	32.005142	-103.469530	
23,900.00	90.00	179.52	12,777.00	-11,016.36	-395.62	366,579.66	809,096.60	32.004867	-103.469530	
24,000.00	90.00	179.52	12,777.00	-11,116.36	-394.79	366,479.67	809,097.44	32.004592	-103.469530	
24,100.00	90.00	179.52	12,777.00	-11,216.35	-393.96	366,379.67	809,098.27	32.004317	-103.469530	
24,200.00	90.00	179.52	12,777.00	-11,316.35	-393.13	366,279.67	809,099.10	32.004042	-103.469530	
24,300.00	90.00	179.52	12,777.00	-11,416.35	-392.30	366,179.68	809,099.93	32.003767	-103.469530	
24,400.00	90.00	179.52	12,777.00	-11,516.34	-391.47	366,079.68	809,100.76	32.003492	-103.469530	
24,500.00	90.00	179.52	12,777.00	-11,616.34	-390.64	365,979.68	809,101.59	32.003218	-103.469529	
24,600.00	90.00	179.52	12,777.00	-11,716.33	-389.80	365,879.69	809,102.42	32.002943	-103.469529	
24,700.00	90.00	179.52	12,777.00	-11,816.33	-388.97	365,779.69	809,103.26	32.002668	-103.469529	
24,800.00	90.00	179.52	12,777.00	-11,916.33	-388.14	365,679.69	809,104.09	32.002393	-103.469529	
24,900.00	90.00	179.52	12,777.00	-12,016.32	-387.31	365,579.70	809,104.92	32.002118	-103.469529	
25,000.00	90.00	179.52	12,777.00	-12,116.32	-386.48	365,479.70	809,105.75	32.001843	-103.469529	
25,100.00	90.00	179.52	12,777.00	-12,216.32	-385.65	365,379.71	809,106.58	32.001568	-103.469529	
25,200.00	90.00	179.52	12,777.00	-12,316.31	-384.82	365,279.71	809,107.41	32.001293	-103.469529	
25,300.00	90.00	179.52	12,777.00	-12,416.31	-383.98	365,179.71	809,108.25	32.001018	-103.469529	
25,400.00	90.00	179.52	12,777.00	-12,516.31	-383.15	365,079.72	809,109.08	32.000744	-103.469529	
25,469.00	90.00	179.52	12,777.00	-12,585.30	-382.58	365,010.72	809,109.65	32.000554	-103.469528	
LTP @ 25469' MD, 100' FSL, 1010' FEL										
25,500.00	90.00	179.52	12,777.00	-12,616.30	-382.32	364,979.72	809,109.91	32.000469	-103.469528	
25,549.27	90.00	179.52	12,777.00	-12,665.57	-381.91	364,930.45	809,110.32	32.000333	-103.469528	
PBHL; 20' FSL, 1010' FEL										

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Cobber 21-33 Fed Com 8H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3329.20ft
Project:	Lea County (NAD83 New Mexico East)	MD Reference:	RKB @ 3329.20ft
Site:	Sec 21-T26S-R34E	North Reference:	Grid
Well:	Cobber 21-33 Fed Com 8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
25,549.28	90.00	179.52	12,777.00	-12,665.59	-381.91	364,930.44	809,110.32	32.000333	-103.469528

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL - Cobber 21-28 Fε - hit/miss target - Shape - Point	0.00	0.00	0.00	-7,514.78	-426.24	370,081.24	809,065.99	32.014492	-103.469539
- plan misses target center by 7526.85ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
PBHL2 - Cobber 21-33 F - Point	0.00	0.00	0.00	-12,665.59	-381.91	364,930.44	809,110.32	32.000333	-103.469528
- plan misses target center by 12671.34ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
12,223.21	12,204.04	333.00	-490.00	KOP @ 12223' MD, 50' FNL, 1010' FEL
12,464.35	12,438.13	283.00	-489.58	FTP @ 12464' MD, 100' FNL, 1010' FEL
17,778.00	12,777.00	-4,894.57	-446.53	Cross section @ 17778' MD, 0' FNL, 1010' FEL
23,059.00	12,777.00	-10,175.39	-402.62	Cross section @ 23059' MD, 0' FNL, 1010' FEL
25,469.00	12,777.00	-12,585.30	-382.58	LTP @ 25469' MD, 100' FSL, 1010' FEL
25,549.27	12,777.00	-12,665.57	-381.91	PBHL, 20' FSL, 1010' FEL