

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM HOBBBS OCD
Hobbs
NOV 21 2019
RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			5. Lease Serial No. NMLC061869		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____			6. If Indian, Allottee or Tribe Name		
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY			7. Unit or CA Agreement Name and No.		
Contact: JENNIFER HARMS jennifer.harms@dvn.com			8. Lease Name and Well No. MARWARI 28-16 STATE FED COM 232H		
3. Address 333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102		3a. Phone No. (include area code) Ph: 405-552-6560		9. API Well No. 30-025-45203	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 28 T25S R32E Mer At surface NWNW 175FNL 410FWL 32.108101 N Lat, 103.687356 W Lon Sec 28 T25S R32E Mer At top prod interval reported below NENW 108FNL 1570FWL 32.108330 N Lat, 103.683612 W Lon Sec 33 T25S R32E Mer At total depth SESW 25FSL 1687FWL 32.079703 N Lat, 103.683230 W Lon			10. Field and Pool, or Exploratory WC-025 G-06 S253206M; BS		
14. Date Spudded 11/22/2018			15. Date T.D. Reached 12/13/2018		11. Sec., T., R., M., or Block and Survey or Area Sec 28 T25S R32E Mer
16. Date Completed ☐ D & A ☐ Ready to Prod. 05/21/2019			12. County or Parish LEA		
17. Elevations (DF, KB, RT, GL)* 3377 GL			13. State NM		
18. Total Depth: MD TVD		21342 10594		19. Plug Back T.D.: MD TVD	
20. Depth Bridge Plug Set: MD TVD		21296			
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) GAMMA RAY, CBL			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)		

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.250	9.875 P110HC	40.0		5247		699			
17.500	13.375 J-55	54.5		883		995		0	
12.250	9.875 J-55	40.0		4128				0	
8.750	5.500 P110RY	17.0		10994					
8.500	5.500 P110RY	17.0		21342		2760		1980	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	10919	21187	10919 TO 21187	0.370	464	OPEN
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10919 TO 21187	15712047 PROP#,260977 BBLs FLUID

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
05/21/2019	06/05/2019	24	→	2881.0	6225.0	6225.0			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→	2881	6225	6225	2160	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #469268 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Reclamation due: 11/21/2019

FLOWS FROM WELL
ACCEPTED FOR RECORD

NOV 13 2019

BUREAU OF LAND MANAGEMENT
ROSWELL FIELD OFFICE

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
RUSTLER	1050			RUSTLER	1050
SALADO	1330			SALADO	1330
DELAWARE	4530			DELAWARE	4530
BONE SPRING	8540			BONE SPRING	8540

32. Additional remarks (include plugging procedure):

As drilled C-102 AND DIRECTIONAL SURVEY ARE ATTACHED. LOGS HAVE BEEN SENT BY FED EX.
3/25/2019-4/6/2019: MIRU WL & PT. TIH & ran CBL, TOC @ CALCULATED 1980'. TIH w/pump
through frac plug and guns. Perf Bonespring, 10919-21187,
total 464 holes. Frac'd 10919-21187', in 52 stages. Frac totals 260977 gals fluid &
15712047 PROP. ND frac, MIRU PU, NU BOP, DO plugs &
CO to float collar: 21296 MD'. CHC, FWB, ND BOP. Tubing has not been set.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #469268 Verified by the BLM Well Information System.
For DEVON ENERGY PRODUCTION COMPAN, sent to the Hobbs
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/13/2019 ()

Name (please print) JENNIFER HARMS

Title REGULATORY COMPLIANCE ANALYST

Signature: (Electronic Submission)

Date 06/17/2019

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

** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL **

District I
1625 N French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-45203	² Pool Code 96715	³ Pool Name WC-025 G-06 S253206M Bone Spring
⁴ Property Code	⁵ Property Name MARWARI 28-16 STATE FED COM	⁶ Well Number 232H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3377.3

" Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	28	25 S	32 E		175	NORTH	410	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
N	33	25 S	32 E		25	SOUTH	1687	WEST	LEA

¹⁰ Dedicated Acres 320	¹¹ Joint or Infill	¹² Consolidation Code	¹³ 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.

		" OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Jenny Harms</i> 6-17-2019 Signature Date Jenny Harms Printed Name Jenny.harms@dmv.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. JUNE 3, 2019 Date of Survey <i>FILMON F. JARAMILLO</i> Signature of Professional Surveyor FILMON F. JARAMILLO, PLS 12797 Certificate Number SURVEY NO. 5869D

Intent ☐ As Drilled ☒

API #		
Operator Name: DEVON ENERGY PRODUCTION CO., L.P.	Property Name: MARWARI 28-16 STATE FED COM	Well Number 232H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	21	25S	32E		414	SOUTH	1513	WEST	LEA
Latitude 32.1097626					Longitude 103.6837978				NAD 83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	28	25S	32E		108	NORTH	1570	WEST	LEA
Latitude 32.1083302					Longitude 103.6836129				NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	33	25S	33E		180	SOUTH	1686	WEST	LEA
Latitude 32.0801299					Longitude 103.6832332				NAD 83

Is this well the defining well for the Horizontal Spacing Unit? ☒

Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number

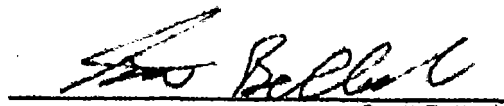
KZ 06/29/2018

HALLIBURTON

3950 Interwood S. Pkwy • Houston, TX 77032
PHONE 281.986.4400 • FAX 281.986.4499

State of New Mexico, Lea County

I, Scott Bellock, certify that I am employed by Halliburton Energy Services, Inc. (aka Sperry Drilling) and that on the dates of November 21, 2018 through December 12, 2018, I did conduct or supervise the taking of MWD directional surveys for the Marwari 28-16 State Fed Com 232H well from a depth of 132' MD to a depth of 21284' MD. This data is true, correct, complete and within the limitations of the tools as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling). I am authorized and qualified to make this report and these surveys were conducted at the request of Devon Energy, for the Marwari 28-16 State Fed Com 232H well, API # 30-025-45203 in Lea County, New Mexico. I have reviewed this report and find that it confirms to the principles and procedures as set forth by Halliburton Energy Services, Inc. (aka Sperry Drilling).



Scott Bellock
Field Engineer

Devon Energy Corporation

WELL DETAILS: Marwari 28-16 STATE FED COM 232H

RKB (Nabors X05) 32' + GL @ 3409.0ust

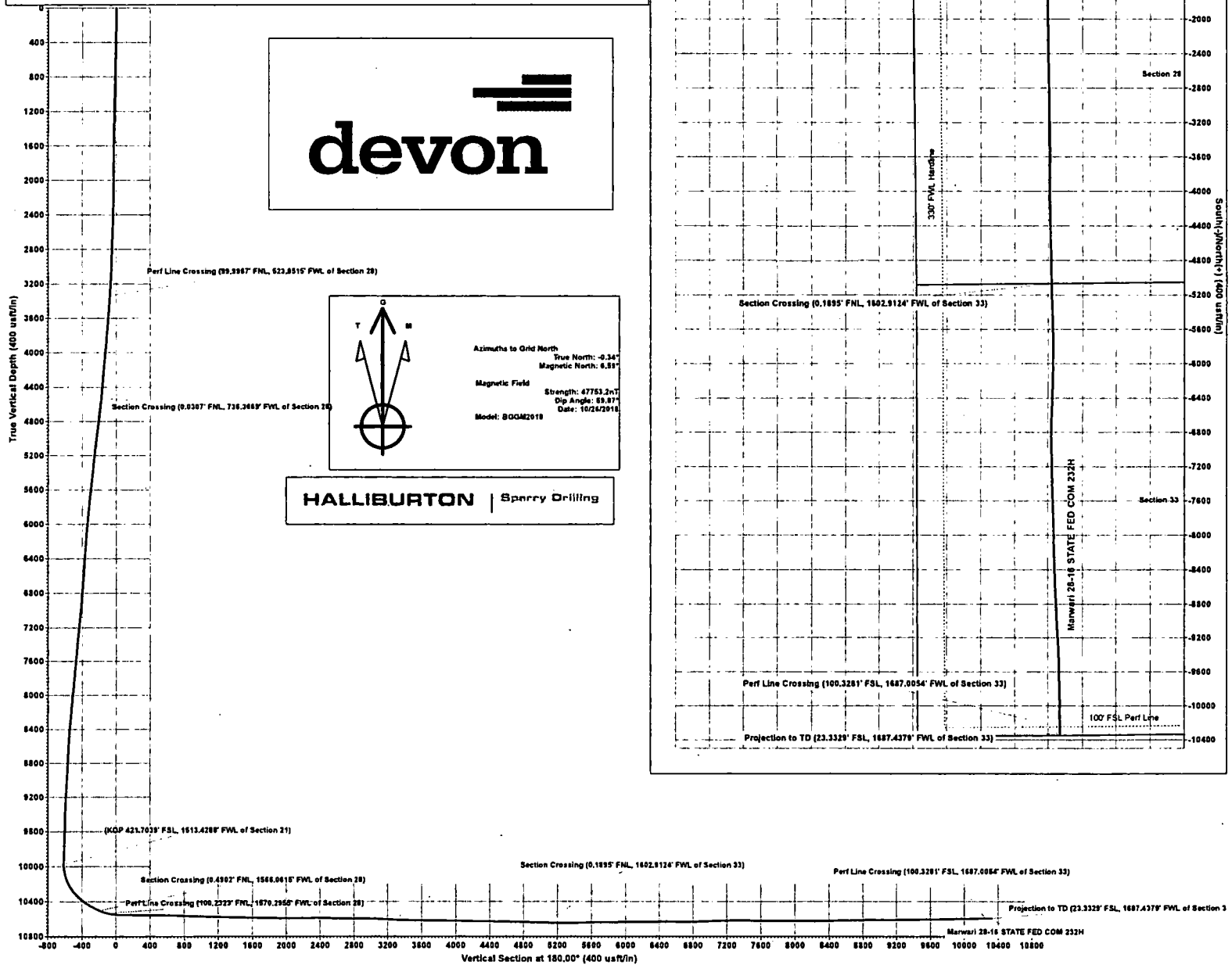
Ground Level: 3377.0

Northing 403663.01 Easting 741349.12 Latitude 32° 6' 29.165 N Longitude 103° 41' 14.484 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N-S	+E-W	V-Sect	Departure	Annotation
3345.0	9.44	63.93	3338.3	74.2	112.7	-74.2	154.8	Perf Line Crossing (99.9987' FNL, 523.9515' FWL of Section 28)
4561.0	10.90	55.61	4531.2	177.4	324.2	-177.4	390.3	Section Crossing (0.0307' FNL, 736.3669' FWL of Section 28)
10089.0	0.65	161.98	9972.9	611.3	1098.6	-611.3	1296.5	(KOP 421.7039' FSL, 1513.4288' FWL of Section 21)
10814.0	68.03	175.56	10505.5	189.9	1153.8	-189.9	1722.2	Section Crossing (0.4902' FNL, 1566.0615' FWL of Section 28)
10919.0	77.13	177.67	10537.7	90.3	1159.0	-90.3	1822.0	Perf Line Crossing (100.2323' FNL, 1570.2955' FWL of Section 28)
16082.0	68.57	179.27	10642.1	-5068.2	1239.7	5068.2	6982.6	Section Crossing (0.1895' FNL, 1602.9124' FWL of Section 33)
21264.0	90.73	179.33	10595.2	-10247.1	1339.5	10247.1	12183.8	Perf Line Crossing (100.3281' FSL, 1687.0054' FWL of Section 33)
21342.0	90.62	179.53	10594.3	-10325.1	1340.2	10325.1	12241.8	Projection to TD (23.3329' FSL, 1687.4379' FWL of Section 33)

devon



Devon Energy Corporation

Lea County, NM (NAD 83)

Sec 28 T. 25 S., R.32E.

Marwari 28-16 STATE FED COM 232H

Actual Drilled

Design: Actual Drilled

Survey Report - Geographic

13 December, 2018

Halliburton

Survey Report - Geographic

Company: Devon Energy Corporation
Project: Lea County, NM (NAD 83)
Site: Sec 28 T. 25 S., R.32E.
Well: Marwari 28-16 STATE FED COM 232H
Wellbore: Actual Drilled
Design: Actual Drilled

Local Co-ordinate Reference: Well Marwari 28-16 STATE FED COM 232H
TVD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
MD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: SOUTH US

Project	Lea County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 28 T. 25 S., R.32E.			
Site Position:		Northing:	401,431.82 usft	Latitude: 32° 6' 6.985 N
From:	Map	Easting:	743,047.39 usft	Longitude: 103° 40' 54.896 W
Position Uncertainty:	5.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.35 °

Well	Marwari 28-16 STATE FED COM 232H			
Well Position	+N/-S	0.0 usft	Northing:	403,663.01 usft
	+E/-W	0.0 usft	Easting:	741,349.12 usft
Position Uncertainty	0.5 usft	Wellhead Elevation:	0.0 usft	Ground Level: 3,377.0 usft

Wellbore	Actual Drilled				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2018	10/26/2018	6.93	59.87	47,753.17107932

Design	Actual Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	180.00	

Survey Program	Date 12/13/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
132.0	21,284.0	MWD (Actual Drilled)	MWD	Fixed:v2:standard declination
21,342.0	21,342.0	Projection to TD (Actual Drilled)	2_Blind	A026Ua: Blind drilling - no survey data

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	403,663.01	741,349.12	32° 6' 29.165 N	103° 41' 14.484 W
132.0	0.57	329.29	132.0	0.6	-0.3	403,663.57	741,348.78	32° 6' 29.171 N	103° 41' 14.488 W
224.0	0.59	318.08	224.0	1.3	-0.9	403,664.32	741,348.23	32° 6' 29.178 N	103° 41' 14.494 W
323.0	0.78	333.86	323.0	2.3	-1.5	403,665.30	741,347.59	32° 6' 29.188 N	103° 41' 14.502 W
415.0	0.99	326.08	415.0	3.5	-2.2	403,666.53	741,346.87	32° 6' 29.200 N	103° 41' 14.510 W
506.0	1.14	339.30	506.0	5.0	-3.0	403,668.02	741,346.12	32° 6' 29.215 N	103° 41' 14.519 W
597.0	1.13	341.28	596.9	6.7	-3.6	403,669.72	741,345.51	32° 6' 29.232 N	103° 41' 14.525 W
689.0	1.23	340.46	688.9	8.5	-4.2	403,671.51	741,344.89	32° 6' 29.249 N	103° 41' 14.533 W
779.0	1.33	336.70	778.9	10.4	-5.0	403,673.38	741,344.15	32° 6' 29.268 N	103° 41' 14.541 W
801.0	1.42	335.80	800.9	10.9	-5.2	403,673.86	741,343.94	32° 6' 29.273 N	103° 41' 14.543 W
964.0	1.25	346.61	963.8	14.4	-6.4	403,677.44	741,342.70	32° 6' 29.308 N	103° 41' 14.558 W

Halliburton

Survey Report - Geographic

Company: Devon Energy Corporation
Project: Lea County, NM (NAD 83)
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Wellbore: Actual Drilled
Design: Actual Drilled

Local Co-ordinate Reference: Well Marwari 28-16 STATE FED COM 232H
TVD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
MD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: SOUTH US

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,054.0	1.16	341.67	1,053.8	16.2	-6.9	403,679.26	741,342.18	32° 6' 29.326 N	103° 41' 14.563 W
1,147.0	1.03	341.32	1,146.8	17.9	-7.5	403,680.94	741,341.62	32° 6' 29.343 N	103° 41' 14.570 W
1,268.0	0.91	7.64	1,267.8	19.9	-7.7	403,682.92	741,341.40	32° 6' 29.363 N	103° 41' 14.572 W
1,359.0	0.95	20.78	1,358.8	21.3	-7.4	403,684.34	741,341.76	32° 6' 29.377 N	103° 41' 14.568 W
1,450.0	1.31	53.83	1,449.8	22.7	-6.2	403,685.66	741,342.87	32° 6' 29.390 N	103° 41' 14.555 W
1,542.0	1.55	70.94	1,541.7	23.7	-4.2	403,686.69	741,344.90	32° 6' 29.400 N	103° 41' 14.531 W
1,632.0	1.35	80.06	1,631.7	24.3	-2.0	403,687.27	741,347.09	32° 6' 29.405 N	103° 41' 14.506 W
1,722.0	1.26	65.37	1,721.7	24.9	-0.1	403,687.87	741,349.03	32° 6' 29.411 N	103° 41' 14.483 W
1,817.0	0.82	54.24	1,816.7	25.7	1.4	403,688.70	741,350.54	32° 6' 29.419 N	103° 41' 14.466 W
1,912.0	1.08	60.80	1,911.7	26.5	2.8	403,689.53	741,351.87	32° 6' 29.427 N	103° 41' 14.450 W
2,007.0	1.01	63.59	2,006.6	27.3	4.3	403,690.34	741,353.40	32° 6' 29.435 N	103° 41' 14.432 W
2,102.0	1.58	70.56	2,101.6	28.1	6.3	403,691.15	741,355.38	32° 6' 29.443 N	103° 41' 14.409 W
2,197.0	1.99	72.92	2,196.6	29.1	9.1	403,692.07	741,358.20	32° 6' 29.452 N	103° 41' 14.376 W
2,292.0	2.65	68.87	2,291.5	30.3	12.7	403,693.35	741,361.82	32° 6' 29.464 N	103° 41' 14.334 W
2,387.0	3.66	72.05	2,386.3	32.1	17.6	403,695.07	741,366.75	32° 6' 29.481 N	103° 41' 14.277 W
2,482.0	4.39	65.31	2,481.1	34.5	23.8	403,697.53	741,372.94	32° 6' 29.505 N	103° 41' 14.205 W
2,577.0	4.64	65.26	2,575.8	37.6	30.6	403,700.65	741,379.74	32° 6' 29.536 N	103° 41' 14.125 W
2,672.0	4.73	66.37	2,670.5	40.8	37.7	403,703.83	741,386.81	32° 6' 29.567 N	103° 41' 14.043 W
2,766.0	5.17	67.28	2,764.2	44.0	45.2	403,707.02	741,394.27	32° 6' 29.598 N	103° 41' 13.956 W
2,861.0	6.05	68.19	2,858.7	47.5	53.8	403,710.53	741,402.87	32° 6' 29.632 N	103° 41' 13.856 W
2,956.0	6.28	66.99	2,953.1	51.4	63.2	403,714.43	741,412.30	32° 6' 29.670 N	103° 41' 13.746 W
3,051.0	7.24	68.08	3,047.5	55.7	73.5	403,718.69	741,422.64	32° 6' 29.712 N	103° 41' 13.625 W
3,146.0	8.17	65.04	3,141.6	60.8	85.2	403,723.77	741,434.31	32° 6' 29.761 N	103° 41' 13.489 W
3,241.0	8.88	63.62	3,235.6	66.9	97.9	403,729.88	741,447.00	32° 6' 29.821 N	103° 41' 13.341 W
3,334.0	9.35	63.95	3,327.4	73.4	111.1	403,736.39	741,460.22	32° 6' 29.885 N	103° 41' 13.187 W
3,345.0	9.44	63.93	3,338.3	74.2	112.7	403,737.18	741,461.83	32° 6' 29.892 N	103° 41' 13.168 W
Perf Line Crossing (99.9967' FNL, 523.9515' FWL of Section 28)									
3,428.0	10.08	63.80	3,420.1	80.4	125.3	403,743.37	741,474.46	32° 6' 29.953 N	103° 41' 13.021 W
3,522.0	10.68	62.82	3,512.5	88.0	140.5	403,750.98	741,489.59	32° 6' 30.027 N	103° 41' 12.845 W
3,617.0	11.28	64.76	3,605.8	96.0	156.7	403,758.97	741,505.82	32° 6' 30.105 N	103° 41' 12.655 W
3,711.0	10.90	64.49	3,698.0	103.7	173.0	403,766.71	741,522.16	32° 6' 30.181 N	103° 41' 12.465 W
3,805.0	10.49	65.42	3,790.4	111.1	188.8	403,774.10	741,537.96	32° 6' 30.253 N	103° 41' 12.281 W
3,900.0	11.11	65.04	3,883.7	118.6	205.0	403,781.56	741,554.12	32° 6' 30.326 N	103° 41' 12.092 W
3,994.0	12.09	66.51	3,975.8	126.3	222.2	403,789.31	741,571.36	32° 6' 30.402 N	103° 41' 11.891 W
4,089.0	11.71	61.97	4,068.7	134.8	239.9	403,797.80	741,589.00	32° 6' 30.485 N	103° 41' 11.686 W
4,183.0	11.54	64.40	4,160.8	143.3	256.8	403,806.35	741,605.90	32° 6' 30.568 N	103° 41' 11.489 W
4,278.0	11.83	65.66	4,253.8	151.5	274.2	403,814.47	741,623.34	32° 6' 30.648 N	103° 41' 11.285 W
4,372.0	11.65	65.31	4,345.9	159.4	291.6	403,822.40	741,640.74	32° 6' 30.725 N	103° 41' 11.082 W
4,467.0	11.49	61.35	4,438.9	167.9	308.6	403,830.95	741,657.76	32° 6' 30.809 N	103° 41' 10.884 W
4,561.0	10.90	55.61	4,531.2	177.4	324.2	403,840.45	741,673.31	32° 6' 30.902 N	103° 41' 10.702 W
Section Crossing (0.0307' FNL, 736.3669' FWL of Section 28)									
4,562.0	10.89	55.55	4,532.1	177.6	324.3	403,840.56	741,673.46	32° 6' 30.903 N	103° 41' 10.701 W
4,656.0	10.43	52.41	4,624.5	187.8	338.4	403,850.77	741,687.53	32° 6' 31.003 N	103° 41' 10.536 W
4,751.0	11.11	52.70	4,717.9	198.6	352.5	403,861.57	741,701.62	32° 6' 31.109 N	103° 41' 10.372 W
4,846.0	11.97	53.77	4,810.9	209.9	367.7	403,872.94	741,716.85	32° 6' 31.221 N	103° 41' 10.194 W
4,941.0	11.93	54.80	4,903.9	221.4	383.7	403,884.42	741,732.82	32° 6' 31.333 N	103° 41' 10.007 W
5,035.0	11.68	55.81	4,995.9	232.4	399.5	403,895.37	741,748.63	32° 6' 31.441 N	103° 41' 9.823 W
5,130.0	11.28	57.03	5,089.0	242.8	415.3	403,905.83	741,764.38	32° 6' 31.543 N	103° 41' 9.639 W
5,229.0	10.98	59.49	5,186.1	252.9	431.5	403,915.88	741,780.63	32° 6' 31.642 N	103° 41' 9.449 W
5,385.0	10.31	57.80	5,339.4	267.9	456.1	403,930.86	741,805.24	32° 6' 31.789 N	103° 41' 9.162 W
5,479.0	11.88	57.42	5,431.7	277.5	471.4	403,940.56	741,820.51	32° 6' 31.884 N	103° 41' 8.984 W
5,574.0	11.56	56.38	5,524.7	288.1	487.6	403,951.09	741,836.68	32° 6' 31.987 N	103° 41' 8.795 W
5,667.0	11.10	54.88	5,615.9	298.4	502.6	403,961.40	741,851.76	32° 6' 32.088 N	103° 41' 8.619 W
5,762.0	10.74	60.72	5,709.2	308.0	517.8	403,970.99	741,866.96	32° 6' 32.182 N	103° 41' 8.442 W
5,857.0	11.63	59.91	5,802.4	317.1	533.9	403,980.12	741,882.97	32° 6' 32.271 N	103° 41' 8.255 W

Halliburton

Survey Report - Geographic

Company: Devon Energy Corporation
Project: Lea County, NM (NAD 83)
Site: Sec 28 T. 25 S., R.32E.
Well: Marwari 28-16 STATE FED COM 232H
Wellbore: Actual Drilled
Design: Actual Drilled

Local Co-ordinate Reference: Well Marwari 28-16 STATE FED COM 232H
TVD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
MD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: SOUTH US

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,952.0	11.88	64.50	5,895.4	326.1	551.0	403,989.13	741,900.08	32° 6' 32.360 N	103° 41' 8.056 W
6,046.0	11.93	64.58	5,987.3	334.5	568.5	403,997.47	741,917.59	32° 6' 32.441 N	103° 41' 7.851 W
6,141.0	11.91	62.93	6,080.3	343.1	586.1	404,006.14	741,935.18	32° 6' 32.526 N	103° 41' 7.646 W
6,236.0	11.71	67.98	6,173.3	351.2	603.7	404,014.22	741,952.85	32° 6' 32.605 N	103° 41' 7.440 W
6,331.0	11.27	63.95	6,266.4	358.9	621.0	404,021.91	741,970.13	32° 6' 32.680 N	103° 41' 7.239 W
6,426.0	11.53	71.60	6,359.5	366.0	638.4	404,028.99	741,987.48	32° 6' 32.749 N	103° 41' 7.037 W
6,520.0	11.12	72.29	6,451.7	371.7	655.9	404,034.71	742,005.03	32° 6' 32.804 N	103° 41' 6.832 W
6,615.0	10.58	72.23	6,545.0	377.1	672.9	404,040.16	742,022.06	32° 6' 32.857 N	103° 41' 6.634 W
6,709.0	10.91	69.44	6,637.3	382.9	689.5	404,045.91	742,038.61	32° 6' 32.913 N	103° 41' 6.441 W
6,804.0	12.21	66.12	6,730.4	390.1	707.1	404,053.14	742,056.21	32° 6' 32.984 N	103° 41' 6.236 W
6,899.0	11.93	66.10	6,823.3	398.2	725.3	404,061.18	742,074.37	32° 6' 33.062 N	103° 41' 6.024 W
6,994.0	11.47	66.43	6,916.3	405.9	742.9	404,068.94	742,092.01	32° 6' 33.138 N	103° 41' 5.819 W
7,089.0	11.72	63.45	7,009.4	414.0	760.2	404,077.03	742,109.30	32° 6' 33.217 N	103° 41' 5.617 W
7,183.0	12.92	61.21	7,101.2	423.3	777.9	404,086.36	742,127.05	32° 6' 33.308 N	103° 41' 5.410 W
7,278.0	12.09	60.56	7,194.0	433.4	795.9	404,096.36	742,145.02	32° 6' 33.406 N	103° 41' 5.200 W
7,372.0	11.39	59.91	7,286.0	442.8	812.5	404,105.86	742,161.63	32° 6' 33.499 N	103° 41' 5.007 W
7,467.0	11.85	62.41	7,379.1	452.1	829.3	404,115.08	742,178.39	32° 6' 33.589 N	103° 41' 4.811 W
7,559.0	12.13	66.32	7,469.1	460.3	846.5	404,123.33	742,195.61	32° 6' 33.670 N	103° 41' 4.610 W
7,653.0	11.12	64.56	7,561.1	468.2	863.7	404,131.19	742,212.84	32° 6' 33.747 N	103° 41' 4.409 W
7,746.0	11.97	63.74	7,652.3	476.3	880.5	404,139.31	742,229.59	32° 6' 33.826 N	103° 41' 4.214 W
7,840.0	11.42	64.36	7,744.3	484.6	897.6	404,147.65	742,246.72	32° 6' 33.908 N	103° 41' 4.014 W
7,934.0	12.24	64.43	7,836.3	493.0	915.0	404,155.98	742,264.10	32° 6' 33.989 N	103° 41' 3.812 W
8,028.0	11.88	64.32	7,928.2	501.5	932.7	404,164.47	742,281.81	32° 6' 34.072 N	103° 41' 3.605 W
8,123.0	11.33	63.99	8,021.3	509.8	949.9	404,172.80	742,299.01	32° 6' 34.153 N	103° 41' 3.405 W
8,217.0	12.34	64.89	8,113.3	518.1	967.3	404,181.12	742,316.40	32° 6' 34.235 N	103° 41' 3.202 W
8,311.0	11.44	64.70	8,205.3	526.4	984.8	404,189.36	742,333.92	32° 6' 34.315 N	103° 41' 2.997 W
8,406.0	11.89	70.77	8,298.3	533.6	1,002.6	404,196.61	742,351.68	32° 6' 34.386 N	103° 41' 2.790 W
8,500.0	10.74	68.62	8,390.5	540.0	1,019.9	404,202.99	742,368.98	32° 6' 34.448 N	103° 41' 2.589 W
8,594.0	10.27	66.69	8,482.9	546.5	1,035.7	404,209.50	742,384.84	32° 6' 34.511 N	103° 41' 2.404 W
8,689.0	9.20	66.91	8,576.5	552.8	1,050.5	404,215.83	742,399.60	32° 6' 34.573 N	103° 41' 2.232 W
8,783.0	8.02	66.68	8,669.5	558.4	1,063.4	404,221.38	742,412.53	32° 6' 34.627 N	103° 41' 2.081 W
8,877.0	5.92	62.37	8,762.8	563.2	1,073.7	404,226.22	742,422.85	32° 6' 34.675 N	103° 41' 1.961 W
8,971.0	5.44	58.01	8,856.3	567.8	1,081.8	404,230.83	742,430.93	32° 6' 34.720 N	103° 41' 1.867 W
9,065.0	4.83	51.33	8,949.9	572.7	1,088.7	404,235.66	742,437.79	32° 6' 34.767 N	103° 41' 1.787 W
9,158.0	3.43	30.75	9,042.7	577.5	1,093.2	404,240.50	742,442.27	32° 6' 34.815 N	103° 41' 1.734 W
9,250.0	3.77	17.95	9,134.5	582.7	1,095.5	404,245.74	742,444.61	32° 6' 34.866 N	103° 41' 1.707 W
9,343.0	2.65	8.33	9,227.4	587.8	1,096.8	404,250.78	742,445.87	32° 6' 34.916 N	103° 41' 1.692 W
9,435.0	2.91	3.52	9,319.3	592.2	1,097.2	404,255.21	742,446.32	32° 6' 34.960 N	103° 41' 1.686 W
9,527.0	1.93	5.02	9,411.2	596.1	1,097.5	404,259.09	742,446.60	32° 6' 34.998 N	103° 41' 1.683 W
9,619.0	2.08	2.30	9,503.1	599.3	1,097.7	404,262.30	742,446.80	32° 6' 35.030 N	103° 41' 1.680 W
9,712.0	1.88	9.92	9,596.1	602.5	1,098.0	404,265.49	742,447.13	32° 6' 35.062 N	103° 41' 1.676 W
9,806.0	1.75	2.74	9,690.0	605.4	1,098.3	404,268.44	742,447.46	32° 6' 35.091 N	103° 41' 1.672 W
9,900.0	1.55	359.80	9,784.0	608.1	1,098.4	404,271.15	742,447.53	32° 6' 35.118 N	103° 41' 1.671 W
9,995.0	1.23	2.99	9,879.0	610.4	1,098.5	404,273.45	742,447.58	32° 6' 35.140 N	103° 41' 1.670 W
10,021.0	1.17	3.18	9,904.9	611.0	1,098.5	404,273.99	742,447.61	32° 6' 35.146 N	103° 41' 1.670 W
10,089.0	0.65	161.98	9,972.9	611.3	1,098.6	404,274.32	742,447.76	32° 6' 35.149 N	103° 41' 1.668 W
(KOP 421.7039' FSL, 1513.4288' FWL of Section 21)									
10,121.0	3.70	166.91	10,004.9	610.1	1,098.9	404,273.14	742,448.05	32° 6' 35.137 N	103° 41' 1.665 W
10,152.0	7.46	165.60	10,035.8	607.2	1,099.7	404,270.22	742,448.78	32° 6' 35.108 N	103° 41' 1.656 W
10,184.0	11.26	165.34	10,067.3	602.2	1,101.0	404,265.18	742,450.09	32° 6' 35.058 N	103° 41' 1.642 W
10,214.0	14.83	166.22	10,096.6	595.6	1,102.6	404,258.62	742,451.75	32° 6' 34.993 N	103° 41' 1.623 W
10,249.0	19.41	164.08	10,130.0	585.7	1,105.3	404,248.67	742,454.41	32° 6' 34.895 N	103° 41' 1.593 W
10,282.0	23.73	164.29	10,160.7	574.0	1,108.6	404,237.00	742,457.71	32° 6' 34.779 N	103° 41' 1.555 W
10,311.0	26.48	166.52	10,186.9	562.1	1,111.7	404,225.09	742,460.80	32° 6' 34.661 N	103° 41' 1.520 W
10,338.0	28.58	169.46	10,210.9	549.9	1,114.3	404,212.89	742,463.39	32° 6' 34.540 N	103° 41' 1.491 W

Halliburton

Survey Report - Geographic

Company: Devon Energy Corporation
Project: Lea County, NM (NAD 83)
Site: Sec 28 T. 25 S., R. 32E.
Well: Marwari 28-16 STATE FED COM 232H
Wellbore: Actual Drilled
Design: Actual Drilled

Local Co-ordinate Reference: Well Marwari 28-16 STATE FED COM 232H
TVD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
MD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: SOUTH US

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,378.0	32.72	172.34	10,245.3	529.7	1,117.5	404,192.76	742,466.58	32° 6' 34.341 N	103° 41' 1.455 W
10,404.0	35.59	171.82	10,266.8	515.3	1,119.5	404,178.30	742,468.59	32° 6' 34.198 N	103° 41' 1.433 W
10,436.0	39.96	170.33	10,292.1	495.9	1,122.5	404,158.94	742,471.64	32° 6' 34.006 N	103° 41' 1.398 W
10,467.0	43.71	171.11	10,315.2	475.5	1,125.9	404,138.54	742,474.97	32° 6' 33.804 N	103° 41' 1.361 W
10,499.0	46.83	171.32	10,337.7	453.1	1,129.3	404,116.07	742,478.44	32° 6' 33.581 N	103° 41' 1.322 W
10,531.0	49.02	173.00	10,359.1	429.5	1,132.6	404,092.55	742,481.68	32° 6' 33.348 N	103° 41' 1.286 W
10,564.0	51.00	174.54	10,380.3	404.4	1,135.3	404,067.41	742,484.42	32° 6' 33.099 N	103° 41' 1.256 W
10,594.0	52.64	175.46	10,398.9	380.9	1,137.4	404,043.92	742,486.47	32° 6' 32.867 N	103° 41' 1.234 W
10,626.0	54.98	174.83	10,417.8	355.2	1,139.5	404,018.19	742,488.66	32° 6' 32.612 N	103° 41' 1.210 W
10,657.0	58.33	175.41	10,434.8	329.4	1,141.7	403,992.39	742,490.86	32° 6' 32.357 N	103° 41' 1.187 W
10,689.0	60.48	175.29	10,451.1	301.9	1,144.0	403,964.94	742,493.09	32° 6' 32.085 N	103° 41' 1.163 W
10,721.0	61.90	175.12	10,466.5	274.0	1,146.3	403,937.00	742,495.43	32° 6' 31.808 N	103° 41' 1.137 W
10,752.0	64.17	174.56	10,480.6	246.5	1,148.8	403,909.48	742,497.92	32° 6' 31.536 N	103° 41' 1.110 W
10,784.0	66.62	174.80	10,493.9	217.5	1,151.5	403,880.52	742,500.62	32° 6' 31.249 N	103° 41' 1.081 W
10,814.0	68.03	175.56	10,505.5	189.9	1,153.8	403,852.94	742,502.94	32° 6' 30.976 N	103° 41' 1.056 W
Section Crossing (0.4902' FNL, 1566.0615' FWL of Section 28)									
10,816.0	68.12	175.61	10,506.2	188.1	1,154.0	403,851.09	742,503.08	32° 6' 30.958 N	103° 41' 1.054 W
10,847.0	69.87	176.88	10,517.3	159.2	1,155.9	403,822.21	742,504.98	32° 6' 30.672 N	103° 41' 1.034 W
10,879.0	73.29	177.54	10,527.4	128.9	1,157.3	403,791.89	742,506.45	32° 6' 30.372 N	103° 41' 1.019 W
10,911.0	76.30	177.65	10,535.8	98.0	1,158.6	403,761.04	742,507.75	32° 6' 30.066 N	103° 41' 1.007 W
10,919.0	77.13	177.67	10,537.7	90.3	1,159.0	403,753.26	742,508.07	32° 6' 29.989 N	103° 41' 1.003 W
Perf Line Crossing (100.2323' FNL, 1670.2965' FWL of Section 28)									
10,919.6	77.19	177.67	10,537.8	89.7	1,159.0	403,752.71	742,508.09	32° 6' 29.984 N	103° 41' 1.003 W
LP Marwari 28-16 STATE FED COM 232H									
10,943.0	79.61	177.73	10,542.5	66.8	1,159.9	403,729.77	742,509.01	32° 6' 29.757 N	103° 41' 0.994 W
11,015.0	85.91	175.80	10,551.6	-4.5	1,163.9	403,658.50	742,513.05	32° 6' 29.051 N	103° 41' 0.952 W
11,108.0	89.45	174.86	10,555.3	-97.1	1,171.5	403,565.90	742,520.61	32° 6' 28.134 N	103° 41' 0.871 W
11,198.0	88.92	174.85	10,556.6	-186.7	1,179.6	403,476.27	742,528.68	32° 6' 27.247 N	103° 41' 0.783 W
11,290.0	89.23	174.44	10,558.1	-278.3	1,188.2	403,384.69	742,537.27	32° 6' 26.340 N	103° 41' 0.690 W
11,382.0	90.43	176.88	10,558.4	-370.0	1,195.1	403,292.96	742,544.23	32° 6' 25.432 N	103° 41' 0.615 W
11,472.0	89.82	178.40	10,558.2	-460.0	1,198.8	403,203.04	742,547.93	32° 6' 24.542 N	103° 41' 0.578 W
11,563.0	89.45	178.76	10,558.8	-550.9	1,201.1	403,112.07	742,550.19	32° 6' 23.642 N	103° 41' 0.559 W
11,653.0	89.48	178.99	10,559.6	-640.9	1,202.8	403,022.09	742,551.96	32° 6' 22.751 N	103° 41' 0.544 W
11,744.0	87.57	180.08	10,561.9	-731.9	1,203.6	402,931.13	742,552.70	32° 6' 21.851 N	103° 41' 0.542 W
11,835.0	88.34	180.80	10,565.2	-822.8	1,202.9	402,840.19	742,552.00	32° 6' 20.951 N	103° 41' 0.557 W
11,926.0	88.03	180.55	10,568.1	-913.8	1,201.8	402,749.25	742,550.93	32° 6' 20.051 N	103° 41' 0.575 W
12,017.0	87.26	180.50	10,571.8	-1,004.7	1,201.0	402,658.33	742,550.09	32° 6' 19.152 N	103° 41' 0.592 W
12,109.0	88.92	180.46	10,574.9	-1,096.6	1,200.2	402,566.38	742,549.32	32° 6' 18.242 N	103° 41' 0.607 W
12,199.0	89.02	180.44	10,576.5	-1,186.6	1,199.5	402,476.40	742,548.62	32° 6' 17.351 N	103° 41' 0.621 W
12,290.0	88.06	180.32	10,578.8	-1,277.6	1,198.9	402,385.43	742,548.01	32° 6' 16.451 N	103° 41' 0.635 W
12,385.0	87.81	180.93	10,582.2	-1,372.5	1,197.9	402,290.50	742,546.98	32° 6' 15.512 N	103° 41' 0.654 W
12,479.0	89.45	179.56	10,584.5	-1,466.5	1,197.5	402,196.54	742,546.57	32° 6' 14.582 N	103° 41' 0.665 W
12,573.0	89.01	180.20	10,585.8	-1,560.5	1,197.7	402,102.54	742,546.77	32° 6' 13.652 N	103° 41' 0.669 W
12,666.0	88.77	180.77	10,587.6	-1,653.4	1,196.9	402,009.57	742,545.98	32° 6' 12.732 N	103° 41' 0.685 W
12,760.0	89.51	181.22	10,589.0	-1,747.4	1,195.2	401,915.59	742,544.35	32° 6' 11.802 N	103° 41' 0.710 W
12,852.0	89.60	178.85	10,589.7	-1,839.4	1,195.2	401,823.60	742,544.30	32° 6' 10.892 N	103° 41' 0.717 W
12,945.0	89.20	178.48	10,590.7	-1,932.4	1,197.3	401,730.63	742,546.46	32° 6' 9.972 N	103° 41' 0.699 W
13,038.0	88.98	178.78	10,592.1	-2,025.3	1,199.6	401,637.67	742,548.69	32° 6' 9.052 N	103° 41' 0.679 W
13,130.0	90.12	179.38	10,592.9	-2,117.3	1,201.0	401,545.69	742,550.16	32° 6' 8.141 N	103° 41' 0.669 W
13,223.0	90.40	179.45	10,592.4	-2,210.3	1,202.0	401,452.69	742,551.11	32° 6' 7.221 N	103° 41' 0.664 W
13,315.0	90.31	179.73	10,591.9	-2,302.3	1,202.7	401,360.70	742,551.77	32° 6' 6.311 N	103° 41' 0.663 W
13,407.0	89.54	179.16	10,592.0	-2,394.3	1,203.5	401,268.70	742,552.66	32° 6' 5.400 N	103° 41' 0.659 W
13,500.0	89.07	179.02	10,593.1	-2,487.3	1,205.0	401,175.72	742,554.14	32° 6' 4.480 N	103° 41' 0.648 W
13,594.0	89.29	178.85	10,594.5	-2,581.3	1,206.8	401,081.75	742,555.89	32° 6' 3.550 N	103° 41' 0.635 W
13,688.0	89.17	178.38	10,595.7	-2,675.2	1,209.0	400,987.78	742,558.16	32° 6' 2.620 N	103° 41' 0.615 W

Halliburton

Survey Report - Geographic

Company: Devon Energy Corporation
Project: Lea County, NM (NAD 83)
Site: Sec 28 T. 25 S., R.32E.
Well: Marwari 28-16 STATE FED COM 232H
Wellbore: Actual Drilled
Design: Actual Drilled

Local Co-ordinate Reference: Well Marwari 28-16 STATE FED COM 232H
TVD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
MD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: SOUTH US

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,783.0	90.00	178.78	10,596.4	-2,770.2	1,211.4	400,892.82	742,560.51	32° 6' 1.680 N	103° 41' 0.594 W
13,876.0	90.56	178.54	10,596.0	-2,863.2	1,213.6	400,799.84	742,562.69	32° 6' 0.760 N	103° 41' 0.575 W
13,970.0	88.67	179.02	10,596.6	-2,957.1	1,215.6	400,705.87	742,564.69	32° 5' 59.830 N	103° 41' 0.559 W
14,063.0	88.21	179.36	10,599.1	-3,050.1	1,216.9	400,612.92	742,566.00	32° 5' 58.910 N	103° 41' 0.550 W
14,157.0	87.81	179.28	10,602.4	-3,144.0	1,218.0	400,518.98	742,567.12	32° 5' 57.980 N	103° 41' 0.544 W
14,251.0	87.32	179.38	10,606.4	-3,237.9	1,219.1	400,425.07	742,568.22	32° 5' 57.051 N	103° 41' 0.537 W
14,345.0	86.63	179.86	10,611.3	-3,331.8	1,219.7	400,331.20	742,568.84	32° 5' 56.122 N	103° 41' 0.537 W
14,440.0	87.90	179.69	10,615.9	-3,426.7	1,220.1	400,236.32	742,569.21	32° 5' 55.183 N	103° 41' 0.539 W
14,535.0	89.35	179.19	10,618.1	-3,521.7	1,221.0	400,141.35	742,570.14	32° 5' 54.243 N	103° 41' 0.535 W
14,629.0	89.75	179.65	10,618.9	-3,615.7	1,222.0	400,047.36	742,571.09	32° 5' 53.313 N	103° 41' 0.530 W
14,722.0	89.97	180.00	10,619.1	-3,708.7	1,222.3	399,954.36	742,571.37	32° 5' 52.393 N	103° 41' 0.534 W
14,817.0	89.63	180.74	10,619.4	-3,803.6	1,221.6	399,859.36	742,570.76	32° 5' 51.453 N	103° 41' 0.547 W
14,911.0	89.07	181.16	10,620.5	-3,897.6	1,220.1	399,765.38	742,569.20	32° 5' 50.523 N	103° 41' 0.572 W
15,005.0	89.01	179.23	10,622.1	-3,991.6	1,219.8	399,671.40	742,568.88	32° 5' 49.593 N	103° 41' 0.582 W
15,097.0	88.95	179.86	10,623.7	-4,083.6	1,220.5	399,579.42	742,569.61	32° 5' 48.683 N	103° 41' 0.580 W
15,190.0	88.83	178.51	10,625.5	-4,176.6	1,221.8	399,486.45	742,570.94	32° 5' 47.763 N	103° 41' 0.571 W
15,282.0	89.39	178.67	10,627.0	-4,268.5	1,224.1	399,394.49	742,573.20	32° 5' 46.853 N	103° 41' 0.552 W
15,374.0	89.17	178.66	10,628.1	-4,360.5	1,226.2	399,302.52	742,575.34	32° 5' 45.942 N	103° 41' 0.533 W
15,467.0	88.92	178.81	10,629.7	-4,453.5	1,228.3	399,209.55	742,577.40	32° 5' 45.022 N	103° 41' 0.516 W
15,559.0	89.01	178.97	10,631.3	-4,545.4	1,230.1	399,117.59	742,579.18	32° 5' 44.112 N	103° 41' 0.502 W
15,652.0	89.32	178.50	10,632.7	-4,638.4	1,232.1	399,024.62	742,581.23	32° 5' 43.192 N	103° 41' 0.484 W
15,746.0	88.61	178.87	10,634.4	-4,732.3	1,234.3	398,930.66	742,583.39	32° 5' 42.262 N	103° 41' 0.466 W
15,841.0	88.52	178.96	10,636.8	-4,827.3	1,236.1	398,835.71	742,585.19	32° 5' 41.322 N	103° 41' 0.451 W
15,936.0	88.80	179.07	10,639.0	-4,922.3	1,237.7	398,740.75	742,586.82	32° 5' 40.383 N	103° 41' 0.439 W
16,031.0	88.80	179.28	10,641.0	-5,017.2	1,239.1	398,645.78	742,588.19	32° 5' 39.443 N	103° 41' 0.430 W
16,082.0	88.57	179.27	10,642.1	-5,068.2	1,239.7	398,594.80	742,588.83	32° 5' 38.938 N	103° 41' 0.426 W
Section Crossing (0.1895' FNL, 1602.9124' FWL of Section 33)									
16,126.0	88.37	179.26	10,643.3	-5,112.2	1,240.3	398,550.81	742,589.40	32° 5' 38.503 N	103° 41' 0.422 W
16,220.0	88.21	178.86	10,646.1	-5,206.1	1,241.8	398,456.87	742,590.94	32° 5' 37.573 N	103° 41' 0.411 W
16,315.0	90.15	177.78	10,647.5	-5,301.1	1,244.6	398,361.93	742,593.72	32° 5' 36.633 N	103° 41' 0.385 W
16,409.0	91.48	177.94	10,646.1	-5,395.0	1,248.1	398,268.00	742,597.23	32° 5' 35.704 N	103° 41' 0.351 W
16,504.0	91.33	178.31	10,643.8	-5,489.9	1,251.2	398,173.08	742,600.34	32° 5' 34.764 N	103° 41' 0.322 W
16,599.0	91.26	178.50	10,641.7	-5,584.9	1,253.9	398,078.14	742,602.98	32° 5' 33.825 N	103° 41' 0.298 W
16,694.0	90.86	178.51	10,639.9	-5,679.8	1,256.3	397,983.19	742,605.46	32° 5' 32.885 N	103° 41' 0.275 W
16,789.0	90.53	179.11	10,638.8	-5,774.8	1,258.3	397,888.22	742,607.43	32° 5' 31.945 N	103° 41' 0.259 W
16,882.0	90.31	179.86	10,638.1	-5,867.8	1,259.2	397,795.23	742,608.27	32° 5' 31.025 N	103° 41' 0.256 W
16,977.0	90.34	180.19	10,637.5	-5,962.8	1,259.1	397,700.23	742,608.23	32° 5' 30.085 N	103° 41' 0.263 W
17,072.0	90.15	180.61	10,637.1	-6,057.8	1,258.4	397,605.23	742,607.56	32° 5' 29.145 N	103° 41' 0.277 W
17,166.0	90.18	181.30	10,636.9	-6,151.8	1,256.9	397,511.25	742,606.00	32° 5' 28.215 N	103° 41' 0.302 W
17,261.0	90.28	181.07	10,636.5	-6,246.7	1,254.9	397,416.27	742,604.03	32° 5' 27.275 N	103° 41' 0.332 W
17,355.0	90.37	181.72	10,635.9	-6,340.7	1,252.6	397,322.30	742,601.75	32° 5' 26.345 N	103° 41' 0.365 W
17,449.0	90.56	181.51	10,635.2	-6,434.7	1,250.0	397,228.34	742,599.10	32° 5' 25.416 N	103° 41' 0.402 W
17,544.0	89.85	181.63	10,634.8	-6,529.6	1,247.4	397,133.38	742,596.49	32° 5' 24.476 N	103° 41' 0.439 W
17,638.0	89.69	181.68	10,635.2	-6,623.6	1,244.7	397,039.42	742,593.78	32° 5' 23.546 N	103° 41' 0.477 W
17,733.0	91.01	181.01	10,634.6	-6,718.6	1,242.4	396,944.45	742,591.55	32° 5' 22.607 N	103° 41' 0.510 W
17,827.0	90.71	180.65	10,633.2	-6,812.5	1,241.1	396,850.47	742,590.19	32° 5' 21.677 N	103° 41' 0.532 W
17,921.0	92.28	178.86	10,630.8	-6,906.5	1,241.5	396,756.51	742,590.59	32° 5' 20.747 N	103° 41' 0.534 W
18,015.0	93.03	179.11	10,626.4	-7,000.4	1,243.1	396,662.62	742,592.25	32° 5' 19.818 N	103° 41' 0.521 W
18,110.0	91.57	178.76	10,622.6	-7,095.3	1,244.9	396,567.72	742,594.02	32° 5' 18.879 N	103° 41' 0.508 W
18,205.0	90.49	178.41	10,620.9	-7,190.2	1,247.2	396,472.76	742,596.36	32° 5' 17.939 N	103° 41' 0.487 W
18,300.0	90.65	179.13	10,620.0	-7,285.2	1,249.3	396,377.79	742,598.40	32° 5' 16.999 N	103° 41' 0.470 W
18,394.0	89.75	178.36	10,619.6	-7,379.2	1,251.3	396,283.82	742,600.46	32° 5' 16.069 N	103° 41' 0.453 W
18,488.0	88.98	178.35	10,620.7	-7,473.1	1,254.0	396,189.86	742,603.16	32° 5' 15.139 N	103° 41' 0.428 W
18,583.0	89.60	177.96	10,621.8	-7,568.1	1,257.1	396,094.92	742,606.22	32° 5' 14.199 N	103° 41' 0.399 W
18,677.0	89.20	177.83	10,622.8	-7,662.0	1,260.6	396,000.99	742,609.67	32° 5' 13.270 N	103° 41' 0.365 W

Halliburton

Survey Report - Geographic

Company: Devon Energy Corporation
Project: Lea County, NM (NAD 83)
Site: Sec 28 T. 25 S., R. 32E.
Well: Marwari 28-16 STATE FED COM 232H
Wellbore: Actual Drilled
Design: Actual Drilled

Local Co-ordinate Reference: Well Marwari 28-16 STATE FED COM 232H
TVD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
MD Reference: RKB (Nabors X05) 32' + GL @ 3409.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: SOUTH US

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
18,772.0	89.05	178.41	10,624.3	-7,757.0	1,263.7	395,906.05	742,612.79	32° 5' 12.330 N	103° 41' 0.336 W
18,866.0	89.44	178.69	10,625.5	-7,850.9	1,266.0	395,812.09	742,615.16	32° 5' 11.400 N	103° 41' 0.315 W
18,961.0	89.11	178.62	10,626.7	-7,945.9	1,268.3	395,717.12	742,617.39	32° 5' 10.460 N	103° 41' 0.295 W
19,055.0	90.62	178.86	10,626.9	-8,039.9	1,270.3	395,623.15	742,619.46	32° 5' 9.530 N	103° 41' 0.278 W
19,150.0	90.74	179.23	10,625.8	-8,134.8	1,271.9	395,528.17	742,621.04	32° 5' 8.590 N	103° 41' 0.266 W
19,245.0	90.71	178.81	10,624.6	-8,229.8	1,273.6	395,433.19	742,622.67	32° 5' 7.650 N	103° 41' 0.254 W
19,339.0	89.57	178.71	10,624.4	-8,323.8	1,275.6	395,339.21	742,624.70	32° 5' 6.720 N	103° 41' 0.237 W
19,433.0	91.67	177.39	10,623.4	-8,417.7	1,278.8	395,245.28	742,627.90	32° 5' 5.790 N	103° 41' 0.206 W
19,528.0	92.47	177.54	10,619.9	-8,512.6	1,283.0	395,150.44	742,632.10	32° 5' 4.851 N	103° 41' 0.164 W
19,623.0	91.26	177.56	10,616.8	-8,607.4	1,287.0	395,055.58	742,636.16	32° 5' 3.913 N	103° 41' 0.124 W
19,717.0	90.71	177.45	10,615.2	-8,701.3	1,291.1	394,961.68	742,640.25	32° 5' 2.983 N	103° 41' 0.083 W
19,811.0	90.25	176.97	10,614.4	-8,795.2	1,295.7	394,867.79	742,644.82	32° 5' 2.054 N	103° 41' 0.036 W
19,905.0	89.54	177.30	10,614.6	-8,889.1	1,300.4	394,773.91	742,649.52	32° 5' 1.124 N	103° 40' 59.988 W
19,999.0	90.65	177.81	10,614.5	-8,983.0	1,304.4	394,680.00	742,653.53	32° 5' 0.195 N	103° 40' 59.948 W
20,094.0	90.89	176.55	10,613.2	-9,077.9	1,309.1	394,585.13	742,658.21	32° 4' 59.256 N	103° 40' 59.900 W
20,189.0	90.59	176.53	10,612.0	-9,172.7	1,314.8	394,490.31	742,663.94	32° 4' 58.317 N	103° 40' 59.840 W
20,284.0	90.61	176.74	10,611.0	-9,267.5	1,320.4	394,395.48	742,669.52	32° 4' 57.378 N	103° 40' 59.782 W
20,379.0	91.02	177.83	10,609.6	-9,362.4	1,324.9	394,300.59	742,674.01	32° 4' 56.439 N	103° 40' 59.737 W
20,473.0	91.11	178.37	10,607.9	-9,456.3	1,328.0	394,206.66	742,677.13	32° 4' 55.510 N	103° 40' 59.707 W
20,568.0	90.28	178.39	10,606.7	-9,551.3	1,330.7	394,111.71	742,679.82	32° 4' 54.570 N	103° 40' 59.682 W
20,662.0	90.49	178.66	10,606.1	-9,645.3	1,333.1	394,017.74	742,682.24	32° 4' 53.640 N	103° 40' 59.661 W
20,756.0	90.95	178.97	10,604.9	-9,739.2	1,335.1	393,923.77	742,684.18	32° 4' 52.710 N	103° 40' 59.645 W
20,851.0	90.74	178.89	10,603.5	-9,834.2	1,336.8	393,828.80	742,685.95	32° 4' 51.770 N	103° 40' 59.631 W
20,946.0	90.92	180.44	10,602.1	-9,929.2	1,337.4	393,733.81	742,686.51	32° 4' 50.830 N	103° 40' 59.631 W
21,039.0	91.54	180.02	10,600.1	-10,022.2	1,337.0	393,640.83	742,686.14	32° 4' 49.910 N	103° 40' 59.642 W
21,134.0	91.42	179.28	10,597.7	-10,117.1	1,337.6	393,545.87	742,686.72	32° 4' 48.970 N	103° 40' 59.642 W
21,229.0	90.93	178.99	10,595.7	-10,212.1	1,339.0	393,450.90	742,688.15	32° 4' 48.030 N	103° 40' 59.632 W
21,264.0	90.73	179.33	10,595.2	-10,247.1	1,339.5	393,415.91	742,688.66	32° 4' 47.684 N	103° 40' 59.628 W
Perf Line Crossing (100.3281' FSL, 1687.0054' FWL of Section 33)									
21,284.0	90.62	179.53	10,595.0	-10,267.1	1,339.7	393,395.91	742,688.86	32° 4' 47.486 N	103° 40' 59.627 W
21,342.0	90.62	179.53	10,594.3	-10,325.1	1,340.2	393,337.91	742,689.34	32° 4' 46.912 N	103° 40' 59.626 W
Projection to TD (23.3329' FSL, 1687.4379' FWL of Section 33) - PBHL of Marwari 28-16 STATE FED COM 232H									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,345.0	3,338.3	74.2	112.7	Perf Line Crossing (99.9967' FNL, 523.9515' FWL of Section 28)
4,561.0	4,531.2	177.4	324.2	Section Crossing (0.0307' FNL, 736.3669' FWL of Section 28)
10,089.0	9,972.9	611.3	1,098.6	(KOP 421.7039' FSL, 1513.4288' FWL of Section 21)
10,814.0	10,505.5	189.9	1,153.8	Section Crossing (0.4902' FNL, 1566.0615' FWL of Section 28)
10,919.0	10,537.7	90.3	1,159.0	Perf Line Crossing (100.2323' FNL, 1570.2955' FWL of Section 28)
16,082.0	10,642.1	-5,068.2	1,239.7	Section Crossing (0.1895' FNL, 1602.9124' FWL of Section 33)
21,264.0	10,595.2	-10,247.1	1,339.5	Perf Line Crossing (100.3281' FSL, 1687.0054' FWL of Section 33)
21,342.0	10,594.3	-10,325.1	1,340.2	Projection to TD (23.3329' FSL, 1687.4379' FWL of Section 33)

Checked By: _____ Approved By: _____ Date: _____