

**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**

Form C-101  
August 1, 2011

Permit 277344

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

1. Operator Name and Address DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102		2. OGRID Number 6137
		3. API Number 30-025-46790
4. Property Code 40329	5. Property Name SEA SNAKE 35 STATE	6. Well No. 015H

**7. Surface Location**

UL - Lot N	Section 35	Township 23S	Range 33E	Lot Idn N	Feet From 199	N/S Line S	Feet From 2067	E/W Line W	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot C	Section 35	Township 23S	Range 33E	Lot Idn C	Feet From 20	N/S Line N	Feet From 2178	E/W Line W	County Lea
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**9. Pool Information**

TRIPLE X;BONE SPRING	59900
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3666
16. Multiple N	17. Proposed Depth 14699	18. Formation Bone Spring	19. Contractor	20. Spud Date 9/1/2020
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	1358	1021	0
Int1	12.25	9.625	40	5258	734	0
Prod	8.75	5.5	17	14699	1444	4758

**Casing/Cement Program: Additional Comments**

Int 1 Two Stage w/ DV @ TVD of Delaware 570 Surf 9.0 3.3 1st stage Lead: Class C Cement + additives 136 500' above shoe 13.2 1.4 1st stage Tail: Class H / C + additives 566 Surf 9.0 3.3 2nd stage Lead: Class C Cement + additives 136 500' above DV 13.2 1.4 2nd stage Tail: Class H / C + additives Int 1 Intermediate Squeeze As Needed Surf 9.0 3.3 Squeeze Lead: Class C Cement + additives 580 Surf 9.0 3.3 Lead: Class C Cement + additives 154 500' above shoe 13.2 1.4 Tail: Class H / C + additives

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Double Ram	5000	5000	
Annular	5000	5000	
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.		<b>OIL CONSERVATION DIVISION</b>	
Signature:			
Printed Name:	Electronically filed by Jeff Walla	Approved By:	Paul F Kautz
Title:	Supervisor Land	Title:	Geologist
Email Address:	Jeff.Walla@dmn.com	Approved Date:	1/27/2020
Date:	1/21/2020	Expiration Date:	1/27/2022
Phone: 575-748-9925		Conditions of Approval Attached	

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

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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) 476-3460 Fax: (505) 476-3462

State of New Mexico  
**Energy, Minerals & Natural Resources Department**  
**OIL CONSERVATION DIVISION**  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code 59900	Pool Name TRIPLE X;BONE SPRING
Property Code	Property Name SEA SNAKE 35 STATE	Well Number 15H
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	Elevation 3665.6'

**Surface Location**

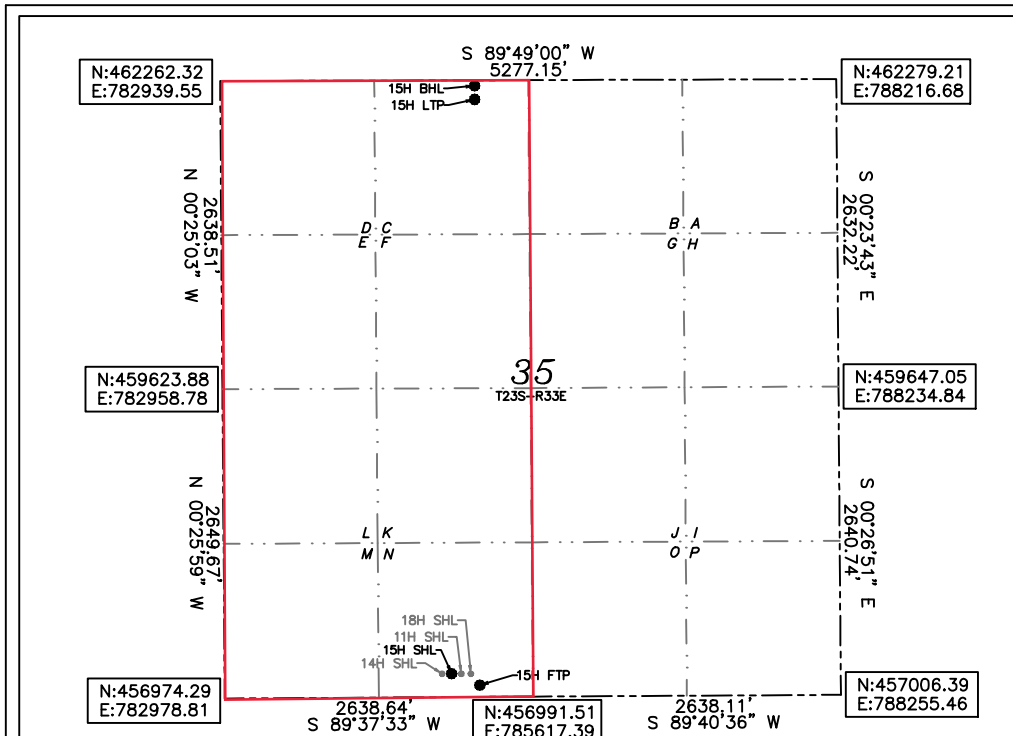
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	35	23-S	33-E		199	SOUTH	2067	WEST	LEA

**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
C	35	23-S	33-E		20	NORTH	2178	WEST	LEA

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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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



**SEA SNAKE 35 STATE 15H**  
EL: 3665.6'  
LAT: 32.254422  
LON: 103.544978  
N: 457186.77  
E: 785044.26

**FIRST TAKE POINT**  
100' FSL 2178' FWL SEC. 35  
LAT: 32.254150  
LON: 103.544619  
N: 457088.50  
E: 785156.00

**LAST TAKE POINT**  
100' FNL 2178' FWL SEC. 35  
LAT: 32.268116  
LON: 103.544620  
N: 462169.29  
E: 785118.29

**BOTTOM OF HOLE**  
LAT: 32.268335  
LON: 103.544620  
N: 462249.29  
E: 785117.70

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.

**OPERATOR CERTIFICATION**

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

*Rebecca Deal* 1/6/2020  
Signature Date

Rebecca Deal, Regulatory Analyst  
Printed Name

rebecca.deal@dvn.com  
E-mail Address

**SURVEYOR CERTIFICATION**

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

11/2019

Date of Survey

Signature & Seal of Professional Surveyor



12/07/19

Certificate No. 22404 B.L. LAMAN

DRAWN BY: CM

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

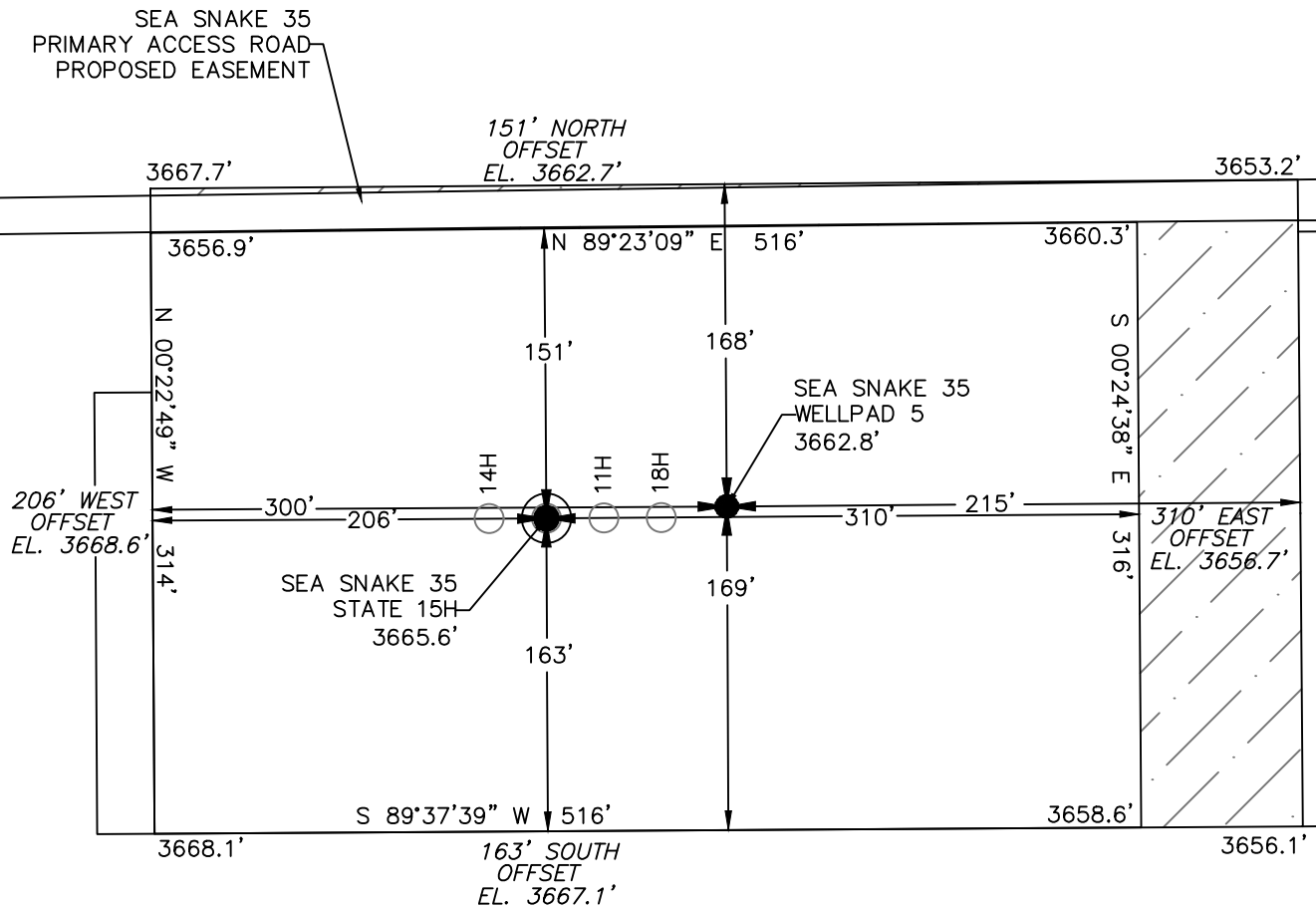
Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

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



PROPOSED PAD 3.732± ACRES  
ACCESS ROAD 0.275± ACRES  
TOTAL 4.007± ACRES

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.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO



## DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF NM-128 AND BRINSTOOL ROAD (CR. 2-A), HEAD NORTH ON BRINSTOOL ROAD (CR. 2-A) FOR 3.1 MILES. TURN RIGHT ON PROPOSED SEA SNAKE 35 PRIMARY ACCESS ROAD FOR 1.5 MILES TO THE NORTHWEST CORNER OF THE SEA SNAKE 35 WELLPAD 5.

**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:  
JEANNIE PERRY

Date: 12/05/2019

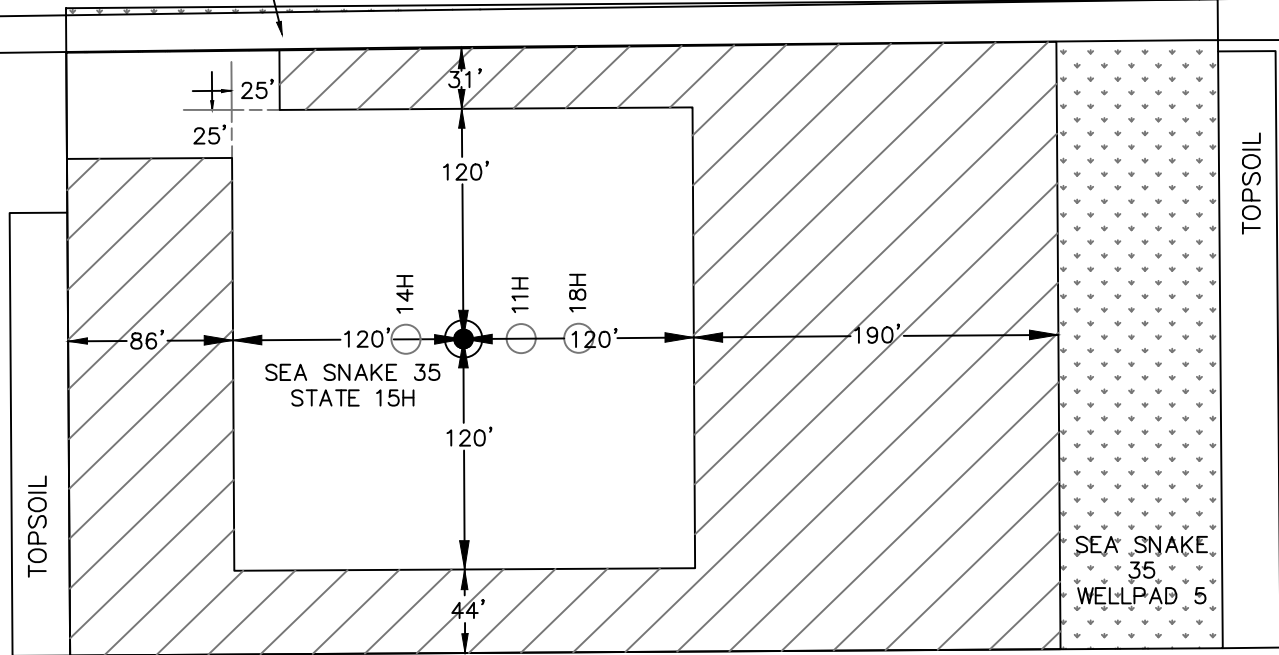
Drawn for:



SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
INTERIM SITE BUILD PLAN



SEA SNAKE 35  
PRIMARY ACCESS ROAD  
PROPOSED EASEMENT



-  DENOTES INTERIM PAD RECLAMATION AREA  
 DENOTES GRADING SITE RECLAMATION AREA

2.282± ACRES INTERIM PAD RECLAMATION AREA  
0.644± ACRES GRADING SITE RECLAMATION AREA  
1.725± ACRES NON-RECLAIMED AREA  
4.651± ACRES GRADING SITE RECLAMATION AREA



DEVON ENERGY PRODUCTION COMPANY, L.P.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:  
JEANNIE PERRY

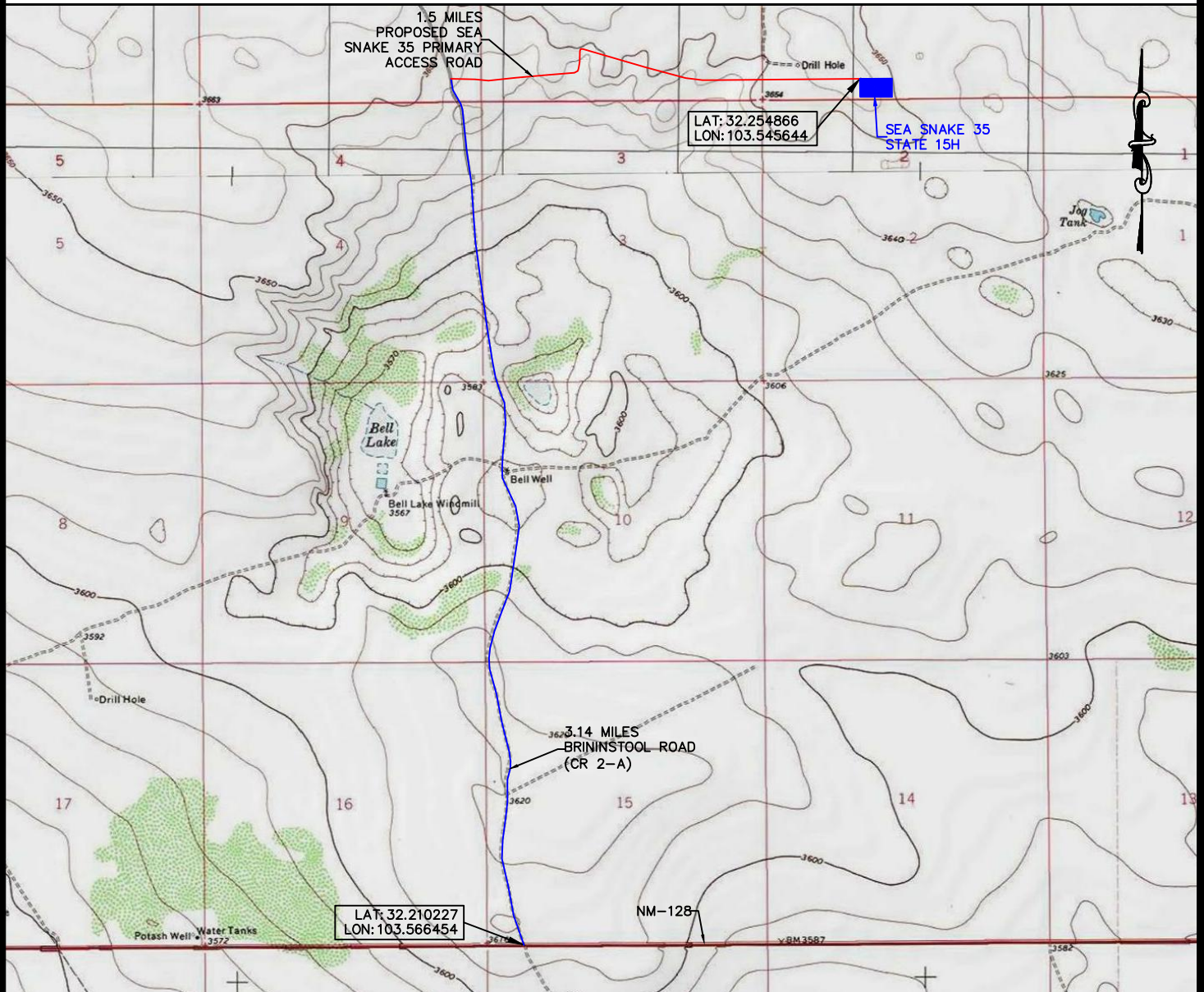
Date: 12/05/2019

Drawn for:





# SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO VICINITY MAP



DEVON ENERGY PRODUCTION COMPANY, L.P.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

NOT TO SCALE

## DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF NM-128 AND BRININSTOOL ROAD (CR. 2-A), HEAD NORTH ON BRININSTOOL ROAD (CR. 2-A) FOR 3.1 MILES. TURN RIGHT ON PROPOSED SEA SNAKE 35 PRIMARY ACCESS ROAD FOR 1.5 MILES TO THE NORTHWEST CORNER OF THE SEA SNAKE 35 WELLPAD 5.

**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

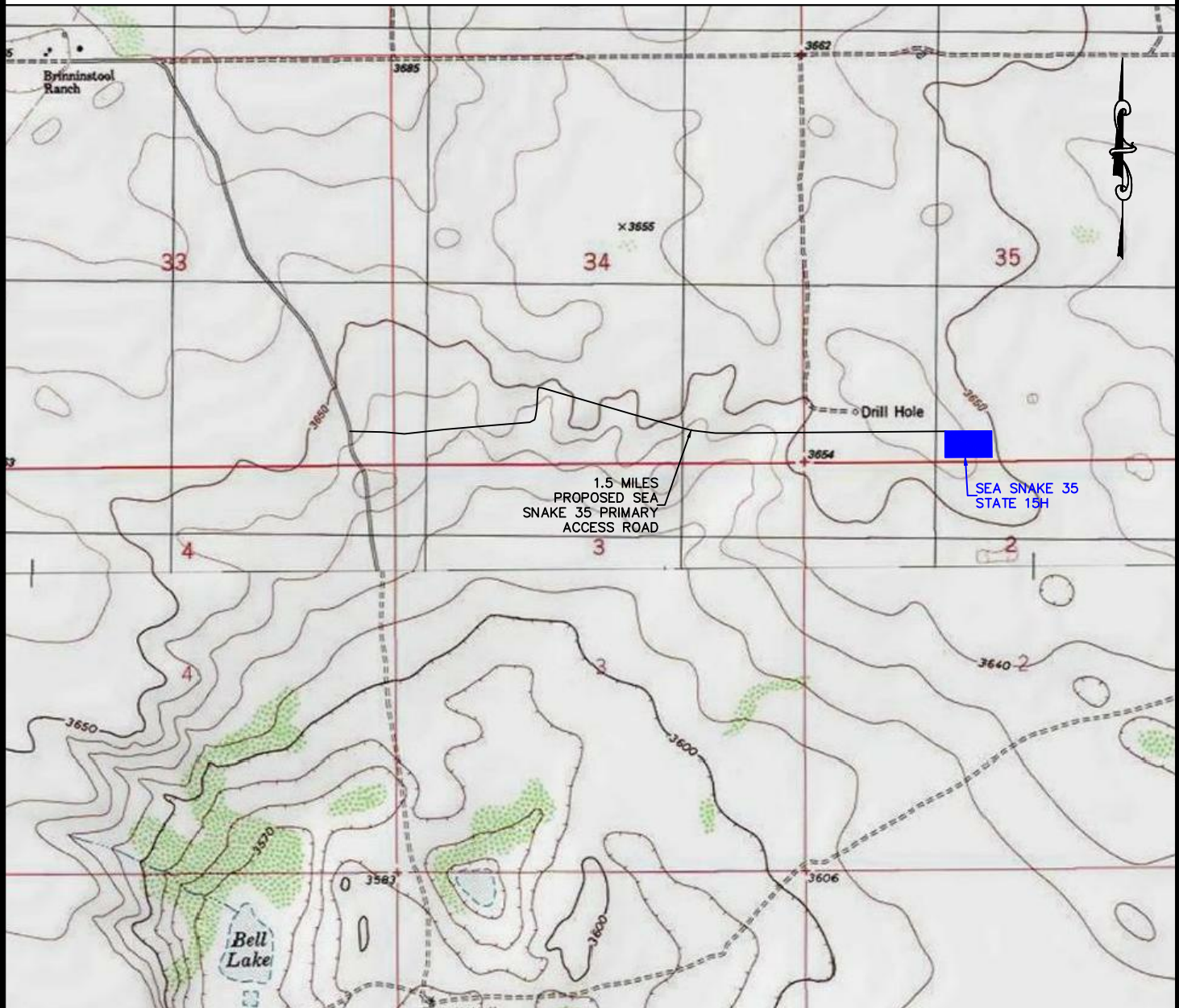
Drawn by:  
JEANNIE PERRY

Date: 12/05/2019

Drawn for:

**devon**

SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
LOCATION VERIFICATION MAP



DEVON ENERGY PRODUCTION COMPANY, L.P.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO



**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:  
JEANNIE PERRY

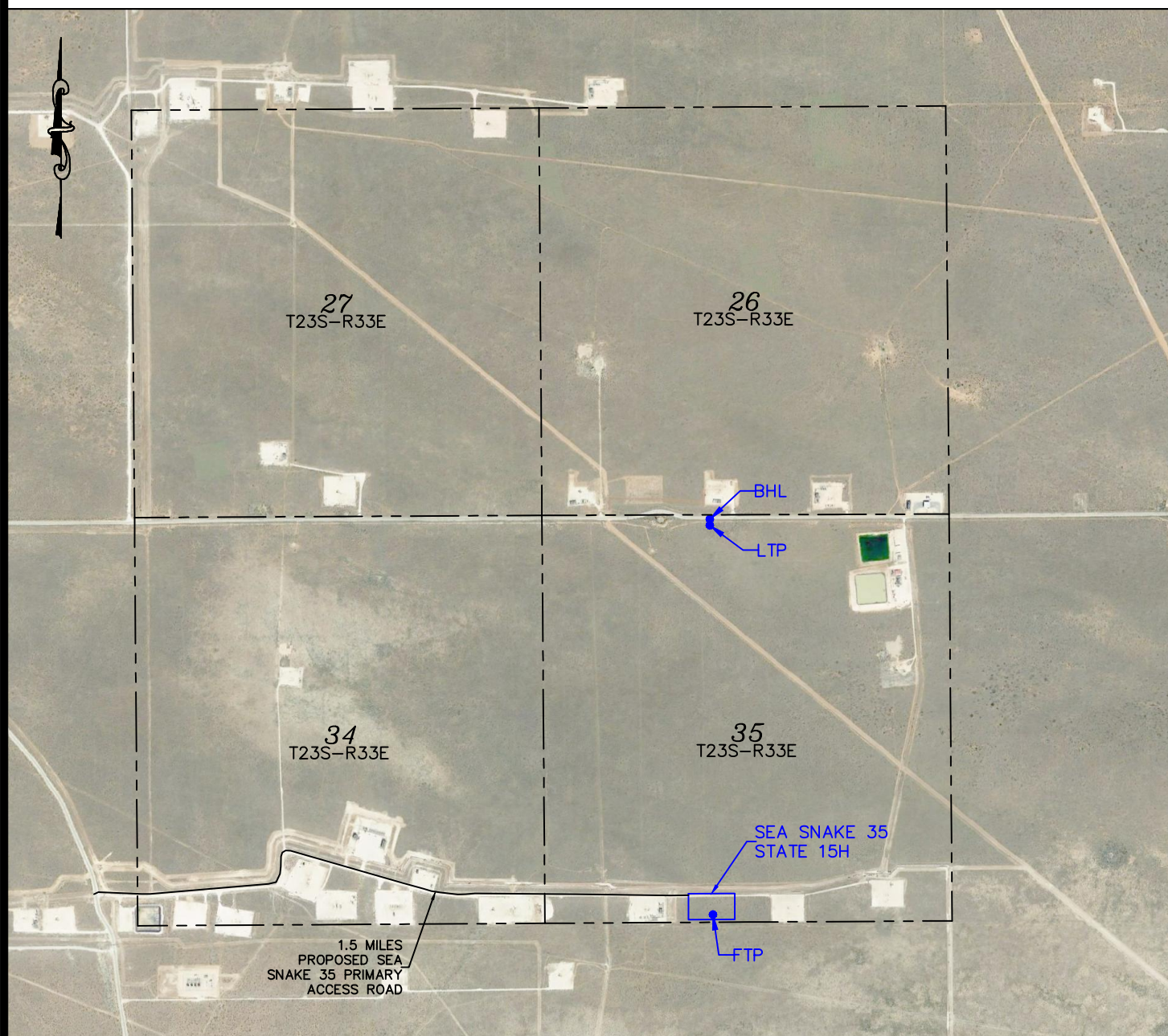
Date: 12/05/2019

Drawn for:

**devon**



SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
AERIAL PHOTO



DEVON ENERGY PRODUCTION COMPANY, L.P.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO



**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:  
JEANNIE PERRY

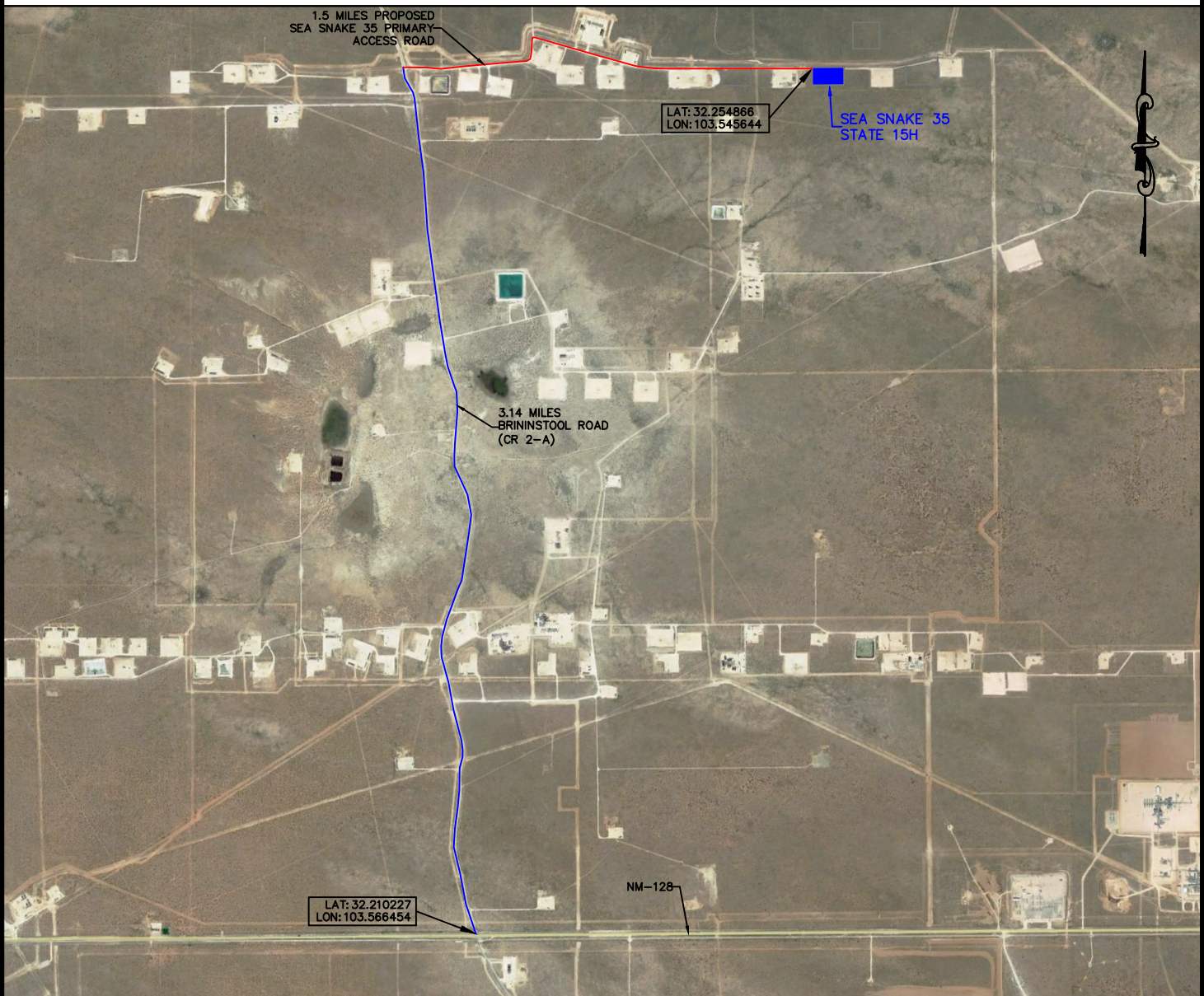
Date: 12/05/2019

Drawn for:

**devon**



SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
AERIAL ACCESS ROUTE MAP



DEVON ENERGY PRODUCTION COMPANY, L.P.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

NOT TO SCALE

**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

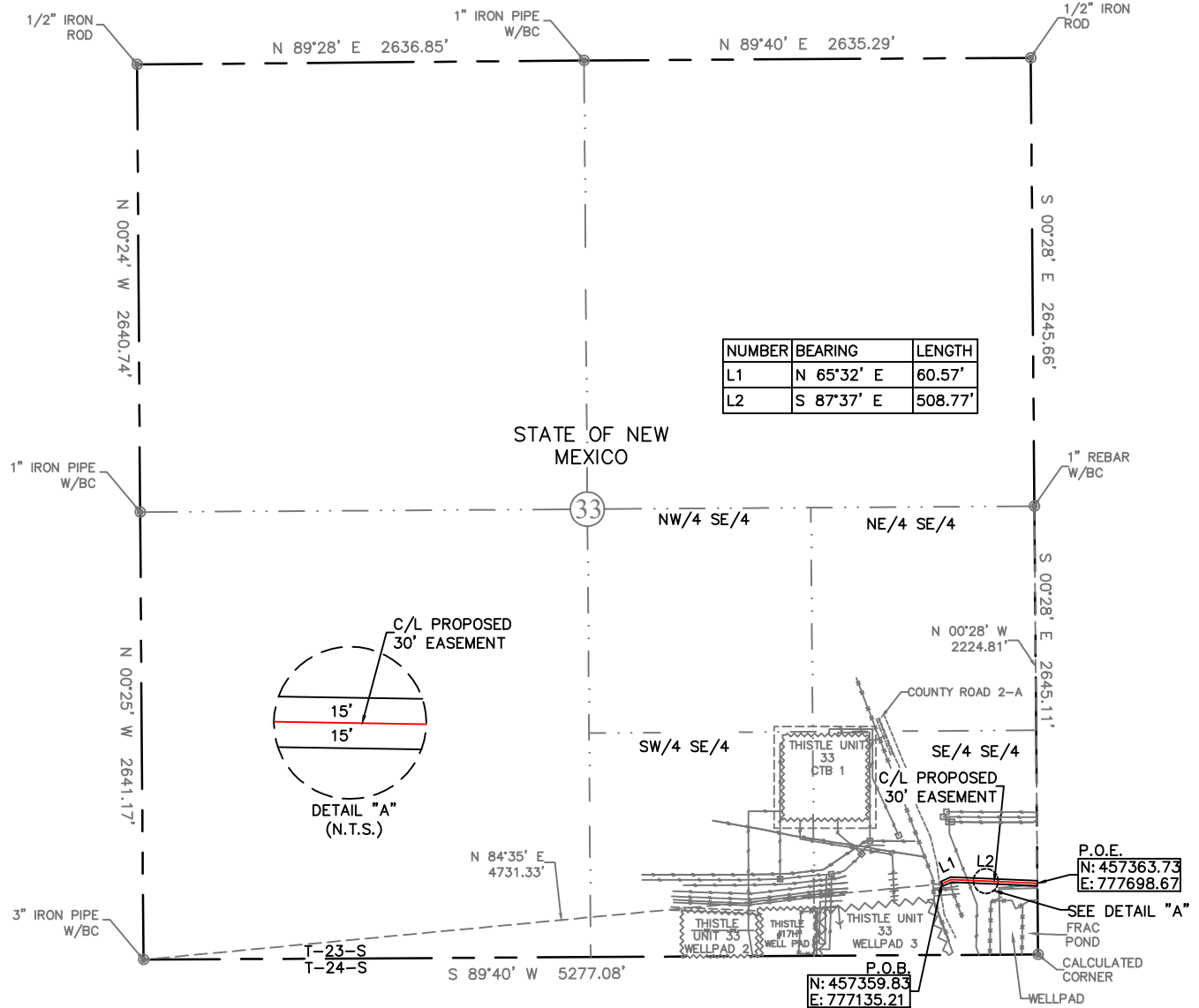
Drawn by:  
JEANNIE PERRY

Date: 12/05/2019

Drawn for:

**devon**

EXHIBIT "A"  
SECTION 33, T23S-R33E, N.M.P.M.  
LEA COUNTY, NEW MEXICO



QUARTER/ QUARTER	30' EASEMENT AREA	FEET	RODS
SE/4 OF SE/4	0.392 ACRES	569.34'	34.51

SEE THE ATTACHED LEGAL DESCRIPTION

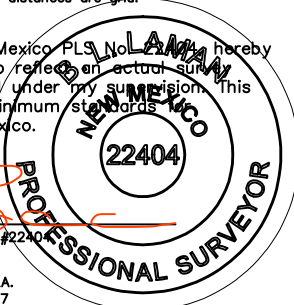
Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico Professional Surveyor, 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.

0 1000 2000



B.L. Laman  
Date Signed: 12-06-2019  
Horizonrow, LLC  
P.O. Box 548, Dry Creek, LA.  
(903) 388-3045 70637  
Employee of Horizonrow, LLC



HORIZON ROW LLC

Drawn for:

devon

Drawn by:  
DANIEL SHOOK

Date: 12/05/2019

DEVON ENERGY PRODUCTION COMPANY, L.P.

SEA SNAKE 35  
PRIMARY ACCESS ROAD

PROPOSED 30' EASEMENT  
ON THE PROPERTY OF

STATE OF NEW MEXICO  
SECTION 33, T23S-R33E, N.M.P.M.

LINE NUMBER:

WBS NUMBER:  
XX-130853.01.SLC

SCALE:  
1" = 1000'

REVISIONS:

DATE OF SURVEY:  
12/2019

**SECTION 33, T23S-R33E, N.M.P.M.,  
LEA COUNTY, NEW MEXICO**

**LEGAL DESCRIPTION  
FOR  
DEVON ENERGY PRODUCTION COMPANY, L.P.  
STATE OF NEW MEXICO**

**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 southeast quarter of the southeast quarter (SE ¼ SE ¼) of Section 33, Township 23 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the State of New Mexico. Said centerline of easement being more particularly described as follows:

Commencing from a 3" iron pipe w/BC found for the southwest corner of Section 33, T23S-R33E, N.M.P.M., Lea County, New Mexico;

Thence N 84°35' E, a distance of 4731.33' to the **Point of Beginning** of this easement having coordinates of Northing=457359.83 feet, Easting=777135.21 feet, and continuing the following courses;

Thence N 65°32' E, a distance of 60.57' to an angle point;

Thence S 87°37' E, a distance of 508.77' to the **Point of Ending** having coordinates of Northing=457363.73 feet, Easting=777698.67 feet, being in the east line of Section 33, from said point a 1" rebar w/ BC found for the east quarter corner of Section 33, T23S-R33E, N.M.P.M., Lea County, New Mexico bears N 00°28' W a distance of 2224.81', covering **569.34' or 34.51 rods** and having an area of **0.392 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: 12/06/2019

Horizon Row, LLC

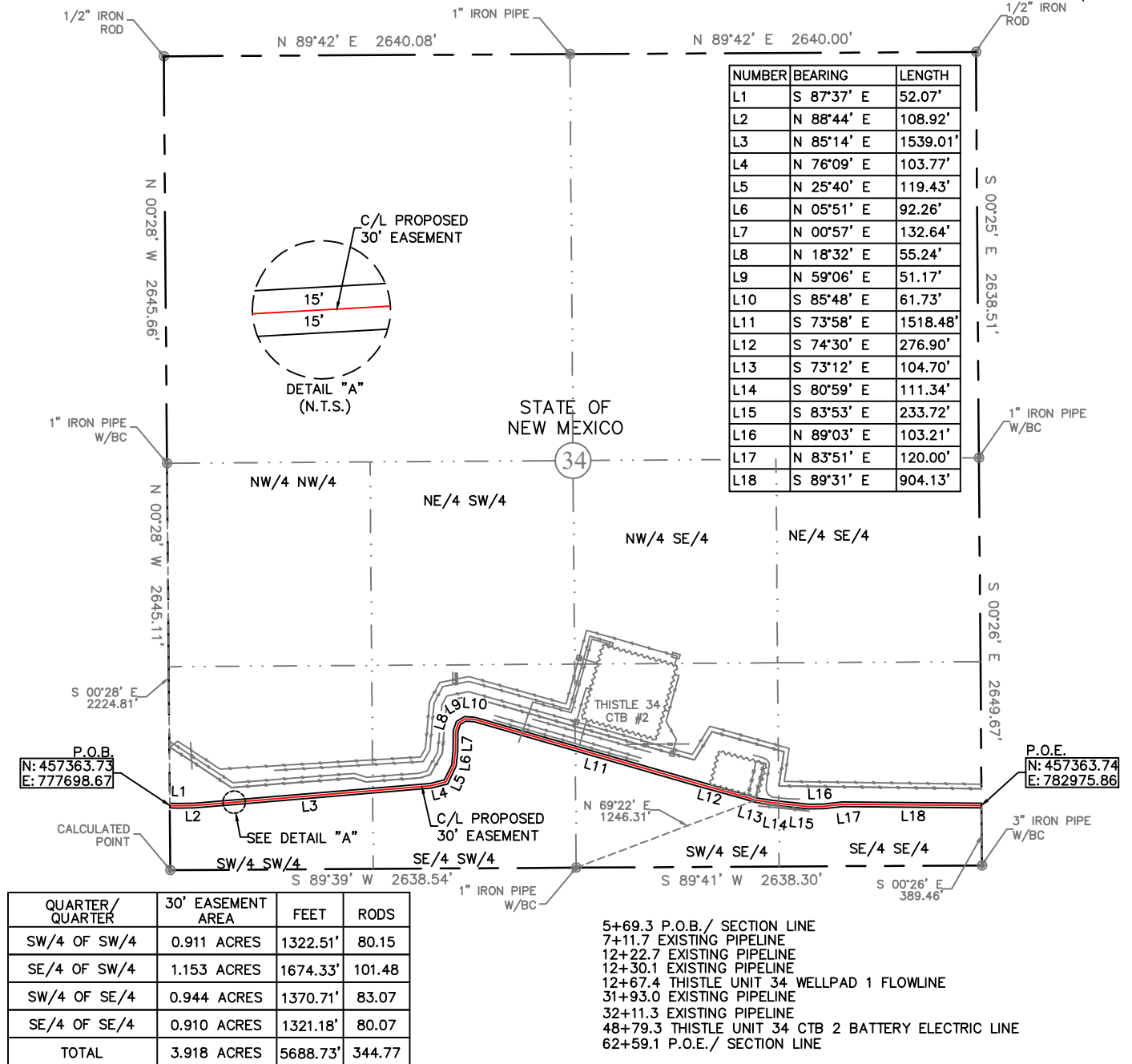
P.O. Box 548, Dry Creek, LA

(903) 388-3045 70637

Employee of Horizon Row, LLC



EXHIBIT "A"  
SECTION 34, T23S-R33E, N.M.P.M.  
LEA COUNTY, NEW MEXICO



SEE THE ATTACHED LEGAL DESCRIPTION

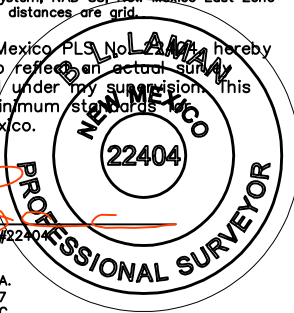
Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

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.

0 1000 2000



B.L. Laman  
Date Signed: 12-06-2019  
Horizonrow, LLC  
P.O. Box 548, Dry Creek, LA.  
(903) 388-3045 70637  
Employee of Horizonrow, LLC



HORIZON ROW LLC

Drawn for:

devon

Drawn by:  
DANIEL SHOOK

Date: 12/05/2019

DEVON ENERGY PRODUCTION COMPANY, L.P.

SEA SNAKE 35  
PRIMARY ACCESS ROAD

PROPOSED 30' EASEMENT  
ON THE PROPERTY OF  
STATE OF NEW MEXICO

SECTION 34, T23S-R33E, N.M.P.M.

LINE NUMBER:

WBS NUMBER:  
XX-130853.01.SLC

SCALE:  
1" = 1000'

REVISIONS:

DATE OF SURVEY:  
12/2019



**SECTION 34, T23S-R33E, N.M.P.M.,  
LEA COUNTY, NEW MEXICO**

**LEGAL DESCRIPTION  
FOR  
DEVON ENERGY PRODUCTION COMPANY, L.P.  
STATE OF NEW MEXICO**

**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 southwest quarter of the southwest quarter (SW ¼, SW¼) and the southeast quarter of the southwest quarter (SE ¼, SW ¼) and the southwest quarter of the southeast quarter (SW ¼, SE ¼) and the southeast quarter of the southeast quarter (SE ¼, SE ¼) of Section 34, Township 23 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land owned by the State of New Mexico. Said centerline of easement being more particularly described as follows:

Commencing from a 1" iron pipe w/BC found for the west quarter corner of Section 34, T23S-R33E, N.M.P.M., Lea County, New Mexico;

Thence S 00°28' E, a distance of 2224.81' to the **Point of Beginning** of this easement being in the west line of Section 34, having coordinates of Northing=457363.73 feet, Easting=777698.67 feet and continuing the following course;

Thence S 87°37' E, a distance of 52.07' to an angle point;

Thence N 88°44' E, a distance of 108.92' to an angle point;

Thence N 85°14' E, a distance of 1539.01' to an angle point;

Thence N 76°09' E, a distance of 103.77' to an angle point;

Thence N 25°40' E, a distance of 119.43' to an angle point;

Thence N 05°51' E, a distance of 92.26' to an angle point;

Thence N 00°57' E, a distance of 132.64' to an angle point;

Thence N 18°32' E, a distance of 55.24' to an angle point;

Thence N 59°06' E, a distance of 51.17' to an angle point;

Thence S 85°48' E, a distance of 61.73' to an angle point;

Thence S 73°58' E, a distance of 1518.48' to an angle point;

Thence S 74°30' E, a distance of 276.90' to an angle point;

Thence S 73°12' E, a distance of 104.70' to an angle point;

Thence S 80°59' E, a distance of 111.34' to an angle point;

Thence S 83°53' E, a distance of 233.72' to an angle point;

Thence N 89°03' E, a distance of 103.21' to an angle point;

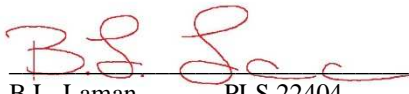
Thence N 83°51' E, a distance of 120.00' to an angle point;

Thence S 89°31' E, a distance of 904.13' to the **Point of Ending** of this easement being in the east line of Section 34, having coordinates of Northing=457363.74 feet, Easting=782975.86 feet, from said point a 3" iron pipe w/BC found for the southeast corner of Section 34, T23S-R33E, N.M.P.M., Lea County, New Mexico bears S 00°26' E a distance of 389.46', covering **5688.73' or 344.77 rods** and having an area of **3.918 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: 12/06/2019

Horizon Row, LLC

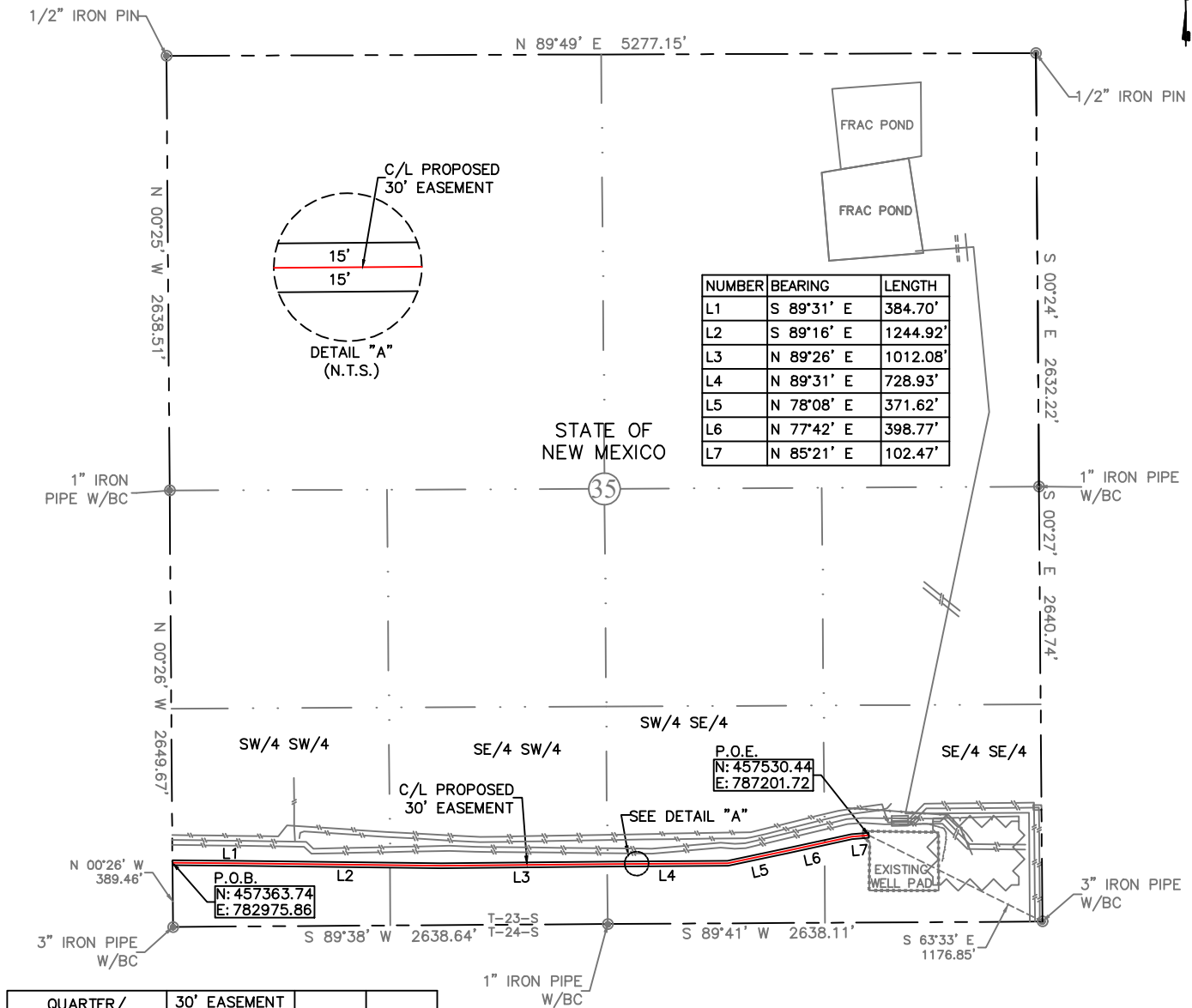
P.O. Box 548, Dry Creek, LA

(903) 388-3045                      70637

Employee of Horizon Row, LLC



EXHIBIT "A"  
SECTION 35, T23S-R33E, N.M.P.M.  
LEA COUNTY, NEW MEXICO



QUARTER/ QUARTER	30' EASEMENT AREA	FEET	RODS
SW/4 OF SW/4	0.909 ACRES	1319.58'	79.97
SE/4 OF SW/4	0.909 ACRES	1319.41'	79.96
SW/4 OF SE/4	0.917 ACRES	1331.34'	80.69
SE/4 OF SE/4	0.188 ACRES	273.16'	16.56
TOTAL	2.923 ACRES	4243.49'	257.18

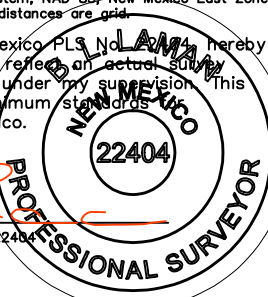
62+59.1 P.O.B./ SECTION LINE  
 64+14.7 ENTER SEA SNAKE 35 WELLPAD 4  
 69+64.7 EXIT SEA SNAKE 35 WELLPAD 4  
 81+20.6 ENTER SEA SNAKE 35 WELLPAD 5  
 87+20.5 EXIT SEA SNAKE 35 WELLPAD 5  
 98+87.0 ENTER SEA SNAKE 35 WELLPAD 6  
 104+98.0 EXIT SEA SNAKE 35 WELLPAD 6  
 105+02.6 P.O.E./ EXISTING WELLPAD

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 Professional Surveyor 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: 12-06-2019  
 Horizonrow, LLC  
 P.O. Box 548, Dry Creek, LA.  
 (903) 388-3045 70637  
 Employee of Horizonrow, LLC



HORIZON ROW LLC

Drawn for:

devon

Drawn by:  
DANIEL SHOOK

Date: 12/05/2019

DEVON ENERGY PRODUCTION COMPANY, L.P.

SEA SNAKE 35  
PRIMARY ACCESS ROAD

PROPOSED 30' EASEMENT  
ON THE PROPERTY OF  
STATE OF NEW MEXICO

SECTION 35, T23S-R33E, N.M.P.M.

LINE NUMBER:

WBS NUMBER:  
XX-130853.01.SLC

SCALE:  
1" = 1000'

REVISIONS:

DATE SURVEY:  
12/2019

0 1000 2000



**SECTION 35, T23S-R33E, N.M.P.M.,  
LEA COUNTY, NEW MEXICO**

**LEGAL DESCRIPTION  
FOR  
DEVON ENERGY PRODUCTION COMPANY, L.P.  
STATE OF NEW MEXICO**

**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 the southwest quarter of the southwest quarter (SW $\frac{1}{4}$ , SW $\frac{1}{4}$ ) and the southeast quarter of the southwest quarter (SE $\frac{1}{4}$ , SW $\frac{1}{4}$ ) and the southwest quarter of the southeast quarter (SW $\frac{1}{4}$ , SE $\frac{1}{4}$ ) and the southeast quarter of the southeast quarter (SE $\frac{1}{4}$ , SE $\frac{1}{4}$ ) of Section 35, Township 23 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and being out of a parcel of land conveyed to the State of New Mexico. Said centerline of easement being more particularly described as follows:

Commencing from a 3" iron pipe w/BC for the southwest corner of Section 35, T23S-R33E, N.M.P.M., Lea County, New Mexico;

Thence N 00°26' W a distance of 389.46' to the **Point of Beginning** of this easement, being in the west line of Section 35, having coordinates of Northing=457363.74, Easting=782975.86 feet and continuing the following courses;

Thence S 89°31' E, a distance of 384.70' to an angle point;  
Thence S 89°16' E, a distance of 1244.92' to an angle point;  
Thence N 89°26' E, a distance of 1012.08' to an angle point;  
Thence N 89°31' E, a distance of 728.93' to an angle point;  
Thence N 78°08' E, a distance of 371.62' to an angle point;  
Thence N 77°42' E, a distance of 398.77' to an angle point;

Thence N 85°21' E, a distance of 102.47' to the **Point of Ending**, having coordinates of Northing=457530.44, Easting=787201.72 feet from said point a 3" iron pipe w/BC for the southeast corner of Section 35, T23S-R33E bears S 63°33' E a distance of 1176.85', covering **4243.49' or 257.18 rods** and having an area of **2.923 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.

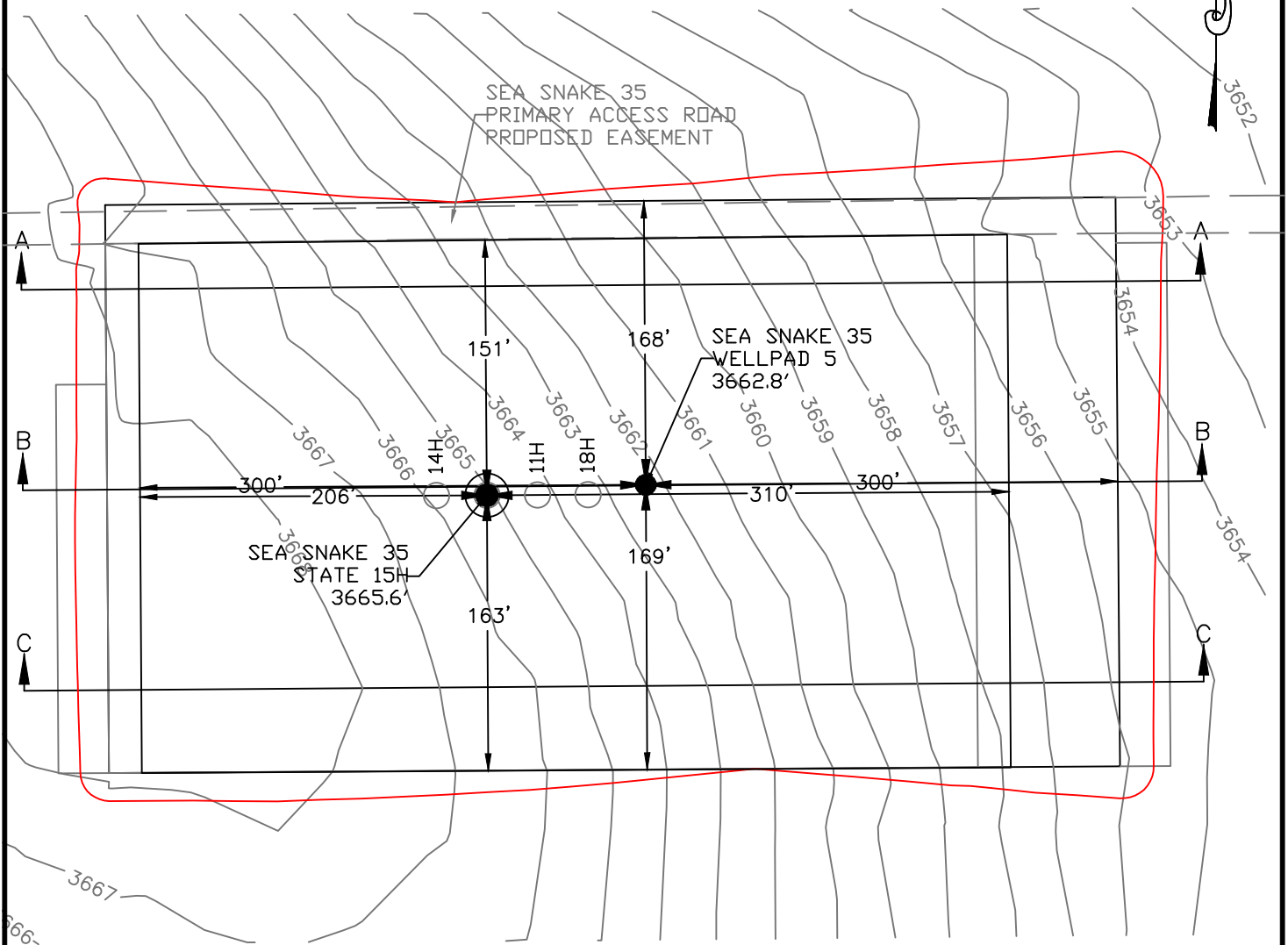
I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

  
B.L. Laman PLS 22404  
Date Signed: 12/06/2019  
Horizon Row, LLC  
P.O. Box 548, Dry Creek, LA  
(903) 388-3045 70637  
Employee of Horizon Row, LLC





SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
PLAN VIEW



DEVON ENERGY PRODUCTION COMPANY, L.P.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO



EARTHWORK QUANTITIES FOR  
SEA SNAKE 35 WELLPAD 5

CUT	FILL	NET
16,022 CY	16,024 CY	2 CY

EARTHWORK QUANTITIES ARE ESTIMATED

**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:  
JEANNIE PERRY

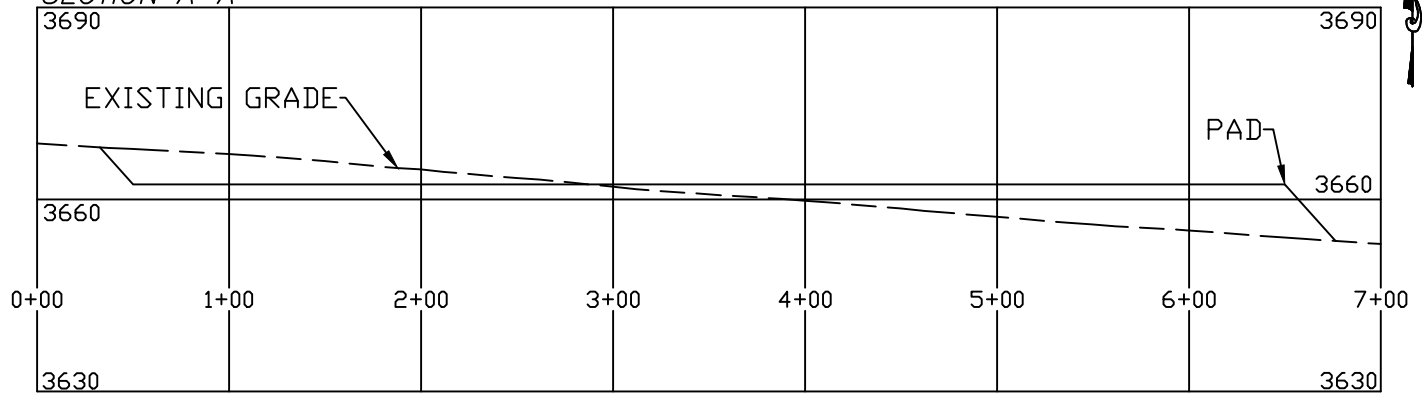
Date: 12/05/2019

Drawn for:

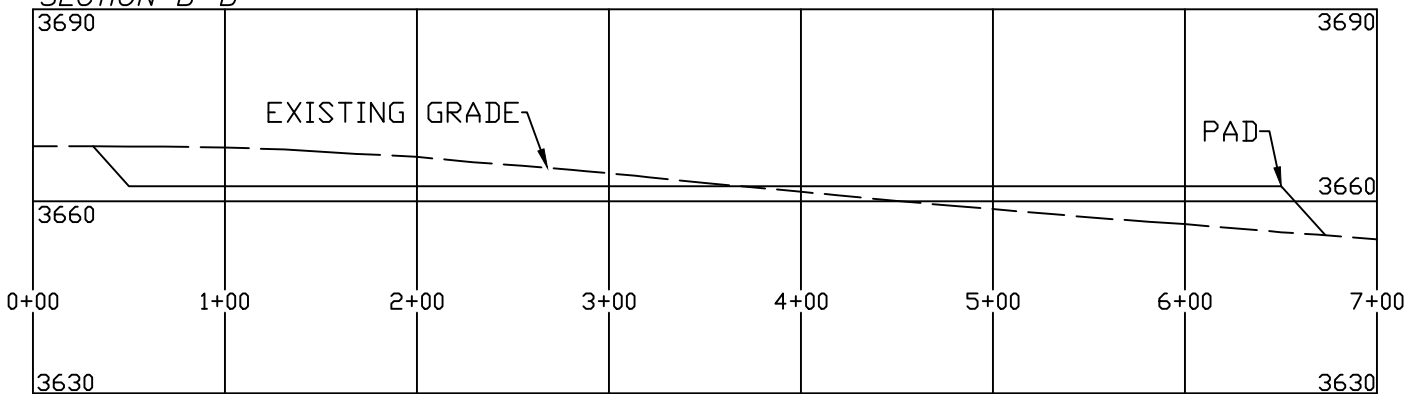


# SECTION 35, TOWNSHIP 23 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO CROSS SECTIONS

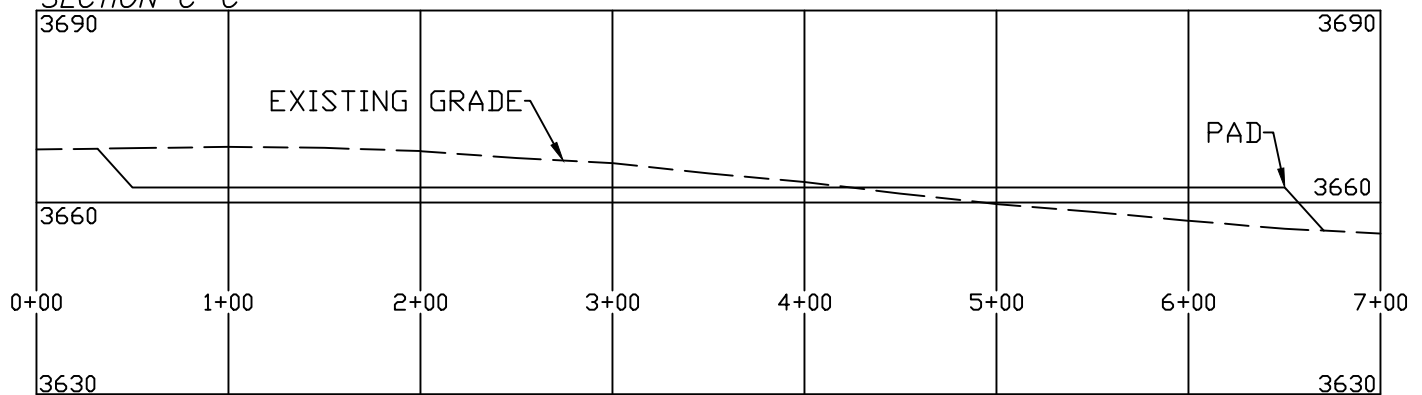
## SECTION A-A



## SECTION B-B



## SECTION C-C



DEVON ENERGY PRODUCTION COMPANY, L.P.  
SEA SNAKE 35 STATE 15H  
LOCATED 199 FT. FROM THE SOUTH LINE  
AND 2067 FT. FROM THE WEST LINE OF  
SECTION 35, TOWNSHIP 23 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

SCALE 1" = 100' HORIZONTAL  
SCALE 1" = 30' VERTICAL

EARTHWORK QUANTITIES FOR  
SEA SNAKE 35 WELLPAD 5

CUT	FILL	NET
16,022 CY	16,024 CY	2 CY

EARTHWORK QUANTITIES ARE ESTIMATED

**HORIZON ROW LLC**

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by:  
JEANNIE PERRY

Date: 12/05/2019

Drawn for:



**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**

## GAS CAPTURE PLAN

Date: 1/27/2020

☒ Original

Operator & OGRID No.: [6137] DEVON ENERGY PRODUCTION COMPANY, LP

☐ Amended - Reason for  
Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

### Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SEA SNAKE 35 STATE #015H	30-025-46790	N-35-23S-33E	0199S 2067W	2200	None	

### Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to LUCID ENERGY DELAWARE, LLC and will be connected to LUCID ENERGY DELAWARE, LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 535' of pipeline to connect the facility to Low Pressure gathering system. DEVON ENERGY PRODUCTION COMPANY, LP provides (periodically) to LUCID ENERGY DELAWARE, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, DEVON ENERGY PRODUCTION COMPANY, LP and LUCID ENERGY DELAWARE, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LUCID ENERGY DELAWARE, LLC Processing Plant located in Sec. 13, Twn. 24S, Rng. 34E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on LUCID ENERGY DELAWARE, LLC system at that time. Based on current information, it is DEVON ENERGY PRODUCTION COMPANY, LP's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

### Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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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**

Form APD Comments

Permit 277344

PERMIT COMMENTS

Operator Name and Address: DEVON ENERGY PRODUCTION COMPANY, LP [6137] 333 West Sheridan Ave. Oklahoma City, OK 73102		API Number: 30-025-46790
		Well: SEA SNAKE 35 STATE #015H

Created By	Comment	Comment Date
drebecca	Drilling Plan, Directional Survey, AC Plan, C-102 & GCP will be sent overnight via FedEx	1/16/2020



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

Form APD Conditions

Permit 277344

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: DEVON ENERGY PRODUCTION COMPANY, LP [6137] 333 West Sheridan Ave. Oklahoma City, OK 73102	API Number: 30-025-46790
	Well: SEA SNAKE 35 STATE #015H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 5753703186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

# **WCDSC Permian NM**

**Lea County (NAD83 New Mexico East)**

**Sec 35-23S-33E**

**Sea Snake 35 State 15H**

**Wellbore #1**

**Plan: Permit Plan 1**

## **Standard Planning Report - Geographic**

**08 January, 2020**

## Planning Report - Geographic

<b>Database:</b>	EDM r5000.141_Prod US	<b>Local Co-ordinate Reference:</b>	Well Sea Snake 35 State 15H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	RKB @ 3690.60ft
<b>Project:</b>	Lea County (NAD83 New Mexico East)	<b>MD Reference:</b>	RKB @ 3690.60ft
<b>Site:</b>	Sec 35-23S-33E	<b>North Reference:</b>	Grid
<b>Well:</b>	Sea Snake 35 State 15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permit Plan 1		

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

Site	Sec 35-23S-33E				
Site Position:		Northing:	457,182.35 usft	Latitude:	32.254425
From:	Lat/Long	Easting:	784,272.69 usft	Longitude:	-103.547474
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.42 °

Well	Sea Snake 35 State 15H					
Well Position	+N/-S	0.00 ft	Northing:	457,186.77 usft	Latitude:	32.254422
	+E/-W	0.00 ft	Easting:	785,044.26 usft	Longitude:	-103.544979
Position Uncertainty		0.50 ft	Wellhead Elevation:		Ground Level:	3,665.60 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	1/6/2020	6.67	60.06	47,694.23013789

<b>Design</b>	Permit Plan 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	0.83

<b>Plan Survey Tool Program</b>	<b>Date</b>	1/8/2020		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	14,699.07 Permit Plan 1 (Wellbore #1)	MWD+HDGM	
			OWSG MWD + HDGM	

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,707.25	2.07	143.32	3,707.21	-3.01	2.24	1.00	1.00	0.00	143.32	
8,672.15	2.07	143.32	8,668.86	-147.00	109.51	0.00	0.00	0.00	0.00	
8,810.32	0.00	0.00	8,807.00	-149.00	111.00	1.50	-1.50	0.00	180.00	
9,160.36	0.00	0.00	9,157.04	-149.00	111.00	0.00	0.00	0.00	0.00	
10,060.37	90.00	359.59	9,730.00	423.94	106.87	10.00	10.00	0.00	359.59	PBHL - Sea Snake 35
14,699.07	90.00	359.59	9,730.00	5,062.53	73.44	0.00	0.00	0.00	0.00	PBHL - Sea Snake 35

## Planning Report - Geographic

<b>Database:</b>	EDM r5000.141_Prod US	<b>Local Co-ordinate Reference:</b>	Well Sea Snake 35 State 15H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	RKB @ 3690.60ft
<b>Project:</b>	Lea County (NAD83 New Mexico East)	<b>MD Reference:</b>	RKB @ 3690.60ft
<b>Site:</b>	Sec 35-23S-33E	<b>North Reference:</b>	Grid
<b>Well:</b>	Sea Snake 35 State 15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permit Plan 1		

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	457,186.77	785,044.26	32.254422	-103.544979
100.00	0.00	0.00	100.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
200.00	0.00	0.00	200.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
300.00	0.00	0.00	300.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
400.00	0.00	0.00	400.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
500.00	0.00	0.00	500.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
600.00	0.00	0.00	600.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
700.00	0.00	0.00	700.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
800.00	0.00	0.00	800.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
900.00	0.00	0.00	900.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,000.00	0.00	0.00	1,000.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,100.00	0.00	0.00	1,100.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,200.00	0.00	0.00	1,200.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,300.00	0.00	0.00	1,300.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,400.00	0.00	0.00	1,400.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,500.00	0.00	0.00	1,500.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,600.00	0.00	0.00	1,600.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,700.00	0.00	0.00	1,700.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,800.00	0.00	0.00	1,800.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
1,900.00	0.00	0.00	1,900.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,000.00	0.00	0.00	2,000.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,100.00	0.00	0.00	2,100.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,200.00	0.00	0.00	2,200.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,300.00	0.00	0.00	2,300.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,400.00	0.00	0.00	2,400.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,500.00	0.00	0.00	2,500.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,600.00	0.00	0.00	2,600.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,700.00	0.00	0.00	2,700.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,800.00	0.00	0.00	2,800.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
2,900.00	0.00	0.00	2,900.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
3,000.00	0.00	0.00	3,000.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
3,100.00	0.00	0.00	3,100.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
3,200.00	0.00	0.00	3,200.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
3,300.00	0.00	0.00	3,300.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
3,400.00	0.00	0.00	3,400.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
3,500.00	0.00	0.00	3,500.00	0.00	0.00	457,186.77	785,044.26	32.254422	-103.544979
3,600.00	1.00	143.32	3,600.00	-0.70	0.52	457,186.07	785,044.78	32.254420	-103.544977
3,700.00	2.00	143.32	3,699.96	-2.80	2.09	457,183.97	785,046.34	32.254414	-103.544972
3,707.25	2.07	143.32	3,707.21	-3.01	2.24	457,183.76	785,046.50	32.254414	-103.544971
3,800.00	2.07	143.32	3,799.89	-5.70	4.24	457,181.07	785,048.50	32.254406	-103.544965
3,900.00	2.07	143.32	3,899.83	-8.60	6.40	457,178.17	785,050.66	32.254398	-103.544958
4,000.00	2.07	143.32	3,999.76	-11.50	8.56	457,175.27	785,052.82	32.254390	-103.544951
4,100.00	2.07	143.32	4,099.70	-14.40	10.72	457,172.37	785,054.98	32.254382	-103.544944
4,200.00	2.07	143.32	4,199.63	-17.30	12.89	457,169.47	785,057.14	32.254374	-103.544937
4,300.00	2.07	143.32	4,299.57	-20.20	15.05	457,166.57	785,059.30	32.254366	-103.544930
4,400.00	2.07	143.32	4,399.50	-23.10	17.21	457,163.67	785,061.46	32.254358	-103.544923
4,500.00	2.07	143.32	4,499.44	-26.00	19.37	457,160.77	785,063.62	32.254350	-103.544917
4,600.00	2.07	143.32	4,599.37	-28.90	21.53	457,157.87	785,065.78	32.254342	-103.544910
4,700.00	2.07	143.32	4,699.31	-31.80	23.69	457,154.97	785,067.95	32.254334	-103.544903
4,800.00	2.07	143.32	4,799.24	-34.70	25.85	457,152.07	785,070.11	32.254326	-103.544896
4,900.00	2.07	143.32	4,899.17	-37.60	28.01	457,149.17	785,072.27	32.254318	-103.544889
5,000.00	2.07	143.32	4,999.11	-40.50	30.17	457,146.27	785,074.43	32.254310	-103.544882
5,100.00	2.07	143.32	5,099.04	-43.40	32.33	457,143.37	785,076.59	32.254302	-103.544875
5,200.00	2.07	143.32	5,198.98	-46.30	34.49	457,140.47	785,078.75	32.254294	-103.544868
5,300.00	2.07	143.32	5,298.91	-49.20	36.65	457,137.57	785,080.91	32.254286	-103.544861



## Planning Report - Geographic

<b>Database:</b>	EDM r5000.141_Prod US	<b>Local Co-ordinate Reference:</b>	Well Sea Snake 35 State 15H
<b>Company:</b>	WCDCS Permian NM	<b>TVD Reference:</b>	RKB @ 3690.60ft
<b>Project:</b>	Lea County (NAD83 New Mexico East)	<b>MD Reference:</b>	RKB @ 3690.60ft
<b>Site:</b>	Sec 35-23S-33E	<b>North Reference:</b>	Grid
<b>Well:</b>	Sea Snake 35 State 15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permit Plan 1		

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	2.07	143.32	5,398.85	-52.10	38.81	457,134.67	785,083.07	32.254278	-103.544854
5,500.00	2.07	143.32	5,498.78	-55.00	40.97	457,131.77	785,085.23	32.254270	-103.544847
5,600.00	2.07	143.32	5,598.72	-57.90	43.13	457,128.87	785,087.39	32.254262	-103.544840
5,700.00	2.07	143.32	5,698.65	-60.80	45.29	457,125.97	785,089.55	32.254254	-103.544833
5,800.00	2.07	143.32	5,798.59	-63.70	47.45	457,123.07	785,091.71	32.254246	-103.544827
5,900.00	2.07	143.32	5,898.52	-66.60	49.61	457,120.17	785,093.87	32.254238	-103.544820
6,000.00	2.07	143.32	5,998.46	-69.50	51.77	457,117.27	785,096.03	32.254230	-103.544813
6,100.00	2.07	143.32	6,098.39	-72.40	53.94	457,114.37	785,098.19	32.254222	-103.544806
6,200.00	2.07	143.32	6,198.32	-75.30	56.10	457,111.47	785,100.35	32.254214	-103.544799
6,300.00	2.07	143.32	6,298.26	-78.20	58.26	457,108.57	785,102.51	32.254206	-103.544792
6,400.00	2.07	143.32	6,398.19	-81.10	60.42	457,105.67	785,104.67	32.254198	-103.544785
6,500.00	2.07	143.32	6,498.13	-84.00	62.58	457,102.77	785,106.83	32.254190	-103.544778
6,600.00	2.07	143.32	6,598.06	-86.90	64.74	457,099.87	785,109.00	32.254182	-103.544771
6,700.00	2.07	143.32	6,698.00	-89.80	66.90	457,096.97	785,111.16	32.254174	-103.544764
6,800.00	2.07	143.32	6,797.93	-92.70	69.06	457,094.07	785,113.32	32.254166	-103.544757
6,900.00	2.07	143.32	6,897.87	-95.60	71.22	457,091.17	785,115.48	32.254158	-103.544750
7,000.00	2.07	143.32	6,997.80	-98.50	73.38	457,088.27	785,117.64	32.254150	-103.544744
7,100.00	2.07	143.32	7,097.74	-101.40	75.54	457,085.37	785,119.80	32.254142	-103.544737
7,200.00	2.07	143.32	7,197.67	-104.30	77.70	457,082.47	785,121.96	32.254134	-103.544730
7,300.00	2.07	143.32	7,297.60	-107.20	79.86	457,079.57	785,124.12	32.254126	-103.544723
7,400.00	2.07	143.32	7,397.54	-110.10	82.02	457,076.67	785,126.28	32.254118	-103.544716
7,500.00	2.07	143.32	7,497.47	-113.00	84.18	457,073.77	785,128.44	32.254110	-103.544709
7,600.00	2.07	143.32	7,597.41	-115.90	86.34	457,070.87	785,130.60	32.254102	-103.544702
7,700.00	2.07	143.32	7,697.34	-118.80	88.50	457,067.97	785,132.76	32.254094	-103.544695
7,800.00	2.07	143.32	7,797.28	-121.70	90.66	457,065.07	785,134.92	32.254086	-103.544688
7,900.00	2.07	143.32	7,897.21	-124.60	92.82	457,062.17	785,137.08	32.254078	-103.544681
8,000.00	2.07	143.32	7,997.15	-127.50	94.99	457,059.27	785,139.24	32.254070	-103.544674
8,100.00	2.07	143.32	8,097.08	-130.40	97.15	457,056.37	785,141.40	32.254062	-103.544667
8,200.00	2.07	143.32	8,197.02	-133.30	99.31	457,053.47	785,143.56	32.254054	-103.544661
8,300.00	2.07	143.32	8,296.95	-136.20	101.47	457,050.57	785,145.72	32.254046	-103.544654
8,400.00	2.07	143.32	8,396.89	-139.10	103.63	457,047.67	785,147.88	32.254038	-103.544647
8,500.00	2.07	143.32	8,496.82	-142.00	105.79	457,044.77	785,150.05	32.254030	-103.544640
8,600.00	2.07	143.32	8,596.75	-144.90	107.95	457,041.87	785,152.21	32.254022	-103.544633
8,672.15	2.07	143.32	8,668.86	-147.00	109.51	457,039.77	785,153.76	32.254016	-103.544628
8,700.00	1.65	143.32	8,696.69	-147.72	110.05	457,039.05	785,154.31	32.254014	-103.544626
8,800.00	0.15	143.32	8,796.68	-148.99	110.99	457,037.78	785,155.25	32.254010	-103.544623
8,810.32	0.00	0.00	8,807.00	-149.00	111.00	457,037.77	785,155.26	32.254010	-103.544623
8,900.00	0.00	0.00	8,896.68	-149.00	111.00	457,037.77	785,155.26	32.254010	-103.544623
9,000.00	0.00	0.00	8,996.68	-149.00	111.00	457,037.77	785,155.26	32.254010	-103.544623
9,100.00	0.00	0.00	9,096.68	-149.00	111.00	457,037.77	785,155.26	32.254010	-103.544623
9,160.35	0.00	0.00	9,157.03	-149.00	111.00	457,037.77	785,155.26	32.254010	-103.544623
<b>KOP @ 9160' MD, 50' FSL, 2178' FWL</b>									
9,160.36	0.00	0.00	9,157.04	-149.00	111.00	457,037.77	785,155.26	32.254010	-103.544623
9,200.00	3.96	359.59	9,196.65	-147.63	110.99	457,039.14	785,155.25	32.254014	-103.544623
9,300.00	13.96	359.59	9,295.30	-132.07	110.88	457,054.70	785,155.14	32.254057	-103.544623
9,400.00	23.96	359.59	9,389.75	-99.61	110.64	457,087.16	785,154.90	32.254146	-103.544623
9,402.00	24.16	359.59	9,391.58	-98.80	110.64	457,087.97	785,154.90	32.254148	-103.544623
<b>FTP @ 9402' MD, 100' FSL, 2178' FWL</b>									
9,500.00	33.96	359.59	9,477.13	-51.25	110.30	457,135.52	785,154.55	32.254279	-103.544623
9,600.00	43.96	359.59	9,554.79	11.55	109.84	457,198.32	785,154.10	32.254452	-103.544623
9,700.00	53.96	359.59	9,620.36	86.88	109.30	457,273.65	785,153.56	32.254659	-103.544623
9,800.00	63.96	359.59	9,671.85	172.45	108.68	457,359.22	785,152.94	32.254894	-103.544623
9,900.00	73.96	359.59	9,707.70	265.67	108.01	457,452.44	785,152.27	32.255150	-103.544623
10,000.00	83.96	359.59	9,726.82	363.69	107.30	457,550.46	785,151.56	32.255419	-103.544623

## Planning Report - Geographic

<b>Database:</b>	EDM r5000.141_Prod US	<b>Local Co-ordinate Reference:</b>	Well Sea Snake 35 State 15H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	RKB @ 3690.60ft
<b>Project:</b>	Lea County (NAD83 New Mexico East)	<b>MD Reference:</b>	RKB @ 3690.60ft
<b>Site:</b>	Sec 35-23S-33E	<b>North Reference:</b>	Grid
<b>Well:</b>	Sea Snake 35 State 15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,060.37	90.00	359.59	9,730.00	423.94	106.87	457,610.71	785,151.13	32.255585	-103.544623
10,100.00	90.00	359.59	9,730.00	463.58	106.59	457,650.35	785,150.84	32.255694	-103.544623
10,200.00	90.00	359.59	9,730.00	563.58	105.86	457,750.34	785,150.12	32.255969	-103.544623
10,300.00	90.00	359.59	9,730.00	663.57	105.14	457,850.34	785,149.40	32.256244	-103.544623
10,400.00	90.00	359.59	9,730.00	763.57	104.42	457,950.34	785,148.68	32.256519	-103.544623
10,500.00	90.00	359.59	9,730.00	863.57	103.70	458,050.34	785,147.96	32.256794	-103.544623
10,600.00	90.00	359.59	9,730.00	963.57	102.98	458,150.33	785,147.24	32.257068	-103.544623
10,700.00	90.00	359.59	9,730.00	1,063.56	102.26	458,250.33	785,146.52	32.257343	-103.544623
10,800.00	90.00	359.59	9,730.00	1,163.56	101.54	458,350.33	785,145.80	32.257618	-103.544622
10,900.00	90.00	359.59	9,730.00	1,263.56	100.82	458,450.33	785,145.08	32.257893	-103.544622
11,000.00	90.00	359.59	9,730.00	1,363.55	100.10	458,550.32	785,144.36	32.258168	-103.544622
11,100.00	90.00	359.59	9,730.00	1,463.55	99.38	458,650.32	785,143.64	32.258443	-103.544622
11,200.00	90.00	359.59	9,730.00	1,563.55	98.66	458,750.32	785,142.91	32.258718	-103.544622
11,300.00	90.00	359.59	9,730.00	1,663.55	97.94	458,850.31	785,142.19	32.258992	-103.544622
11,400.00	90.00	359.59	9,730.00	1,763.54	97.22	458,950.31	785,141.47	32.259267	-103.544622
11,500.00	90.00	359.59	9,730.00	1,863.54	96.50	459,050.31	785,140.75	32.259542	-103.544622
11,600.00	90.00	359.59	9,730.00	1,963.54	95.77	459,150.31	785,140.03	32.259817	-103.544622
11,700.00	90.00	359.59	9,730.00	2,063.54	95.05	459,250.30	785,139.31	32.260092	-103.544622
11,800.00	90.00	359.59	9,730.00	2,163.53	94.33	459,350.30	785,138.59	32.260367	-103.544622
11,900.00	90.00	359.59	9,730.00	2,263.53	93.61	459,450.30	785,137.87	32.260642	-103.544622
12,000.00	90.00	359.59	9,730.00	2,363.53	92.89	459,550.29	785,137.15	32.260917	-103.544622
12,100.00	90.00	359.59	9,730.00	2,463.53	92.17	459,650.29	785,136.43	32.261191	-103.544622
12,200.00	90.00	359.59	9,730.00	2,563.52	91.45	459,750.29	785,135.71	32.261466	-103.544622
12,300.00	90.00	359.59	9,730.00	2,663.52	90.73	459,850.29	785,134.99	32.261741	-103.544622
12,400.00	90.00	359.59	9,730.00	2,763.52	90.01	459,950.28	785,134.27	32.262016	-103.544622
12,500.00	90.00	359.59	9,730.00	2,863.52	89.29	460,050.28	785,133.55	32.262291	-103.544622
12,600.00	90.00	359.59	9,730.00	2,963.51	88.57	460,150.28	785,132.83	32.262566	-103.544622
12,700.00	90.00	359.59	9,730.00	3,063.51	87.85	460,250.27	785,132.10	32.262841	-103.544622
12,800.00	90.00	359.59	9,730.00	3,163.51	87.13	460,350.27	785,131.38	32.263116	-103.544622
12,900.00	90.00	359.59	9,730.00	3,263.51	86.41	460,450.27	785,130.66	32.263390	-103.544622
13,000.00	90.00	359.59	9,730.00	3,363.50	85.69	460,550.27	785,129.94	32.263665	-103.544621
13,100.00	90.00	359.59	9,730.00	3,463.50	84.96	460,650.26	785,129.22	32.263940	-103.544621
13,200.00	90.00	359.59	9,730.00	3,563.50	84.24	460,750.26	785,128.50	32.264215	-103.544621
13,300.00	90.00	359.59	9,730.00	3,663.50	83.52	460,850.26	785,127.78	32.264490	-103.544621
13,400.00	90.00	359.59	9,730.00	3,763.49	82.80	460,950.26	785,127.06	32.264765	-103.544621
13,500.00	90.00	359.59	9,730.00	3,863.49	82.08	461,050.25	785,126.34	32.265040	-103.544621
13,600.00	90.00	359.59	9,730.00	3,963.49	81.36	461,150.25	785,125.62	32.265314	-103.544621
13,700.00	90.00	359.59	9,730.00	4,063.48	80.64	461,250.25	785,124.90	32.265589	-103.544621
13,800.00	90.00	359.59	9,730.00	4,163.48	79.92	461,350.24	785,124.18	32.265864	-103.544621
13,900.00	90.00	359.59	9,730.00	4,263.48	79.20	461,450.24	785,123.46	32.266139	-103.544621
14,000.00	90.00	359.59	9,730.00	4,363.48	78.48	461,550.24	785,122.74	32.266414	-103.544621
14,100.00	90.00	359.59	9,730.00	4,463.47	77.76	461,650.24	785,122.01	32.266689	-103.544621
14,200.00	90.00	359.59	9,730.00	4,563.47	77.04	461,750.23	785,121.29	32.266964	-103.544621
14,300.00	90.00	359.59	9,730.00	4,663.47	76.32	461,850.23	785,120.57	32.267239	-103.544621
14,400.00	90.00	359.59	9,730.00	4,763.47	75.60	461,950.23	785,119.85	32.267513	-103.544621
14,500.00	90.00	359.59	9,730.00	4,863.46	74.87	462,050.22	785,119.13	32.267788	-103.544621
14,600.00	90.00	359.59	9,730.00	4,963.46	74.15	462,150.22	785,118.41	32.268063	-103.544621
14,619.00	90.00	359.59	9,730.00	4,982.46	74.02	462,169.22	785,118.27	32.268115	-103.544621
<b>LTP @ 14619' MD, 100' FNL, 2178' FWL</b>									
14,699.06	90.00	359.59	9,730.00	5,062.52	73.44	462,249.28	785,117.70	32.268335	-103.544621
<b>PBHL; 20' FNL, 2178' FWL</b>									
14,699.07	90.00	359.59	9,730.00	5,062.53	73.44	462,249.29	785,117.70	32.268335	-103.544621

## Planning Report - Geographic

<b>Database:</b>	EDM r5000.141_Prod US	<b>Local Co-ordinate Reference:</b>	Well Sea Snake 35 State 15H
<b>Company:</b>	WCDSC Permian NM	<b>TVD Reference:</b>	RKB @ 3690.60ft
<b>Project:</b>	Lea County (NAD83 New Mexico East)	<b>MD Reference:</b>	RKB @ 3690.60ft
<b>Site:</b>	Sec 35-23S-33E	<b>North Reference:</b>	Grid
<b>Well:</b>	Sea Snake 35 State 15H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Permit Plan 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
PBHL - Sea Snake 35 S	0.00	0.00	0.00	5,062.53	73.44	462,249.29	785,117.70	32.268335	-103.544621
- plan misses target center by 5063.06ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment	
9,160.35	9,157.03	-149.00	111.00	KOP @ 9160' MD, 50' FSL, 2178' FWL	
9,402.00	9,391.58	-98.80	110.64	FTP @ 9402' MD, 100' FSL, 2178' FWL	
14,619.00	9,730.00	4,982.46	74.02	LTP @ 14619' MD, 100' FNL, 2178' FWL	
14,699.06	9,730.00	5,062.52	73.44	PBHL; 20' FNL, 2178' FWL	



**Devon Energy Center  
333 West Sheridan Avenue  
Oklahoma City, Oklahoma 73102-5015**

# **Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan**

**For**

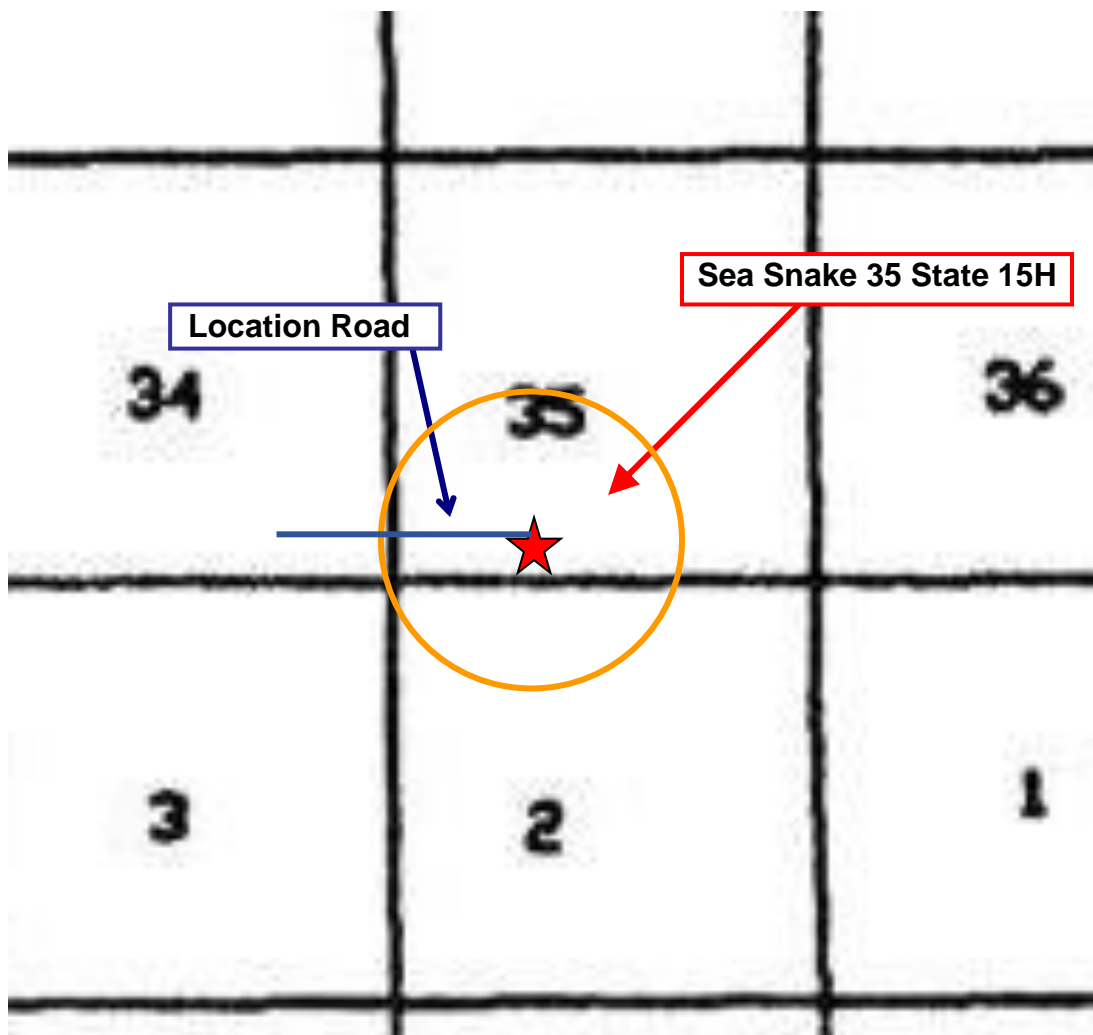
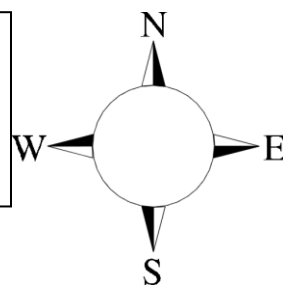
**Sea Snake 35 State 15H**

**Sec-35 T-23S R-33E  
199' FSL & 2067' FWL  
LAT. = 32.254422' N (NAD83)  
LONG = 103.544978' W**

**Lea County NM**

## Sea Snake 35 State 15H

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)  
100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

**Assumed 100 ppm ROE = 3000'**



## 100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Emergency Procedures

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

### **Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

### **Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

<b>Common Name</b>	<b>Chemical Formula</b>	<b>Specific Gravity</b>	<b>Threshold Limit</b>	<b>Hazardous Limit</b>	<b>Lethal Concentration</b>
<b>Hydrogen Sulfide</b>	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
<b>Sulfur Dioxide</b>	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

### **Contacting Authorities**

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

## Hydrogen Sulfide Drilling Operation Plan

### I. HYDROGEN SULFIDE (H<sub>2</sub>S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

### II. HYDROGEN SULFIDE TRAINING

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.

**1. Well Control Equipment**

- A. Flare line
- B. Choke manifold – Remotely Operated
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.
- E. Mud/Gas Separator

**2. Protective equipment for essential personnel:**

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

**3. H<sub>2</sub>S detection and monitoring equipment:**

Portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights which activate when H<sub>2</sub>S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- Bell nipple
- Possum Belly/Shale shaker
- Rig floor
- Choke manifold
- Cellar

**Visual warning systems:**

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

**4. Mud program:**

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

**5. Metallurgy:**

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H<sub>2</sub>S trim.
- B. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

**6. Communication:**

- A. Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

**7. Well testing:**

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

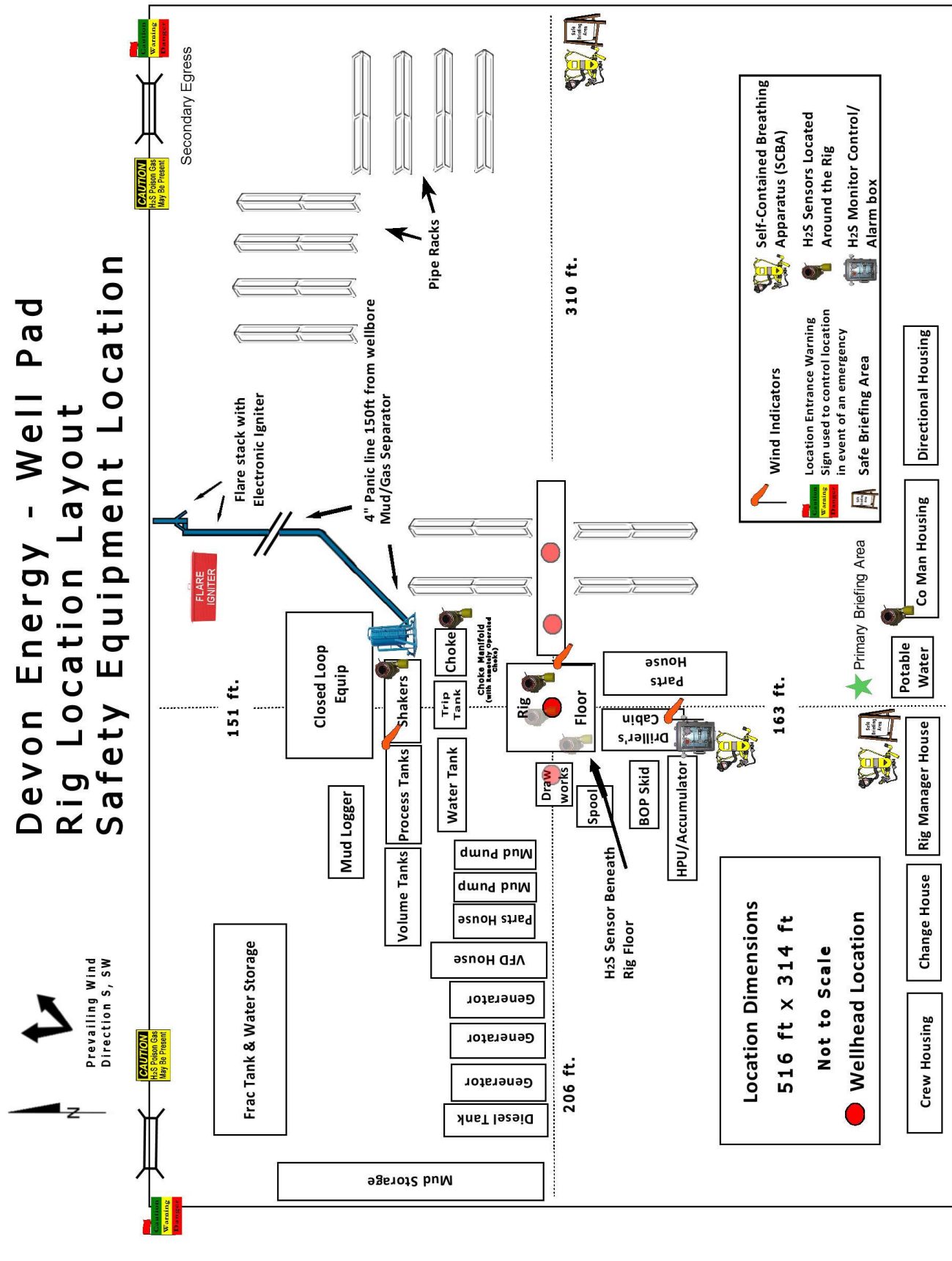
<b><u>Devon Energy Corp. Company Call List</u></b>		
Drilling Supervisor – Basin – Mark Kramer		405-823-4796
EHS Professional – Laura Wright		405-439-8129
<b><u>Agency Call List</u></b>		
<b><u>Lea County (575)</u></b>	<b>Hobbs</b>	
	Lea County Communication Authority	393-3981
	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	<b>Ambulance</b>	<b>911</b>
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
<b><u>Eddy County (575)</u></b>	<b>Carlsbad</b>	
	State Police	885-3137
	City Police	885-2111
	Sheriff's Office	887-7551
	<b>Ambulance</b>	<b>911</b>
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management	887-6544
	NM Emergency Response Commission (Santa Fe)	(505) 476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center	(800) 424-8802
	National Pollution Control Center: Direct	(703) 872-6000
	For Oil Spills	(800) 280-7118
	<b>Emergency Services</b>	
	Wild Well Control	(281) 784-4700
	Cudd Pressure Control	(915) 699-0139 (915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services	(575) 746-3569
<b><u>Give GPS position:</u></b>	Native Air – Emergency Helicopter – Hobbs	(575) 392-6429
	Flight For Life - Lubbock, TX	(806) 743-9911
	Aerocare - Lubbock, TX	(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - <a href="http://www.nhc.noaa.gov">www.nhc.noaa.gov</a>	

Prepared in conjunction with  
Dave Small





# Devon Energy - Well Pad Rig Location Layout Safety Equipment Location





## Sea Snake 35 State 15H

**1. Geologic Formations**

TVD of target	9730	Pilot hole depth	N/A
MD at TD:	14699	Deepest expected fresh water	

**Basin**

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	1333		
Salt	1869		
Base of Salt	5033		
Delaware	5283		
Bone Spring 1st	10099		
Bone Spring 2nd	10812		
Bone Spring 3rd	11712		
Wolfcamp	12162		

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

## Sea Snake 35 State 15H

**2. Casing Program**

Hole Size	Casing Interval		Csg. Size	Wt (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
17 1/2	0	1358 TVD	13 3/8	48.0	H40	BTC	1.125	1.25	1.6
12 1/4	0	5258 TVD	9 5/8	40.0	J-55	BTC	1.125	1.25	1.6
8 3/4	0	TD	5 1/2	17.0	P110	BTC	1.125	1.25	1.6
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- A variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing.
- Int casing shoe will be selected based on drilling data, gamma, and flows experienced while drilling. Setting depth will be revised accordingly if needed.
- A variance is requested to waive the centralizer requirement for the Intermediate casing and production casing.

## Casing Program (Alternative Design)

Hole Size	Casing Interval		Csg. Size	Wt (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
17 1/2	0	1358 TVD	13 3/8	48.0	H40	BTC	1.125	1.25	1.6
12 1/4	0	8,300' TVD	9 5/8	40.0	J-55	BTC	1.125	1.25	1.6
8 3/4	0	TD	5 1/2	17.0	P110	BTC	1.125	1.25	1.6
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- A variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing.
- Int casing shoe will be selected based on drilling data, gamma, and flows experienced while drilling. Setting depth will be revised accordingly if needed.
- A variance is requested to waive the centralizer requirement for the Intermediate casing and production casing.

## Sea Snake 35 State 15H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	



## Sea Snake 35 State 15H

**3. Cementing Program (3-String Primary Design)**

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft <sup>3</sup> /sack)	Slurry Description
Surface	1021	Surf	13.2	1.4	Lead: Class C Cement + additives
Int	580	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Int 1 Two Stage w/ DV @ TVD of Delaware	570	Surf	9.0	3.3	1st stage Lead: Class C Cement + additives
	136	500' above shoe	13.2	1.4	1st stage Tail: Class H / C + additives
	566	Surf	9.0	3.3	2nd stage Lead: Class C Cement + additives
	136	500' above DV	13.2	1.4	2nd stage Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	9.0	3.3	Squeeze Lead: Class C Cement + additives
	580	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Production	375	500' Tieback	9.0	3.3	Lead: Class H / C + additives
	1069	KOP	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

## Sea Snake 35 State 15H

**Cementing Program (3-String Alternative Design)**

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft <sup>3</sup> /sack)	Slurry Description
Surface	1021	Surf	13.2	1.4	Lead: Class C Cement + additives
Int	958	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Int 1 Two Stage w/ DV @ TVD of Delaware	934	Surf	9.0	3.3	1st stage Lead: Class C Cement + additives
	136	500' above shoe	13.2	1.4	1st stage Tail: Class H / C + additives
	412	Surf	9.0	3.3	2nd stage Lead: Class C Cement + additives
	136	500' above DV	13.2	1.4	2nd stage Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.4	Squeeze Lead: Class C Cement + additives
	580	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Production	159	500' Tieback	9.0	3.3	Lead: Class H / C + additives
	1069	KOP	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

## Sea Snake 35 State 15H

**4. Pressure Control Equipment (Three String Design)**

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-58"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
			Annular (5M)		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

**5. Mud Program (Three String Design)**

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	Brine	10-10.5
Production	WBM	8.5-9

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	
	Density	
X	CBL	Production casing

## Sea Snake 35 State 15H

X	Mud log	KOP to TD
	PEX	

**7. Drilling Conditions**

Condition	Specify what type and where?
BH pressure at deepest TVD	4554
Abnormal temperature	No

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

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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 <sub>2</sub> S is present
Y	H <sub>2</sub> 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 NMOC 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

Sea Snake 35 State 15H

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 pad.

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. At 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