

30-025-44292



NABORS DRILLING TECHNOLOGIES USA, INC.

515 West Greens Road

Houston, TX 77067

Phone: 281.874.0035

Fax: 281.872.5205

Tuesday, January 23, 2018

State of New Mexico

County of Lea

HOBBS OCD

MAY 02 2018

RECEIVED

Subject: **Survey Certification Letter**

Survey Company: **NABORS DRILLING TECH USA, INC.**

Job Number: **T4329**

Survey Job Type: **Nabors MWD**

Customer: **Devon Energy Corporation**

Well Name: **Boundary Raider 7 Fed 214H**

Rig Name: **Nabors X20**

Surface: **32.32660020 N 103.7081461 W**

A.P.I. No: **30-025-44146**

Location: **Lea, NM**

RKB Height: **32'**

Distance to Bit: **63'**

Surveyor Name	Surveyor Title	Borehole Number	Start Depth	End Depth	Start Date	End Date	Type of	TD Straight
								Line Projection
Joe Moore	MWD Supervisor	OH	153'	15378'	01/05/18	01/23/18	MWD	15441'

The data and calculations for this survey have been checked by me and conform to the calibration standards and operational procedures set forth by NABORS DRILLING TECHNOLOGIES USA, INC. I am authorized and qualified to review the data, calculations and these reports; the reports represents true and correct Directional Surveys of this well based on the original data, the minimum curvature method, corrected to Grid North and obtained at the well site.



Joe Moore
MWD Supervisor
NABORS DRILLING TECHNOLOGIES USA, INC.



devon

Devon Energy Corporation

Lea Co., NM

Boundary Raider

7 Federal 214H

OH

Survey: Survey #1 - NDS MWD

Standard Survey Report

23 January, 2018



devon

WELL DETAILS: 7 Federal 214H

Ground Elevation: 3542.00
RKB Elevation: KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Rig Name: Nabors X02

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	482895.110	734450.880	32° 19' 33.60721 N	103° 42' 29.32604 W



Azimuths to Grid North
True North: -0.33°
Magnetic North: 6.53°

Magnetic Field
Strength: 48173.5enT
Dip Angle: 60.10°
Date: 12/21/2017
Model: HDGM

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSeet
14395.00	89.81	182.31	10885.40	-3995.78	-129.11	0.00	0.00	3995.78
14682.94	90.53	177.01	10884.61	-4263.31	-127.51	2.00	-82.30	4263.31
14979.28	90.53	177.01	10881.70	-4579.51	-110.97	0.00	0.00	4579.51
15131.30	90.00	180.00	10881.00	-4731.48	-107.00	2.00	99.97	4731.48
15441.30	90.00	180.00	10881.00	-5041.48	-107.00	0.00	0.00	5041.48

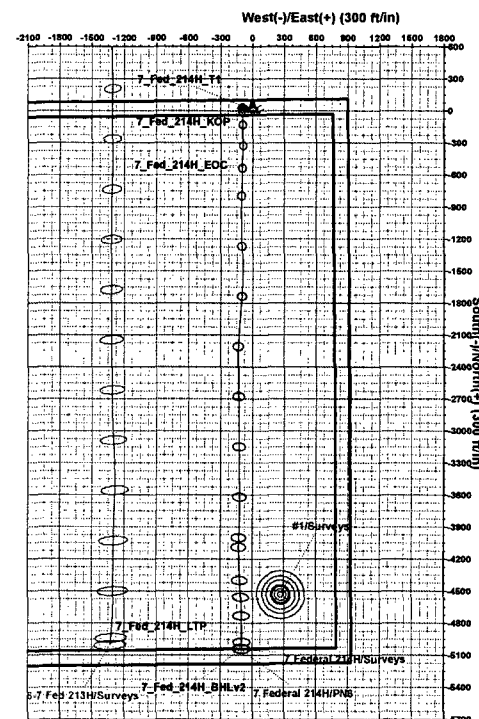
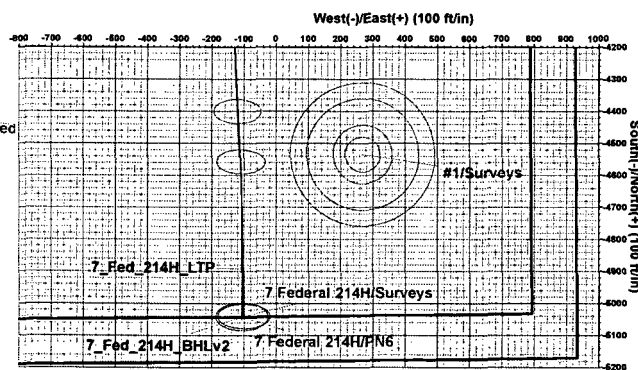
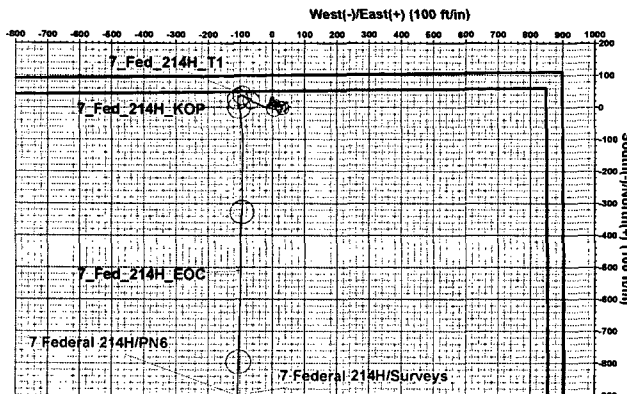
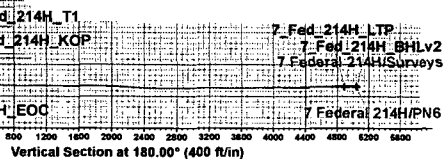
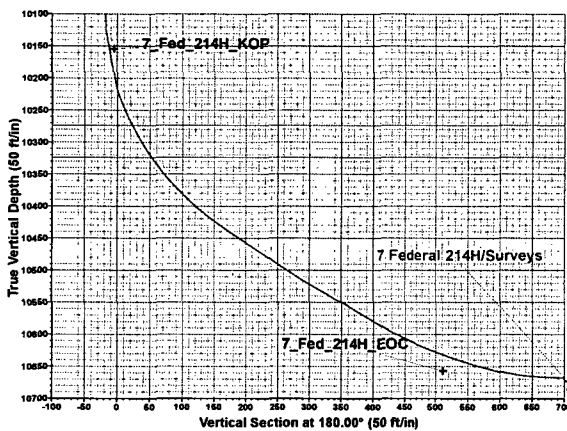
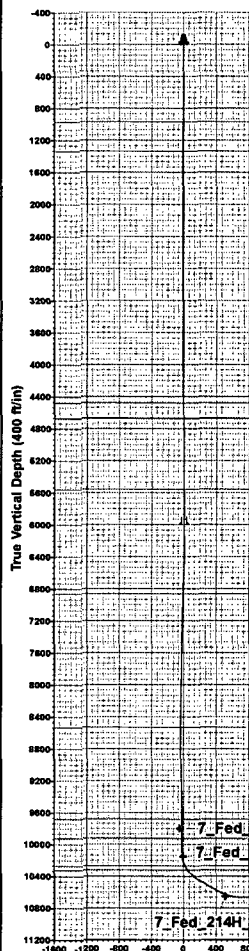
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
7_Fed_214H_BHLv0681.00		-5041.48	-107.00	477853.660	734343.880
7_Fed_214H_EOC 10857.05		-511.45	-107.00	482383.661	734343.880
7_Fed_214H_KOP 10154.37		4.84	-107.00	482899.950	734343.880
7_Fed_214H_LTP 10681.00		-4892.12	-107.00	478803.000	734343.880
7_Fed_214H_T1 9800.00		48.75	-107.00	482943.880	734343.880

PROJECT DETAILS: Lea Co., NM
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

Project: Lea Co., NM
Site: Boundary Raider
Well: 7 Federal 214H
Wellbore: OH
Plan: PN6 (7 Federal 214H/OH)

System Datum: Mean Sea Level
Local North: Grid



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
971.00	671.08	Rustler
1340.03	1340.07	Salado
4482.00	4482.24	Base of Salt
4673.00	4673.28	Dalwara
4876.00	4876.26	Red Canyon
5044.00	5044.30	Cherry Canyon
6884.00	6887.51	Brushy Canyon
8520.00	8534.45	186SLM
9824.00	9829.68	186SSS
9925.00	9930.70	285SLM
10274.00	10286.98	285SSS
10324.00	10344.89	285SSS Upper



Nabors
Survey Report



Company:	Devon Energy Corporation	Local Co-ordinate Reference:	Well 7 Federal 214H
Project:	Lea Co., NM	TVD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Site:	Boundary Raider	MD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Well:	7 Federal 214H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	RyanUSA_ODBC_32Bit

Project	Lea Co., NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Boundary Raider			
Site Position:		Northing:	482,895.110 usft	Latitude:	32° 19' 33.60721 N
From:	Map	Easting:	734,450.880 usft	Longitude:	103° 42' 29.32604 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well	7 Federal 214H					
Well Position	+N/-S	0.00 ft	Northing:	482,895.110 usft	Latitude:	32° 19' 33.60721 N
	+E/-W	0.00 ft	Easting:	734,450.880 usft	Longitude:	103° 42' 29.32604 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,542.00 ft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/21/2017	6.87	60.10	48,173.50000000

Design		Surveys			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	180.00	

Survey Program	Date 1/23/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
153.00	15,441.00	Survey #1 - NDS MWD (OH)	MWD+HRGM	OWSG MWD + HRGM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	0.63	26.39	153.00	0.75	0.37	-0.75	0.41	0.41	0.00
243.00	0.25	23.23	242.99	1.38	0.67	-1.38	0.42	-0.42	-3.51
333.00	0.81	15.14	332.99	2.17	0.91	-2.17	0.63	0.62	-8.99
424.00	0.69	5.83	423.98	3.34	1.14	-3.34	0.19	-0.13	-10.23
516.00	0.75	1.61	515.97	4.49	1.21	-4.49	0.09	0.07	-4.59
607.00	0.56	10.92	606.97	5.52	1.31	-5.52	0.24	-0.21	10.23
700.00	0.81	3.54	699.96	6.62	1.44	-6.62	0.28	0.27	-7.94
792.00	0.44	7.23	791.96	7.62	1.52	-7.62	0.40	-0.40	4.01
883.00	0.94	3.19	882.95	8.72	1.61	-8.72	0.55	0.55	-4.44

Company:	Devon Energy Corporation	Local Co-ordinate Reference:	Well 7 Federal 214H
Project:	Lea Co., NM	TVD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Site:	Boundary Raider	MD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Well:	7 Federal 214H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	RyanUSA_ODBC_32Bit

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
913.00	0.88	16.90	912.95	9.18	1.69	-9.18	0.75	-0.20	45.70
1,065.00	0.44	18.48	1,064.94	10.85	2.21	-10.85	0.29	-0.29	1.04
1,156.00	0.31	61.02	1,155.93	11.30	2.54	-11.30	0.33	-0.14	46.75
1,249.00	0.31	67.88	1,248.93	11.52	2.99	-11.52	0.04	0.00	7.38
1,339.00	0.31	92.49	1,338.93	11.60	3.46	-11.60	0.15	0.00	27.34
1,431.00	0.25	107.78	1,430.93	11.53	3.90	-11.53	0.10	-0.07	16.62
1,522.00	0.13	176.86	1,521.93	11.37	4.10	-11.37	0.26	-0.13	75.91
1,614.00	0.06	112.35	1,613.93	11.24	4.15	-11.24	0.13	-0.08	-70.12
1,705.00	0.13	187.76	1,704.93	11.12	4.18	-11.12	0.14	0.08	82.87
1,800.00	0.06	356.33	1,799.93	11.07	4.16	-11.07	0.20	-0.07	177.44
1,894.00	0.13	290.07	1,893.93	11.15	4.06	-11.15	0.13	0.07	-70.49
1,988.00	0.06	162.10	1,987.93	11.14	3.97	-11.14	0.18	-0.07	-136.14
2,082.00	0.13	120.08	2,081.93	11.04	4.08	-11.04	0.10	0.07	-44.70
2,177.00	0.25	113.40	2,176.93	10.90	4.36	-10.90	0.13	0.13	-7.03
2,271.00	0.19	99.87	2,270.93	10.80	4.70	-10.80	0.08	-0.06	-14.39
2,366.00	0.44	94.60	2,365.93	10.74	5.22	-10.74	0.26	0.26	-5.55
2,460.00	0.31	82.29	2,459.92	10.75	5.83	-10.75	0.16	-0.14	-13.10
2,554.00	0.44	90.55	2,553.92	10.78	6.45	-10.78	0.15	0.14	8.79
2,649.00	0.19	90.20	2,648.92	10.77	6.97	-10.77	0.26	-0.26	-0.37
2,743.00	0.25	77.72	2,742.92	10.81	7.33	-10.81	0.08	0.06	-13.28
2,837.00	0.44	52.23	2,836.92	11.08	7.81	-11.08	0.26	0.20	-27.12
2,932.00	0.38	78.42	2,931.92	11.37	8.41	-11.37	0.21	-0.06	27.57
3,026.00	0.25	32.55	3,025.91	11.60	8.82	-11.60	0.29	-0.14	-48.80
3,120.00	0.38	50.65	3,119.91	11.97	9.18	-11.97	0.17	0.14	19.26
3,214.00	0.25	13.21	3,213.91	12.37	9.46	-12.37	0.25	-0.14	-39.83
3,310.00	0.13	80.89	3,309.91	12.59	9.62	-12.59	0.24	-0.13	70.50
3,405.00	0.19	50.12	3,404.91	12.71	9.85	-12.71	0.11	0.06	-32.39
3,499.00	0.06	163.50	3,498.91	12.76	9.98	-12.76	0.23	-0.14	120.62
3,593.00	0.13	100.92	3,592.91	12.69	10.10	-12.69	0.12	0.07	-66.57
3,687.00	0.25	87.74	3,686.91	12.68	10.41	-12.68	0.14	0.13	-14.02
3,781.00	0.38	122.72	3,780.91	12.52	10.88	-12.52	0.24	0.14	37.21
3,875.00	1.00	125.71	3,874.90	11.87	11.80	-11.87	0.66	0.66	3.18
3,969.00	1.19	119.03	3,968.88	10.92	13.32	-10.92	0.24	0.20	-7.11
4,063.00	1.00	123.95	4,062.87	9.99	14.86	-9.99	0.23	-0.20	5.23
4,157.00	1.25	123.78	4,156.85	8.96	16.39	-8.96	0.27	0.27	-0.18
4,251.00	1.44	127.64	4,250.82	7.67	18.18	-7.67	0.22	0.20	4.11
4,346.00	1.50	127.12	4,345.79	6.19	20.11	-6.19	0.06	0.06	-0.55
4,440.00	1.00	125.01	4,439.77	4.98	21.77	-4.98	0.53	-0.53	-2.24
4,534.00	0.94	128.17	4,533.76	4.03	23.04	-4.03	0.09	-0.06	3.36
4,628.00	0.81	131.33	4,627.74	3.12	24.15	-3.12	0.15	-0.14	3.36
4,722.00	0.75	124.30	4,721.74	2.33	25.16	-2.33	0.12	-0.06	-7.48
4,817.00	0.75	130.10	4,816.73	1.58	26.15	-1.58	0.08	0.00	6.11
4,911.00	0.63	133.27	4,910.72	0.83	26.99	-0.83	0.13	-0.13	3.37
5,006.00	0.63	114.99	5,005.72	0.25	27.85	-0.25	0.21	0.00	-19.24

Company:	Devon Energy Corporation	Local Co-ordinate Reference:	Well 7 Federal 214H
Project:	Lea Co., NM	TVD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Site:	Boundary Raider	MD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Well:	7 Federal 214H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	RyanUSA_ODBC_32Bit

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,099.00	0.56	127.47	5,098.71	-0.24	28.67	0.24	0.16	-0.08	13.42
5,193.00	0.50	108.66	5,192.71	-0.65	29.42	0.65	0.19	-0.06	-20.01
5,288.00	0.44	112.00	5,287.70	-0.92	30.15	0.92	0.07	-0.06	3.52
5,382.00	0.44	110.07	5,381.70	-1.18	30.83	1.18	0.02	0.00	-2.05
5,476.00	0.31	128.17	5,475.70	-1.46	31.37	1.46	0.19	-0.14	19.26
5,571.00	0.31	141.88	5,570.70	-1.82	31.73	1.82	0.08	0.00	14.43
5,665.00	0.25	132.21	5,664.70	-2.16	32.04	2.16	0.08	-0.06	-10.29
5,759.00	0.38	142.41	5,758.69	-2.55	32.38	2.55	0.15	0.14	10.85
5,853.00	0.31	159.11	5,852.69	-3.03	32.66	3.03	0.13	-0.07	17.77
5,947.00	0.56	225.20	5,946.69	-3.59	32.42	3.59	0.55	0.27	70.31
6,042.00	1.31	242.43	6,041.68	-4.42	31.13	4.42	0.83	0.79	18.14
6,136.00	1.94	250.69	6,135.64	-5.45	28.68	5.45	0.71	0.67	8.79
6,147.00	1.94	250.69	6,146.63	-5.57	28.33	5.57	0.00	0.00	0.00
6,266.00	2.06	249.11	6,265.56	-7.00	24.43	7.00	0.11	0.10	-1.33
6,330.00	2.44	255.79	6,329.51	-7.74	22.03	7.74	0.72	0.59	10.44
6,424.00	5.88	280.40	6,423.26	-7.36	15.35	7.36	4.04	3.66	26.18
6,518.00	6.25	283.74	6,516.73	-5.28	5.65	5.28	0.54	0.39	3.55
6,612.00	6.44	283.39	6,610.15	-2.84	-4.45	2.84	0.21	0.20	-0.37
6,706.00	6.50	284.79	6,703.56	-0.26	-14.72	0.26	0.18	0.06	1.49
6,801.00	6.94	285.67	6,797.90	2.66	-25.45	-2.66	0.48	0.46	0.93
6,895.00	5.38	293.05	6,891.36	5.92	-34.97	-5.92	1.86	-1.66	7.85
6,989.00	4.56	294.46	6,985.00	9.19	-42.43	-9.19	0.88	-0.87	1.50
7,084.00	4.63	294.11	7,079.70	12.32	-49.37	-12.32	0.08	0.07	-0.37
7,178.00	2.88	287.08	7,173.49	14.56	-55.09	-14.56	1.92	-1.86	-7.48
7,272.00	2.50	284.79	7,267.39	15.78	-59.33	-15.78	0.42	-0.40	-2.44
7,367.00	2.56	317.66	7,362.30	17.88	-62.76	-17.88	1.51	0.06	34.60
7,461.00	2.44	324.17	7,456.21	21.05	-65.34	-21.05	0.33	-0.13	6.93
7,555.00	2.25	325.57	7,550.13	24.20	-67.56	-24.20	0.21	-0.20	1.49
7,650.00	2.06	321.18	7,645.07	27.07	-69.68	-27.07	0.26	-0.20	-4.62
7,744.00	1.75	274.07	7,739.02	28.48	-72.17	-28.48	1.65	-0.33	-50.12
7,839.00	1.94	270.03	7,833.97	28.59	-75.23	-28.59	0.24	0.20	-4.25
7,933.00	1.94	296.57	7,927.92	29.30	-78.24	-29.30	0.95	0.00	28.23
8,027.00	2.25	300.96	8,021.86	30.96	-81.25	-30.96	0.37	0.33	4.67
8,121.00	1.88	296.39	8,115.80	32.60	-84.21	-32.60	0.43	-0.39	-4.86
8,215.00	2.06	298.68	8,209.74	34.09	-87.07	-34.09	0.21	0.19	2.44
8,310.00	1.75	297.80	8,304.69	35.59	-89.86	-35.59	0.33	-0.33	-0.93
8,404.00	1.69	294.46	8,398.64	36.83	-92.39	-36.83	0.12	-0.06	-3.55
8,498.00	1.44	291.47	8,492.61	37.84	-94.75	-37.84	0.28	-0.27	-3.18
8,592.00	0.88	222.57	8,586.59	37.74	-96.34	-37.74	1.48	-0.60	-73.30
8,687.00	0.81	209.73	8,681.58	36.62	-97.16	-36.62	0.21	-0.07	-13.52
8,781.00	0.56	233.11	8,775.58	35.76	-97.86	-35.76	0.39	-0.27	24.87
8,875.00	0.88	239.44	8,869.57	35.12	-98.85	-35.12	0.35	0.34	6.73
8,969.00	1.38	247.35	8,963.55	34.32	-100.51	-34.32	0.56	0.53	8.41



Nabors
Survey Report



Company:	Devon Energy Corporation	Local Co-ordinate Reference:	Well 7 Federal 214H
Project:	Lea Co., NM	TVD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Site:	Boundary Raider	MD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Well:	7 Federal 214H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	RyanUSA_ODBC_32Bit

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,063.00	1.69	246.82	9,057.52	33.34	-102.83	-33.34	0.33	0.33	-0.56	
9,157.00	1.94	214.48	9,151.47	31.48	-105.01	-31.48	1.11	0.27	-34.40	
9,252.00	1.75	189.87	9,246.42	28.73	-106.17	-28.73	0.85	-0.20	-25.91	
9,345.00	1.75	188.99	9,339.38	25.92	-106.63	-25.92	0.03	0.00	-0.95	
9,440.00	1.38	164.91	9,434.35	23.39	-106.56	-23.39	0.79	-0.39	-25.35	
9,534.00	0.88	149.97	9,528.33	21.67	-105.91	-21.67	0.61	-0.53	-15.89	
9,628.00	0.31	251.04	9,622.32	20.96	-105.78	-20.96	1.05	-0.61	107.52	
9,722.00	0.56	164.38	9,716.32	20.44	-105.90	-20.44	0.66	0.27	-92.19	
9,805.32	0.84	181.96	9,799.64	19.43	-105.81	-19.43	0.42	0.34	21.10	
7_Fed_214H_T1										
9,816.00	0.88	183.37	9,810.31	19.27	-105.82	-19.27	0.42	0.37	13.22	
9,910.00	0.69	208.68	9,904.31	18.06	-106.13	-18.06	0.42	-0.20	26.93	
10,005.00	1.00	320.12	9,999.30	18.19	-106.94	-18.19	1.48	0.33	117.31	
10,038.00	0.94	324.34	10,032.30	18.63	-107.28	-18.63	0.28	-0.18	12.79	
10,130.00	2.56	165.44	10,124.27	17.26	-107.21	-17.26	3.75	1.76	-172.72	
10,161.87	7.88	164.19	10,156.00	14.46	-106.43	-14.46	16.69	16.69	-3.91	
7_Fed_214H_KOP										
10,224.00	18.25	163.85	10,216.44	0.98	-102.56	-0.98	16.69	16.69	-0.55	
10,271.00	25.38	169.48	10,260.05	-16.01	-98.66	16.01	15.79	15.17	11.98	
10,318.00	30.81	177.04	10,301.51	-37.96	-96.20	37.96	13.79	11.55	16.09	
10,365.00	37.00	175.98	10,340.50	-64.11	-94.59	64.11	13.23	13.17	-2.26	
10,413.00	44.69	177.39	10,376.78	-95.43	-92.80	95.43	16.13	16.02	2.94	
10,460.00	50.94	181.26	10,408.33	-130.22	-92.45	130.22	14.63	13.30	8.23	
10,507.00	56.00	181.08	10,436.30	-167.97	-93.22	167.97	10.77	10.77	-0.38	
10,554.00	56.94	180.55	10,462.26	-207.15	-93.78	207.15	2.21	2.00	-1.13	
10,602.00	56.19	179.32	10,488.71	-247.20	-93.73	247.20	2.65	-1.56	-2.56	
10,649.00	58.63	179.50	10,514.02	-286.79	-93.33	286.79	5.20	5.19	0.38	
10,696.00	61.38	182.49	10,537.52	-327.48	-94.05	327.48	8.04	5.85	6.36	
10,743.00	59.75	183.19	10,560.62	-368.36	-96.07	368.36	3.70	-3.47	1.49	
10,790.00	59.00	182.49	10,584.56	-408.76	-98.08	408.76	2.05	-1.60	-1.49	
10,835.00	64.63	180.73	10,605.81	-448.39	-99.18	448.39	12.98	12.51	-3.91	
10,885.00	68.94	179.32	10,625.52	-494.33	-99.19	494.33	9.00	8.62	-2.82	
10,911.76	70.46	179.85	10,634.80	-519.42	-99.00	519.42	5.98	5.69	1.97	
7_Fed_214H_EOC										
10,930.00	71.50	180.20	10,640.74	-536.67	-99.01	536.67	5.98	5.69	1.94	
10,979.00	75.81	181.08	10,654.53	-583.67	-99.54	583.67	8.96	8.80	1.80	
11,024.00	82.00	182.49	10,663.18	-627.79	-100.92	627.79	14.09	13.76	3.13	
11,059.00	87.19	181.96	10,666.48	-662.59	-102.27	662.59	14.90	14.83	-1.51	
11,097.00	89.94	181.26	10,667.43	-700.56	-103.34	700.56	7.47	7.24	-1.84	
11,192.00	89.44	181.08	10,667.95	-795.54	-105.28	795.54	0.56	-0.53	-0.19	
11,286.00	89.19	181.08	10,669.07	-889.52	-107.05	889.52	0.27	-0.27	0.00	
11,380.00	91.00	179.67	10,668.91	-983.51	-107.67	983.51	2.44	1.93	-1.50	
11,475.00	90.75	179.15	10,667.46	-1,078.49	-106.69	1,078.49	0.61	-0.26	-0.55	
11,569.00	90.94	178.27	10,666.08	-1,172.46	-104.57	1,172.46	0.96	0.20	-0.94	

Company:	Devon Energy Corporation	Local Co-ordinate Reference:	Well 7 Federal 214H
Project:	Lea Co., NM	TVD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Site:	Boundary Raider	MD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Well:	7 Federal 214H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	RyanUSA_ODBC_32Bit

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,664.00	89.50	177.04	10,665.71	-1,267.37	-100.69	1,267.37	1.99	-1.52	-1.29
11,757.00	88.81	177.21	10,667.08	-1,360.25	-96.02	1,360.25	0.76	-0.74	0.18
11,851.00	89.25	180.20	10,668.68	-1,454.20	-93.90	1,454.20	3.21	0.47	3.18
11,946.00	89.56	181.78	10,669.66	-1,549.18	-95.54	1,549.18	1.69	0.33	1.66
12,040.00	90.50	181.61	10,669.61	-1,643.13	-98.32	1,643.13	1.02	1.00	-0.18
12,134.00	90.50	184.07	10,668.79	-1,737.01	-102.98	1,737.01	2.62	0.00	2.62
12,229.00	89.81	184.95	10,668.54	-1,831.71	-110.45	1,831.71	1.18	-0.73	0.93
12,323.00	87.19	184.24	10,671.00	-1,925.37	-117.97	1,925.37	2.89	-2.79	-0.76
12,417.00	87.19	184.42	10,675.60	-2,018.99	-125.06	2,018.99	0.19	0.00	0.19
12,511.00	87.00	183.01	10,680.37	-2,112.67	-131.14	2,112.67	1.51	-0.20	-1.50
12,606.00	87.19	182.31	10,685.18	-2,207.44	-135.55	2,207.44	0.76	0.20	-0.74
12,700.00	87.06	179.85	10,689.90	-2,301.30	-137.32	2,301.30	2.62	-0.14	-2.62
12,794.00	87.50	179.67	10,694.36	-2,395.19	-136.92	2,395.19	0.51	0.47	-0.19
12,888.00	89.50	179.50	10,696.82	-2,489.15	-136.24	2,489.15	2.14	2.13	-0.18
12,983.00	89.81	179.50	10,697.39	-2,584.15	-135.41	2,584.15	0.33	0.33	0.00
13,077.00	89.44	179.50	10,698.01	-2,678.14	-134.59	2,678.14	0.39	-0.39	0.00
13,171.00	90.81	179.15	10,697.80	-2,772.13	-133.49	2,772.13	1.50	1.46	-0.37
13,265.00	91.19	179.67	10,696.16	-2,866.11	-132.52	2,866.11	0.69	0.40	0.55
13,359.00	89.44	179.15	10,695.64	-2,960.10	-131.55	2,960.10	1.94	-1.86	-0.55
13,454.00	89.56	178.80	10,696.47	-3,055.08	-129.85	3,055.08	0.39	0.13	-0.37
13,548.00	90.81	179.50	10,696.17	-3,149.07	-128.46	3,149.07	1.52	1.33	0.74
13,642.00	90.31	180.03	10,695.25	-3,243.06	-128.07	3,243.06	0.78	-0.53	0.56
13,737.00	89.00	178.97	10,695.82	-3,338.06	-127.24	3,338.06	1.77	-1.38	-1.12
13,831.00	91.69	179.15	10,695.26	-3,432.03	-125.70	3,432.03	2.87	2.86	0.19
13,925.00	89.69	179.67	10,694.13	-3,526.02	-124.73	3,526.02	2.20	-2.13	0.55
14,019.00	90.06	179.15	10,694.33	-3,620.01	-123.77	3,620.01	0.68	0.39	-0.55
14,113.00	91.75	179.67	10,692.85	-3,713.99	-122.80	3,713.99	1.88	1.80	0.55
14,207.00	91.88	180.90	10,689.87	-3,807.94	-123.26	3,807.94	1.32	0.14	1.31
14,301.00	91.88	181.96	10,686.78	-3,901.86	-125.61	3,901.86	1.13	0.00	1.13
14,395.00	89.81	182.31	10,685.40	-3,995.78	-129.11	3,995.78	2.23	-2.20	0.37
14,489.00	87.75	179.32	10,687.40	-4,089.73	-130.45	4,089.73	3.86	-2.19	-3.18
14,583.00	87.88	178.27	10,690.98	-4,183.64	-128.47	4,183.64	1.12	0.14	-1.12
14,678.00	88.75	177.39	10,693.78	-4,278.53	-124.88	4,278.53	1.30	0.92	-0.93
14,771.00	93.00	176.86	10,692.36	-4,371.38	-120.21	4,371.38	4.61	4.57	-0.57
14,865.00	93.25	176.51	10,687.23	-4,465.08	-114.79	4,465.08	0.46	0.27	-0.37
14,958.00	92.25	178.09	10,682.77	-4,557.87	-110.41	4,557.87	2.01	-1.08	1.70
15,052.00	92.56	178.09	10,678.83	-4,651.73	-107.28	4,651.73	0.33	0.33	0.00
15,146.00	91.75	179.32	10,675.29	-4,745.64	-105.16	4,745.64	1.57	-0.86	1.31
15,240.00	91.88	179.15	10,672.31	-4,839.58	-103.90	4,839.58	0.23	0.14	-0.18
15,292.09	92.39	179.15	10,670.37	-4,891.63	-103.13	4,891.63	0.98	0.98	0.00
7_Fed_214H_LTP									
15,335.00	92.81	179.15	10,668.43	-4,934.49	-102.50	4,934.49	0.98	0.98	0.00
15,378.00	92.75	179.15	10,666.34	-4,977.44	-101.86	4,977.44	0.14	-0.14	0.00



Nabors
Survey Report



Company:	Devon Energy Corporation	Local Co-ordinate Reference:	Well 7 Federal 214H
Project:	Lea Co., NM	TVD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Site:	Boundary Raider	MD Reference:	KB=32' (Nabors X20) @ 3574.00ft (Nabors X02)
Well:	7 Federal 214H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	RyanUSA_ODBC_32Bit

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,441.00	92.75	179.15	10,663.32	-5,040.36	-100.93	5,040.36	0.00	0.00	0.00
PTB - 7_Fed_214H_BHL - 7_Fed_214H_BHLv2									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
15,441.00	10,663.32	-5,040.36	-100.93	PTB

Checked By: _____	Approved By: _____	Date: _____
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Devon Energy Production Co., L.P.
333 West Sheridan Avenue
Oklahoma City, OK 73102-5015

405 552 6558 Phone
www.devonenergy.com

May 2, 2018

New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, NM 88240

Devon Energy Production Company, L.P. respectfully requests that the Well Completion Report (Form 3160-4), Completion Subsequent Report (Form 3160-5), and all logs for the Boundary Raider 7 Fed 214H well be held confidential.

Sincerely,

A handwritten signature in black ink that reads "Linda Good". The signature is written in a cursive, flowing style.

Linda Good
Regulatory Compliance Specialist
Linda.good@devon.com
405-552-6558