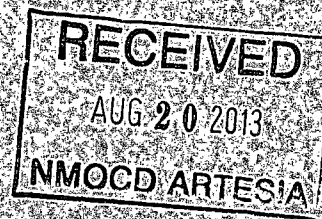


A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

30-015-40693

January 14, 2013



Devon Energy Production Co., L.P.
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

Attn: Patti Riechers

Re: **Burton Flat Deep Unit No. 052H**

Please find enclosed a copy of the survey from 0.00' to 6838.00' ran on the above referenced well

If I can be of any further service please do not hesitate to call me at 800-606-4976

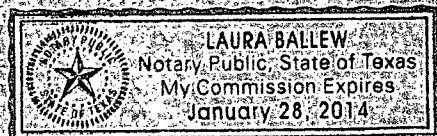
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

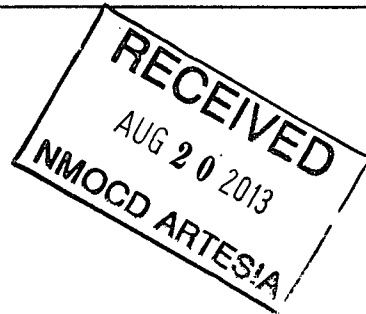
This instrument was acknowledged before me on the 14th day of January, A.D. 2013, by Keith Havelka.


Laura Ballew
Notary Public, State of Texas





Company: Devon Energy Production Co., LP
 Lease/Well: Burton Flat Deep Unit / No. 052H
 Location: S3 T21s R27e
 Rig Name: HP 223
 State/County: New Mexico/ Eddy
 Latitude: 32.51, Longitude: -104.17
 GRID North is 0.09 Degrees East of True North
 VS-Azi: 0.00 Degrees



RKB : 25'

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: ...deep unit #52h gyro survey.ut

Minimum Curvature Method

Report Date/Time: 1/14/2013 / 09:31

Vaughn Energy Services

Gardendale, Texas 79758

432-563-5444

Surveyor: Dustin Wedel

Burton Flat Deep Unit No. 052H / API 30-015-40693

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
135.60	0.32	260.58	135.60	-0.06	-0.37	-0.06	0.37	260.58	0.23
230.00	0.54	191.36	230.00	-0.54	-0.71	-0.54	0.89	233.02	0.55
324.40	1.26	190.90	324.38	-1.99	-1.00	-1.99	2.22	206.61	0.77
418.80	1.98	186.43	418.75	-4.63	-1.38	-4.63	4.83	196.55	0.78
513.20	1.95	192.07	513.09	-7.82	-1.89	-7.82	8.05	193.61	0.21
607.60	1.91	199.71	607.44	-10.87	-2.76	-10.87	11.22	194.25	0.27
702.00	1.78	220.49	701.79	-13.47	-4.24	-13.47	14.12	197.48	0.72
796.40	1.64	241.28	796.15	-15.23	-6.37	-15.23	16.51	202.71	0.67
890.80	1.06	219.51	890.52	-16.55	-8.11	-16.55	18.43	206.11	0.81
985.20	0.48	197.75	984.91	-17.60	-8.79	-17.60	19.67	206.53	0.67
1079.60	0.73	238.53	1079.31	-18.30	-9.42	-18.30	20.58	207.24	0.51
1174.00	0.97	279.30	1173.70	-18.48	-10.72	-18.48	21.36	210.12	0.67
1268.40	0.77	247.26	1268.09	-18.60	-12.10	-18.60	22.18	213.04	0.55
1362.80	0.57	215.21	1362.48	-19.23	-12.96	-19.23	23.19	213.97	0.44
1457.20	0.58	255.25	1456.88	-19.74	-13.69	-19.74	24.02	214.74	0.42
1551.60	0.58	299.29	1551.27	-19.62	-14.56	-19.62	24.44	216.58	0.46
1646.00	0.54	278.39	1645.67	-19.33	-15.41	-19.33	24.72	218.57	0.22
1740.40	0.49	257.49	1740.07	-19.35	-16.25	-19.35	25.27	220.02	0.20

DEVON ENERGY

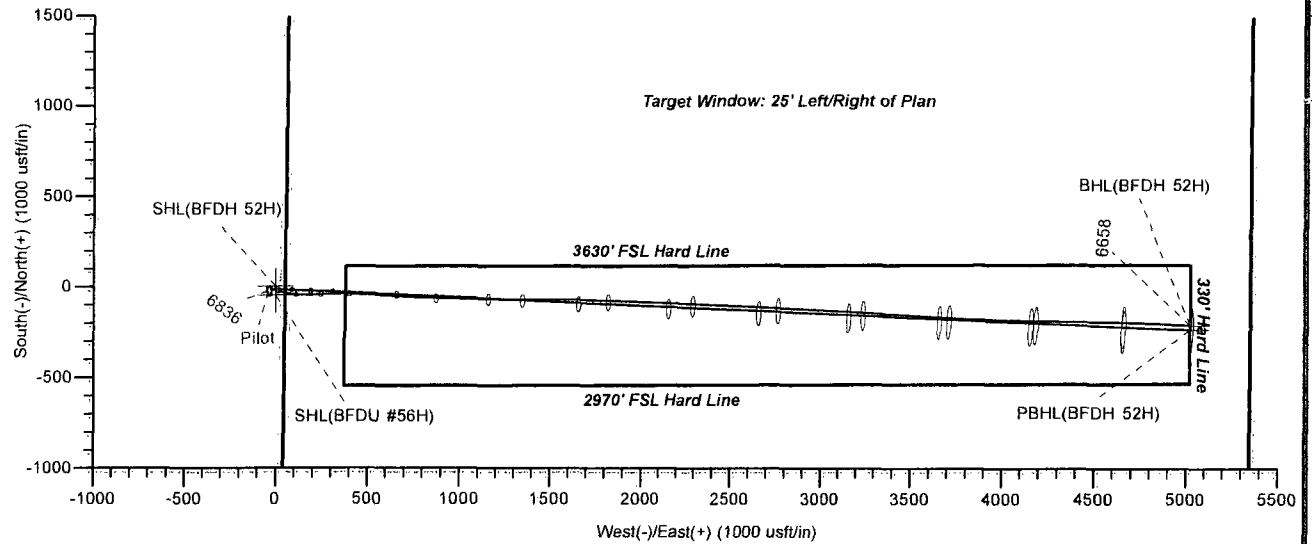
Project: Eddy County, NM (NAD-83)
 Site: Burton Flat Deep Unit
 Well: 52H
 Wellbore: OH
 Design: OH

devon



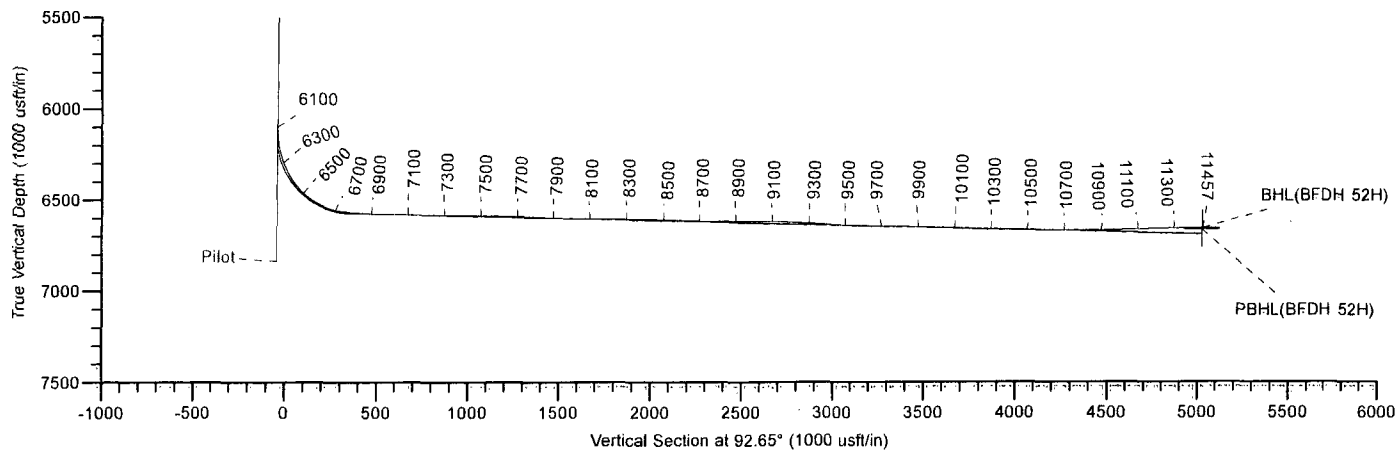
Azimuths to Grid North
 True North: -0.09°
 Magnetic North: 7.60°

Magnetic Field
 Strength: 48568.5snT
 Dip Angle: 60.31°
 Date: 01/07/2013
 Model: IGRF2010



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL(BFDH 52H)	0.00	0.00	0.00	549923.96	591984.19 32° 30'	42.098 N 104° 10'	8.514 W
BHL(BFDH 52H)	6657.92	-207.03	5021.92	549716.93	597006.11 32° 30'	39.969 N 104° 9'	9.869 W
PBHL(BFDH 52H)	6665.00	-232.71	5021.40	549691.25	597005.59 32° 30'	39.714 N 104° 9'	9.876 W



LEAM DRILLING SYSTEMS LLC
 2010 East Davis, Conroe, Texas 77301
 Phone: 936/756-7577, Fax 936/756-7595

Design: OH (52H/OH)
 Burton Flat Deep Unit
 Created By: Jesse Aguilera Date: 11:54, February 19 2013
 Date: _____
 Approved: _____ Date: _____

LEAM Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	Eddy 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:	Burton Flat Deep Unit
Site Position:	Northing: 548,073.21 usft Latitude: 32° 30' 23.782 N
From: Map	Easting: 592,066.43 usft Longitude: 104° 10' 7.587 W
Position Uncertainty: 0.00 usft	Slot Radius: 13-3/16 " Grid Convergence: 0.09 °

Well:	52H
Well Position	+N/-S 0.00 usft Northing: 549,923.96 usft Latitude: 32° 30' 42.098 N
	+E/-W 0.00 usft Easting: 591,984.19 usft Longitude: 104° 10' 8.514 W
Position Uncertainty	0.00 usft Wellhead Elevation: usft Ground Level: 3,207.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/07/13	7.69	60.31	48,568

Design:	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 6,082.80
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	92.65

Survey Program		Date	02/19/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
135.60	6,082.80	Survey #1 (Pilot)	NS-GYRO-MS	North sensing gyrocompassing m/s	
6,198.00	11,390.00	Survey #1 (OH)	LEAM MWD	MWD - Standard	
11,457.00	11,457.00	Survey #2 (OH)	Project	Projection	

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
SHL(BFDH 52H)									
135.60	0.32	260.58	135.60	-0.06	-0.37	-0.37	0.24	0.24	0.00
230.00	0.54	191.36	230.00	-0.54	-0.72	-0.70	0.55	0.23	-73.33
324.40	1.26	190.90	324.38	-2.00	-1.01	-0.91	0.76	0.76	-0.49
418.80	1.98	186.43	418.75	-4.64	-1.38	-1.17	0.77	0.76	-4.74
513.20	1.95	192.07	513.09	-7.83	-1.90	-1.54	0.21	-0.03	5.97
607.60	1.91	199.71	607.44	-10.88	-2.77	-2.26	0.28	-0.04	8.09
702.00	1.78	220.49	701.79	-13.48	-4.25	-3.62	0.72	-0.14	22.01

LEAM Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	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)
796.40	1.64	241.28	796.15	-15.24	-6.39	-5.68	0.67	-0.15	22.02
890.80	1.06	219.51	890.52	-16.56	-8.13	-7.35	0.81	-0.61	-23.06
985.20	0.48	197.75	984.91	-17.61	-8.80	-7.98	0.68	-0.61	-23.05
1,079.60	0.73	238.53	1,079.31	-18.30	-9.44	-8.58	0.51	0.26	43.20
1,174.00	0.97	279.30	1,173.70	-18.49	-10.74	-9.87	0.67	0.25	43.19
1,268.40	0.77	247.26	1,268.09	-18.60	-12.11	-11.24	0.55	-0.21	-33.94
1,362.80	0.57	215.21	1,362.48	-19.23	-12.97	-12.07	0.44	-0.21	-33.95
1,457.20	0.58	255.25	1,456.88	-19.74	-13.70	-12.77	0.42	0.01	42.42
1,551.60	0.58	299.29	1,551.27	-19.63	-14.58	-13.66	0.46	0.00	46.65
1,646.00	0.54	278.39	1,645.67	-19.33	-15.44	-14.53	0.22	-0.04	-22.14
1,740.40	0.49	257.49	1,740.07	-19.35	-16.27	-15.36	0.20	-0.05	-22.14
1,834.80	0.48	273.04	1,834.46	-19.42	-17.06	-16.14	0.14	-0.01	16.47
1,929.20	0.47	290.58	1,928.86	-19.26	-17.82	-16.91	0.15	-0.01	18.58
2,023.60	0.63	191.37	2,023.26	-19.63	-18.28	-17.35	0.89	0.17	-105.10
2,118.00	0.79	202.16	2,117.65	-20.74	-18.63	-17.65	0.22	0.17	11.43
2,212.40	1.72	205.61	2,212.03	-22.62	-19.49	-18.42	0.99	0.99	3.65
2,306.80	2.65	203.07	2,306.36	-25.91	-20.96	-19.74	0.99	0.99	-2.69
2,401.20	2.28	208.66	2,400.67	-29.56	-22.71	-21.32	0.47	-0.39	5.92
2,495.60	1.90	214.24	2,495.01	-32.51	-24.49	-22.96	0.46	-0.40	5.91
2,590.00	2.22	206.31	2,589.34	-35.44	-26.18	-24.52	0.45	0.34	-8.40
2,684.40	2.53	198.38	2,683.66	-39.05	-27.65	-25.82	0.48	0.33	-8.40
2,778.80	2.03	183.90	2,777.99	-42.70	-28.42	-26.42	0.80	-0.53	-15.34
2,873.20	1.54	169.43	2,872.34	-45.62	-28.30	-26.16	0.70	-0.52	-15.33
2,967.60	1.57	136.66	2,966.71	-47.80	-27.18	-24.94	0.93	0.03	-34.71
3,062.00	1.60	103.90	3,061.08	-49.06	-25.02	-22.72	0.95	0.03	-34.70
3,156.40	1.37	31.00	3,155.45	-48.41	-23.15	-20.89	1.88	-0.24	-77.22
3,250.80	1.13	318.10	3,249.84	-46.75	-23.19	-21.01	1.59	-0.25	-77.22
3,345.20	1.19	272.92	3,344.22	-46.01	-24.80	-22.64	0.95	0.06	-47.86
3,439.60	1.25	247.74	3,438.60	-46.35	-26.73	-24.56	0.57	0.06	-26.67
3,534.00	1.21	215.82	3,532.98	-47.54	-28.26	-26.04	0.72	-0.04	-33.81
3,628.40	1.18	183.90	3,627.36	-49.32	-28.91	-26.60	0.70	-0.03	-33.81
3,722.80	1.64	260.45	3,721.74	-50.52	-30.31	-27.94	1.89	0.49	81.09
3,817.20	2.10	317.00	3,816.09	-49.48	-32.82	-30.50	1.92	0.49	59.90
3,911.60	2.12	337.03	3,910.43	-46.60	-34.68	-32.49	0.78	0.02	21.22
4,006.00	2.15	357.06	4,004.77	-43.23	-35.46	-33.42	0.79	0.03	21.22
4,100.40	2.15	20.22	4,099.10	-39.80	-34.94	-33.06	0.91	0.00	24.53
4,194.80	2.15	45.39	4,193.44	-36.89	-33.06	-31.32	0.99	0.00	26.66
4,289.20	2.07	26.64	4,287.77	-34.12	-31.04	-29.43	0.73	-0.08	-19.86
4,383.60	1.98	7.89	4,382.12	-30.98	-30.05	-28.58	0.71	-0.10	-19.86
4,478.00	1.97	26.23	4,476.46	-27.91	-29.11	-27.79	0.67	-0.01	19.43
4,572.40	1.95	44.58	4,570.81	-25.31	-27.26	-26.06	0.66	-0.02	19.44
4,666.80	1.78	23.04	4,665.16	-22.82	-25.56	-24.48	0.76	-0.18	-22.82
4,761.20	1.62	11.51	4,759.52	-20.16	-24.72	-23.76	0.40	-0.17	-12.21

LEAM Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well: 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	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)
4,855.60	1.55	28.79	4,853.88	-17.74	-23.84	-23.00	0.51	-0.07	18.31
4,950.00	1.49	356.08	4,948.25	-15.39	-23.31	-22.57	0.91	-0.06	-34.65
5,044.40	1.33	322.71	5,042.62	-13.30	-24.06	-23.42	0.87	-0.17	-35.35
5,138.80	1.17	319.34	5,137.00	-11.70	-25.35	-24.78	0.19	-0.17	-3.57
5,233.20	1.06	306.06	5,231.38	-10.45	-26.68	-26.17	0.30	-0.12	-14.07
5,327.60	0.95	292.78	5,325.77	-9.63	-28.11	-27.64	0.27	-0.12	-14.07
5,422.00	0.86	237.54	5,420.16	-9.71	-29.43	-28.95	0.89	-0.10	-58.52
5,516.40	0.77	232.30	5,514.55	-10.48	-30.53	-30.01	0.12	-0.10	-5.55
5,610.80	0.73	253.50	5,608.94	-11.04	-31.61	-31.06	0.30	-0.04	22.46
5,705.20	0.69	274.71	5,703.33	-11.16	-32.75	-32.20	0.28	-0.04	22.47
5,799.60	0.83	235.04	5,797.72	-11.51	-33.88	-33.31	0.56	0.15	-42.02
5,894.00	0.98	195.37	5,892.11	-12.68	-34.65	-34.03	0.67	0.16	-42.02
5,988.40	1.09	239.78	5,986.50	-13.91	-35.64	-34.96	0.84	0.12	47.04
6,082.80	1.21	284.20	6,080.88	-14.11	-37.38	-36.69	0.93	0.13	47.06
6,198.00	8.88	102.18	6,195.68	-15.70	-29.85	-29.10	8.76	6.66	154.50
6,230.00	12.05	103.06	6,227.14	-16.97	-24.18	-23.37	9.92	9.91	2.75
6,262.00	15.12	109.39	6,258.24	-19.11	-16.99	-16.09	10.65	9.59	19.78
6,293.00	18.91	104.47	6,287.88	-21.71	-8.31	-7.30	13.07	12.23	-15.87
6,325.00	22.95	105.70	6,317.76	-24.70	2.72	3.86	12.70	12.63	3.84
6,356.00	27.00	105.34	6,345.86	-28.20	15.33	16.62	13.07	13.06	-1.16
6,388.00	31.48	105.34	6,373.78	-32.33	30.40	31.86	14.00	14.00	0.00
6,420.00	35.44	103.24	6,400.47	-36.67	47.50	49.14	12.89	12.38	-6.56
6,451.00	39.75	100.60	6,425.03	-40.55	66.00	67.80	14.84	13.90	-8.52
6,483.00	44.23	98.31	6,448.81	-44.05	87.11	89.05	14.79	14.00	-7.16
6,514.00	48.36	95.50	6,470.22	-46.72	109.35	111.39	14.84	13.32	-9.06
6,546.00	52.58	92.34	6,490.59	-48.39	133.97	136.06	15.23	13.19	-9.88
6,577.00	57.60	90.23	6,508.33	-48.94	159.37	161.46	17.13	16.19	-6.81
6,609.00	62.26	88.65	6,524.36	-48.66	187.05	189.10	15.18	14.56	-4.94
6,641.00	67.27	86.71	6,537.99	-47.48	215.96	217.93	16.59	15.66	-6.06
6,672.00	73.34	86.54	6,548.44	-45.76	245.09	246.94	19.59	19.58	-0.55
6,704.00	78.61	86.71	6,556.19	-43.94	276.07	277.80	16.48	16.47	0.53
6,735.00	80.55	87.06	6,561.80	-42.28	306.51	308.14	6.36	6.26	1.13
6,767.00	83.01	88.29	6,566.37	-41.00	338.15	339.69	8.58	7.69	3.84
6,798.00	84.59	89.70	6,569.72	-40.46	368.96	370.44	6.81	5.10	4.55
6,829.00	85.91	94.08	6,572.29	-41.48	399.83	401.32	14.71	4.26	14.13
6,924.00	87.41	92.50	6,577.82	-46.92	494.51	496.15	2.29	1.58	-1.66
7,019.00	88.81	93.03	6,580.96	-51.50	589.34	591.10	1.58	1.47	0.56
7,113.00	89.60	93.38	6,582.26	-56.75	683.19	685.08	0.92	0.84	0.37
7,208.00	88.90	91.80	6,583.50	-61.05	778.08	780.07	1.82	-0.74	-1.66
7,303.00	89.34	91.97	6,584.96	-64.17	873.02	875.05	0.50	0.46	0.18
7,398.00	90.04	91.62	6,585.48	-67.15	967.97	970.04	0.82	0.74	-0.37
7,492.00	88.37	91.27	6,586.78	-69.52	1,061.92	1,064.00	1.82	-1.78	-0.37
7,587.00	88.81	91.10	6,589.12	-71.48	1,156.88	1,158.94	0.50	0.46	-0.18
7,682.00	89.52	90.57	6,590.50	-72.87	1,251.85	1,253.88	0.93	0.75	-0.56

LEAM Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well: 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	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)
7,777.00	86.88	89.87	6,593.49	-73.23	1,346.80	1,348.74	2.87	-2.78	-0.74
7,871.00	87.32	90.04	6,598.24	-73.16	1,440.68	1,442.52	0.50	0.47	0.18
7,966.00	88.02	90.04	6,602.10	-73.22	1,535.60	1,537.34	0.74	0.74	0.00
8,060.00	88.90	90.04	6,604.63	-73.29	1,629.56	1,631.21	0.94	0.94	0.00
8,155.00	88.46	91.10	6,606.82	-74.23	1,724.53	1,726.12	1.21	-0.46	1.12
8,250.00	89.25	91.80	6,608.72	-76.64	1,819.48	1,821.08	1.11	0.83	0.74
8,344.00	89.96	91.45	6,609.37	-79.30	1,913.44	1,915.06	0.84	0.76	-0.37
8,439.00	88.55	91.97	6,610.60	-82.14	2,008.39	2,010.04	1.58	-1.48	0.55
8,534.00	87.41	92.85	6,613.95	-86.13	2,103.24	2,104.97	1.52	-1.20	0.93
8,628.00	88.20	92.50	6,617.55	-90.51	2,197.07	2,198.90	0.92	0.84	-0.37
8,723.00	89.52	92.68	6,619.44	-94.80	2,291.95	2,293.88	1.40	1.39	0.19
8,818.00	90.66	91.80	6,619.29	-98.52	2,386.88	2,388.88	1.52	1.20	-0.93
8,912.00	89.16	92.68	6,619.44	-102.19	2,480.80	2,482.87	1.85	-1.60	0.94
9,007.00	90.57	93.21	6,619.66	-107.07	2,575.67	2,577.87	1.59	1.48	0.56
9,101.00	88.72	93.56	6,620.24	-112.62	2,669.50	2,671.85	2.00	-1.97	0.37
9,196.00	86.35	92.68	6,624.33	-117.79	2,764.27	2,766.76	2.66	-2.49	-0.93
9,290.00	86.79	92.33	6,629.95	-121.89	2,858.01	2,860.59	0.60	0.47	-0.37
9,385.00	87.49	92.15	6,634.69	-125.60	2,952.82	2,955.46	0.76	0.74	-0.19
9,480.00	86.79	93.56	6,639.43	-130.32	3,047.58	3,050.34	1.66	-0.74	1.48
9,574.00	87.41	93.38	6,644.19	-136.00	3,141.28	3,144.21	0.69	0.66	-0.19
9,669.00	88.81	93.03	6,647.32	-141.31	3,236.08	3,239.15	1.52	1.47	-0.37
9,764.00	89.52	92.50	6,648.71	-145.90	3,330.96	3,334.14	0.93	0.75	-0.56
9,858.00	87.67	94.26	6,651.01	-151.43	3,424.76	3,428.10	2.72	-1.97	1.87
9,953.00	88.11	94.61	6,654.51	-158.78	3,519.41	3,522.99	0.59	0.46	0.37
10,047.00	88.02	93.73	6,657.68	-165.61	3,613.11	3,616.90	0.94	-0.10	-0.94
10,142.00	88.11	92.85	6,660.89	-171.06	3,707.90	3,711.84	0.93	0.09	-0.93
10,237.00	88.37	92.33	6,663.81	-175.35	3,802.75	3,806.79	0.61	0.27	-0.55
10,331.00	88.32	91.97	6,666.52	-178.87	3,896.65	3,900.75	0.39	-0.05	-0.38
10,426.00	89.16	91.80	6,668.61	-182.00	3,991.57	3,995.72	0.90	0.88	-0.18
10,521.00	89.43	91.62	6,669.78	-184.83	4,086.52	4,090.70	0.34	0.28	-0.19
10,615.00	89.52	90.92	6,670.64	-186.91	4,180.50	4,184.67	0.75	0.10	-0.74
10,710.00	89.78	91.10	6,671.22	-188.59	4,275.48	4,279.63	0.33	0.27	0.19
10,804.00	89.87	89.16	6,671.51	-188.80	4,369.47	4,373.53	2.07	0.10	-2.06
10,899.00	91.45	90.74	6,670.42	-188.72	4,464.46	4,468.41	2.35	1.66	1.66
10,994.00	91.71	90.92	6,667.80	-190.09	4,559.42	4,563.33	0.33	0.27	0.19
11,088.00	92.15	91.10	6,664.63	-191.75	4,653.35	4,657.24	0.51	0.47	0.19
11,183.00	91.28	92.15	6,661.79	-194.44	4,748.26	4,752.18	1.43	-0.92	1.11
11,278.00	91.45	91.97	6,659.53	-197.86	4,843.18	4,847.14	0.26	0.18	-0.19
11,372.00	90.13	93.38	6,658.23	-202.24	4,937.06	4,941.13	2.05	-1.40	1.50
11,390.00	90.22	93.21	6,658.17	-203.28	4,955.03	4,959.13	1.07	0.50	-0.94
11,457.00	90.22	93.21	6,657.92	-207.03	5,021.92	5,026.13	0.00	0.00	0.00
PBHL(BFDH 52H)									

LEAM Drilling Systems LLC

Survey Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
SHL(BFDH 52H)	0.00	0.01	0.00	0.00	0.00	549,923.96	591,984.19	32° 30' 42.098 N	104° 10' 8.514 W
- actual wellpath hits target center									
- Point									
BHL(BFDH 52H)	0.00	0.01	6,657.92	-207.03	5,021.92	549,716.93	597,006.11	32° 30' 39.969 N	104° 9' 9.869 W
- actual wellpath hits target center									
- Point									
PBHL(BFDH 52H)	0.00	0.01	6,665.00	-232.71	5,021.40	549,691.26	597,005.59	32° 30' 39.714 N	104° 9' 9.876 W
- actual wellpath misses target center by 26.64usft at 11457.00usft MD (6657.92 TVD, -207.03 N, 5021.92 E)									
- Point									

Checked By: _____ Approved By: _____ Date: _____

LEAM Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project:	Eddy 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		Burton Flat Deep Unit			
Site Position:		Northing:	548,073.21 usft	Latitude:	32° 30' 23.782 N
From:	Map	Easting:	592,066.43 usft	Longitude:	104° 10' 7.587 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.09 °

Well	52H					
Well Position	+N/-S	0.00 usft	Northing:	549,923.96 usft	Latitude:	32° 30' 42.098 N
	+E/-W	0.00 usft	Easting:	591,984.19 usft	Longitude:	104° 10' 8.514 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,207.00 usft

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/07/13	7.69	60.31	48,568

Design:	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 6,082.80
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	92.65

Survey Program		Date	02/19/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
135.60	6,082.80	Survey #1 (Pilot)	NS-GYRO-MS	North sensing gyrocompassing m/s	
6,198.00	11,390.00	Survey #1 (OH)	LEAM MWD	MWD - Standard	
11,457.00	11,457.00	Survey #2 (OH)	Project	Projection	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	549,923.96	591,984.19	32° 30' 42.098 N	104° 10' 8.514 W
SHL(BFDH 52H)									
135.60	0.32	260.58	135.60	-0.06	-0.37	549,923.90	591,983.82	32° 30' 42.097 N	104° 10' 8.518 W
230.00	0.54	191.36	230.00	-0.54	-0.72	549,923.42	591,983.47	32° 30' 42.092 N	104° 10' 8.523 W
324.40	1.26	190.90	324.38	-2.00	-1.01	549,921.97	591,983.19	32° 30' 42.078 N	104° 10' 8.526 W
418.80	1.98	186.43	418.75	-4.64	-1.38	549,919.33	591,982.81	32° 30' 42.052 N	104° 10' 8.530 W
513.20	1.95	192.07	513.09	-7.83	-1.90	549,916.13	591,982.29	32° 30' 42.020 N	104° 10' 8.536 W
607.60	1.91	199.71	607.44	-10.88	-2.77	549,913.08	591,981.42	32° 30' 41.990 N	104° 10' 8.547 W
702.00	1.78	220.49	701.79	-13.48	-4.25	549,910.49	591,979.94	32° 30' 41.964 N	104° 10' 8.564 W
796.40	1.64	241.28	796.15	-15.24	-6.39	549,908.72	591,977.81	32° 30' 41.947 N	104° 10' 8.589 W

LEAM Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
890.80	1.06	219.51	890.52	-16.56	-8.13	549,907.40	591,976.06	32° 30' 41.934 N	104° 10' 8.609 W
985.20	0.48	197.75	984.91	-17.61	-8.80	549,906.35	591,975.39	32° 30' 41.923 N	104° 10' 8.617 W
1,079.60	0.73	238.53	1,079.31	-18.30	-9.44	549,905.66	591,974.76	32° 30' 41.917 N	104° 10' 8.625 W
1,174.00	0.97	279.30	1,173.70	-18.49	-10.74	549,905.47	591,973.45	32° 30' 41.915 N	104° 10' 8.640 W
1,268.40	0.77	247.26	1,268.09	-18.60	-12.11	549,905.36	591,972.08	32° 30' 41.914 N	104° 10' 8.656 W
1,362.80	0.57	215.21	1,362.48	-19.23	-12.97	549,904.73	591,971.22	32° 30' 41.908 N	104° 10' 8.666 W
1,457.20	0.58	255.25	1,456.88	-19.74	-13.70	549,904.22	591,970.49	32° 30' 41.903 N	104° 10' 8.675 W
1,551.60	0.58	299.29	1,551.27	-19.63	-14.58	549,904.34	591,969.61	32° 30' 41.904 N	104° 10' 8.685 W
1,646.00	0.54	278.39	1,645.67	-19.33	-15.44	549,904.64	591,968.76	32° 30' 41.907 N	104° 10' 8.695 W
1,740.40	0.49	257.49	1,740.07	-19.35	-16.27	549,904.61	591,967.92	32° 30' 41.906 N	104° 10' 8.705 W
1,834.80	0.48	273.04	1,834.46	-19.42	-17.06	549,904.55	591,967.13	32° 30' 41.906 N	104° 10' 8.714 W
1,929.20	0.47	290.58	1,928.86	-19.26	-17.82	549,904.70	591,966.38	32° 30' 41.907 N	104° 10' 8.723 W
2,023.60	0.63	191.37	2,023.26	-19.63	-18.28	549,904.33	591,965.91	32° 30' 41.904 N	104° 10' 8.728 W
2,118.00	0.79	202.16	2,117.65	-20.74	-18.63	549,903.22	591,965.56	32° 30' 41.893 N	104° 10' 8.732 W
2,212.40	1.72	205.61	2,212.03	-22.62	-19.49	549,901.34	591,964.71	32° 30' 41.874 N	104° 10' 8.742 W
2,306.80	2.65	203.07	2,306.36	-25.91	-20.96	549,898.05	591,963.24	32° 30' 41.842 N	104° 10' 8.759 W
2,401.20	2.28	208.66	2,400.67	-29.56	-22.71	549,894.40	591,961.48	32° 30' 41.805 N	104° 10' 8.780 W
2,495.60	1.90	214.24	2,495.01	-32.51	-24.49	549,891.46	591,959.70	32° 30' 41.776 N	104° 10' 8.801 W
2,590.00	2.22	206.31	2,589.34	-35.44	-26.18	549,888.52	591,958.01	32° 30' 41.747 N	104° 10' 8.821 W
2,684.40	2.53	198.38	2,683.66	-39.05	-27.65	549,884.91	591,956.54	32° 30' 41.712 N	104° 10' 8.838 W
2,778.80	2.03	183.90	2,777.99	-42.70	-28.42	549,881.26	591,955.77	32° 30' 41.676 N	104° 10' 8.847 W
2,873.20	1.54	169.43	2,872.34	-45.62	-28.30	549,878.35	591,955.89	32° 30' 41.647 N	104° 10' 8.845 W
2,967.60	1.57	136.66	2,966.71	-47.80	-27.18	549,876.16	591,957.01	32° 30' 41.625 N	104° 10' 8.832 W
3,062.00	1.60	103.90	3,061.08	-49.06	-25.02	549,874.90	591,959.18	32° 30' 41.613 N	104° 10' 8.807 W
3,156.40	1.37	31.00	3,155.45	-48.41	-23.15	549,875.55	591,961.04	32° 30' 41.619 N	104° 10' 8.785 W
3,250.80	1.13	318.10	3,249.84	-46.75	-23.19	549,877.21	591,961.00	32° 30' 41.635 N	104° 10' 8.786 W
3,345.20	1.19	272.92	3,344.22	-46.01	-24.80	549,877.96	591,959.40	32° 30' 41.643 N	104° 10' 8.805 W
3,439.60	1.25	247.74	3,438.60	-46.35	-26.73	549,877.62	591,957.47	32° 30' 41.639 N	104° 10' 8.827 W
3,534.00	1.21	215.82	3,532.98	-47.54	-28.26	549,876.42	591,955.93	32° 30' 41.628 N	104° 10' 8.845 W
3,628.40	1.18	183.90	3,627.36	-49.32	-28.91	549,874.64	591,955.28	32° 30' 41.610 N	104° 10' 8.853 W
3,722.80	1.64	260.45	3,721.74	-50.52	-30.31	549,873.45	591,953.88	32° 30' 41.598 N	104° 10' 8.869 W
3,817.20	2.10	317.00	3,816.09	-49.48	-32.82	549,874.49	591,951.37	32° 30' 41.609 N	104° 10' 8.898 W
3,911.60	2.12	337.03	3,910.43	-46.60	-34.68	549,877.36	591,949.51	32° 30' 41.637 N	104° 10' 8.920 W
4,006.00	2.15	357.06	4,004.77	-43.23	-35.46	549,880.74	591,948.74	32° 30' 41.670 N	104° 10' 8.929 W
4,100.40	2.15	20.22	4,099.10	-39.80	-34.94	549,884.17	591,949.26	32° 30' 41.704 N	104° 10' 8.923 W
4,194.80	2.15	45.39	4,193.44	-36.89	-33.06	549,887.07	591,951.13	32° 30' 41.733 N	104° 10' 8.901 W
4,289.20	2.07	26.64	4,287.77	-34.12	-31.04	549,889.84	591,953.16	32° 30' 41.760 N	104° 10' 8.877 W
4,383.60	1.98	7.89	4,382.12	-30.98	-30.05	549,892.98	591,954.14	32° 30' 41.791 N	104° 10' 8.866 W
4,478.00	1.97	26.23	4,476.46	-27.91	-29.11	549,896.05	591,955.08	32° 30' 41.822 N	104° 10' 8.855 W
4,572.40	1.95	44.58	4,570.81	-25.31	-27.26	549,898.65	591,956.93	32° 30' 41.848 N	104° 10' 8.833 W
4,666.80	1.78	23.04	4,665.16	-22.82	-25.56	549,901.14	591,958.63	32° 30' 41.872 N	104° 10' 8.813 W
4,761.20	1.62	11.51	4,759.52	-20.16	-24.72	549,903.80	591,959.47	32° 30' 41.898 N	104° 10' 8.803 W
4,855.60	1.55	28.79	4,853.88	-17.74	-23.84	549,906.22	591,960.35	32° 30' 41.922 N	104° 10' 8.793 W
4,950.00	1.49	356.08	4,948.25	-15.39	-23.31	549,908.57	591,960.88	32° 30' 41.946 N	104° 10' 8.787 W
5,044.40	1.33	322.71	5,042.62	-13.30	-24.06	549,910.66	591,960.14	32° 30' 41.966 N	104° 10' 8.795 W
5,138.80	1.17	319.34	5,137.00	-11.70	-25.35	549,912.27	591,958.84	32° 30' 41.982 N	104° 10' 8.810 W
5,233.20	1.06	306.06	5,231.38	-10.45	-26.68	549,913.51	591,957.51	32° 30' 41.995 N	104° 10' 8.826 W
5,327.60	0.95	292.78	5,325.77	-9.63	-28.11	549,914.33	591,956.08	32° 30' 42.003 N	104° 10' 8.843 W
5,422.00	0.86	237.54	5,420.16	-9.71	-29.43	549,914.25	591,954.76	32° 30' 42.002 N	104° 10' 8.858 W
5,516.40	0.77	232.30	5,514.55	-10.48	-30.53	549,913.48	591,953.66	32° 30' 41.994 N	104° 10' 8.871 W
5,610.80	0.73	253.50	5,608.94	-11.04	-31.61	549,912.92	591,952.58	32° 30' 41.989 N	104° 10' 8.883 W
5,705.20	0.69	274.71	5,703.33	-11.16	-32.75	549,912.80	591,951.44	32° 30' 41.988 N	104° 10' 8.897 W
5,799.60	0.83	235.04	5,797.72	-11.51	-33.88	549,912.46	591,950.31	32° 30' 41.984 N	104° 10' 8.910 W
5,894.00	0.98	195.37	5,892.11	-12.68	-34.65	549,911.29	591,949.54	32° 30' 41.973 N	104° 10' 8.919 W
5,988.40	1.09	239.78	5,986.50	-13.91	-35.64	549,910.05	591,948.55	32° 30' 41.961 N	104° 10' 8.931 W

LEAM Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,082.80	1.21	284.20	6,080.88	-14.11	-37.38	549,909.85	591,946.81	32° 30' 41.959 N	104° 10' 8.951 W
6,198.00	8.88	102.18	6,195.68	-15.70	-29.85	549,908.27	591,954.34	32° 30' 41.943 N	104° 10' 8.863 W
6,230.00	12.05	103.06	6,227.14	-16.97	-24.18	549,906.99	591,960.01	32° 30' 41.930 N	104° 10' 8.797 W
6,262.00	15.12	109.39	6,258.24	-19.11	-16.99	549,904.85	591,967.20	32° 30' 41.909 N	104° 10' 8.713 W
6,293.00	18.91	104.47	6,287.88	-21.71	-8.31	549,902.25	591,975.88	32° 30' 41.883 N	104° 10' 8.612 W
6,325.00	22.95	105.70	6,317.76	-24.70	2.72	549,899.26	591,986.92	32° 30' 41.853 N	104° 10' 8.483 W
6,356.00	27.00	105.34	6,345.86	-28.20	15.33	549,895.77	591,999.52	32° 30' 41.818 N	104° 10' 8.336 W
6,388.00	31.48	105.34	6,373.78	-32.33	30.40	549,891.63	592,014.60	32° 30' 41.777 N	104° 10' 8.160 W
6,420.00	35.44	103.24	6,400.47	-36.67	47.50	549,887.30	592,031.69	32° 30' 41.734 N	104° 10' 7.960 W
6,451.00	39.75	100.60	6,425.03	-40.55	66.00	549,883.41	592,050.19	32° 30' 41.695 N	104° 10' 7.744 W
6,483.00	44.23	98.31	6,448.81	-44.05	87.11	549,879.91	592,071.30	32° 30' 41.660 N	104° 10' 7.498 W
6,514.00	48.36	95.50	6,470.22	-46.72	109.35	549,877.24	592,093.54	32° 30' 41.634 N	104° 10' 7.238 W
6,546.00	52.58	92.34	6,490.59	-48.39	133.97	549,875.57	592,118.16	32° 30' 41.617 N	104° 10' 6.950 W
6,577.00	57.60	90.23	6,508.33	-48.94	159.37	549,875.02	592,143.56	32° 30' 41.611 N	104° 10' 6.654 W
6,609.00	62.26	88.65	6,524.36	-48.66	187.05	549,875.30	592,171.25	32° 30' 41.613 N	104° 10' 6.330 W
6,641.00	67.27	86.71	6,537.99	-47.48	215.96	549,876.48	592,200.16	32° 30' 41.624 N	104° 10' 5.993 W
6,672.00	73.34	86.54	6,548.44	-45.76	245.09	549,878.20	592,229.28	32° 30' 41.641 N	104° 10' 5.653 W
6,704.00	78.61	86.71	6,556.19	-43.94	276.07	549,880.02	592,260.26	32° 30' 41.659 N	104° 10' 5.291 W
6,735.00	80.55	87.06	6,561.80	-42.28	306.51	549,881.68	592,290.70	32° 30' 41.675 N	104° 10' 4.935 W
6,767.00	83.01	88.29	6,566.37	-41.00	338.15	549,882.96	592,322.35	32° 30' 41.687 N	104° 10' 4.566 W
6,798.00	84.59	89.70	6,569.72	-40.46	368.96	549,883.50	592,353.16	32° 30' 41.692 N	104° 10' 4.206 W
6,829.00	85.91	94.08	6,572.29	-41.48	399.83	549,882.48	592,384.03	32° 30' 41.681 N	104° 10' 3.845 W
6,924.00	87.41	92.50	6,577.82	-46.92	494.51	549,877.04	592,478.70	32° 30' 41.626 N	104° 10' 2.740 W
7,019.00	88.81	93.03	6,580.96	-51.50	589.34	549,872.46	592,573.54	32° 30' 41.579 N	104° 10' 1.632 W
7,113.00	89.60	93.38	6,582.26	-56.75	683.19	549,867.21	592,667.38	32° 30' 41.526 N	104° 10' 0.536 W
7,208.00	88.90	91.80	6,583.50	-61.05	778.08	549,862.92	592,762.27	32° 30' 41.482 N	104° 9' 59.428 W
7,303.00	89.34	91.97	6,584.96	-64.17	873.02	549,859.79	592,857.21	32° 30' 41.449 N	104° 9' 58.320 W
7,398.00	90.04	91.62	6,585.48	-67.15	967.97	549,856.82	592,952.16	32° 30' 41.418 N	104° 9' 57.211 W
7,492.00	88.37	91.27	6,586.78	-69.52	1,061.92	549,854.45	593,046.12	32° 30' 41.393 N	104° 9' 56.114 W
7,587.00	88.81	91.10	6,589.12	-71.48	1,156.88	549,852.48	593,141.07	32° 30' 41.372 N	104° 9' 55.005 W
7,682.00	89.52	90.57	6,590.50	-72.87	1,251.85	549,851.10	593,236.05	32° 30' 41.357 N	104° 9' 53.896 W
7,777.00	86.88	89.87	6,593.49	-73.23	1,346.80	549,850.73	593,330.99	32° 30' 41.352 N	104° 9' 52.787 W
7,871.00	87.32	90.04	6,598.24	-73.16	1,440.68	549,850.81	593,424.87	32° 30' 41.351 N	104° 9' 51.690 W
7,966.00	88.02	90.04	6,602.10	-73.22	1,535.60	549,850.74	593,519.79	32° 30' 41.349 N	104° 9' 50.582 W
8,060.00	88.90	90.04	6,604.63	-73.29	1,629.56	549,850.67	593,613.76	32° 30' 41.347 N	104° 9' 49.484 W
8,155.00	88.46	91.10	6,606.82	-74.23	1,724.53	549,849.73	593,708.72	32° 30' 41.336 N	104° 9' 48.375 W
8,250.00	89.25	91.80	6,608.72	-76.64	1,819.48	549,847.33	593,803.67	32° 30' 41.311 N	104° 9' 47.267 W
8,344.00	89.96	91.45	6,609.37	-79.30	1,913.44	549,844.66	593,897.63	32° 30' 41.283 N	104° 9' 46.169 W
8,439.00	88.55	91.97	6,610.60	-82.14	2,008.39	549,841.83	593,992.58	32° 30' 41.254 N	104° 9' 45.060 W
8,534.00	87.41	92.85	6,613.95	-86.13	2,103.24	549,837.83	594,087.43	32° 30' 41.213 N	104° 9' 43.953 W
8,628.00	88.20	92.50	6,617.55	-90.51	2,197.07	549,833.45	594,181.26	32° 30' 41.168 N	104° 9' 42.857 W
8,723.00	89.52	92.68	6,619.44	-94.80	2,291.95	549,829.16	594,276.14	32° 30' 41.124 N	104° 9' 41.749 W
8,818.00	90.66	91.80	6,619.29	-98.52	2,386.88	549,825.44	594,371.07	32° 30' 41.085 N	104° 9' 40.641 W
8,912.00	89.16	92.68	6,619.44	-102.19	2,480.80	549,821.77	594,464.99	32° 30' 41.048 N	104° 9' 39.544 W
9,007.00	90.57	93.21	6,619.66	-107.07	2,575.67	549,816.89	594,559.87	32° 30' 40.998 N	104° 9' 38.436 W
9,101.00	88.72	93.56	6,620.24	-112.62	2,669.50	549,811.34	594,653.70	32° 30' 40.941 N	104° 9' 37.340 W
9,196.00	86.35	92.68	6,624.33	-117.79	2,764.27	549,806.17	594,748.46	32° 30' 40.889 N	104° 9' 36.234 W
9,290.00	86.79	92.33	6,629.95	-121.89	2,858.01	549,802.07	594,842.20	32° 30' 40.847 N	104° 9' 35.139 W
9,385.00	87.49	92.15	6,634.69	-125.60	2,952.82	549,798.36	594,937.01	32° 30' 40.808 N	104° 9' 34.032 W
9,480.00	86.79	93.56	6,639.43	-130.32	3,047.58	549,793.64	595,031.77	32° 30' 40.760 N	104° 9' 32.925 W
9,574.00	87.41	93.38	6,644.19	-136.00	3,141.28	549,787.96	595,125.48	32° 30' 40.702 N	104° 9' 31.831 W
9,669.00	88.81	93.03	6,647.32	-141.31	3,236.08	549,782.65	595,220.27	32° 30' 40.648 N	104° 9' 30.724 W
9,764.00	89.52	92.50	6,648.71	-145.90	3,330.96	549,778.07	595,315.15	32° 30' 40.601 N	104° 9' 29.616 W
9,858.00	87.67	94.26	6,651.01	-151.43	3,424.76	549,772.53	595,408.95	32° 30' 40.545 N	104° 9' 28.521 W
9,953.00	88.11	94.61	6,654.51	-158.78	3,519.41	549,765.19	595,503.60	32° 30' 40.471 N	104° 9' 27.415 W

LEAM Drilling Systems LLC

Survey Report - Geographic

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 52H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3207' KB 25' @ 3232.00usft (H&P 223)
Well:	52H	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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,047.00	88.02	93.73	6,657.68	-165.61	3,613.11	549,758.36	595,597.30	32° 30' 40.402 N	104° 9' 26.321 W
10,142.00	88.11	92.85	6,660.89	-171.06	3,707.90	549,752.91	595,692.09	32° 30' 40.346 N	104° 9' 25.214 W
10,237.00	88.37	92.33	6,663.81	-175.35	3,802.75	549,748.62	595,786.95	32° 30' 40.302 N	104° 9' 24.107 W
10,331.00	88.32	91.97	6,666.52	-178.87	3,896.65	549,745.09	595,880.84	32° 30' 40.266 N	104° 9' 23.010 W
10,426.00	89.16	91.80	6,668.61	-182.00	3,991.57	549,741.97	595,975.77	32° 30' 40.233 N	104° 9' 21.902 W
10,521.00	89.43	91.62	6,669.78	-184.83	4,086.52	549,739.13	596,070.72	32° 30' 40.204 N	104° 9' 20.793 W
10,615.00	89.52	90.92	6,670.64	-186.91	4,180.50	549,737.05	596,164.69	32° 30' 40.182 N	104° 9' 19.695 W
10,710.00	89.78	91.10	6,671.22	-188.59	4,275.48	549,735.37	596,259.67	32° 30' 40.163 N	104° 9' 18.586 W
10,804.00	89.87	89.16	6,671.51	-188.80	4,369.47	549,735.16	596,353.67	32° 30' 40.160 N	104° 9' 17.488 W
10,899.00	91.45	90.74	6,670.42	-188.72	4,464.46	549,735.24	596,448.65	32° 30' 40.159 N	104° 9' 16.379 W
10,994.00	91.71	90.92	6,667.80	-190.09	4,559.42	549,733.87	596,543.61	32° 30' 40.144 N	104° 9' 15.270 W
11,088.00	92.15	91.10	6,664.63	-191.75	4,653.35	549,732.21	596,637.54	32° 30' 40.126 N	104° 9' 14.173 W
11,183.00	91.28	92.15	6,661.79	-194.44	4,748.26	549,729.52	596,732.46	32° 30' 40.098 N	104° 9' 13.065 W
11,278.00	91.45	91.97	6,659.53	-197.86	4,843.18	549,726.11	596,827.37	32° 30' 40.062 N	104° 9' 11.956 W
11,372.00	90.13	93.38	6,658.23	-202.24	4,937.06	549,721.72	596,921.25	32° 30' 40.017 N	104° 9' 10.860 W
11,390.00	90.22	93.21	6,658.17	-203.28	4,955.03	549,720.68	596,939.22	32° 30' 40.007 N	104° 9' 10.650 W
11,457.00	90.22	93.21	6,657.92	-207.03	5,021.92	549,716.93	597,006.12	32° 30' 39.969 N	104° 9' 9.869 W
PBHL(BFDH 52H)									

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
SHL(BFDH 52H)	0.00	0.01	0.00	0.00	0.00	549,923.96	591,984.19	32° 30' 42.098 N	104° 10' 8.514 W
- actual wellpath hits target center									
- Point									
BHL(BFDH 52H)	0.00	0.01	6,657.92	-207.03	5,021.92	549,716.93	597,006.11	32° 30' 39.969 N	104° 9' 9.869 W
- actual wellpath hits target center									
- Point									
PBHL(BFDH 52H)	0.00	0.01	6,665.00	-232.71	5,021.40	549,691.26	597,005.59	32° 30' 39.714 N	104° 9' 9.876 W
- actual wellpath misses target center by 26.64usft at 11457.00usft MD (6657.92 TVD, -207.03 N, 5021.92 E)									
- Point									

Checked By: _____	Approved By: _____	Date: _____
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