

Submit a Copy To Appropriate District Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-48098
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator Devon Energy Production Co. LP		6. State Oil & Gas Lease No.
3. Address of Operator 333 W. Sheridan Ave OKC, OK 73102		7. Lease Name or Unit Agreement Name Thistle Unit
4. Well Location Unit Letter <u>C</u> : <u>160</u> feet from the <u>North</u> line and <u>1740</u> feet from the <u>West</u> line Section <u>22</u> Township <u>23S</u> Range <u>33E</u> NMPM <u>Lea</u> County		8. Well Number <u>180H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3710.5'		9. OGRID Number <u>6137</u>
		10. Pool name or Wildcat WC-025 G-09 S243310P; UWC (98135)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Devon Energy respectfully requests the following changes to the original APD:

SHL Change from 160 FNL & 1740 FWL to 160 FNL & 1320 FWL, both 22-23S-33E
 TVD/MD change from 12,600'/28,027' to 12,600'/28,048'

Please see attached C-102, Drilling Plan and Directional Plan

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Rebecca Deal TITLE Regulatory Analyst DATE 12/08/2020

Type or print name Rebecca Deal E-mail address: rebecca.deal@dyn.com PHONE: 405-228-8429

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

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

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

District III
1000 Rio Brazos Road, 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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-48098	² Pool Code 98135	³ Pool Name WC-025 G-09 S243310P;UPPER WOLFCAMP
⁴ Property Code 30884	⁵ Property Name THISTLE UNIT	⁶ Well Number 180H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3710.5

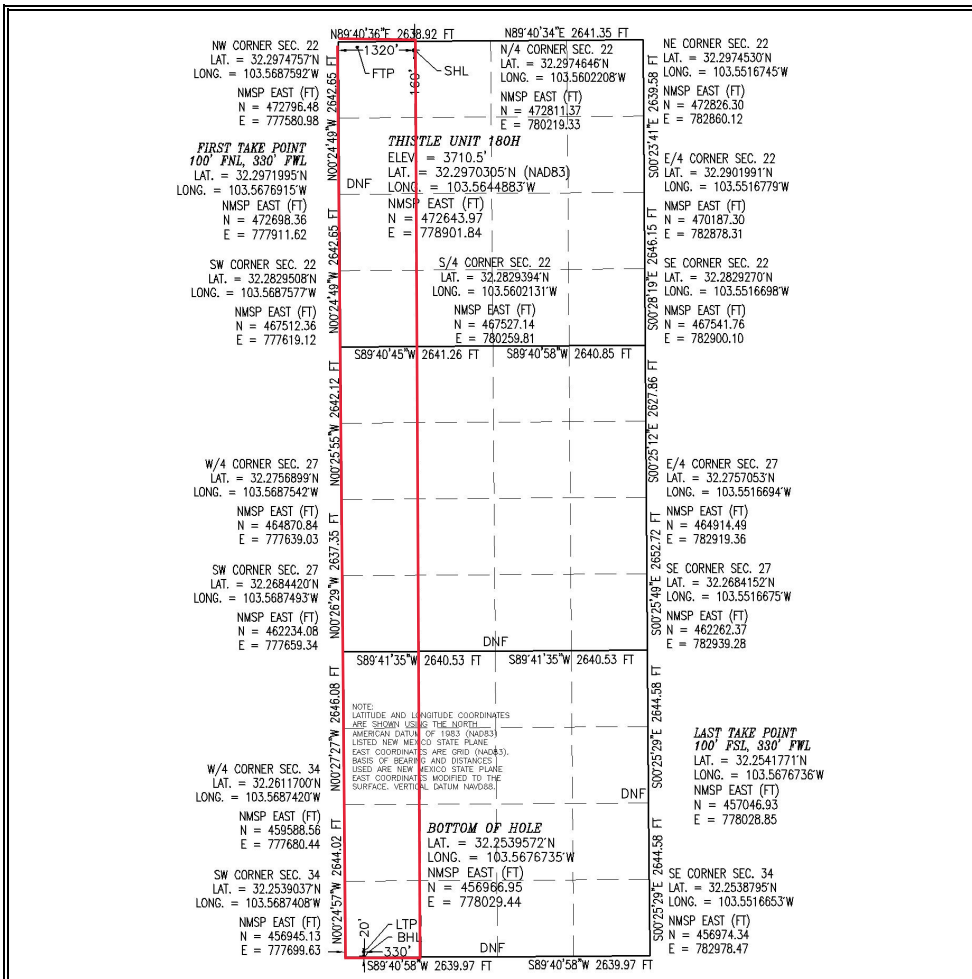
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	23 S	33 E		160	NORTH	1320	WEST	LEA

¹¹ 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
M	34	23 S	33 E		20	SOUTH	330	WEST	LEA
¹² Dedicated Acres 480	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Rebecca Deal 12/7/2020
Signature Date

Rebecca Deal, Regulatory Analyst

Printed Name

rebecca.deal@dvn.com

E-mail Address

¹⁸ 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.

DECEMBER 2, 2020

Date of Survey

IMON F. JARAMILLO
Signature and Seal of Professional Surveyor
Certificate Number: **12797**

IMON F. JARAMILLO, SLS 12797
Professional Surveyor No. 8628B

Intent ☒ As Drilled ☐

API # 30-025-48098		
Operator Name: DEVON ENERGY PRODUCTION CO., L.P.	Property Name: THISTLE UNIT	Well Number 180H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	22	23S	33E		155	FNL	447	FWL	LEA
Latitude 32.2970					Longitude -103.5674				NAD 83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	22	23S	33E		100	NORTH	330	WEST	LEA
Latitude 32.2971995					Longitude 103.5676915				NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	34	23S	33E		100	SOUTH	330	WEST	LEA
Latitude 32.2541771					Longitude 103.5676736				NAD 83

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

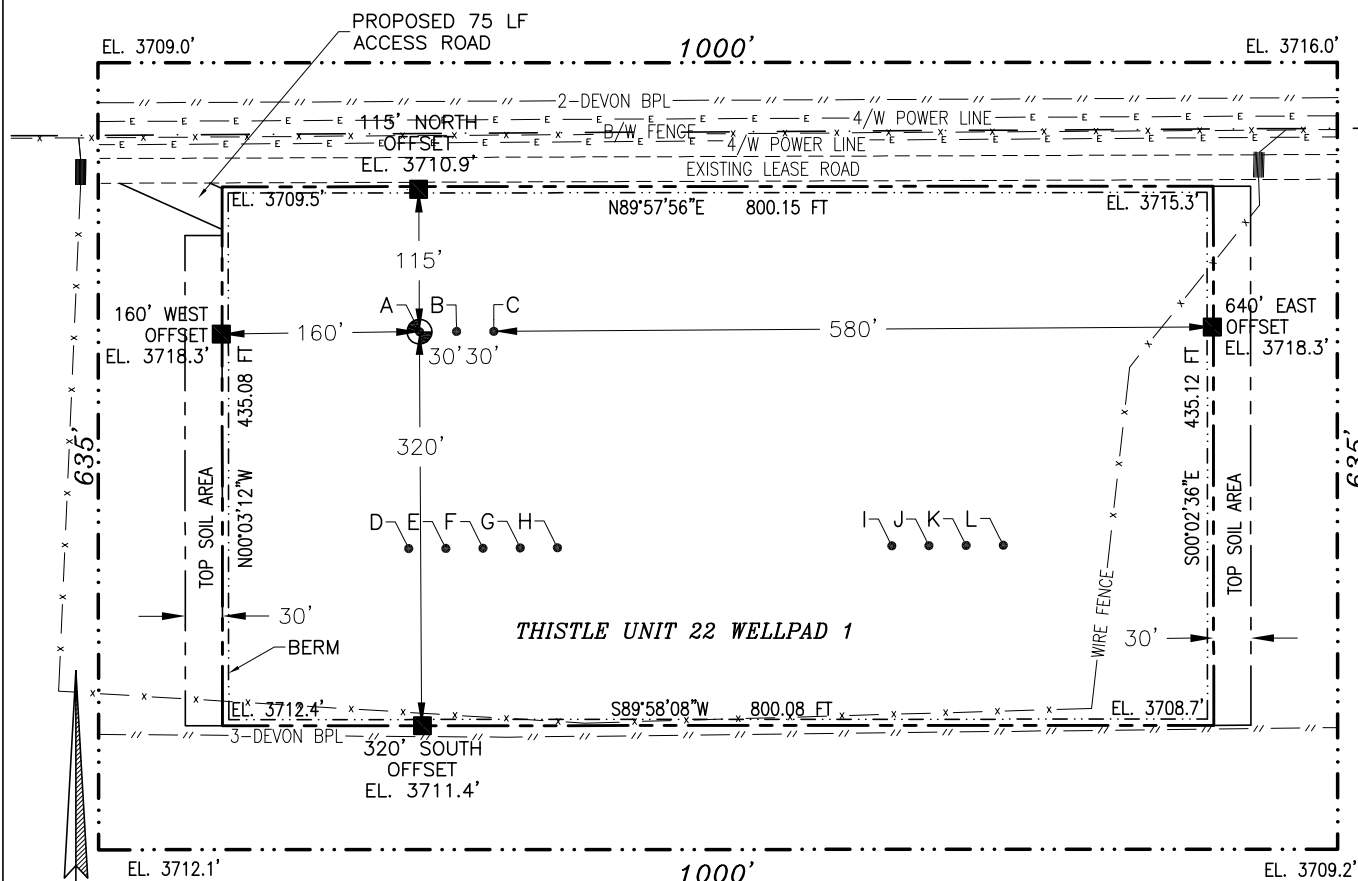
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. VERTICAL DATUM NAVD88.



D = DRILLED

A - THISTLE UNIT 180H	G - THISTLE UNIT 86H - D
B - THISTLE UNIT 181H	H - THISTLE UNIT 160H
C - THISTLE UNIT 182H	I - THISTLE UNIT 114H - D
D - THISTLE UNIT 142H	J - THISTLE UNIT 133H - D
E - THISTLE UNIT 110H - D	K - THISTLE UNIT 99H - D
F - THISTLE UNIT 125H - D	L - THISTLE UNIT 113H - D

THISTLE UNIT 180H

ELEV. = 3710.5'

7.992± ACRES

LAT. = 32.2970305°N (NAD83)

LONG. = 103.5644883°W

NMSP EAST (FT)

N = 472643.97

E = 778901.84

015 75 150 300

SCALE 1" = 150'

DIRECTIONS TO LOCATION

FROM STATE HIGHWAY 128 AND CR 21 (DELAWARE BASIN) GO NORTH ON CR 21 3.95 MILES, TURN LEFT ON PAVED ROAD (XL ROAD) AND GO WEST 3.4 MILES, TURN RIGHT AND GO NORTH 0.9 OF A MILE, BEND LEFT AND GO NORTHWEST 0.15 OF A MILE, BEND RIGHT AND GO NORTHEAST 0.1 OF A MILE, BEND LEFT AND GO NORTH 0.95 OF A MILE, TURN RIGHT AND GO EAST 1810', TURN RIGHT GO SOUTHEAST 75' TO NORTHWEST PAD CORNER FOR THIS LOCATION.

I, FILMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I HAVE 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.

FILMON F. JARAMILLO, S. 12793

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 180H

LOCATED 160 FT. FROM THE NORTH LINE
AND 1320 FT. FROM THE WEST LINE OF
SECTION 22, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO

LAND STATUS: STATE

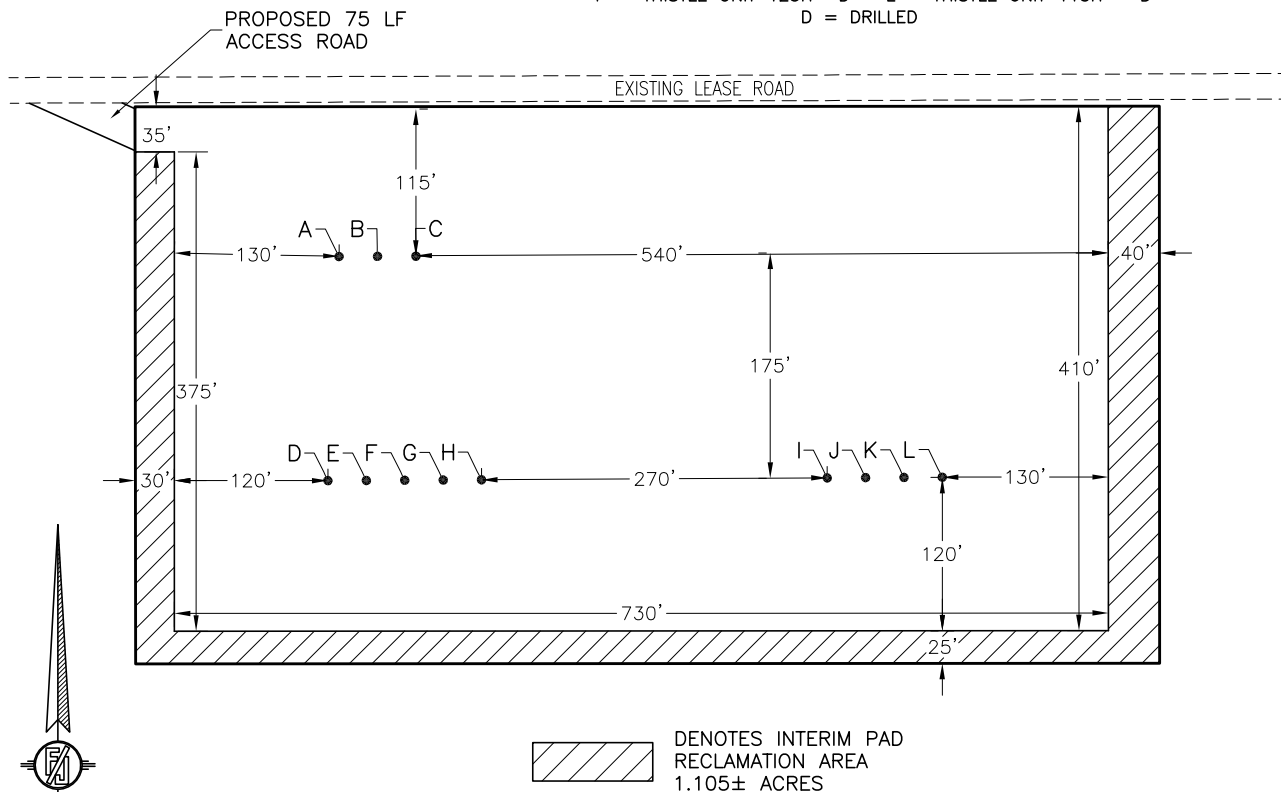
DECEMBER 2, 2020

SURVEY NO. 8628B

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
INTERIM SITE BUILD PLAN

A - THISTLE UNIT 180H G - THISTLE UNIT 86H -D
B - THISTLE UNIT 181H H - THISTLE UNIT 160H
C - THISTLE UNIT 182H I - THISTLE UNIT 114H - D
D - THISTLE UNIT 142H J - THISTLE UNIT 133H -D
E - THISTLE UNIT 110H -D K - THISTLE UNIT 99H - D
F - THISTLE UNIT 125H -D L - THISTLE UNIT 113H - D
D = DRILLED



DEVON ENERGY PRODUCTION COMPANY, L.P.
THISTLE UNIT 180H
LOCATED 160 FT. FROM THE NORTH LINE
AND 1320 FT. FROM THE WEST LINE OF
SECTION 22, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LAND STATUS: STATE

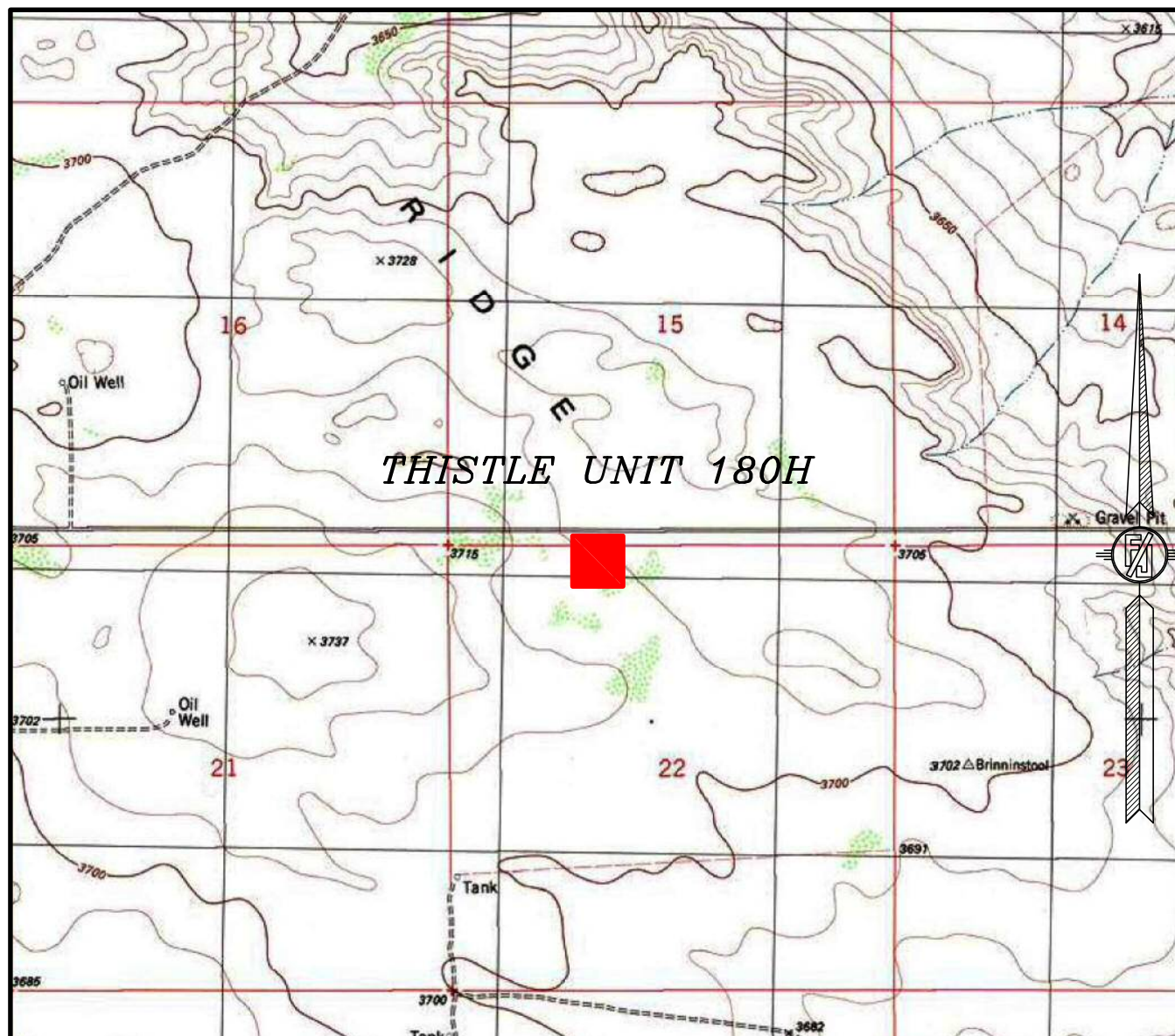
DECEMBER 2, 2020

SURVEY NO. 8628B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
TIP TOP WELLS

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 180H

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AND 1320 FT. FROM THE WEST LINE OF
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RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LAND STATUS: STATE

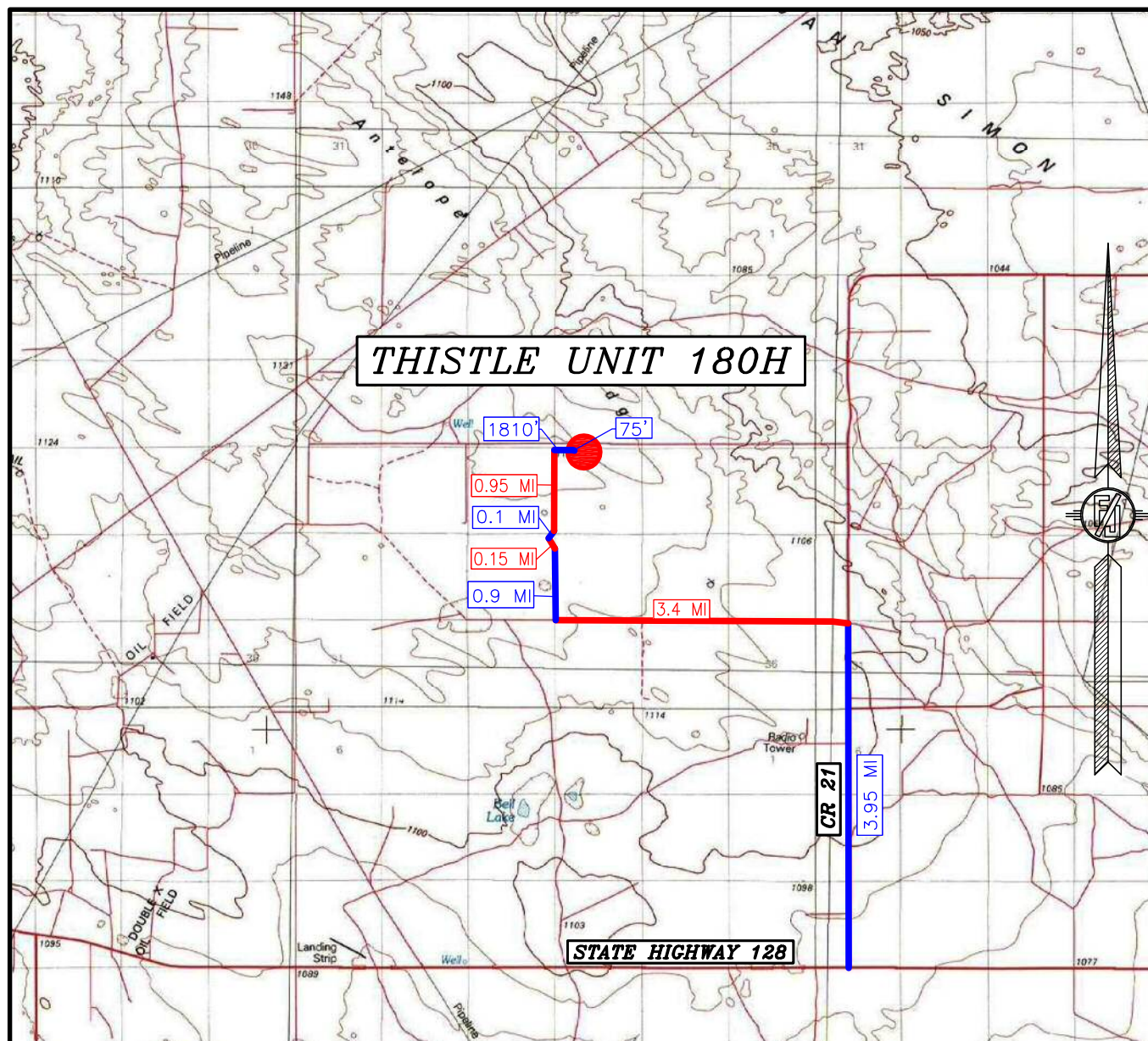
DECEMBER 2, 2020

SURVEY NO. 8628B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 180H

LOCATED 160 FT. FROM THE NORTH LINE
AND 1320 FT. FROM THE WEST LINE OF
SECTION 22, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO
LAND STATUS: STATE

DECEMBER 2, 2020

SURVEY NO. 8628B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOVEMBER 2017

DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 180H

LOCATED 160 FT. FROM THE NORTH LINE
AND 1320 FT. FROM THE WEST LINE OF
SECTION 22, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LAND STATUS: STATE

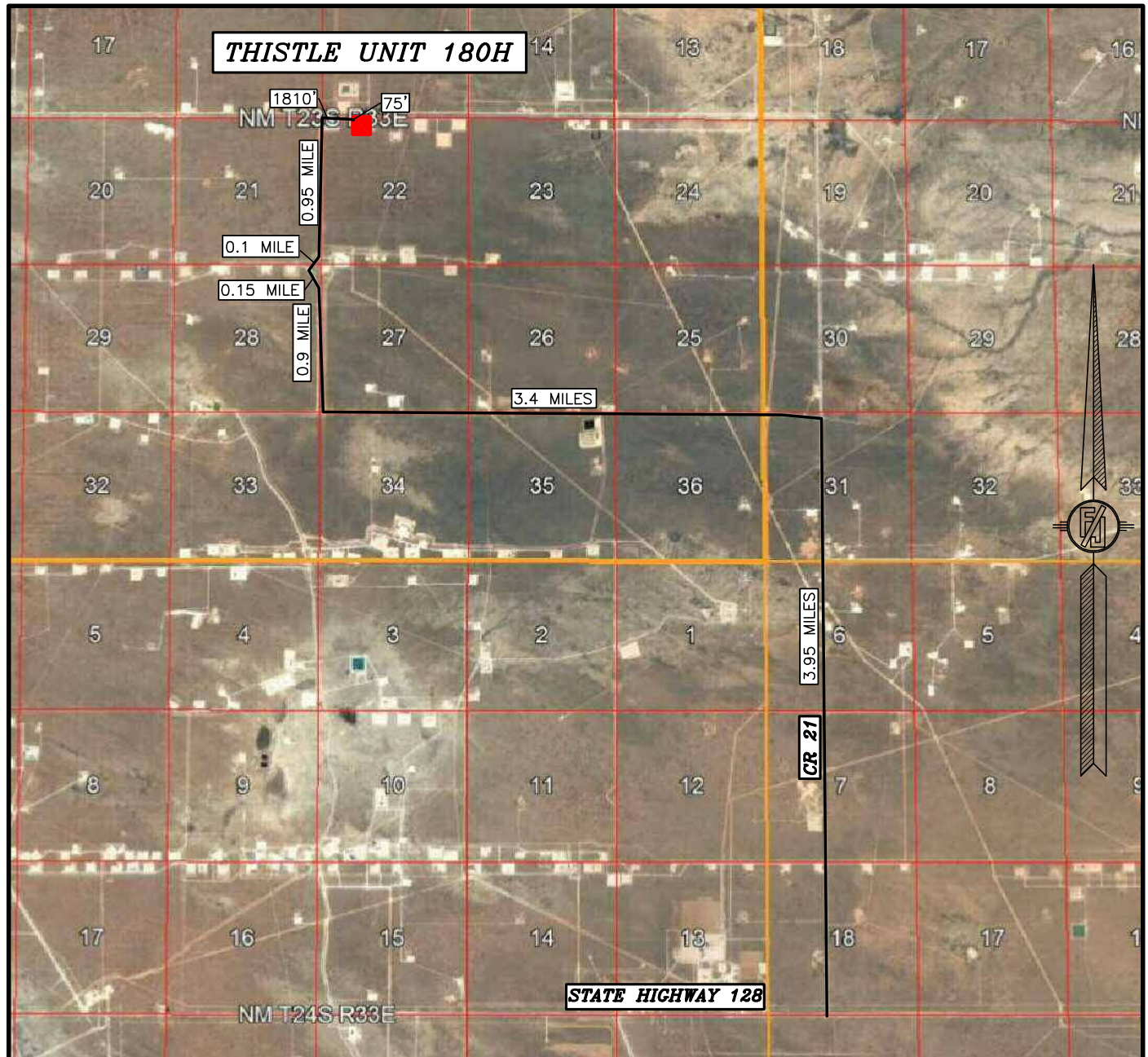
DECEMBER 2, 2020

SURVEY NO. 8628B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOVEMBER 2017

DEVON ENERGY PRODUCTION COMPANY, L.P.

THISTLE UNIT 180H

LOCATED 160 FT. FROM THE NORTH LINE
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SECTION 22, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LAND STATUS: STATE

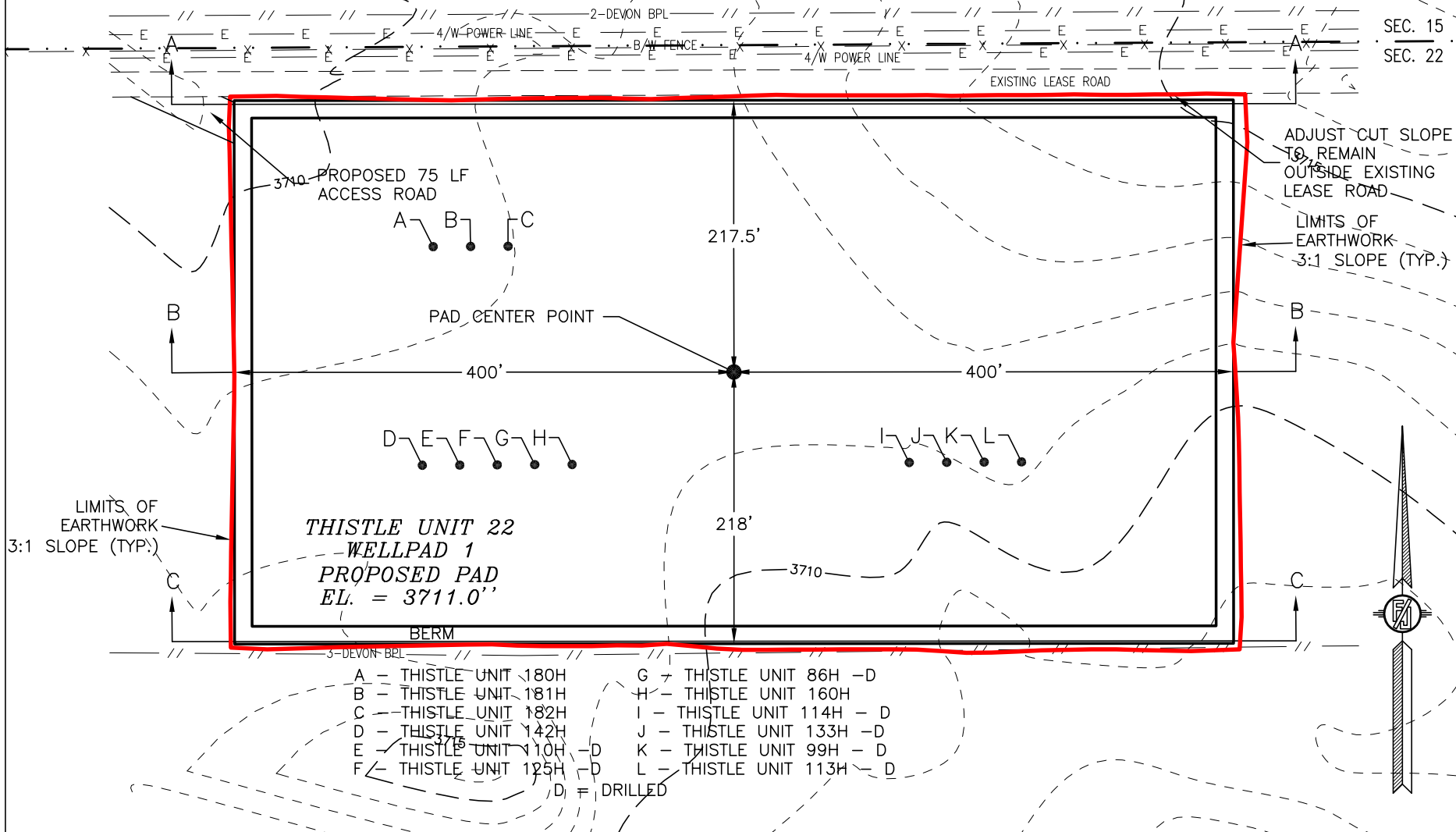
DECEMBER 2, 2020

SURVEY NO. 8628B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

PLAN VIEW



I, FILIMON F. JARAMILLO, 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.

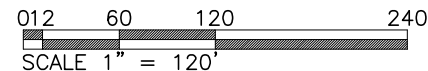
DEVON ENERGY PRODUCTION COMPANY, L.P.
GRADING PLAN AND CROSS SECTIONS
FOR THISTLE UNIT 180H
SECTION 22, TOWNSHIP 23 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 2, 2020

FILIMON F. JARAMILLO, S. 12797



MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

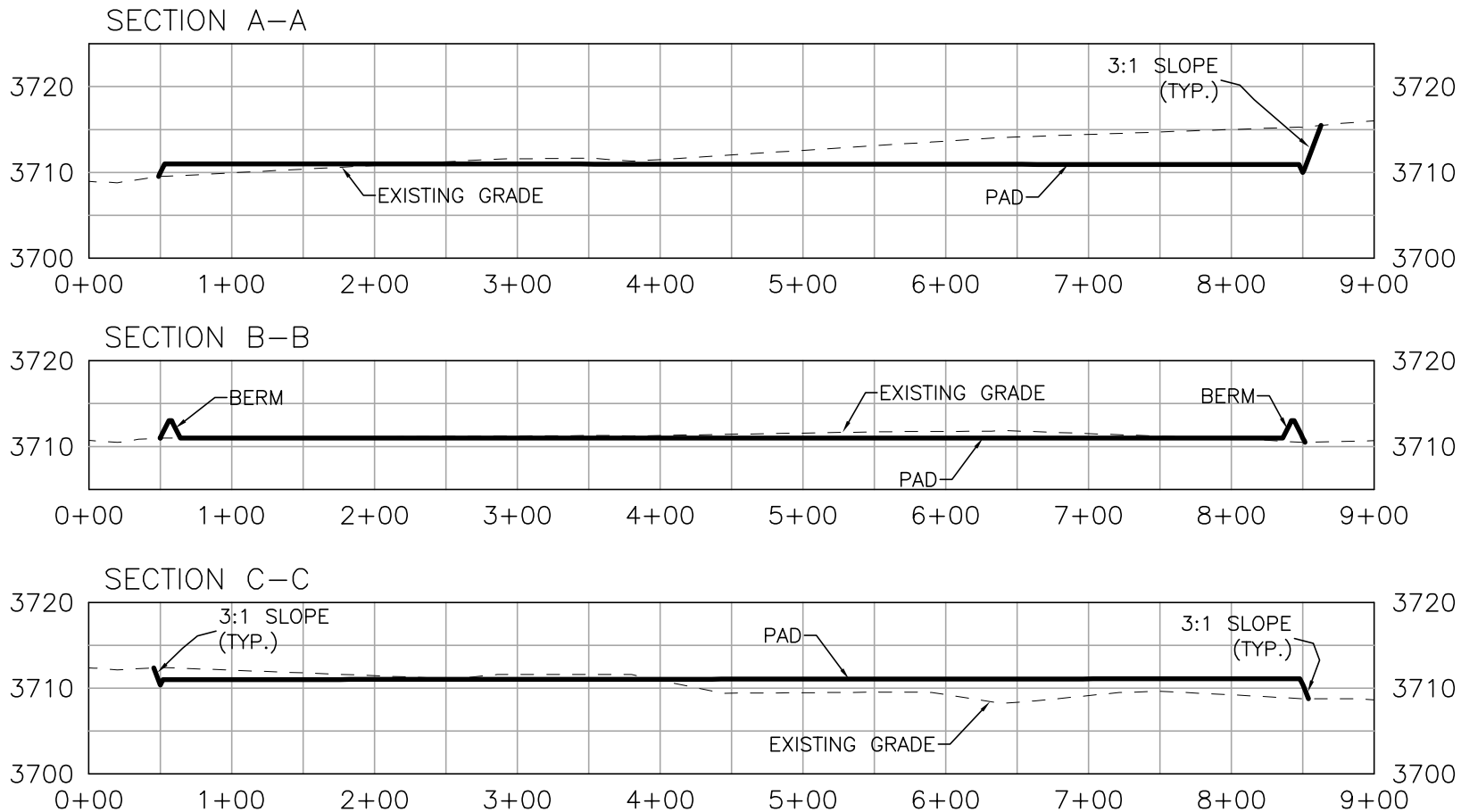


CUT	FILL	NET
7505 CU. YD	4549 CU. YD	2956 CU. YD (CUT)

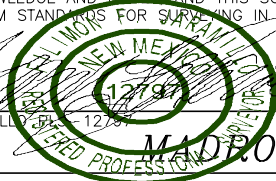
EARTHWORK QUANTITIES ARE ESTIMATED

SHEET 1-2
SURVEY NO. 8628B

CROSS SECTIONS



I, FILIMON F. JARAMILLO, 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.

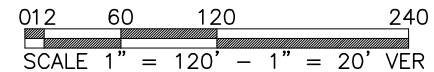


DEVON ENERGY PRODUCTION COMPANY, L.P.
GRADING PLAN AND CROSS SECTIONS
FOR THISTLE UNIT 180H
 SECTION 22, TOWNSHIP 23 SOUTH,
 RANGE 33 EAST, N.M.P.M.
 LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 2, 2020

301 SOUTH CANAL
 (575) 234-3341

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO



CUT	FILL	NET
7505 CU. YD	4549 CU. YD	2956 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

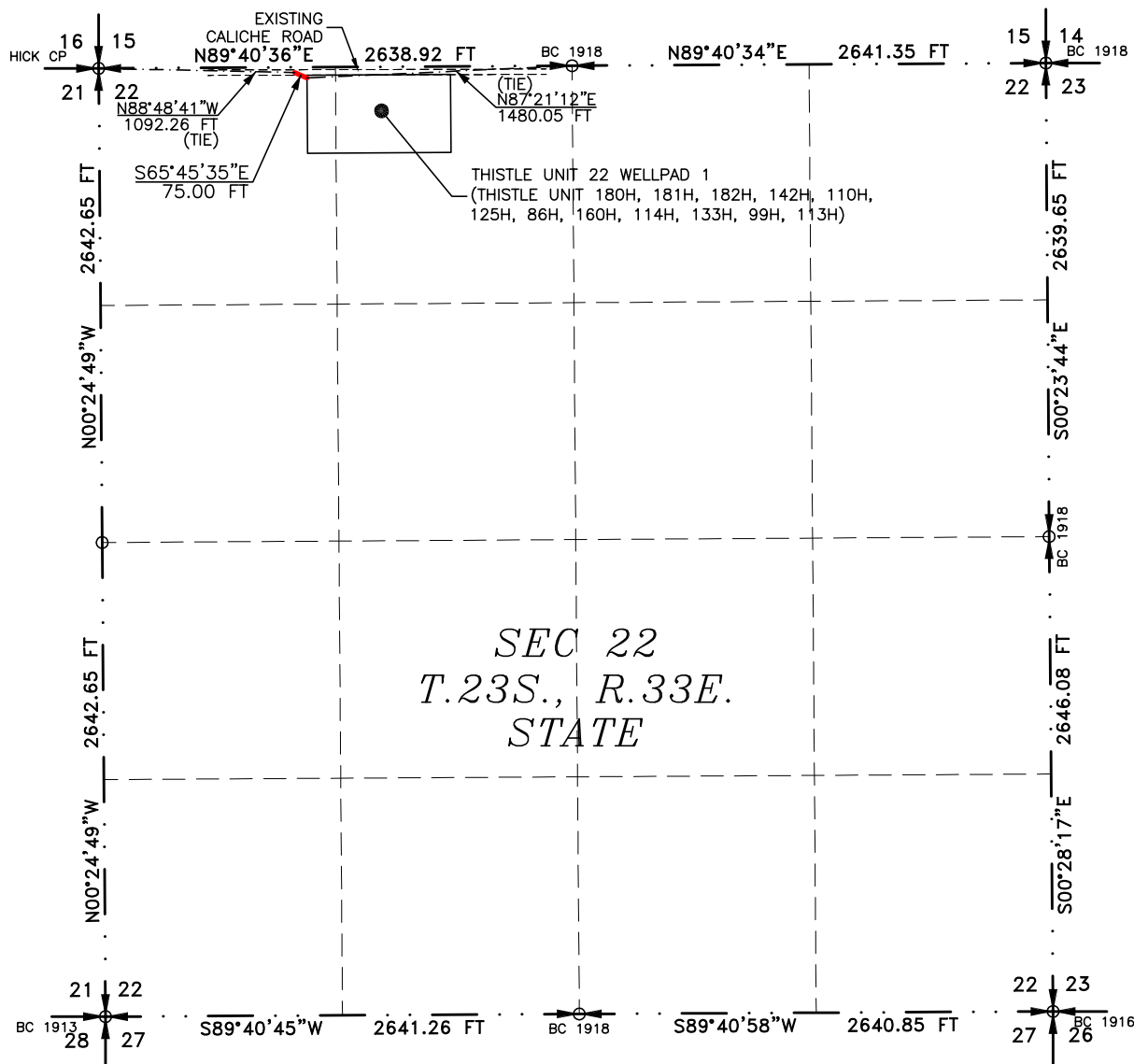
SHEET 2-2
 SURVEY NO. 8628B

ACCESS ROAD PLAT (AA000084090)

ACCESS ROAD TO THISTLE UNIT 22 WELLPAD 1

(THISTLE UNIT 180H, 181H, 182H, 142H, 110H, 125H, 86H, 160H, 114H, 133H, 99H, 113H)

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
DECEMBER 2, 2020



SEE NEXT SHEET (2-2) FOR DESCRIPTION

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, THIS 2 DAY OF DECEMBER 2020

FILIMON F. JARAMILLO PLS. 12797
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

SURVEY NO. 8628B

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

ACCESS ROAD PLAT (AA000084090)

ACCESS ROAD TO THISTLE UNIT 22 WELLPAD 1

(THISTLE UNIT 180H, 181H, 182H, 142H, 110H, 125H, 86H, 160H, 114H, 133H, 99H, 113H)

**DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
DECEMBER 2, 2020**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NW/4 NW/4 OF SAID SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M., WHENCE THE NORTHWEST CORNER OF SAID SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. BEARS N88°48'41"W, A DISTANCE OF 1092.26 FEET;
THENCE S65°45'35"E A DISTANCE OF 75.00 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 22, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. BEARS N87°21'12"E, A DISTANCE OF 1480.05 FEET;

SAID STRIP OF LAND BEING 75.00 FEET OR 4.55 RODS IN LENGTH, CONTAINING 0.052 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NW/4 75.00 L.F. 4.55 RODS 0.052 ACRES

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

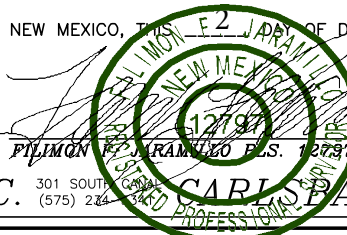
SHEET: 2-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220
(575) 234-3341

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 2 DAY OF DECEMBER 2020



MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 8628B

Thistle Unit 180H

1. Geologic Formations

TVD of target	12600	Pilot hole depth	N/A
MD at TD:	28048	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	1365		
Salt	1869		
Base of Salt	5180		
Lamar	5180		
Delaware	5257		
Cherry Canyon	6195		
Brushy Canyon	7591		
1st Bone Spring Lime	9069		
Bone Spring 1st	10242		
Bone Spring 2nd	10830		
3rd Bone Spring Lime	11406		
Bone Spring 3rd	11981		
Wolfcamp	12298		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

Thistle Unit 180H

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	H40	STC	0	1390	0	1390
9 7/8	8 5/8	32	P110	TLW	0	11981	0	11981
7 7/8	5 1/2	17	P110	BTC	0	28048	0	12600

• 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)

Casing	# Skis	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	1044	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	533	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
	533	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Production	117	10041	9	3.27	Lead: Class H / C + additives
	2119	12041	13.2	1.44	Tail: Class H / C + additives

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

Thistle Unit 180H

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?		Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular		X	50% of rated working pressure
			Blind Ram		X	5M
			Pipe Ram			
			Double Ram		X	
			Other*			
Production	13-5/8"	5M	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					

Thistle Unit 180H

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
---	-----------------------------

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	6879
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

Thistle Unit 180H

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

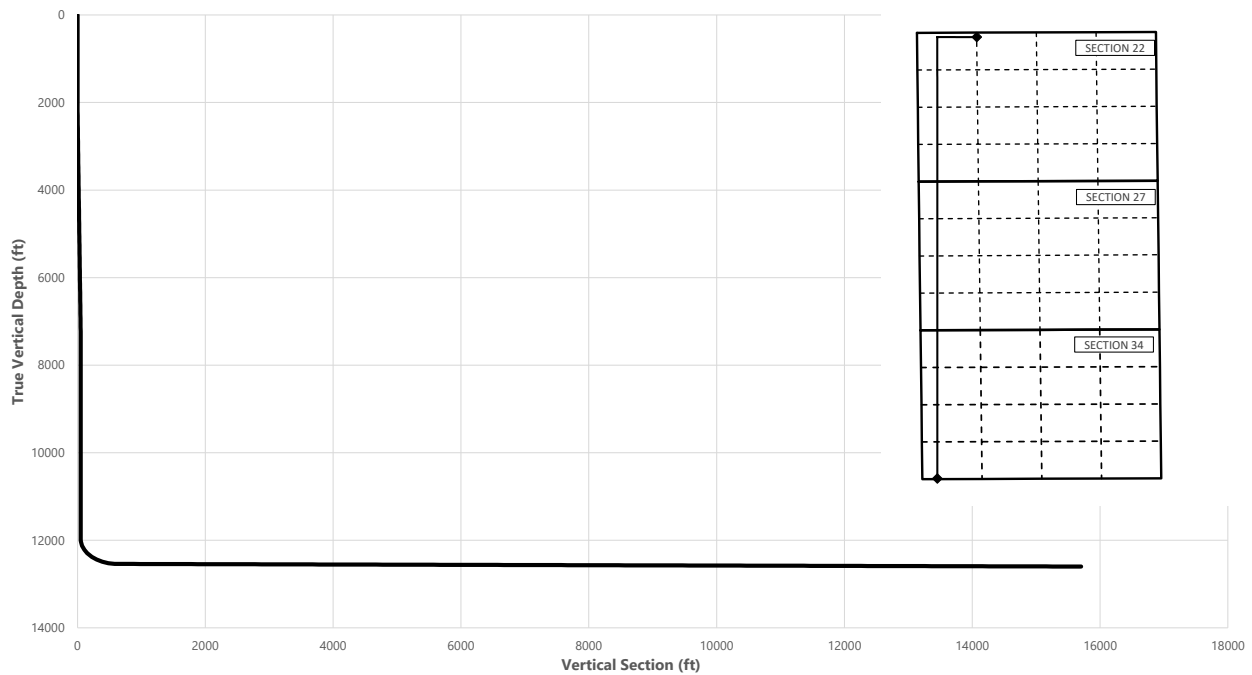
Thistle Unit 180H



Well: Thistle Unit 180H
County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	270.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	270.00	2497.47	0.00	-43.52	2.42	1.00	Hold Tangent
7023.64	10.00	270.00	6952.39	0.00	-829.05	46.07	0.00	Drop to Vertical
7523.64	0.00	270.00	7449.85	0.00	-872.57	48.48	2.00	Hold Vertical
12040.84	0.00	180.00	11967.05	0.00	-872.57	48.48	0.00	KOP
12938.56	89.77	180.00	12540.00	-570.68	-872.57	618.29	10.00	Landing Point
28048.06	89.77	180.00	12600.00	-15680.06	-872.57	15704.32	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	0.00	0.00
Salt	1869.00	1869.00
Base of Salt	5223.92	5180.00
Lamar	5223.92	5180.00
Delaware	5302.10	5257.00
Cherry Canyon	6254.58	6195.00
Brushy Canyon	7664.79	7591.00
1st Bone Spring Lime	9142.79	9069.00
Bone Spring 1st	10315.79	10242.00
Bone Spring 2nd	10903.79	10830.00
3rd Bone Spring Lime	11479.79	11406.00
Bone Spring 3rd	12054.79	11981.00
Wolfcamp / Point of Penetration	12393.68	12298.00
exit	27968.06	12599.70

SHL
KOP
Point of Penetration
Exit
BHL

MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
0.00	0.00	32.2969	-103.5646	160' FNL, 1320' FWL of Sec 22 in T23S, R33E
12040.84	11967.05	32.2970	-103.5674	155' FNL, 447' FWL of Sec 22 in T23S, R33E
12393.68	12298.00	32.2972	-103.5677	100' FNL, 330' FWL of Sec 22 in T23S, R33E
27968.06	12599.70	32.2542	-103.5677	100' FSL, 330' FWL of Sec 34 in T23S, R33E
28048.06	12600.00	32.2539	-103.5678	20' FSL, 330' FWL of Sec 34 in T23S, R33E

Thistle Unit 180H



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Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	270.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	270.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	270.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	270.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	270.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	270.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	270.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	270.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	270.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	270.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	270.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	270.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	270.00	1300.00	0.00	0.00	0.00	0.00	
1365.00	0.00	270.00	1365.00	0.00	0.00	0.00	0.00	Rustler
1400.00	0.00	270.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	270.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	270.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	270.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	270.00	1800.00	0.00	0.00	0.00	0.00	
1869.00	0.00	270.00	1869.00	0.00	0.00	0.00	0.00	Salt
1900.00	0.00	270.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	270.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	270.00	2099.98	0.00	-1.75	0.10	2.00	
2200.00	4.00	270.00	2199.84	0.00	-6.98	0.39	2.00	
2300.00	6.00	270.00	2299.45	0.00	-15.69	0.87	2.00	
2400.00	8.00	270.00	2398.70	0.00	-27.88	1.55	2.00	
2500.00	10.00	270.00	2497.47	0.00	-43.52	2.42	1.00	Hold Tangent
2600.00	10.00	270.00	2595.95	0.00	-60.89	3.38	0.00	
2700.00	10.00	270.00	2694.43	0.00	-78.25	4.35	0.00	
2800.00	10.00	270.00	2792.91	0.00	-95.62	5.31	0.00	
2900.00	10.00	270.00	2891.39	0.00	-112.98	6.28	0.00	
3000.00	10.00	270.00	2989.87	0.00	-130.35	7.24	0.00	
3100.00	10.00	270.00	3088.35	0.00	-147.71	8.21	0.00	
3200.00	10.00	270.00	3186.83	0.00	-165.08	9.17	0.00	
3300.00	10.00	270.00	3285.31	0.00	-182.44	10.14	0.00	
3400.00	10.00	270.00	3383.79	0.00	-199.81	11.10	0.00	
3500.00	10.00	270.00	3482.27	0.00	-217.17	12.07	0.00	
3600.00	10.00	270.00	3580.75	0.00	-234.54	13.03	0.00	
3700.00	10.00	270.00	3679.23	0.00	-251.90	14.00	0.00	
3800.00	10.00	270.00	3777.72	0.00	-269.27	14.96	0.00	
3900.00	10.00	270.00	3876.20	0.00	-286.63	15.93	0.00	
4000.00	10.00	270.00	3974.68	0.00	-303.99	16.89	0.00	
4100.00	10.00	270.00	4073.16	0.00	-321.36	17.86	0.00	
4200.00	10.00	270.00	4171.64	0.00	-338.72	18.82	0.00	
4300.00	10.00	270.00	4270.12	0.00	-356.09	19.79	0.00	
4400.00	10.00	270.00	4368.60	0.00	-373.45	20.75	0.00	
4500.00	10.00	270.00	4467.08	0.00	-390.82	21.72	0.00	
4600.00	10.00	270.00	4565.56	0.00	-408.18	22.68	0.00	
4700.00	10.00	270.00	4664.04	0.00	-425.55	23.65	0.00	
4800.00	10.00	270.00	4762.52	0.00	-442.91	24.61	0.00	
4900.00	10.00	270.00	4861.00	0.00	-460.28	25.58	0.00	
5000.00	10.00	270.00	4959.48	0.00	-477.64	26.54	0.00	
5100.00	10.00	270.00	5057.97	0.00	-495.01	27.51	0.00	
5200.00	10.00	270.00	5156.45	0.00	-512.37	28.47	0.00	
5223.92	10.00	270.00	5180.00	0.00	-516.53	28.70	0.00	Base of Salt, Lamar
5300.00	10.00	270.00	5254.93	0.00	-529.74	29.44	0.00	
5302.10	10.00	270.00	5257.00	0.00	-530.10	29.46	0.00	Delaware
5400.00	10.00	270.00	5353.41	0.00	-547.10	30.40	0.00	
5500.00	10.00	270.00	5451.89	0.00	-564.47	31.37	0.00	
5600.00	10.00	270.00	5550.37	0.00	-581.83	32.33	0.00	
5700.00	10.00	270.00	5648.85	0.00	-599.20	33.30	0.00	
5800.00	10.00	270.00	5747.33	0.00	-616.56	34.26	0.00	
5900.00	10.00	270.00	5845.81	0.00	-633.93	35.23	0.00	
6000.00	10.00	270.00	5944.29	0.00	-651.29	36.19	0.00	
6100.00	10.00	270.00	6042.77	0.00	-668.66	37.16	0.00	
6200.00	10.00	270.00	6141.25	0.00	-686.02	38.12	0.00	
6254.58	10.00	270.00	6195.00	0.00	-695.50	38.65	0.00	Cherry Canyon
6300.00	10.00	270.00	6239.73	0.00	-703.39	39.09	0.00	
6400.00	10.00	270.00	6338.22	0.00	-720.75	40.05	0.00	



Well: Thistle Unit 180H
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Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
6500.00	10.00	270.00	6436.70	0.00	-738.11	41.02	0.00	
6600.00	10.00	270.00	6535.18	0.00	-755.48	41.98	0.00	
6700.00	10.00	270.00	6633.66	0.00	-772.84	42.94	0.00	
6800.00	10.00	270.00	6732.14	0.00	-790.21	43.91	0.00	
6900.00	10.00	270.00	6830.62	0.00	-807.57	44.87	0.00	
7000.00	10.00	270.00	6929.10	0.00	-824.94	45.84	0.00	
7023.64	10.00	270.00	6952.39	0.00	-829.05	46.07	0.00	Drop to Vertical
7100.00	8.47	270.00	7027.75	0.00	-841.30	46.75	2.00	
7200.00	6.47	270.00	7126.89	0.00	-854.31	47.47	2.00	
7300.00	4.47	270.00	7226.43	0.00	-863.84	48.00	2.00	
7400.00	2.47	270.00	7326.24	0.00	-869.90	48.33	2.00	
7500.00	0.47	270.00	7426.21	0.00	-872.47	48.48	2.00	

Thistle Unit 180H

7523.64	0.00	270.00	7449.85	0.00	-872.57	48.48	2.00	Hold Vertical
7600.00	0.00	180.00	7526.21	0.00	-872.57	48.48	0.00	
7664.79	0.00	180.00	7591.00	0.00	-872.57	48.48	0.00	Brushy Canyon
7700.00	0.00	180.00	7626.21	0.00	-872.57	48.48	0.00	
7800.00	0.00	180.00	7726.21	0.00	-872.57	48.48	0.00	
7900.00	0.00	180.00	7826.21	0.00	-872.57	48.48	0.00	
8000.00	0.00	180.00	7926.21	0.00	-872.57	48.48	0.00	
8100.00	0.00	180.00	8026.21	0.00	-872.57	48.48	0.00	
8200.00	0.00	180.00	8126.21	0.00	-872.57	48.48	0.00	
8300.00	0.00	180.00	8226.21	0.00	-872.57	48.48	0.00	
8400.00	0.00	180.00	8326.21	0.00	-872.57	48.48	0.00	
8500.00	0.00	180.00	8426.21	0.00	-872.57	48.48	0.00	
8600.00	0.00	180.00	8526.21	0.00	-872.57	48.48	0.00	
8700.00	0.00	180.00	8626.21	0.00	-872.57	48.48	0.00	
8800.00	0.00	180.00	8726.21	0.00	-872.57	48.48	0.00	
8900.00	0.00	180.00	8826.21	0.00	-872.57	48.48	0.00	
9000.00	0.00	180.00	8926.21	0.00	-872.57	48.48	0.00	
9100.00	0.00	180.00	9026.21	0.00	-872.57	48.48	0.00	
9142.79	0.00	180.00	9069.00	0.00	-872.57	48.48	0.00	1st Bone Spring Lime
9200.00	0.00	180.00	9126.21	0.00	-872.57	48.48	0.00	
9300.00	0.00	180.00	9226.21	0.00	-872.57	48.48	0.00	
9400.00	0.00	180.00	9326.21	0.00	-872.57	48.48	0.00	
9500.00	0.00	180.00	9426.21	0.00	-872.57	48.48	0.00	
9600.00	0.00	180.00	9526.21	0.00	-872.57	48.48	0.00	
9700.00	0.00	180.00	9626.21	0.00	-872.57	48.48	0.00	
9800.00	0.00	180.00	9726.21	0.00	-872.57	48.48	0.00	
9900.00	0.00	180.00	9826.21	0.00	-872.57	48.48	0.00	
10000.00	0.00	180.00	9926.21	0.00	-872.57	48.48	0.00	
10100.00	0.00	180.00	10026.21	0.00	-872.57	48.48	0.00	
10200.00	0.00	180.00	10126.21	0.00	-872.57	48.48	0.00	
10300.00	0.00	180.00	10226.21	0.00	-872.57	48.48	0.00	
10315.79	0.00	180.00	10242.00	0.00	-872.57	48.48	0.00	Bone Spring 1st
10400.00	0.00	180.00	10326.21	0.00	-872.57	48.48	0.00	
10500.00	0.00	180.00	10426.21	0.00	-872.57	48.48	0.00	
10600.00	0.00	180.00	10526.21	0.00	-872.57	48.48	0.00	
10700.00	0.00	180.00	10626.21	0.00	-872.57	48.48	0.00	
10800.00	0.00	180.00	10726.21	0.00	-872.57	48.48	0.00	
10900.00	0.00	180.00	10826.21	0.00	-872.57	48.48	0.00	
10903.79	0.00	180.00	10830.00	0.00	-872.57	48.48	0.00	Bone Spring 2nd
11000.00	0.00	180.00	10926.21	0.00	-872.57	48.48	0.00	
11100.00	0.00	180.00	11026.21	0.00	-872.57	48.48	0.00	
11200.00	0.00	180.00	11126.21	0.00	-872.57	48.48	0.00	
11300.00	0.00	180.00	11226.21	0.00	-872.57	48.48	0.00	
11400.00	0.00	180.00	11326.21	0.00	-872.57	48.48	0.00	
11479.79	0.00	180.00	11406.00	0.00	-872.57	48.48	0.00	3rd Bone Spring Lime
11500.00	0.00	180.00	11426.21	0.00	-872.57	48.48	0.00	
11600.00	0.00	180.00	11526.21	0.00	-872.57	48.48	0.00	
11700.00	0.00	180.00	11626.21	0.00	-872.57	48.48	0.00	
11800.00	0.00	180.00	11726.21	0.00	-872.57	48.48	0.00	
11900.00	0.00	180.00	11826.21	0.00	-872.57	48.48	0.00	
12000.00	0.00	180.00	11926.21	0.00	-872.57	48.48	0.00	
12040.84	0.00	180.00	11967.05	0.00	-872.57	48.48	0.00	KOP
12054.79	1.40	180.00	11981.00	-0.17	-872.57	48.65	10.00	Bone Spring 3rd
12100.00	5.92	180.00	12026.10	-3.05	-872.57	51.53	10.00	
12200.00	15.92	180.00	12124.17	-21.96	-872.57	70.41	10.00	
12300.00	25.92	180.00	12217.46	-57.62	-872.57	106.01	10.00	
12393.68	35.28	180.00	12298.00	-105.25	-872.57	153.57	10.00	Wolfcamp / Point of Penetration
12400.00	35.92	180.00	12303.14	-108.93	-872.57	157.25	10.00	



Well: Thistle Unit 180H
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Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
12500.00	45.92	180.00	12378.61	-174.34	-872.57	222.56	10.00	
12600.00	55.92	180.00	12441.58	-251.87	-872.57	299.96	10.00	
12700.00	65.92	180.00	12490.13	-339.15	-872.57	387.11	10.00	
12800.00	75.92	180.00	12522.78	-433.53	-872.57	481.34	10.00	
12900.00	85.92	180.00	12538.55	-532.15	-872.57	579.81	10.00	
12938.56	89.77	180.00	12540.00	-570.68	-872.57	618.29	10.00	Landing Point
13000.00	89.77	180.00	12540.24	-632.12	-872.57	679.62	0.00	
13100.00	89.77	180.00	12540.64	-732.12	-872.57	779.47	0.00	
13200.00	89.77	180.00	12541.04	-832.12	-872.57	879.31	0.00	
13300.00	89.77	180.00	12541.44	-932.12	-872.57	979.16	0.00	
13400.00	89.77	180.00	12541.83	-1032.11	-872.57	1079.00	0.00	
13500.00	89.77	180.00	12542.23	-1132.11	-872.57	1178.85	0.00	
13600.00	89.77	180.00	12542.63	-1232.11	-872.57	1278.69	0.00	
13700.00	89.77	180.00	12543.02	-1332.11	-872.57	1378.54	0.00	
13800.00	89.77	180.00	12543.42	-1432.11	-872.57	1478.38	0.00	
13900.00	89.77	180.00	12543.82	-1532.11	-872.57	1578.23	0.00	
14000.00	89.77	180.00	12544.22	-1632.11	-872.56	1678.07	0.00	
14100.00	89.77	180.00	12544.61	-1732.11	-872.56	1777.92	0.00	
14200.00	89.77	180.00	12545.01	-1832.11	-872.56	1877.76	0.00	
14300.00	89.77	180.00	12545.41	-1932.11	-872.56	1977.61	0.00	
14400.00	89.77	180.00	12545.81	-2032.11	-872.56	2077.45	0.00	
14500.00	89.77	180.00	12546.20	-2132.11	-872.56	2177.29	0.00	
14600.00	89.77	180.00	12546.60	-2232.10	-872.56	2277.14	0.00	
14700.00	89.77	180.00	12547.00	-2332.10	-872.56	2376.98	0.00	
14800.00	89.77	180.00	12547.39	-2432.10	-872.56	2476.83	0.00	
14900.00	89.77	180.00	12547.79	-2532.10	-872.56	2576.67	0.00	
15000.00	89.77	180.00	12548.19	-2632.10	-872.56	2676.52	0.00	
15100.00	89.77	180.00	12548.59	-2732.10	-872.56	2776.36	0.00	
15200.00	89.77	180.00	12548.98	-2832.10	-872.56	2876.21	0.00	
15300.00	89.77	180.00	12549.38	-2932.10	-872.56	2976.05	0.00	
15400.00	89.77	180.00	12549.78	-3032.10	-872.56	3075.90	0.00	
15500.00	89.77	180.00	12550.17	-3132.10	-872.56	3175.74	0.00	

Thistle Unit 180H

15600.00	89.77	180.00	12550.57	-3232.10	-872.56	3275.59	0.00
15700.00	89.77	180.00	12550.97	-3332.10	-872.56	3375.43	0.00
15800.00	89.77	180.00	12551.37	-3432.10	-872.56	3475.28	0.00
15900.00	89.77	180.00	12551.76	-3532.09	-872.56	3575.12	0.00
16000.00	89.77	180.00	12552.16	-3632.09	-872.56	3674.97	0.00
16100.00	89.77	180.00	12552.56	-3732.09	-872.56	3774.81	0.00
16200.00	89.77	180.00	12552.96	-3832.09	-872.56	3874.65	0.00
16300.00	89.77	180.00	12553.35	-3932.09	-872.56	3974.50	0.00
16400.00	89.77	180.00	12553.75	-4032.09	-872.56	4074.34	0.00
16500.00	89.77	180.00	12554.15	-4132.09	-872.56	4174.19	0.00
16600.00	89.77	180.00	12554.54	-4232.09	-872.56	4274.03	0.00
16700.00	89.77	180.00	12554.94	-4332.09	-872.56	4373.88	0.00
16800.00	89.77	180.00	12555.34	-4432.09	-872.56	4473.72	0.00
16900.00	89.77	180.00	12555.74	-4532.09	-872.56	4573.57	0.00
17000.00	89.77	180.00	12556.13	-4632.09	-872.56	4673.41	0.00
17100.00	89.77	180.00	12556.53	-4732.09	-872.56	4773.26	0.00
17200.00	89.77	180.00	12556.93	-4832.08	-872.56	4873.10	0.00
17300.00	89.77	180.00	12557.33	-4932.08	-872.56	4972.95	0.00
17400.00	89.77	180.00	12557.72	-5032.08	-872.56	5072.79	0.00
17500.00	89.77	180.00	12558.12	-5132.08	-872.56	5172.64	0.00
17600.00	89.77	180.00	12558.52	-5232.08	-872.56	5272.48	0.00
17700.00	89.77	180.00	12558.91	-5332.08	-872.56	5372.33	0.00
17800.00	89.77	180.00	12559.31	-5432.08	-872.55	5472.17	0.00
17900.00	89.77	180.00	12559.71	-5532.08	-872.55	5572.01	0.00
18000.00	89.77	180.00	12560.11	-5632.08	-872.55	5671.86	0.00
18100.00	89.77	180.00	12560.50	-5732.08	-872.55	5771.70	0.00
18200.00	89.77	180.00	12560.90	-5832.08	-872.55	5871.55	0.00
18300.00	89.77	180.00	12561.30	-5932.08	-872.55	5971.39	0.00
18400.00	89.77	180.00	12561.69	-6032.07	-872.55	6071.24	0.00
18500.00	89.77	180.00	12562.09	-6132.07	-872.55	6171.08	0.00
18600.00	89.77	180.00	12562.49	-6232.07	-872.55	6270.93	0.00
18700.00	89.77	180.00	12562.89	-6332.07	-872.55	6370.77	0.00
18800.00	89.77	180.00	12563.28	-6432.07	-872.55	6470.62	0.00
18900.00	89.77	180.00	12563.68	-6532.07	-872.55	6570.46	0.00
19000.00	89.77	180.00	12564.08	-6632.07	-872.55	6670.31	0.00
19100.00	89.77	180.00	12564.48	-6732.07	-872.55	6770.15	0.00
19200.00	89.77	180.00	12564.87	-6832.07	-872.55	6870.00	0.00
19300.00	89.77	180.00	12565.27	-6932.07	-872.55	6969.84	0.00



Well: Thistle Unit 180H
County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
19400.00	89.77	180.00	12565.67	-7032.07	-872.55	7069.69	0.00	
19500.00	89.77	180.00	12566.06	-7132.07	-872.55	7169.53	0.00	
19600.00	89.77	180.00	12566.46	-7232.07	-872.55	7269.37	0.00	
19700.00	89.77	180.00	12566.86	-7332.06	-872.55	7369.22	0.00	
19800.00	89.77	180.00	12567.26	-7432.06	-872.55	7469.06	0.00	
19900.00	89.77	180.00	12567.65	-7532.06	-872.55	7568.91	0.00	
20000.00	89.77	180.00	12568.05	-7632.06	-872.55	7668.75	0.00	
20100.00	89.77	180.00	12568.45	-7732.06	-872.55	7768.60	0.00	
20200.00	89.77	180.00	12568.84	-7832.06	-872.55	7868.44	0.00	
20300.00	89.77	180.00	12569.24	-7932.06	-872.55	7968.29	0.00	
20400.00	89.77	180.00	12569.64	-8032.06	-872.55	8068.13	0.00	
20500.00	89.77	180.00	12570.04	-8132.06	-872.55	8167.98	0.00	
20600.00	89.77	180.00	12570.43	-8232.06	-872.55	8267.82	0.00	
20700.00	89.77	180.00	12570.83	-8332.06	-872.55	8367.67	0.00	
20800.00	89.77	180.00	12571.23	-8432.06	-872.55	8467.51	0.00	
20900.00	89.77	180.00	12571.63	-8532.06	-872.55	8567.36	0.00	
21000.00	89.77	180.00	12572.02	-8632.05	-872.55	8667.20	0.00	
21100.00	89.77	180.00	12572.42	-8732.05	-872.55	8767.05	0.00	
21200.00	89.77	180.00	12572.82	-8832.05	-872.55	8866.89	0.00	
21300.00	89.77	180.00	12573.21	-8932.05	-872.55	8966.74	0.00	
21400.00	89.77	180.00	12573.61	-9032.05	-872.55	9066.58	0.00	
21500.00	89.77	180.00	12574.01	-9132.05	-872.55	9166.42	0.00	
21600.00	89.77	180.00	12574.41	-9232.05	-872.54	9266.27	0.00	
21700.00	89.77	180.00	12574.80	-9332.05	-872.54	9366.11	0.00	
21800.00	89.77	180.00	12575.20	-9432.05	-872.54	9465.96	0.00	
21900.00	89.77	180.00	12575.60	-9532.05	-872.54	9565.80	0.00	
22000.00	89.77	180.00	12576.00	-9632.05	-872.54	9665.65	0.00	
22100.00	89.77	180.00	12576.39	-9732.05	-872.54	9765.49	0.00	
22200.00	89.77	180.00	12576.79	-9832.04	-872.54	9865.34	0.00	
22300.00	89.77	180.00	12577.19	-9932.04	-872.54	9965.18	0.00	
22400.00	89.77	180.00	12577.58	-10032.04	-872.54	10065.03	0.00	
22500.00	89.77	180.00	12577.98	-10132.04	-872.54	10164.87	0.00	
22600.00	89.77	180.00	12578.38	-10232.04	-872.54	10264.72	0.00	
22700.00	89.77	180.00	12578.78	-10332.04	-872.54	10364.56	0.00	
22800.00	89.77	180.00	12579.17	-10432.04	-872.54	10464.41	0.00	
22900.00	89.77	180.00	12579.57	-10532.04	-872.54	10564.25	0.00	
23000.00	89.77	180.00	12579.97	-10632.04	-872.54	10664.10	0.00	
23100.00	89.77	180.00	12580.36	-10732.04	-872.54	10763.94	0.00	
23200.00	89.77	180.00	12580.76	-10832.04	-872.54	10863.78	0.00	
23300.00	89.77	180.00	12581.16	-10932.04	-872.54	10963.63	0.00	
23400.00	89.77	180.00	12581.56	-11032.04	-872.54	11063.47	0.00	
23500.00	89.77	180.00	12581.95	-11132.03	-872.54	11163.32	0.00	
23600.00	89.77	180.00	12582.35	-11232.03	-872.54	11263.16	0.00	
23700.00	89.77	180.00	12582.75	-11332.03	-872.54	11363.01	0.00	
23800.00	89.77	180.00	12583.15	-11432.03	-872.54	11462.85	0.00	
23900.00	89.77	180.00	12583.54	-11532.03	-872.54	11562.70	0.00	
24000.00	89.77	180.00	12583.94	-11632.03	-872.54	11662.54	0.00	
24100.00	89.77	180.00	12584.34	-11732.03	-872.54	11762.39	0.00	
24200.00	89.77	180.00	12584.73	-11832.03	-872.54	11862.23	0.00	
24300.00	89.77	180.00	12585.13	-11932.03	-872.54	11962.08	0.00	
24400.00	89.77	180.00	12585.53	-12032.03	-872.54	12061.92	0.00	
24500.00	89.77	180.00	12585.93	-12132.03	-872.54	12161.77	0.00	

Thistle Unit 180H

24600.00	89.77	180.00	12586.32	-12232.03	-872.54	12261.61	0.00
24700.00	89.77	180.00	12586.72	-12332.03	-872.54	12361.46	0.00
24800.00	89.77	180.00	12587.12	-12432.02	-872.54	12461.30	0.00
24900.00	89.77	180.00	12587.51	-12532.02	-872.54	12561.14	0.00
25000.00	89.77	180.00	12587.91	-12632.02	-872.54	12660.99	0.00
25100.00	89.77	180.00	12588.31	-12732.02	-872.54	12760.83	0.00
25200.00	89.77	180.00	12588.71	-12832.02	-872.54	12860.68	0.00
25300.00	89.77	180.00	12589.10	-12932.02	-872.54	12960.52	0.00
25400.00	89.77	180.00	12589.50	-13032.02	-872.53	13060.37	0.00
25500.00	89.77	180.00	12589.90	-13132.02	-872.53	13160.21	0.00
25600.00	89.77	180.00	12590.30	-13232.02	-872.53	13260.06	0.00
25700.00	89.77	180.00	12590.69	-13332.02	-872.53	13359.90	0.00
25800.00	89.77	180.00	12591.09	-13432.02	-872.53	13459.75	0.00
25900.00	89.77	180.00	12591.49	-13532.02	-872.53	13559.59	0.00
26000.00	89.77	180.00	12591.88	-13632.01	-872.53	13659.44	0.00
26100.00	89.77	180.00	12592.28	-13732.01	-872.53	13759.28	0.00
26200.00	89.77	180.00	12592.68	-13832.01	-872.53	13859.13	0.00
26300.00	89.77	180.00	12593.08	-13932.01	-872.53	13958.97	0.00

Well: Thistle Unit 180H**County:** Lea**Wellbore:** Permit Plan**Design:** Permit Plan #1**Geodetic System:** US State Plane 1983**Datum:** North American Datum 1927**Ellipsoid:** Clarke 1866**Zone:** 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	("/100ft)	
26400.00	89.77	180.00	12593.47	-14032.01	-872.53	14058.82	0.00	
26500.00	89.77	180.00	12593.87	-14132.01	-872.53	14158.66	0.00	
26600.00	89.77	180.00	12594.27	-14232.01	-872.53	14258.50	0.00	
26700.00	89.77	180.00	12594.67	-14332.01	-872.53	14358.35	0.00	
26800.00	89.77	180.00	12595.06	-14432.01	-872.53	14458.19	0.00	
26900.00	89.77	180.00	12595.46	-14532.01	-872.53	14558.04	0.00	
27000.00	89.77	180.00	12595.86	-14632.01	-872.53	14657.88	0.00	
27100.00	89.77	180.00	12596.25	-14732.01	-872.53	14757.73	0.00	
27200.00	89.77	180.00	12596.65	-14832.01	-872.53	14857.57	0.00	
27300.00	89.77	180.00	12597.05	-14932.00	-872.53	14957.42	0.00	
27400.00	89.77	180.00	12597.45	-15032.00	-872.53	15057.26	0.00	
27500.00	89.77	180.00	12597.84	-15132.00	-872.53	15157.11	0.00	
27600.00	89.77	180.00	12598.24	-15232.00	-872.53	15256.95	0.00	
27700.00	89.77	180.00	12598.64	-15332.00	-872.53	15356.80	0.00	
27800.00	89.77	180.00	12599.03	-15432.00	-872.53	15456.64	0.00	
27900.00	89.77	180.00	12599.43	-15532.00	-872.53	15556.49	0.00	
27968.06	89.77	180.00	12599.70	-15600.06	-872.53	15624.44	0.00	exit
28000.00	89.77	180.00	12599.83	-15632.00	-872.53	15656.33	0.00	
28048.06	89.77	180.00	12600.00	-15680.06	-872.57	15704.32	0.00	BHL

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos 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) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 13190

CONDITIONS OF APPROVAL

Operator: DEVON ENERGY PRODUCTION COMPAN			333 West Sheridan Ave.	Oklahoma City, OK73102	OGRID: 6137	Action Number: 13190	Action Type: C-103A
OCD Reviewer					Condition		
pkautz					None		