

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FEB 18 2014

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM0107697

6. If Indian, Allottee or Tribe Name

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

7. Unit or CA Agreement Name and No.

2. Name of Operator
DEVON ENERGY PRODUCTION CO LP

Contact: JUDY A BARNETT

8. Lease Name and Well No.
ANTARES 23 FED COM 1H3. Address 333 WEST SHERIDAN AVE
OKLAHOMA CITY, OK 731023a. Phone No. (include area code)
Ph: 405.228.86999. API Well No.
30-015-41105-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NWNW 1030FNL 225FWL

At top prod interval reported below NWNW 413FNL 330FWL

At total depth NENE 377FNL 341FEL

10. Field and Pool, or Exploratory
LUSK11. Sec., T., R., M., or Block and Survey
or Area Sec 23 T19S R31E Mer NMP12. County or Parish
EDDY13. State
NM14. Date Spudded
08/22/201315. Date T.D. Reached
09/20/201316. Date Completed
☐ D & A ☒ Ready to Prod.
12/24/201317. Elevations (DF, KB, RT, GL)*
3541 GL18. Total Depth: MD
TVD 13684
921719. Plug Back T.D.: MD
TVD20. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CALIPER; DENSITY LAT LOG; SGR22. 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
26.000	20.000 J-55	94.0	0	640		1510		0	
17.500	13.375 J-55	68.0	0	2632		1940		0	
12.250	9.625 J-55	40.0	0	4320	2737	1431		0	
8.750	5.500 P-110	17.0	0	13684	5023	2585		2298	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8882							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRINGS	6957	13634	9361 TO 13609	0.420	300	PRODUCING
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
9361 TO 13166	ACIDIZE & FRAC PERFS IN 10 STAGES W/ TOTAL 38,290# MESH WHITE SD; 995,126# 40/70 WHITE SD; 268,280#

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
12/24/2013	12/24/2013	24	→	211.0	0.0	1536.0			ELECTRIC PUMP-SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	380	200.0	→	211	0	1536		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 #231505 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICERECLAMATION
DUE 6-24-14

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
				TOP SALT	830
				BASE OF SALT	2310
				YATES	2403
				CAPITAN REEF	2700
				DELAWARE	4430

32. Additional remarks (include plugging procedure):

DV TOOL @ 2737'
DV TOOL @ 5023'

10/25/13 - 12/10/13

DO DV @ 5020'. PT csg @ 1000 psi, good. Set pkr @ 5141'. CO to PBTD @ 13,634'. CHC w/ 340 bbls KCL. RU WL & RIH w/ CBL. TOC @ 2298'. PU TCP guns & perf 9361 - 13166' @ 4 spf: Total shots 400. Acidize perfs in 10 stages w/ total: 38,290# 100 Mesh; 995,126#

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 #231505 Verified by the BLM Well Information System.
For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad
Committed to AFMSS for processing by JOHNNY DICKERSON on 01/17/2014 (14JLD1751SE)

Name (please print) JUDY A BARNETT

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 01/09/2014

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.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

Additional data for transaction #231505 that would not fit on the form

32. Additional remarks, continued

40/70 white and 268,280# 40/70 Super LC. Total wtr pumped fro Jones Frac Pond 119,862 bbls. Set cap plut @ 8500'. RDMO frac crew. RU WSU. NU BOP. Spot in tbg. DO plugs. CHC. RIH w/ ESP @ 8576'. EOT @ 8882'. ND BOP. SWI. TOP.

devon

Project: Eddy County (NAD83)
 Site: Antares 23 Fed
 Well: #1H
 OH
 OH



Azimuths to Grid North
 True North: -0.26°
 Magnetic North: 7.31°

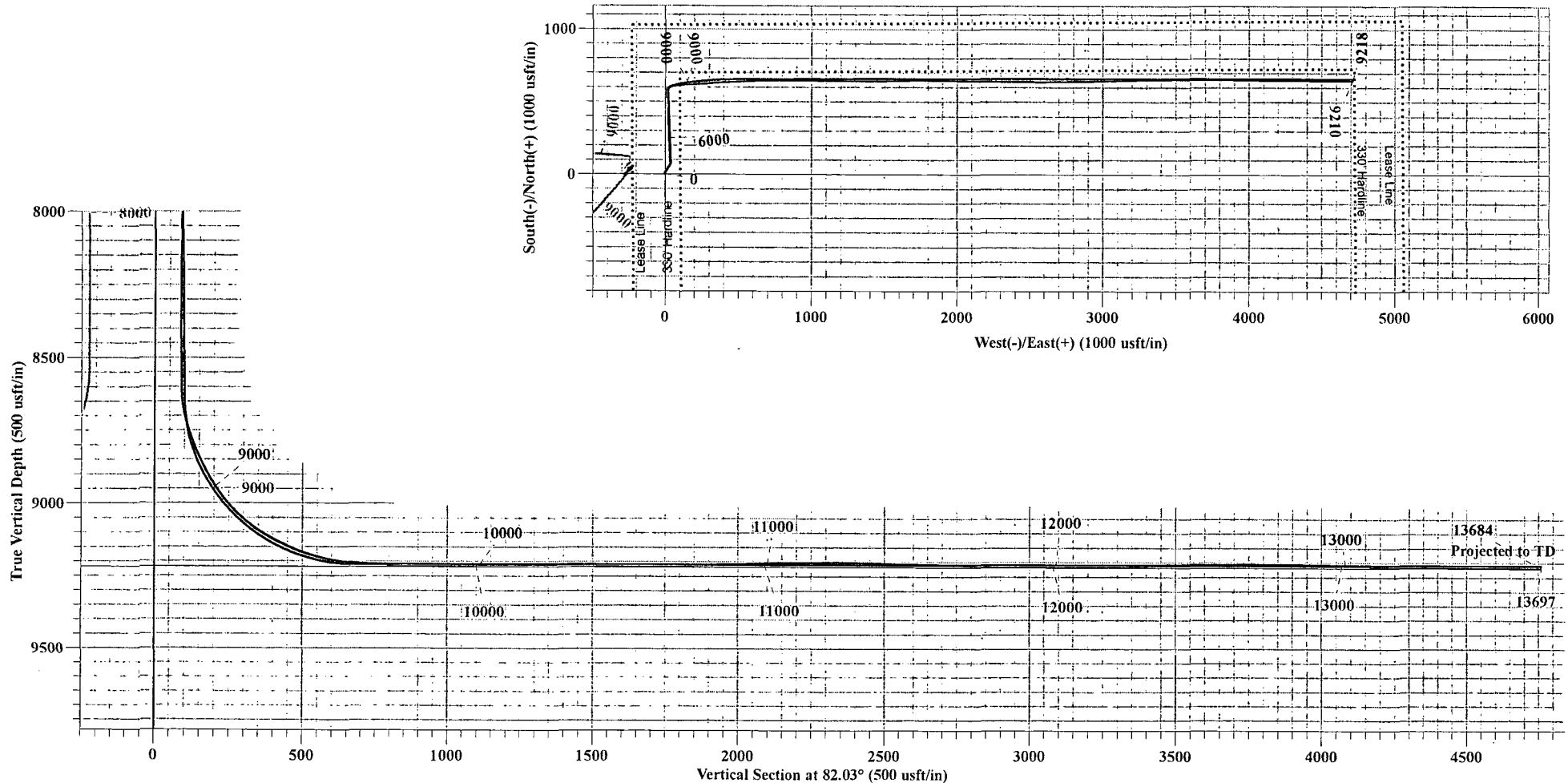
Magnetic Field
 Strength: 48574.2nT
 Dip Angle: 60.43°
 Date: 9/28/2013
 Model: BGGM2012

PATHFINDER

A Schlumberger Company

WELL DETAILS: #1H

KB = 26 @ 3567.00usft (H&P 300)		3541.00	
+N/-S	+E/-W	Northing	Easting
0.00	0.00	600683.49	690769.77
		Latitude	Longitude
		$32^\circ 39' 1.395''$ N	$103^\circ 50' 52.149''$ W



Design: OH (#1H/OH)

Created By: Jenise Kirkpatrick Date: 9:02, September 17 2013

Devon Energy, Inc.

Eddy County (NAD83)

Antares 23 Fed

#1H

OH

Design: OH

Standard Survey Report

17 September, 2013

Pathfinder - A Schlumberger Company

Survey Report

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26' @ 3567.00usft (H&P 300)
Site:	Antares 23 Fed	MD Reference:	KB = 26' @ 3567.00usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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

Site:	Antares 23 Fed		
Site Position:		Northing:	596,807.53 usft
From:	Map	Easting:	697,699.49 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 38' 22.721 N
		Longitude:	103° 49' 31.314 W
		Grid Convergence:	0.27 °

Well:	#1H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 39' 1.395 N
		Longitude:	103° 50' 52.149 W
		Ground Level:	3,541.00 usft

Wellbore:	OH		
Magnetics	Model Name	Sample Date	Declination
	BGGM2012	9/28/2013	7.58
			Dip Angle
			60.43
			Field Strength
			48,574

Design:	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			82.03

Survey Program	Date	9/17/2013		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100.00	4,320.00	#1 VES Gyro (OH)	GG ISCWSA	Good Gyro
4,352.00	13,684.00	Survey #2 Pathfinder MWD (OH)	Pathfinder	Pathfinder MWD

Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(%/100usft)	(%/100usft)	(%/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.17	282.64	100.00	0.03	-0.14	-0.14	0.17	0.17	0.00
200.00	0.31	322.51	200.00	0.28	-0.45	-0.41	0.21	0.14	39.87
300.00	0.48	341.07	300.00	0.89	-0.75	-0.62	0.21	0.17	18.56
400.00	0.58	339.22	399.99	1.76	-1.07	-0.82	0.10	0.10	-1.85
500.00	0.78	340.15	499.99	2.87	-1.48	-1.07	0.20	0.20	0.93
600.00	0.57	339.10	599.98	3.98	-1.89	-1.32	0.21	-0.21	-1.05
700.00	0.61	326.72	699.97	4.89	-2.36	-1.66	0.13	0.04	-12.38
800.00	0.46	320.56	799.97	5.64	-2.91	-2.10	0.16	-0.15	-6.16
900.00	0.43	335.42	899.97	6.29	-3.32	-2.41	0.12	-0.03	14.86

Pathfinder - A Schlumberger Company

Survey Report

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Site:	Antares 23 Fed	MD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N-S (usft)	E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.31	352.51	999.96	6.90	-3.51	-2.52	0.16	-0.12	17.09
1,100.00	0.19	352.86	1,099.96	7.34	-3.56	-2.51	0.12	-0.12	0.35
1,200.00	0.29	358.01	1,199.96	7.75	-3.59	-2.48	0.10	0.10	5.15
1,300.00	0.31	12.51	1,299.96	8.27	-3.54	-2.36	0.08	0.02	14.50
1,400.00	0.31	12.60	1,399.96	8.80	-3.43	-2.17	0.00	0.00	0.09
1,500.00	0.86	19.59	1,499.95	9.77	-3.12	-1.73	0.55	0.55	6.99
1,600.00	0.99	26.61	1,599.94	11.25	-2.48	-0.89	0.17	0.13	7.02
1,700.00	1.29	32.29	1,699.92	12.97	-1.49	0.32	0.32	0.30	5.68
1,800.00	1.82	40.00	1,799.88	15.14	0.13	2.23	0.57	0.53	7.71
1,900.00	1.80	36.35	1,899.83	17.62	2.08	4.51	0.12	-0.02	-3.65
2,000.00	2.29	38.15	1,999.77	20.46	4.25	7.05	0.49	0.49	1.80
2,100.00	2.36	36.36	2,099.69	23.69	6.70	9.92	0.10	0.07	-1.79
2,200.00	2.35	27.75	2,199.60	27.16	8.88	12.56	0.35	-0.01	-8.61
2,300.00	2.52	25.75	2,299.51	30.95	10.79	14.98	0.19	0.17	-2.00
2,400.00	2.45	23.58	2,399.42	34.89	12.60	17.32	0.12	-0.07	-2.17
2,500.00	2.44	28.08	2,499.33	38.73	14.46	19.69	0.19	-0.01	4.50
2,600.00	2.47	33.65	2,599.24	42.40	16.65	22.37	0.24	0.03	5.57
2,700.00	1.99	36.67	2,699.16	45.59	18.88	25.02	0.49	-0.48	3.02
2,800.00	1.66	45.57	2,799.11	48.00	20.95	27.41	0.43	-0.33	8.90
2,900.00	1.65	40.54	2,899.07	50.10	22.92	29.65	0.15	-0.01	-5.03
3,000.00	1.57	38.65	2,999.03	52.27	24.72	31.72	0.10	-0.08	-1.89
3,100.00	1.33	36.92	3,099.00	54.27	26.27	33.54	0.24	-0.24	-1.73
3,200.00	0.84	36.69	3,198.98	55.78	27.40	34.87	0.49	-0.49	-0.23
3,300.00	0.87	35.55	3,298.97	56.99	28.28	35.91	0.03	0.03	-1.14
3,400.00	0.63	28.54	3,398.96	58.09	28.99	36.76	0.26	-0.24	-7.01
3,500.00	0.98	21.14	3,498.95	59.37	29.56	37.50	0.36	0.35	-7.40
3,600.00	1.20	21.08	3,598.93	61.14	30.24	38.43	0.22	0.22	-0.06
3,700.00	0.73	27.27	3,698.92	62.69	30.91	39.31	0.48	-0.47	6.19
3,800.00	0.52	19.37	3,798.91	63.68	31.35	39.88	0.23	-0.21	-7.90
3,922.00	0.90	15.43	3,920.90	65.13	31.79	40.52	0.31	0.31	-3.23
4,000.00	1.11	16.55	3,998.89	66.44	32.17	41.07	0.27	0.27	1.44
4,100.00	1.28	19.33	4,098.87	68.42	32.82	41.99	0.18	0.17	2.78
4,200.00	1.44	19.23	4,198.84	70.66	33.60	43.07	0.16	0.16	-0.10
4,320.00	1.90	20.11	4,318.79	73.96	34.78	44.70	0.38	0.38	0.73
4,352.00	1.32	16.60	4,350.77	74.81	35.07	45.10	1.84	-1.81	-10.97
4,446.00	1.14	26.78	4,444.75	76.68	35.80	46.09	0.30	-0.19	10.83
4,541.00	2.73	352.02	4,539.70	79.76	35.91	46.62	2.01	1.67	-36.59
4,636.00	5.01	351.26	4,634.48	86.10	34.97	46.57	2.40	2.40	-0.80
4,730.00	7.03	347.16	4,727.95	95.77	33.06	46.02	2.20	2.15	-4.36
4,825.00	8.53	353.18	4,822.08	108.44	30.94	45.67	1.79	1.58	6.34
4,919.00	8.09	1.60	4,915.09	121.97	30.29	46.91	1.38	-0.47	8.96
5,014.00	7.74	0.68	5,009.19	135.05	30.55	48.98	0.39	-0.37	-0.97
5,108.00	6.95	359.56	5,102.42	147.07	30.59	50.68	0.85	-0.84	-1.19

CLDIR deg	DLS deg/100ft
254.87	-999.25
279.18	0.17
299.96	0.21
318.76	0.21
328.12	0.1
332.36	0.2
334.32	0.21
334.01	0.13
332.56	0.16
332.04	0.12
332.9	0.16
333.94	0.12
334.99	0.1
336.67	0.08
338.59	-999.25
342.19	0.55
347.47	0.17
353.36	0.32
0.42	0.57
6.68	0.12
11.68	0.49
15.76	0.1
18.07	0.35
19.18	0.19
19.83	0.12
20.44	0.19
21.42	0.24
22.48	0.49
23.57	0.43
24.57	0.14
25.29	0.1
25.81	0.24
26.15	0.49
26.38	0.03
26.51	0.26
26.45	0.36
26.31	0.22
26.24	0.48
26.2	0.23
26.01	0.31
25.82	0.27
25.61	0.18
25.42	0.16
25.18	0.38
25.11	1.84

25.02	0.3
24.23	2.01
22.09	2.4
19.04	2.2
15.91	1.8
13.94	1.37
12.74	0.39
11.74	0.85
10.79	0.76
9.89	0.56
9.07	0.29
8.55	1.43
8.37	0.2
7.98	1.57
7.31	0.32
6.65	0.4
6.06	0.37
5.48	1.29
5.04	1.21
4.8	0.24
4.57	0.36
4.36	0.48
4.16	0.59
3.96	0.12
3.73	0.83
3.48	0.09
3.22	0.43
3.05	0.74
2.95	0.52
2.86	0.59
2.79	1.77
2.71	0.82
2.62	0.27
2.59	1.05
2.63	0.99
2.7	1.05
2.69	1.32
2.54	1.63
2.29	1.19
1.95	1.28
1.61	0.87
1.35	0.83
1.21	0.94
1.13	0.38
1.08	1.39
1.05	2.41
1.02	2.43

1.11	10.92
1.36	13.03
1.81	10.11
2.41	12.36
3.2	10.49
4.1	9.02
5.14	9.5
6.24	5.62
7.46	7.6
8.78	8.7
10.17	9.78
11.7	7.44
13.27	10.43
15.01	13.1
16.78	12.81
18.66	11.34
20.54	14.06
22.53	10.19
24.46	8.93
26.43	7.8
28.3	6.53
30.19	7.41
31.98	9.1
33.79	9.39
35.53	8.81
37.27	9.89
38.9	10.62
39.91	11.86
44.35	7
48.21	3.63
51.67	2.05
54.66	0.75
57.28	0.39
59.61	0.46
61.69	0.49
63.48	1.31
65.06	1.03
66.43	0.34
67.64	1.04
68.73	1.08
69.73	1.14
70.69	2.39
71.61	0.38
72.46	0.68
73.25	1.4
73.96	0.59
74.59	2.72

75.17	0.7
75.71	0.76
76.2	1.63
76.64	0.57
77.06	0.96
77.44	1.46
77.78	1.2
78.09	0.4
78.39	0.55
78.68	0.35
78.96	0.55
79.24	0.53
79.51	0.69
79.79	0.35
80.05	0.16
80.3	0.33
80.55	0.71
80.79	0.8
81	0.91
81.19	0.44
81.39	0.86
81.57	0.35
81.74	0.48
81.92	0.14
81.99	0.45
82.11	-999.25



Azimuths to Grid North
 True North: -0.26°
 Magnetic North: 7.31°
 Magnetic Field
 Strength: 48574.2nT
 Dip Angle: 60.43°
 Date: 9/28/2013
 Model: BGGM2012



A Schlumberger Company

Project: Eddy County (NAD83)

Site: Antares 23 Fed

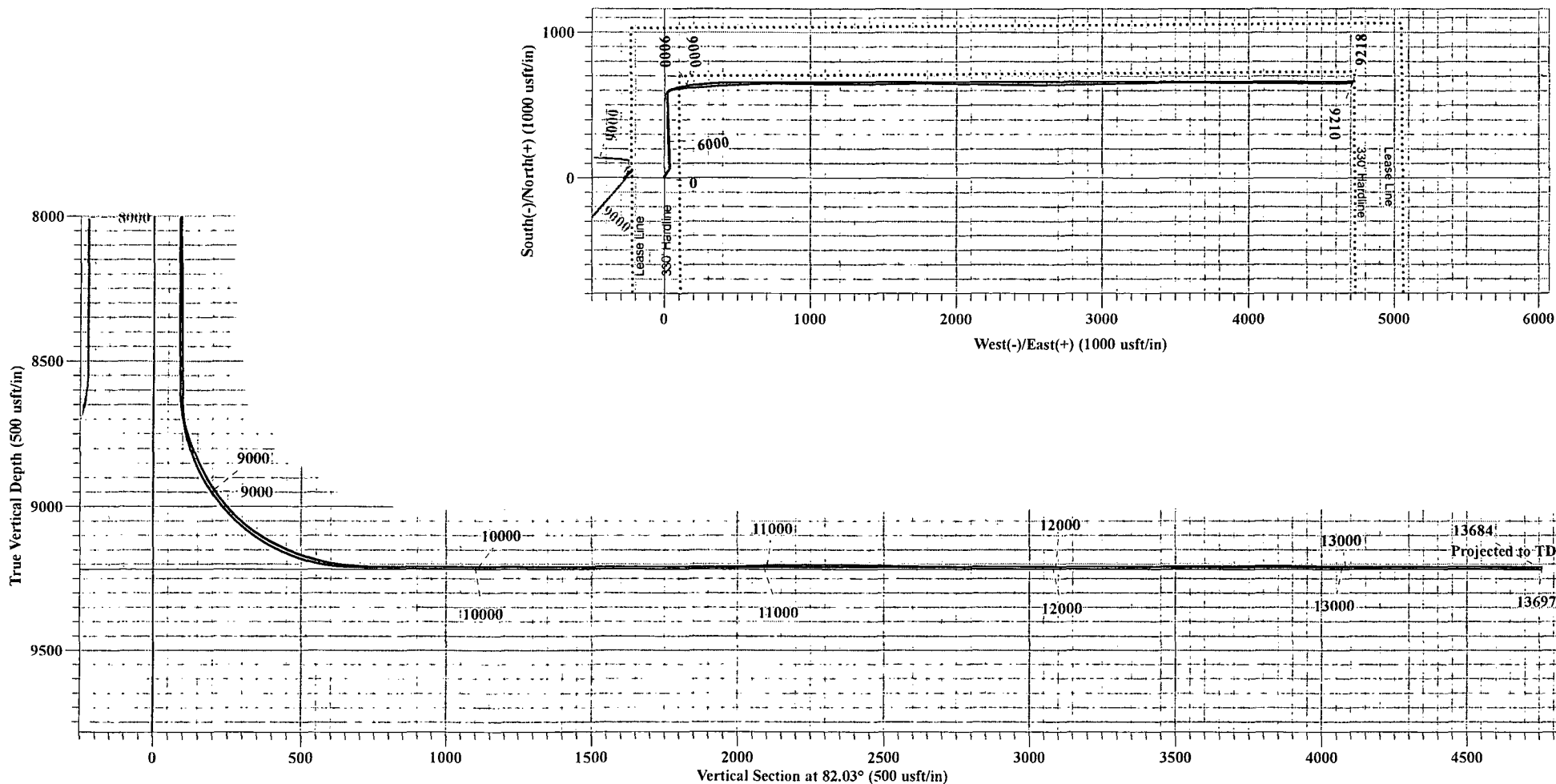
Well: #1H

OH

OH

WELL DETAILS: #1H

KB = 26 @ 3567.00usft (H&P 300)		3541.00	
+N/-S	+E/-W	North	Latitude
0.00	0.00	600683.49	32° 39' 1.395 N
		Easting	Longitude
		690769.77	103° 50' 52.149 W



Design: OH (#1H/OH)

Created By: Jenise Kirkpatrick Date: 9:02, September 17 2013

Devon Energy, Inc.

Eddy County (NAD83)

Antares 23 Fed

#1H

OH

Design: OH

Standard Survey Report

17 September, 2013

Pathfinder - A Schlumberger Company

Survey Report

Company:	Devon Energy Inc	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Site:	Antares 23 Fed	MD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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

Site:	Antares 23 Fed		
Site Position:		Northing:	596,807.53 usft
From:	Map	Easting:	697,699.49 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 38' 22.721 N
		Longitude:	103° 49' 31.314 W
		Grid Convergence:	0.27 °

Well:	#1H		
Well Position	+N-S	0.00 usft	Northing:
	+E-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 39' 1.395 N
		Longitude:	103° 50' 52.149 W
		Ground Level:	3,541.00 usft

Wellbore:	OH		
Magnetics	Model Name	Sample Date	Declination
	BGGM2012	9/28/2013	7.58
			Dip Angle
			60.43
			Field Strength
			48,574

Design:	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section	Depth From (TVD)	N-S	E-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			82.03

Survey Program	Date: 9/17/2013		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	4,320.00	#1 VES Gyro (OH)	GG ISCWSA
4,352.00	13,684.00	Survey #2 Pathfinder MWD (OH)	Pathfinder
			Description
			Good Gyro
			Pathfinder MWD

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N-S (usft)	E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.17	282.64	100.00	0.03	-0.14	-0.14	0.17	0.17	0.00
	200.00	0.31	322.51	200.00	0.28	-0.45	-0.41	0.21	0.14	39.87
	300.00	0.48	341.07	300.00	0.89	-0.75	-0.62	0.21	0.17	18.56
	400.00	0.58	339.22	399.99	1.76	-1.07	-0.82	0.10	0.10	-1.85
	500.00	0.78	340.15	499.99	2.87	-1.48	-1.07	0.20	0.20	0.93
	600.00	0.57	339.10	599.98	3.98	-1.89	-1.32	0.21	-0.21	-1.05
	700.00	0.61	326.72	699.97	4.89	-2.36	-1.66	0.13	0.04	-12.38
	800.00	0.46	320.56	799.97	5.64	-2.91	-2.10	0.16	-0.15	-6.16
	900.00	0.43	335.42	899.97	6.29	-3.32	-2.41	0.12	-0.03	14.86

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Site:	Antares 23 Fed	MD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey/Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N/S (usft)	E/W (usft)	Vertical Section (usft)	Dogleg Rate (%/100usft)	Build Rate (%/100usft)	Turn Rate (%/100usft)	
1,000.00	0.31	352.51	999.96	6.90	-3.51	-2.52	0.16	-0.12	17.09	
1,100.00	0.19	352.86	1,099.96	7.34	-3.56	-2.51	0.12	-0.12	0.35	
1,200.00	0.29	358.01	1,199.96	7.75	-3.59	-2.48	0.10	0.10	5.15	
1,300.00	0.31	12.51	1,299.96	8.27	-3.54	-2.36	0.08	0.02	14.50	
1,400.00	0.31	12.60	1,399.96	8.80	-3.43	-2.17	0.00	0.00	0.09	
1,500.00	0.86	19.59	1,499.95	9.77	-3.12	-1.73	0.55	0.55	6.99	
1,600.00	0.99	26.61	1,599.94	11.25	-2.48	-0.89	0.17	0.13	7.02	
1,700.00	1.29	32.29	1,699.92	12.97	-1.49	0.32	0.32	0.30	5.68	
1,800.00	1.82	40.00	1,799.88	15.14	0.13	2.23	0.57	0.53	7.71	
1,900.00	1.80	36.35	1,899.83	17.62	2.08	4.51	0.12	-0.02	-3.65	
2,000.00	2.29	38.15	1,999.77	20.46	4.25	7.05	0.49	0.49	1.80	
2,100.00	2.36	36.36	2,099.69	23.69	6.70	9.92	0.10	0.07	-1.79	
2,200.00	2.35	27.75	2,199.60	27.16	8.88	12.56	0.35	-0.01	-8.61	
2,300.00	2.52	25.75	2,299.51	30.95	10.79	14.98	0.19	0.17	-2.00	
2,400.00	2.45	23.58	2,399.42	34.89	12.60	17.32	0.12	-0.07	-2.17	
2,500.00	2.44	28.08	2,499.33	38.73	14.46	19.69	0.19	-0.01	4.50	
2,600.00	2.47	33.65	2,599.24	42.40	16.65	22.37	0.24	0.03	5.57	
2,700.00	1.99	36.67	2,699.16	45.59	18.88	25.02	0.49	-0.48	3.02	
2,800.00	1.66	45.57	2,799.11	48.00	20.95	27.41	0.43	-0.33	8.90	
2,900.00	1.65	40.54	2,899.07	50.10	22.92	29.65	0.15	-0.01	-5.03	
3,000.00	1.57	38.65	2,999.03	52.27	24.72	31.72	0.10	-0.08	-1.89	
3,100.00	1.33	36.92	3,099.00	54.27	26.27	33.54	0.24	-0.24	-1.73	
3,200.00	0.84	36.69	3,198.98	55.78	27.40	34.87	0.49	-0.49	-0.23	
3,300.00	0.87	35.55	3,298.97	56.99	28.28	35.91	0.03	0.03	-1.14	
3,400.00	0.63	28.54	3,398.96	58.09	28.99	36.76	0.26	-0.24	-7.01	
3,500.00	0.98	21.14	3,498.95	59.37	29.56	37.50	0.36	0.35	-7.40	
3,600.00	1.20	21.08	3,598.93	61.14	30.24	38.43	0.22	0.22	-0.06	
3,700.00	0.73	27.27	3,698.92	62.69	30.91	39.31	0.48	-0.47	6.19	
3,800.00	0.52	19.37	3,798.91	63.68	31.35	39.88	0.23	-0.21	-7.90	
3,922.00	0.90	15.43	3,920.90	65.13	31.79	40.52	0.31	0.31	-3.23	
4,000.00	1.11	16.55	3,998.89	66.44	32.17	41.07	0.27	0.27	1.44	
4,100.00	1.28	19.33	4,098.87	68.42	32.82	41.99	0.18	0.17	2.78	
4,200.00	1.44	19.23	4,198.84	70.66	33.60	43.07	0.16	0.16	-0.10	
4,320.00	1.90	20.11	4,318.79	73.96	34.78	44.70	0.38	0.38	0.73	
4,352.00	1.32	16.60	4,350.77	74.81	35.07	45.10	1.84	-1.81	-10.97	
4,446.00	1.14	26.78	4,444.75	76.68	35.80	46.09	0.30	-0.19	10.83	
4,541.00	2.73	352.02	4,539.70	79.76	35.91	46.62	2.01	1.67	-36.59	
4,636.00	5.01	351.26	4,634.48	86.10	34.97	46.57	2.40	2.40	-0.80	
4,730.00	7.03	347.16	4,727.95	95.77	33.06	46.02	2.20	2.15	-4.36	
4,825.00	8.53	353.18	4,822.08	108.44	30.94	45.67	1.79	1.58	6.34	
4,919.00	8.09	1.60	4,915.09	121.97	30.29	46.91	1.38	-0.47	8.96	
5,014.00	7.74	0.68	5,009.19	135.05	30.55	48.98	0.39	-0.37	-0.97	
5,108.00	6.95	359.56	5,102.42	147.07	30.59	50.68	0.85	-0.84	-1.19	

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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N-S (usft)	E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,202.00	6.42	355.45	5,195.78	157.99	30.13	51.74	0.76	-0.56	-4.37
5,297.00	5.89	355.62	5,290.23	168.15	29.33	52.36	0.56	-0.56	0.18
5,391.00	5.80	353.10	5,383.74	177.67	28.39	52.75	0.29	-0.10	-2.68
5,486.00	6.42	4.53	5,478.20	187.73	28.24	53.99	1.43	0.65	12.03
5,581.00	6.51	6.00	5,572.60	198.38	29.22	56.44	0.20	0.09	1.55
5,675.00	7.47	356.75	5,665.90	209.78	29.43	58.23	1.57	1.02	-9.84
5,770.00	7.39	354.46	5,760.11	222.03	28.49	59.00	0.32	-0.08	-2.41
5,864.00	7.03	353.60	5,853.36	233.76	27.26	59.41	0.40	-0.38	-0.91
5,958.00	6.68	353.58	5,946.69	244.91	26.01	59.72	0.37	-0.37	-0.02
6,053.00	7.91	353.46	6,040.92	256.90	24.65	60.03	1.29	1.29	-0.13
6,147.00	8.62	359.65	6,133.94	270.37	23.87	61.13	1.21	0.76	6.59
6,242.00	8.44	0.59	6,227.89	284.46	23.90	63.11	0.24	-0.19	0.99
6,336.00	8.18	359.04	6,320.91	298.04	23.86	64.95	0.37	-0.28	-1.65
6,431.00	7.74	359.81	6,414.99	311.20	23.72	66.64	0.48	-0.46	0.81
6,525.00	7.21	358.68	6,508.19	323.42	23.57	68.18	0.59	-0.56	-1.20
6,620.00	7.12	358.13	6,602.45	335.27	23.24	69.50	0.12	-0.09	-0.58
6,714.00	6.42	355.15	6,695.79	346.33	22.60	70.40	0.83	-0.74	-3.17
6,809.00	6.33	355.11	6,790.21	356.84	21.71	70.97	0.09	-0.09	-0.04
6,903.00	5.98	353.21	6,883.66	366.86	20.69	71.35	0.43	-0.37	-2.02
6,998.00	5.89	359.99	6,978.16	376.65	20.10	72.13	0.74	-0.09	7.14
7,092.00	5.45	357.93	7,071.70	385.94	19.94	73.26	0.52	-0.47	-2.19
7,186.00	5.98	359.69	7,165.23	395.29	19.75	74.37	0.59	0.56	1.87
7,281.00	7.65	1.11	7,259.55	406.57	19.85	76.03	1.77	1.76	1.49
7,375.00	6.95	358.48	7,352.79	418.51	19.82	77.65	0.83	-0.74	-2.80
7,470.00	6.95	0.58	7,447.09	430.00	19.72	79.15	0.27	0.00	2.21
7,564.00	7.91	2.22	7,540.30	442.15	20.03	81.14	1.05	1.02	1.74
7,659.00	7.12	6.12	7,634.49	454.54	20.91	83.73	0.99	-0.83	4.11
7,753.00	8.09	4.59	7,727.66	466.92	22.06	86.59	1.05	1.03	-1.63
7,848.00	9.15	0.09	7,821.59	481.14	22.61	89.10	1.32	1.12	-4.74
7,943.00	7.83	354.62	7,915.55	495.14	22.01	90.45	1.63	-1.39	-5.76
8,037.00	7.03	348.61	8,008.76	507.15	20.28	90.40	1.19	-0.85	-6.39
8,131.00	6.07	342.26	8,102.14	517.52	17.63	89.21	1.28	-1.02	-6.76
8,226.00	6.68	347.26	8,196.56	527.70	14.88	87.90	0.87	0.64	5.26
8,321.00	7.30	351.25	8,290.85	539.05	12.74	87.36	0.83	0.65	4.20
8,415.00	7.47	357.99	8,384.07	551.06	11.62	87.91	0.94	0.18	7.17
8,510.00	7.83	358.03	8,478.23	563.70	11.18	89.23	0.38	0.38	0.04
8,574.00	6.95	357.15	8,541.69	571.92	10.84	90.03	1.39	-1.38	-1.38
8,605.00	6.33	353.53	8,572.49	575.49	10.55	90.24	2.41	-2.00	-11.68
8,636.00	6.24	0.38	8,603.30	578.88	10.37	90.53	2.43	-0.29	22.10
8,668.00	8.35	22.68	8,635.05	582.76	11.28	91.97	10.92	6.59	69.69
8,699.00	11.61	36.65	8,665.58	587.34	14.01	95.31	13.03	10.52	45.06
8,731.00	14.16	45.64	8,696.77	592.66	18.73	100.72	10.11	7.97	28.09
8,762.00	16.53	57.07	8,726.67	597.71	25.14	107.78	12.36	7.65	36.87

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Site:	Antares 23 Fed	MD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM/5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N-S (usft)	E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,794.00	18.99	64.58	8,757.15	602.43	33.67	116.87	10.49	7.69	23.47
8,825.00	20.93	70.49	8,786.29	606.44	43.45	127.11	9.02	6.26	19.06
8,857.00	22.77	77.00	8,815.99	609.74	54.87	138.88	9.50	5.75	20.34
8,888.00	24.36	78.78	8,844.41	612.34	66.99	151.24	5.62	5.13	5.74
8,920.00	26.64	80.74	8,873.29	614.78	80.54	165.01	7.60	7.13	6.13
8,952.00	28.93	84.14	8,901.60	616.72	95.33	179.92	8.70	7.16	10.63
8,983.00	31.39	87.67	8,928.40	617.82	110.86	195.45	9.78	7.94	11.39
9,015.00	33.77	87.80	8,955.36	618.50	128.07	212.59	7.44	7.44	0.41
9,046.00	36.93	88.98	8,980.65	618.99	146.00	230.41	10.43	10.19	3.81
9,078.00	41.06	87.84	9,005.51	619.56	166.12	250.42	13.10	12.91	-3.56
9,109.00	44.67	85.40	9,028.23	620.82	187.17	271.44	12.82	11.65	-7.87
9,141.00	48.28	84.90	9,050.26	622.78	210.28	294.60	11.34	11.28	-1.56
9,172.00	52.58	85.83	9,070.01	624.71	234.09	318.45	14.06	13.87	3.00
9,204.00	55.84	85.91	9,088.72	626.58	259.98	344.35	10.19	10.19	0.25
9,235.00	58.56	85.30	9,105.51	628.57	285.96	370.35	8.93	8.77	-1.97
9,267.00	61.03	85.71	9,121.61	630.74	313.53	397.95	7.80	7.72	1.28
9,298.00	63.05	85.56	9,136.14	632.82	340.83	425.28	6.53	6.52	-0.48
9,330.00	65.42	85.47	9,150.05	635.08	369.55	454.04	7.41	7.41	-0.28
9,361.00	68.24	85.41	9,162.25	637.34	397.96	482.49	9.10	9.10	-0.19
9,393.00	70.70	87.25	9,173.47	639.26	427.86	512.37	9.39	7.69	5.75
9,424.00	73.34	87.99	9,183.04	640.48	457.32	541.71	8.81	8.52	2.39
9,434.61	74.39	88.05	9,185.99	640.83	467.51	551.84	9.89	9.87	0.54
Landing Point									
9,456.00	76.50	88.16	9,191.36	641.52	488.20	572.43	9.89	9.88	0.53
9,487.00	79.76	87.69	9,197.74	642.62	518.51	602.60	10.62	10.52	-1.52
9,507.00	82.13	87.79	9,200.89	643.40	538.25	622.26	11.86	11.85	0.50
9,603.00	88.72	86.48	9,208.54	648.18	633.76	717.52	7.00	6.86	-1.36
9,698.00	88.37	89.91	9,210.95	651.17	728.67	811.92	3.63	-0.37	3.61
9,793.00	90.31	90.06	9,212.05	651.20	823.66	906.00	2.05	2.04	0.16
9,887.00	90.75	90.61	9,211.18	650.65	917.66	999.01	0.75	0.47	0.59
9,981.00	90.48	90.36	9,210.17	649.85	1,011.65	1,091.98	0.39	-0.29	-0.27
10,076.00	90.22	90.71	9,209.59	648.97	1,106.64	1,185.93	0.46	-0.27	0.37
10,171.00	90.13	91.17	9,209.30	647.41	1,201.63	1,279.79	0.49	-0.09	0.48
10,265.00	89.78	89.99	9,209.37	646.46	1,295.62	1,372.74	1.31	-0.37	-1.26
10,360.00	88.90	89.57	9,210.47	646.82	1,390.61	1,466.86	1.03	-0.93	-0.44
10,454.00	88.90	89.25	9,212.27	647.79	1,484.59	1,560.07	0.34	0.00	-0.34
10,548.00	89.69	88.67	9,213.43	649.49	1,578.57	1,653.37	1.04	0.84	-0.62
10,643.00	90.66	89.00	9,213.14	651.43	1,673.54	1,747.70	1.08	1.02	0.35
10,737.00	91.71	89.20	9,211.19	652.90	1,767.51	1,840.97	1.14	1.12	0.21
10,832.00	90.75	91.26	9,209.15	652.52	1,862.48	1,934.97	2.39	-1.01	2.17
10,926.00	91.10	91.22	9,207.64	650.49	1,956.45	2,027.74	0.37	0.37	-0.04
11,020.00	91.36	91.80	9,205.62	648.01	2,050.39	2,120.44	0.68	0.28	0.62
11,115.00	90.31	90.98	9,204.23	645.71	2,145.35	2,214.16	1.40	-1.11	-0.86
11,209.00	90.84	91.14	9,203.29	643.97	2,239.33	2,306.99	0.59	0.56	0.17

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Survey Report

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well: #1H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Site:	Antares 23 Fed	MD Reference:	KB = 26 @ 3567.00usft (H&P 300)
Well:	#1H	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000:1Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	N/S (usft)	E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,304.00	88.64	89.78	9,203.72	643.20	2,334.32	2,400.96	2.72	-2.32	-1.43
11,315.50	88.61	89.85	9,204.00	643.24	2,345.81	2,412.34	0.70	-0.29	0.64
Midpoint (Antares 23 #1H)									
11,398.00	88.37	90.38	9,206.17	643.07	2,428.29	2,494.00	0.70	-0.29	0.64
11,492.00	89.08	90.49	9,208.27	642.36	2,522.26	2,586.96	0.76	0.76	0.12
11,587.00	89.52	89.01	9,209.43	642.77	2,617.25	2,681.09	1.63	0.46	-1.56
11,682.00	89.43	89.54	9,210.30	643.98	2,712.24	2,775.33	0.57	-0.09	0.56
11,776.00	88.55	89.75	9,211.95	644.56	2,806.22	2,868.49	0.96	-0.94	0.22
11,870.00	88.99	88.45	9,213.97	646.03	2,900.19	2,961.75	1.46	0.47	-1.38
11,965.00	90.13	88.36	9,214.70	648.68	2,995.14	3,056.16	1.20	1.20	-0.09
12,057.00	90.48	88.46	9,214.21	651.23	3,087.11	3,147.58	0.40	0.38	0.11
12,153.00	91.01	88.43	9,212.96	653.84	3,183.06	3,242.97	0.55	0.55	-0.03
12,248.00	91.01	88.76	9,211.29	656.16	3,278.02	3,337.34	0.35	0.00	0.35
12,342.00	90.92	89.27	9,209.71	657.78	3,371.99	3,430.63	0.55	-0.10	0.54
12,437.00	90.48	89.51	9,208.54	658.79	3,466.98	3,524.84	0.53	-0.46	0.25
12,531.00	90.31	90.14	9,207.90	659.08	3,560.98	3,617.96	0.69	-0.18	0.67
12,626.00	90.04	90.34	9,207.61	658.68	3,655.98	3,711.99	0.35	-0.28	0.21
12,720.00	90.13	90.46	9,207.47	658.02	3,749.97	3,804.99	0.16	0.10	0.13
12,815.00	89.87	90.63	9,207.47	657.12	3,844.97	3,898.94	0.33	-0.27	0.18
12,909.00	89.52	91.20	9,207.97	655.62	3,938.95	3,991.81	0.71	-0.37	0.61
13,004.00	89.08	90.58	9,209.13	654.14	4,033.94	4,085.67	0.80	-0.46	-0.65
13,098.00	89.16	89.73	9,210.57	653.89	4,127.92	4,178.72	0.91	0.09	-0.90
13,192.00	88.99	90.11	9,212.09	654.02	4,221.91	4,271.81	0.44	-0.18	0.40
13,287.00	89.78	89.90	9,213.11	654.01	4,316.90	4,365.89	0.86	0.83	-0.22
13,381.00	89.60	90.17	9,213.62	653.96	4,410.90	4,458.97	0.35	-0.19	0.29
13,475.00	89.16	90.28	9,214.63	653.59	4,504.90	4,552.01	0.48	-0.47	0.12
13,570.00	89.16	90.15	9,216.03	653.23	4,599.89	4,646.03	0.14	0.00	-0.14
13,609.00	88.99	90.11	9,216.66	653.14	4,638.88	4,684.63	0.45	-0.44	-0.10
13,684.00	88.99	90.11	9,217.98	653.00	4,713.87	4,758.88	0.00	0.00	0.00
PBHL (Antares 23 #1H)									

Checked By: _____ Approved By: _____ Date: _____