

Submit 1 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  
NM OIL CONSERVATION DIVISION  
ARTESIA DISTRICT  
OIL CONSERVATION DIVISION  
1220 South St. Francis  
Santa Fe, NM 87505

Form C-103  
Revised July 18, 2013

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.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other 2. Name of Operator DEVON ENERGY PRODUCTION COMPANY, LP. 3. Address of Operator 333 WEST SHERIDAN AVENUE, OKC, OK 73102 4. Well Location Unit Letter <u>P</u> : <u>485</u> feet from the <u>SOUTH</u> line and <u>250</u> feet from the <u>EAST</u> line Section <u>31</u> Township <u>23S</u> Range <u>29E</u> NMPM, County <u>New Mexico</u> 11. Elevation (Show whether DR, RKB, RT, GR, etc.) 2960'		WELL NO. 30-015-45303 5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> 6. State Oil & Gas Lease No. 7. Lease Name or Unit Agreement Name SPUD MUFFIN 31-30 8. Well Number 334H 9. OGRID Number 6137 10. Pool name or Wildcat <u>Cedar Canyon Bone Springs</u>	
		RECEIVED DEC 13 2018	

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: SHL/CASING CHG <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

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 Production Co., LP respectfully requests approval to make the following changes for the subject well:

SHL CHG

FROM 485 FSL / 250 FEL  
TO 485 FSL / 280 FEL

CSG CHG

Casing design change per the attached drill plan document

**ATTACHMENTS: Updated C-102, Drilling Plan, Directional Survey, & Tec-Lock Wedge Specs**

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

SIGNATURE Erin Workman TITLE Regulatory Compliance Analyst DATE 12/13/18

Type or print name Erin Workman E-mail address: Erin.workman@dvn.com PHONE: (405) 552-7970  
For State Use Only

APPROVED BY: Raymond W. Paday TITLE Geologist DATE 12-24-18  
Conditions of Approval (if any): Devon - Internal

## Devon Energy, Spud Muffin 31-30 334H

### 1. Geologic Formations

TVD of target	9769	Pilot hole depth	N/A
MD at TD:	19991	Deepest expected fresh water:	

#### Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	24		
Top of Salt	24		
Base of Salt	2746		
Delaware	2746		
Lower Brushy Canyon	6112		
1st BSPG Lime	6442		
1st BSPG Sand	7458		
2nd BSPG Lime	7776		
2nd BSPG Sand	8243		
3rd BSPG Lime	8686		
3rd BSPG Sand	9375		
3BSS G (TZT)	9677		
Wolfcamp (TZB)	9731		

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

## Devon Energy, Spud Muffin 31-30 334H

### 2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.
	From	To				
17.5"	0	400'	13.375"	48	H-40	STC
9.875"	0	9000'	8.625"	32	P-110	TLW
7.875"	0	TD	5.5"	17	P-110	BTC
BLM Minimum Safety Factor				Collapse: 1.125	Burst: 1.00	Tension: 1.6 Dry 1.8 Wet

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- Int casing shoe will be selected based on drilling data / gamma, setting depth will be revised accordingly if needed.
- Variance requested to allow for the option to drill intermediate hole with 10.625" bit and run 8.625" P-110EC 32PPF BTC

## Devon Energy, Spud Muffin 31-30 334H

### 3. Cementing Program

Casing	# Sks	Wt. (lb/gal)	Yld (ft <sup>3</sup> /sack)	Slurry Description
Surf	268	14.8	1.33	C + Adds
Inter.	893	9	1.94	35:65 Poz:C + Adds
	637	13.2	1.33	C + Adds
Int 1 Two Stage w DV @ ~3000	360	9	3.31	1 <sup>st</sup> stage Lead: Class C Cement + additives
	131	13.2	1.33	1 <sup>st</sup> stage Tail: Class H / C + additives
	370	9	3.31	2 <sup>nd</sup> stage Lead: Class C Cement + additives
	131	13.2	1.33	2 <sup>nd</sup> stage Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	13.2	1.33	Squeeze Lead: Class C Cement + additives
	893	9	3.31	Lead: Class C Cement + additives
	637	13.2	1.33	Tail: Class H / C + additives
Production	802	13.2	1.33	Class H / C + additives

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
13-3/8" Surface	0'	50%
9-5/8" Intermediate	0'	30%
5-1/2" Production Casing	500' tie back	10%

## Devon Energy, Spud Muffin 31-30 334H

### 4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Intermediate	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	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
Y	A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.  Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. <ul style="list-style-type: none"> <li>Wellhead will be installed by wellhead representatives.</li> </ul>

## Devon Energy, Spud Muffin 31-30 334H

- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

13-5/8" BOP/BOPE system will have been tested to 10M rating prior to drilling out intermediate casing.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

### 5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	400'	FW Gel	8.6-8.8	28-34	N/C
400'	9000'	Sat Brine / DBE	9.9-10.1	34-40	N/C - 6
9000'	TD	OBM	9.0-9.8	32-36	N/C - 6

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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## Devon Energy, Spud Muffin 31-30 334H

### 6. Logging and Testing Procedures

<b>Logging, Coring and Testing.</b>	
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

<b>Additional logs planned</b>		<b>Interval</b>
	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

<b>Condition</b>	<b>Specify what type and where?</b>
BH Pressure at deepest TVD	4920 psi
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

## Devon Energy, Spud Muffin 31-30 334H

### 8. Other facets of operation

Is this a walking operation? Potentially

1. In the event the spudder rig is unable to drill the surface holes the 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 with either OBM or cut brine 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

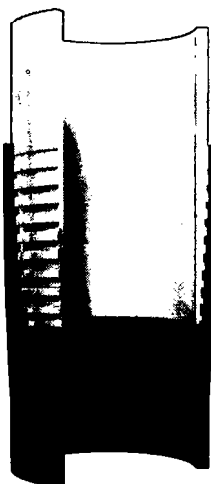
1. Spudder rig will move in and drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
2. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable 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 pad.
6. The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
7. Drilling operations will be performed with the 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

☒ Directional Plan

☐ Other, describe





# TEC-LOCK WEDGE

8.625" 32.00 LB/FT (.352" Wall)  
BORUSAN MANNESMANN P110 HSCY

## Pipe Body Data

Nominal OD:	8.625	in
Nominal Wall:	.352	in
Nominal Weight:	32.00	lb/ft
Plain End Weight:	31.13	lb/ft
Material Grade:	P110 HSCY	
Mill/Specification:	BORUSAN MANNESMANN	
Yield Strength:	125,000	psi
Tensile Strength:	125,000	psi
Nominal ID:	7.921	in
API Drift Diameter:	7.796	in
Special Drift Diameter:	7.875	in
RBW:	87.5 %	
Body Yield:	1,144,000	lbf
Burst:	8,930	psi
Collapse:	4,230	psi

## Connection Data

Standard OD:	9.000	in
Pin Bored ID:	7.921	in
Critical Section Area:	8.61433	in <sup>2</sup>
Tensile Efficiency:	94.2 %	
Compressive Efficiency:	100.0 %	
Longitudinal Yield Strength:	1,077,000	lbf
Compressive Limit:	1,144,000	lbf
Internal Pressure Rating:	8,930	psi
External Pressure Rating:	4,230	psi
Maximum Bend:	62.6	°/100

## Operational Data

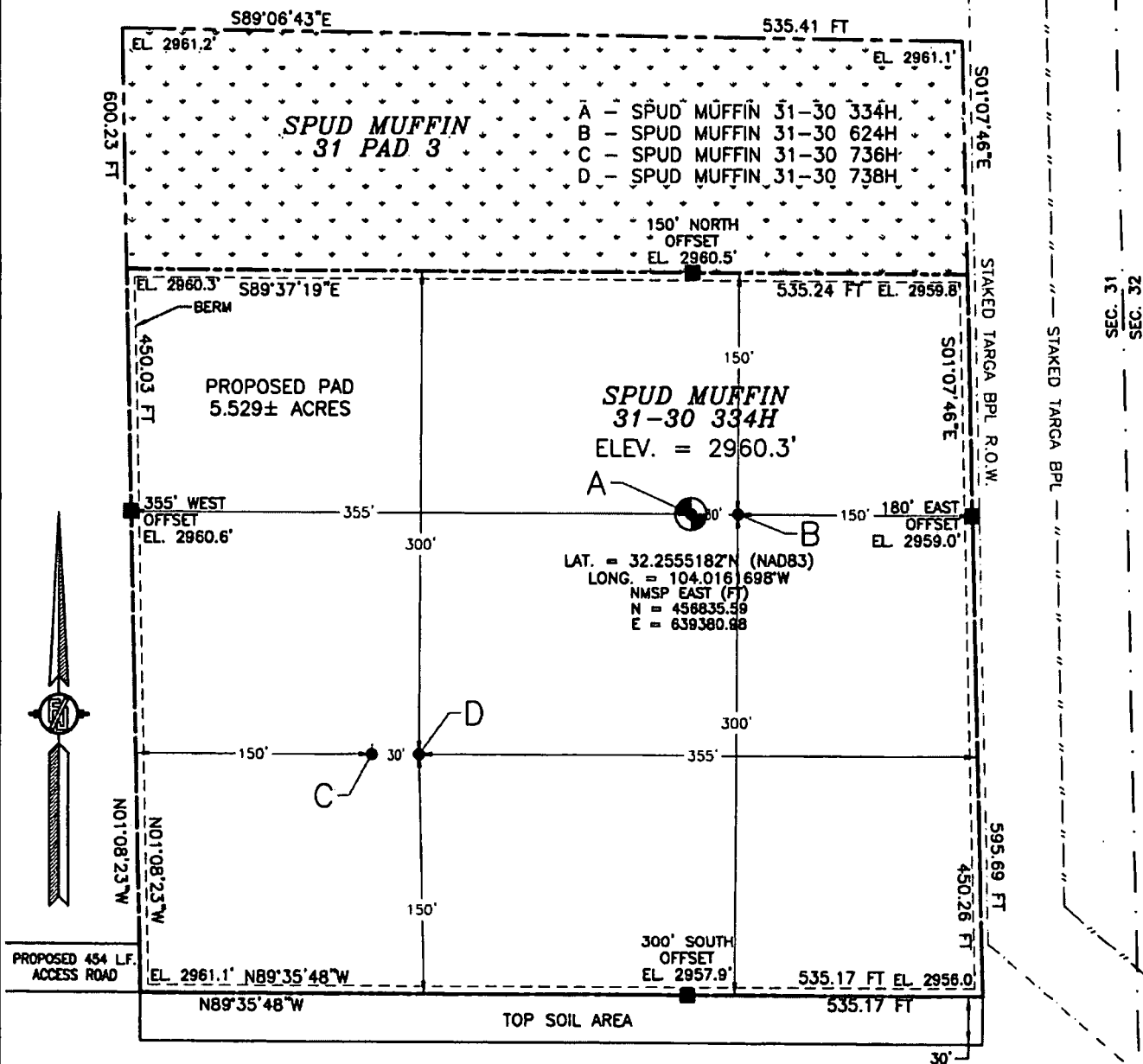
Minimum Makeup Torque:	29,900	ft*lb
Optimum Makeup Torque:	37,375	ft*lb
Maximum Makeup Torque:	80,900	ft*lb
Minimum Yield:	89,900	ft*lb
Makeup Loss:	5.97	in

## Notes

Operational Torque is equivalent to the Maximum Make-Up Torque.



**SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SITE MAP**



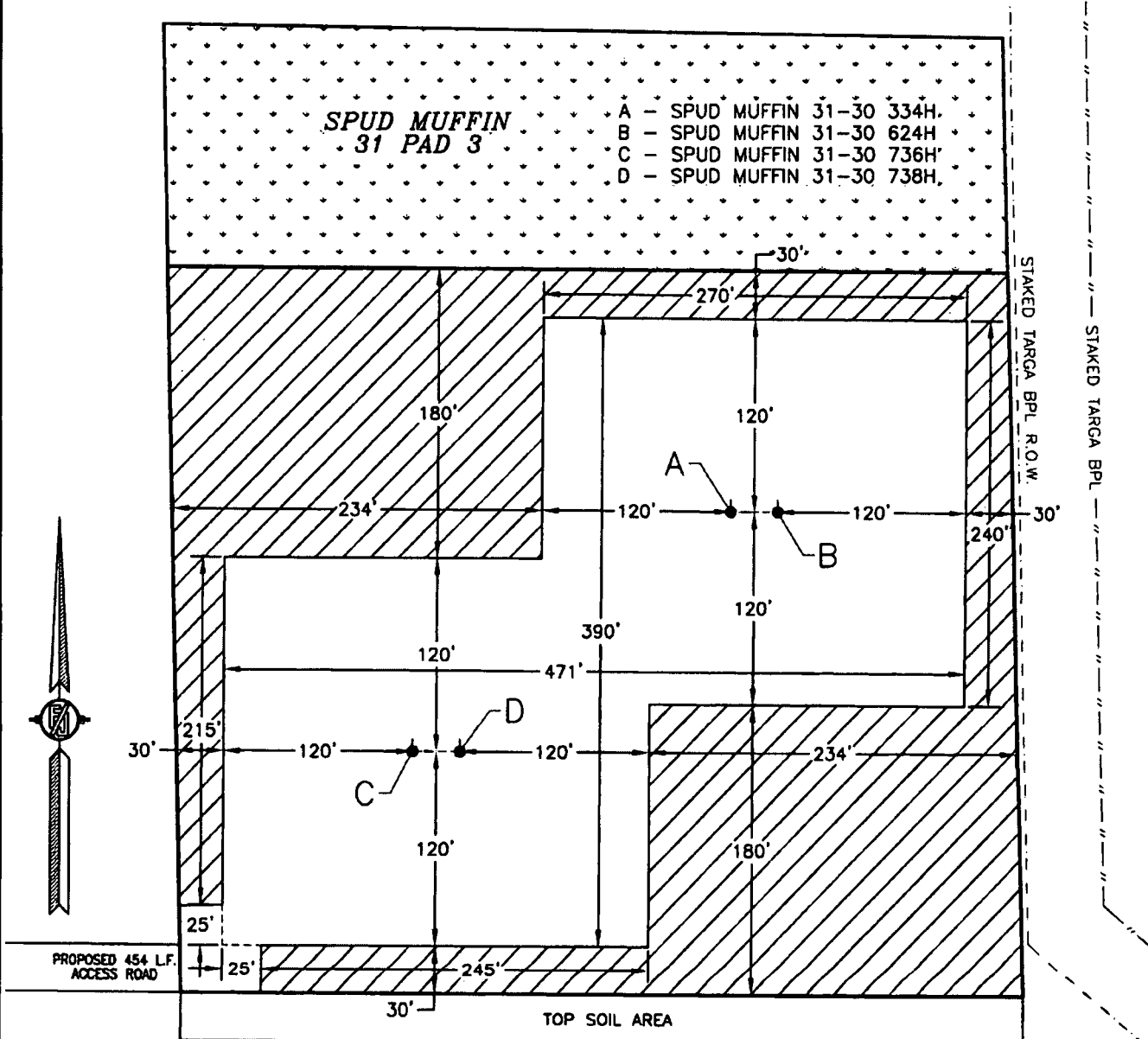
**DEVON ENERGY PRODUCTION COMPANY, L.P.**  
**SPUD MUFFIN 31-30 334H**  
**LOCATED 485 FT. FROM THE SOUTH LINE**  
**AND 280 FT. FROM THE EAST LINE OF**  
**SECTION 31, TOWNSHIP 23 SOUTH,**  
**RANGE 29 EAST, N.M.P.M.**  
**EDDY COUNTY, STATE OF NEW MEXICO**

**DECEMBER 4, 2018**

**SURVEY NO. 6277D**

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

SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
INTERIM SITE BUILD PLAN



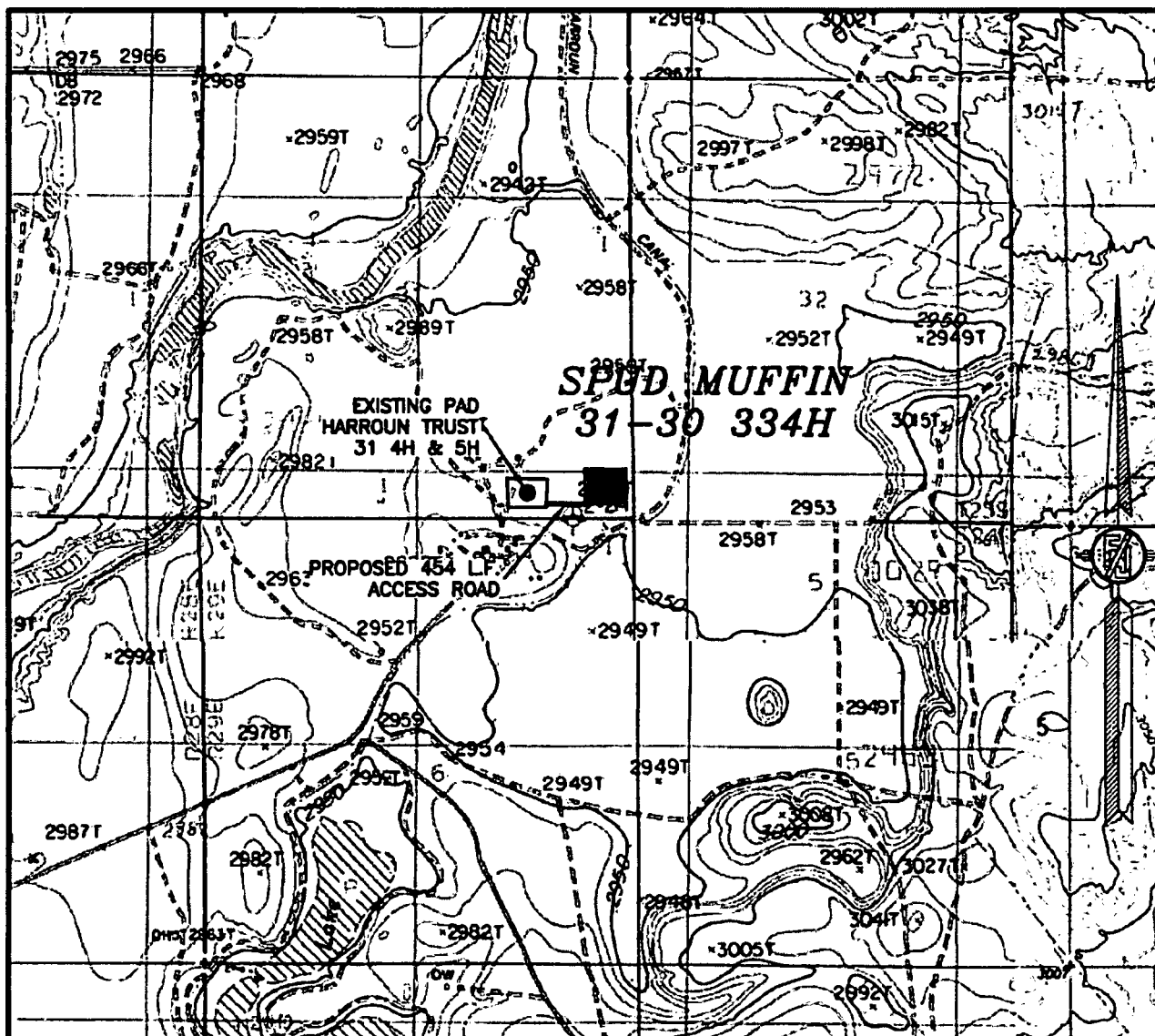
DEVON ENERGY PRODUCTION COMPANY, L.P.  
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RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 4, 2018

SURVEY NO. 6277D

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

SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
LOCATION VERIFICATION MAP



USGS QUAD MAP:  
LOVING

NOT TO SCALE

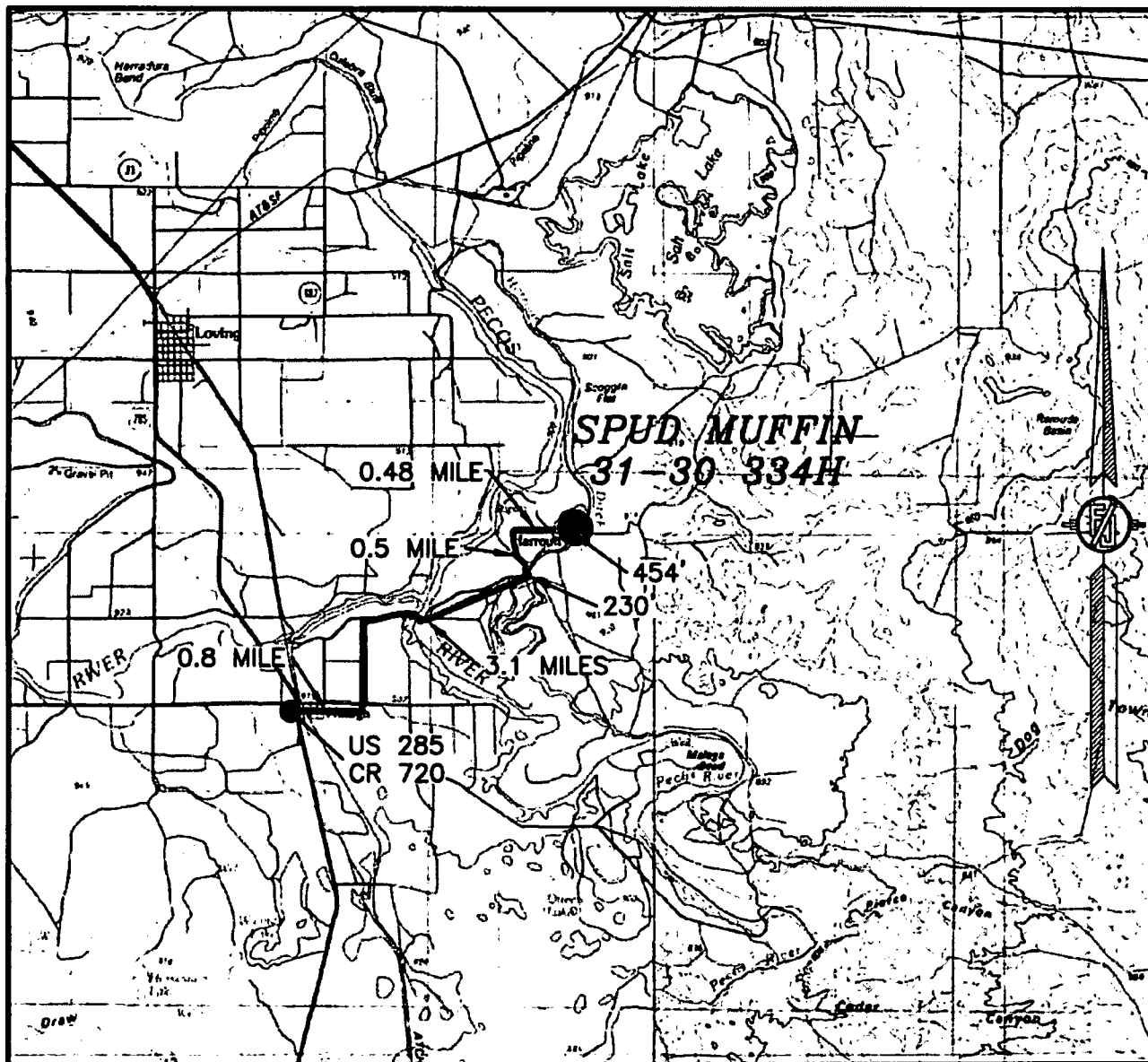
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SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

**DIRECTIONS TO LOCATION**

BEGINNING AT THE JUNCTION OF US 285 AND CR 720, GO EAST ON CR 720 0.8 OF A MILE TO HARROUN ROAD ON THE LEFT. GO NORTH-NORTHEAST ON HARROUN ROAD FOR 3.1 MILES TO A FORK IN THE ROAD. CONTINUE NORTH, LEFT ON SAID HARROUN ROAD 230' TO A LEASE ROAD TO THE LEFT, GO NORTH 0.5 OF A MILE. GO EAST 0.48 OF A MILE TO THE SOUTHWEST PAD OF HARROUN TRUST 31 4H & 5H, THEN FROM SOUTHWEST PAD GO EAST 454' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

**DEVON ENERGY PRODUCTION COMPANY, L.P.**

**SPUD MUFFIN 31-30 334H**

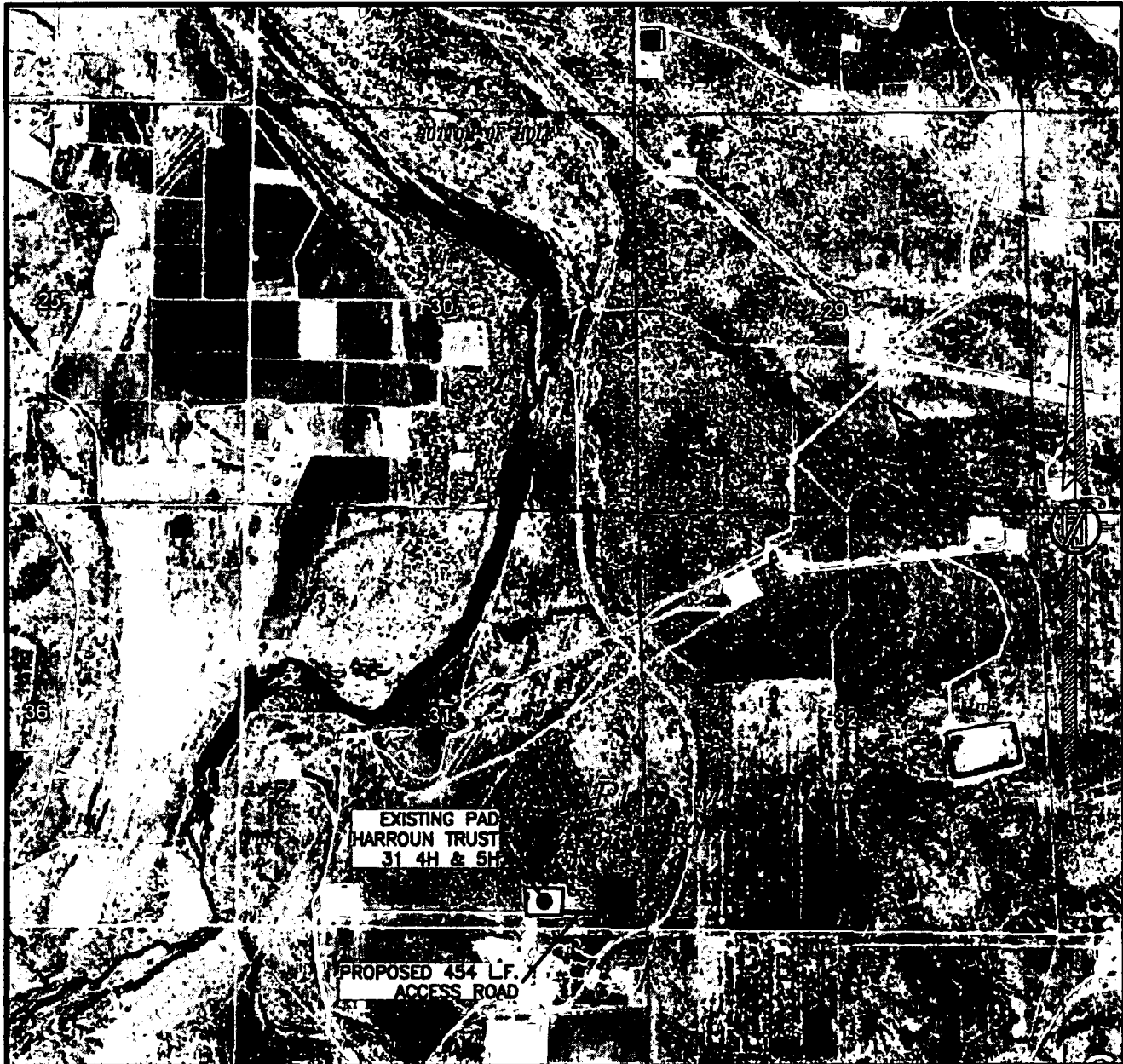
LOCATED 485 FT. FROM THE SOUTH LINE  
AND 280 FT. FROM THE EAST LINE OF  
SECTION 31, TOWNSHIP 23 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 4, 2018

SURVEY NO. 6277D

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

SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
AERIAL PHOTO



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
NOVEMBER 2017

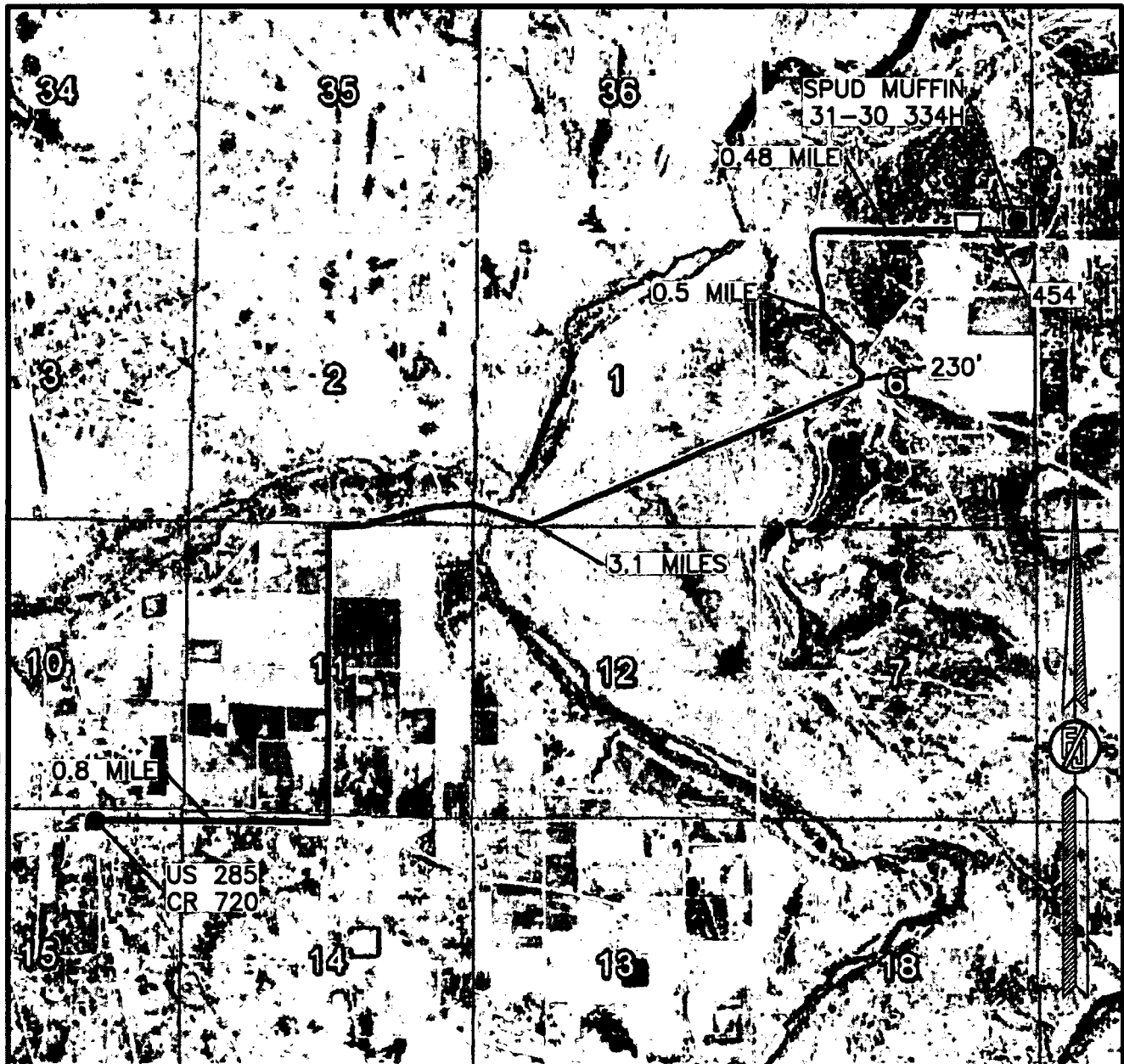
DEVON ENERGY PRODUCTION COMPANY, L.P.  
SPUD MUFFIN 31-30 334H  
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SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO  
 AERIAL ACCESS ROUTE MAP



NOT TO SCALE  
 AERIAL PHOTO:  
 GOOGLE EARTH  
 NOVEMBER 2017

DEVON ENERGY PRODUCTION COMPANY, L.P.  
 SPUD MUFFIN 31-30 334H  
 LOCATED 485 FT. FROM THE SOUTH LINE  
 AND 280 FT. FROM THE EAST LINE OF  
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 RANGE 29 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 4, 2018

SURVEY NO. 6277D

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

# PLAN VIEW

LIMITS OF  
EARTHWORK  
3:1 SLOPE (TYP.)

SPUD MUFFIN  
31 PAD 3  
PROPOSED PAD  
EL. = 2960.0'

- A - SPUD MUFFIN 31-30 334H
- B - SPUD MUFFIN 31-30 624H
- C - SPUD MUFFIN 31-30 736H
- D - SPUD MUFFIN 31-30 738H

PAD  
CENTER  
POINT

LIMITS OF  
EARTHWORK  
3:1 SLOPE (TYP.)

PROPOSED 454 L.F.  
ACCESS ROAD

012 60 120 240  
SCALE 1" = 120'

DEVON ENERGY PRODUCTION COMPANY, L.P.  
PAD GRADING AND CROSS SECTIONS  
FOR SPUD MUFFIN 31-30 334H  
SECTION 31, TOWNSHIP 23 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

CUT	FILL	NET
3942 CU. YD	8253 CU. YD	4311 CU. YD (FILL)
EARTHWORK QUANTITIES ARE ESTIMATED		

DECEMBER 4, 2018

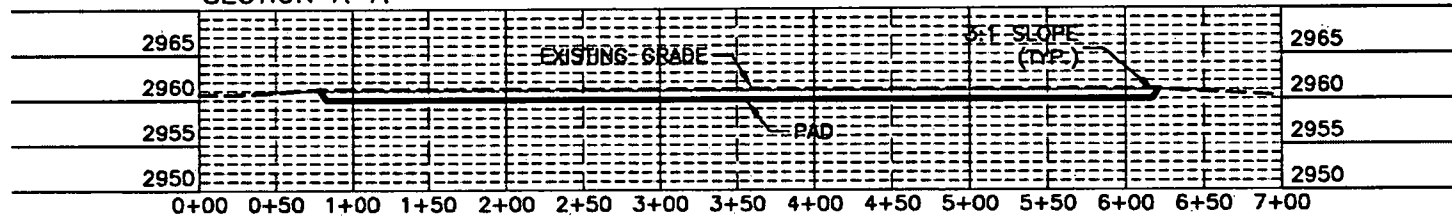
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SHEET 1-2  
SURVEY NO. 6277D

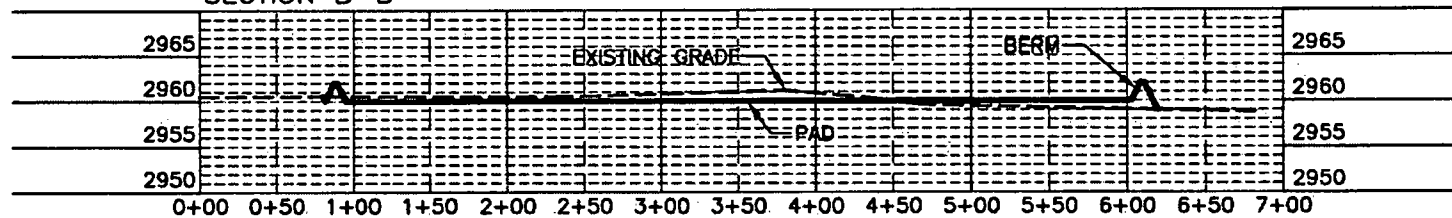


# CROSS-SECTIONS

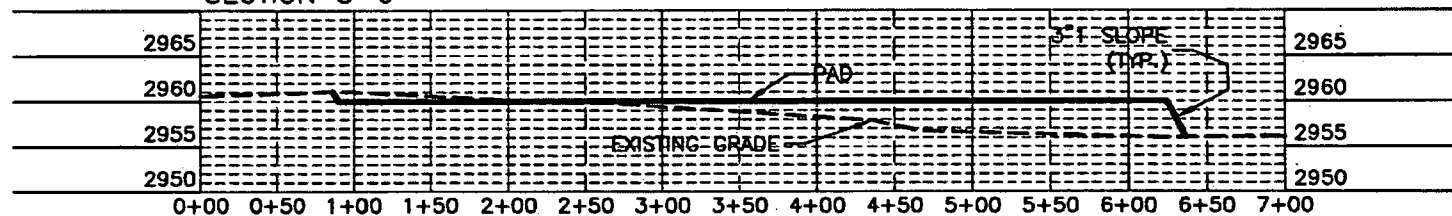
SECTION A-A'



SECTION B-B'



SECTION C-C'



012 60 120 240  
SCALE 1" = 120' - 1" = 20' VER

DEVON ENERGY PRODUCTION COMPANY, L.P.  
PAD GRADING AND CROSS SECTIONS  
FOR SPUD MUFFIN 31-30 334H  
SECTION 31, TOWNSHIP 23 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

CUT	FILL	NET
3942 CU. YD	8253 CU. YD	4311 CU. YD (FILL)
EARTHWORK QUANTITIES ARE ESTIMATED		

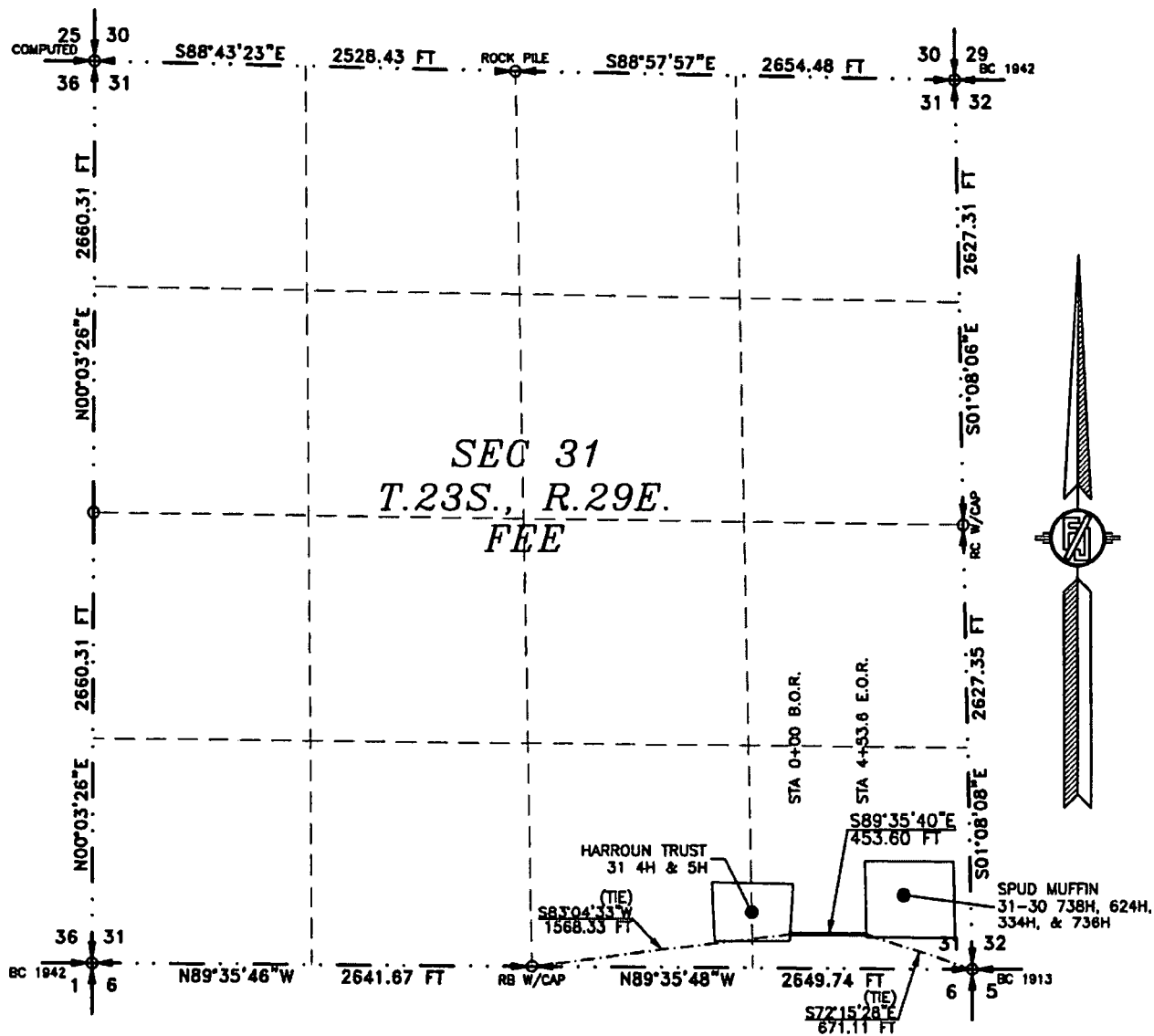
DECEMBER 4, 2018

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

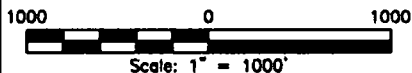
SHEET 2-2  
SURVEY NO. 6277D

**ACCESS ROAD PLAT**  
 ACCESS ROAD FROM HARROUN TRUST 31 4H & 5H WELLPAD  
 TO SPUD MUFFIN 31-30 738H, 624H, 334H, & 736H

**DEVON ENERGY PRODUCTION COMPANY, L.P.**  
 CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
 SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO  
 DECEMBER 4, 2018



SEE NEXT SHEET (2-2) FOR DESCRIPTION



**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**

**MADRON SURVEYING, INC.** 301 SOUTH CANAL CARLSBAD, NEW MEXICO

**SURVEYOR CERTIFICATE**

I, FILMON 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 5 DAY OF DECEMBER 2018

*[Signature]*  
 FILMON F. JARAMILLO, PLS 12797

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

**SURVEY NO. 6277D**

**ACCESS ROAD PLAT**  
ACCESS ROAD FROM HARROUN TRUST 31 4H & 6H WELLPAD  
TO SPUD MUFFIN 31-30 738H, 624H, 334H, & 736H

**DEVON ENERGY PRODUCTION COMPANY, L.P.**  
**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING**  
**SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.**  
**EDDY COUNTY, STATE OF NEW MEXICO**  
**DECEMBER 4, 2018**

**DESCRIPTION**

A STRIP OF LAND 30 FEET WIDE CROSSING FEE LAND IN SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 SE/4 OF SAID SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M., WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S83°04'33"W, A DISTANCE OF 1568.33 FEET;  
THENCE S89°35'40"E A DISTANCE OF 453.60 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 31, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S72°15'28"E, A DISTANCE OF 671.11 FEET;

SAID STRIP OF LAND BEING 453.60 FEET OR 27.49 RODS IN LENGTH, CONTAINING 0.312 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SE/4    453.60 L.F.    27.49 RODS    0.312 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  
(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 5 DAY OF DECEMBER 2018

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301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3341

**SURVEY NO. 6277D**