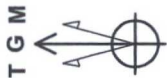


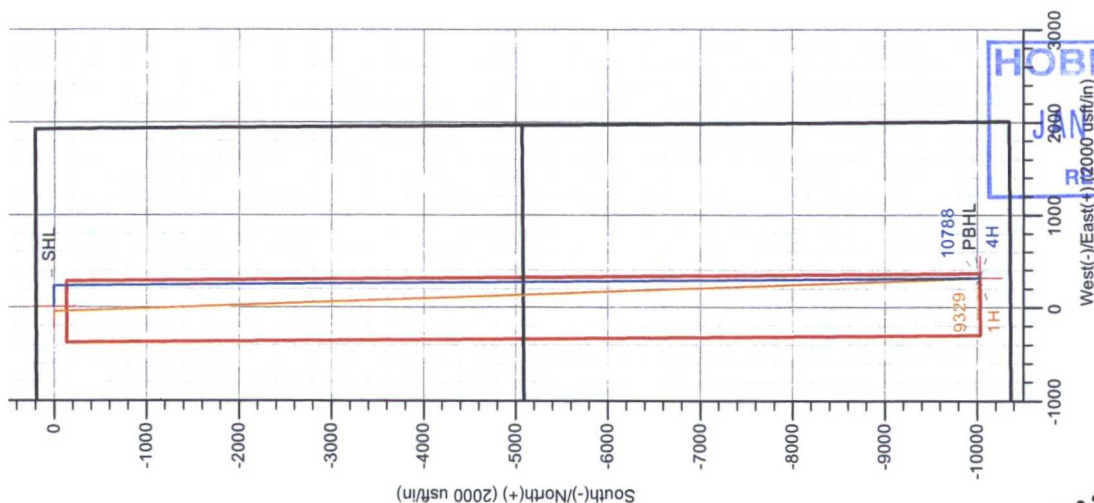


Project: Lea County, NM (NAD-83)
Site: Boomsiang 14-23 Fed
Well: 4H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.77°

Magnetic Field
Strength: 48171.7snT
Dip Angle: 60.14°
Date: 12/14/2015
Model: BGGM2015

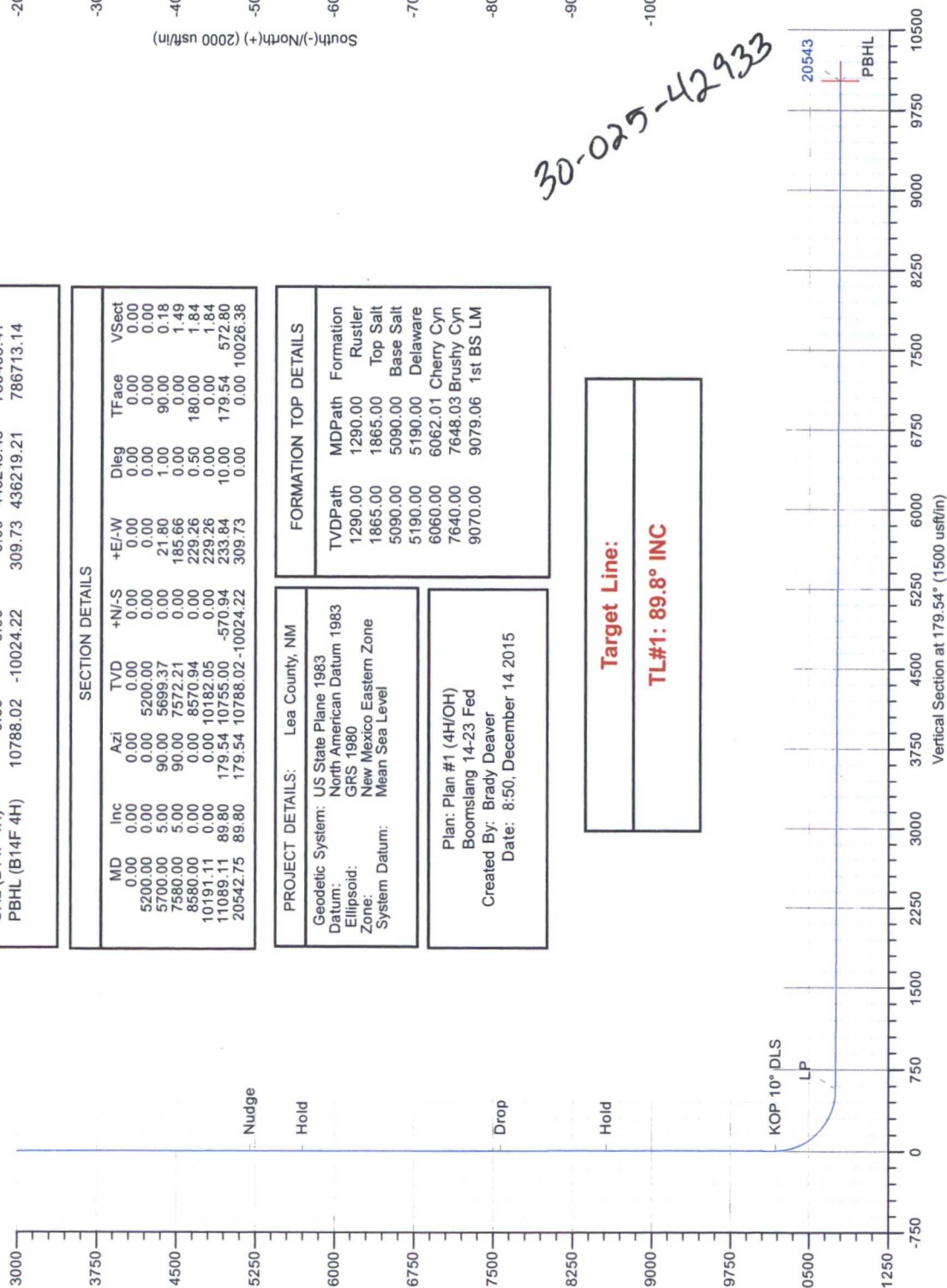


DESIGN TARGET DETAILS				
Name	TVD	+N/-S	+E/-W	Northing
SHL (B14F 4H)	0.00	0.00	0.00	446243.43
PBHL (B14F 4H)	10788.02	-10024.22	309.73	436219.21

SECTION DETAILS				
MD	Inc	Azi	+E/-W	+N/-S
0.00	0.00	0.00	0.00	0.00
5200.00	0.00	5200.00	0.00	0.00
5700.00	5.00	90.00	5699.37	0.00
7580.00	5.00	90.00	7572.21	0.00
8580.00	0.00	0.00	8570.94	0.00
10191.11	0.00	0.00	10182.05	0.00
11089.11	89.80	179.54	10755.00	-570.94
20542.75	89.80	179.54	10788.02	-10024.22

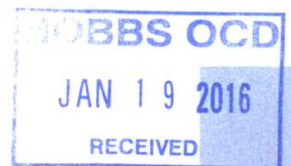
PROJECT DETAILS:		FORMATION TOP DETAILS	
Lea County, NM			
Geodetic System: US State Plane 1983		MDPath	
Datum: North American Datum 1983		1290.00	
Ellipsoid: GRS 1980		MDPath	
Zone: New Mexico Eastern Zone		1865.00	
System Datum: Mean Sea Level		5090.00	
		5190.00	
		6060.00	
		7640.00	
		9070.00	

Plan: Plan #1 (4H/OH)
Boomsiang 14-23 Fed
Created By: Brady Deaver
Date: 8:50, December 14 2015



Target Line:
TL#1: 89.8° INC

JAN 25 2016



DEVON ENERGY

Lea County, NM (NAD-83)

Boomslang 14-23 Fed

4H

OH

Plan: Plan #1

Standard Planning Report

14 December, 2015





LEAM Drilling Systems LLC
Planning Report



Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Boomsiang 14-23 Fed
Well: 4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well 4H
3601.9' GL + 25' RKB @ 3626.90usft
3601.9' GL + 25' RKB @ 3626.90usft
Grid
Minimum Curvature

Project Lea County, NM (NAD-83)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

Site Boomsiang 14-23 Fed

Site Position: Northing: 446,243.13 usft Latitude: 32° 13' 27.535 N
From: Map Easting: 786,353.47 usft Longitude: 103° 32' 27.617 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.42 °

Well 4H, 2nd BS SS

Well Position +N/-S 0.30 usft Northing: 446,243.43 usft Latitude: 32° 13' 27.534 N
+E/-W 49.94 usft Easting: 786,403.41 usft Longitude: 103° 32' 27.036 W
Position Uncertainty 0.00 usft Wellhead Elevation: 3,626.90 usft Ground Level: 3,601.90 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	12/14/2015	7.19	60.14	48,172

Design Plan #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.54

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,700.00	5.00	90.00	5,699.37	0.00	21.80	1.00	1.00	0.00	90.00	
7,580.00	5.00	90.00	7,572.21	0.00	185.66	0.00	0.00	0.00	0.00	
8,580.00	0.00	0.00	8,570.94	0.00	229.26	0.50	-0.50	0.00	180.00	
10,191.11	0.00	0.00	10,182.05	0.00	229.26	0.00	0.00	0.00	0.00	
11,089.11	89.80	179.54	10,755.00	-570.94	233.84	10.00	10.00	19.99	179.54	
20,542.75	89.80	179.54	10,788.02	-10,024.22	309.73	0.00	0.00	0.00	0.00	PBHL (B14F 4H)



LEAM Drilling Systems LLC
Planning Report



Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Boomslang 14-23 Fed
Well: 4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 4H
TVD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
MD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned 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)
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,090.00	0.00	0.00	5,090.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt									
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,190.00	0.00	0.00	5,190.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
Nudge									
5,300.00	1.00	90.00	5,300.00	0.00	0.87	0.01	1.00	1.00	0.00
5,400.00	2.00	90.00	5,399.96	0.00	3.49	0.03	1.00	1.00	0.00
5,500.00	3.00	90.00	5,499.86	0.00	7.85	0.06	1.00	1.00	0.00
5,600.00	4.00	90.00	5,599.68	0.00	13.96	0.11	1.00	1.00	0.00
5,700.00	5.00	90.00	5,699.37	0.00	21.80	0.18	1.00	1.00	0.00
Hold									
5,800.00	5.00	90.00	5,798.99	0.00	30.52	0.25	0.00	0.00	0.00
5,900.00	5.00	90.00	5,898.60	0.00	39.23	0.31	0.00	0.00	0.00
6,000.00	5.00	90.00	5,998.22	0.00	47.95	0.38	0.00	0.00	0.00
6,062.01	5.00	90.00	6,060.00	0.00	53.35	0.43	0.00	0.00	0.00
Cherry Canyon									
6,100.00	5.00	90.00	6,097.84	0.00	56.67	0.45	0.00	0.00	0.00
6,200.00	5.00	90.00	6,197.46	0.00	65.38	0.52	0.00	0.00	0.00
6,300.00	5.00	90.00	6,297.08	0.00	74.10	0.59	0.00	0.00	0.00
6,400.00	5.00	90.00	6,396.70	0.00	82.81	0.66	0.00	0.00	0.00
6,500.00	5.00	90.00	6,496.32	0.00	91.53	0.73	0.00	0.00	0.00
6,600.00	5.00	90.00	6,595.94	0.00	100.24	0.80	0.00	0.00	0.00
6,700.00	5.00	90.00	6,695.56	0.00	108.96	0.87	0.00	0.00	0.00
6,800.00	5.00	90.00	6,795.18	0.00	117.67	0.94	0.00	0.00	0.00
6,900.00	5.00	90.00	6,894.80	0.00	126.39	1.01	0.00	0.00	0.00
7,000.00	5.00	90.00	6,994.42	0.00	135.11	1.08	0.00	0.00	0.00
7,100.00	5.00	90.00	7,094.04	0.00	143.82	1.15	0.00	0.00	0.00
7,200.00	5.00	90.00	7,193.66	0.00	152.54	1.22	0.00	0.00	0.00
7,300.00	5.00	90.00	7,293.28	0.00	161.25	1.29	0.00	0.00	0.00
7,400.00	5.00	90.00	7,392.90	0.00	169.97	1.36	0.00	0.00	0.00
7,500.00	5.00	90.00	7,492.52	0.00	178.68	1.43	0.00	0.00	0.00
7,580.00	5.00	90.00	7,572.21	0.00	185.66	1.49	0.00	0.00	0.00
Drop									
7,600.00	4.90	90.00	7,592.14	0.00	187.38	1.50	0.50	-0.50	0.00
7,648.03	4.66	90.00	7,640.00	0.00	191.38	1.54	0.50	-0.50	0.00
Brushy Canyon									
7,700.00	4.40	90.00	7,691.81	0.00	195.49	1.57	0.50	-0.50	0.00
7,800.00	3.90	90.00	7,791.55	0.00	202.72	1.63	0.50	-0.50	0.00
7,900.00	3.40	90.00	7,891.34	0.00	209.09	1.68	0.50	-0.50	0.00
8,000.00	2.90	90.00	7,991.19	0.00	214.59	1.72	0.50	-0.50	0.00
8,100.00	2.40	90.00	8,091.08	0.00	219.21	1.76	0.50	-0.50	0.00
8,200.00	1.90	90.00	8,191.01	0.00	222.96	1.79	0.50	-0.50	0.00
8,300.00	1.40	90.00	8,290.97	0.00	225.84	1.81	0.50	-0.50	0.00
8,400.00	0.90	90.00	8,390.95	0.00	227.85	1.83	0.50	-0.50	0.00
8,500.00	0.40	90.00	8,490.94	0.00	228.98	1.84	0.50	-0.50	0.00
8,580.00	0.00	0.00	8,570.94	0.00	229.26	1.84	0.50	-0.50	0.00
Hold									
8,600.00	0.00	0.00	8,590.94	0.00	229.26	1.84	0.00	0.00	0.00
8,700.00	0.00	0.00	8,690.94	0.00	229.26	1.84	0.00	0.00	0.00
8,800.00	0.00	0.00	8,790.94	0.00	229.26	1.84	0.00	0.00	0.00



LEAM Drilling Systems LLC
Planning Report



Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Boomslang 14-23 Fed
Well: 4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
MD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned 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	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,290.00	0.00	0.00	1,290.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,865.00	0.00	0.00	1,865.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00



LEAM Drilling Systems LLC
Planning Report



Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
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Site: Boomsiang 14-23 Fed
Well: 4H
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Local Co-ordinate Reference:
TVD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
MD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned 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)
8,900.00	0.00	0.00	8,890.94	0.00	229.26	1.84	0.00	0.00	0.00
9,000.00	0.00	0.00	8,990.94	0.00	229.26	1.84	0.00	0.00	0.00
9,079.06	0.00	0.00	9,070.00	0.00	229.26	1.84	0.00	0.00	0.00
1st BS LM									
9,100.00	0.00	0.00	9,090.94	0.00	229.26	1.84	0.00	0.00	0.00
9,200.00	0.00	0.00	9,190.94	0.00	229.26	1.84	0.00	0.00	0.00
9,300.00	0.00	0.00	9,290.94	0.00	229.26	1.84	0.00	0.00	0.00
9,400.00	0.00	0.00	9,390.94	0.00	229.26	1.84	0.00	0.00	0.00
9,500.00	0.00	0.00	9,490.94	0.00	229.26	1.84	0.00	0.00	0.00
9,600.00	0.00	0.00	9,590.94	0.00	229.26	1.84	0.00	0.00	0.00
9,700.00	0.00	0.00	9,690.94	0.00	229.26	1.84	0.00	0.00	0.00
9,800.00	0.00	0.00	9,790.94	0.00	229.26	1.84	0.00	0.00	0.00
9,900.00	0.00	0.00	9,890.94	0.00	229.26	1.84	0.00	0.00	0.00
10,000.00	0.00	0.00	9,990.94	0.00	229.26	1.84	0.00	0.00	0.00
10,100.00	0.00	0.00	10,090.94	0.00	229.26	1.84	0.00	0.00	0.00
10,191.11	0.00	0.00	10,182.05	0.00	229.26	1.84	0.00	0.00	0.00
KOP 10° DLS									
10,200.00	0.89	179.54	10,190.94	-0.07	229.26	1.91	10.00	10.00	0.00
10,250.00	5.89	179.54	10,240.84	-3.02	229.29	4.86	10.00	10.00	0.00
10,300.00	10.89	179.54	10,290.29	-10.32	229.34	12.16	10.00	10.00	0.00
10,350.00	15.89	179.54	10,338.91	-21.89	229.44	23.73	10.00	10.00	0.00
10,400.00	20.89	179.54	10,386.35	-37.66	229.56	39.50	10.00	10.00	0.00
10,450.00	25.89	179.54	10,432.22	-57.50	229.72	59.34	10.00	10.00	0.00
10,500.00	30.89	179.54	10,476.20	-81.27	229.91	83.11	10.00	10.00	0.00
10,550.00	35.89	179.54	10,517.93	-108.77	230.13	110.62	10.00	10.00	0.00
10,600.00	40.89	179.54	10,557.11	-139.81	230.38	141.66	10.00	10.00	0.00
10,650.00	45.89	179.54	10,593.43	-174.15	230.66	175.99	10.00	10.00	0.00
10,700.00	50.89	179.54	10,626.62	-211.52	230.96	213.36	10.00	10.00	0.00
10,750.00	55.89	179.54	10,656.43	-251.64	231.28	253.49	10.00	10.00	0.00
10,800.00	60.89	179.54	10,682.63	-294.21	231.62	296.06	10.00	10.00	0.00
10,850.00	65.89	179.54	10,705.02	-338.89	231.98	340.74	10.00	10.00	0.00
10,900.00	70.89	179.54	10,723.43	-385.36	232.35	387.22	10.00	10.00	0.00
10,950.00	75.89	179.54	10,737.72	-433.26	232.74	435.11	10.00	10.00	0.00
11,000.00	80.89	179.54	10,747.78	-482.22	233.13	484.07	10.00	10.00	0.00
11,050.00	85.89	179.54	10,753.53	-531.87	233.53	533.73	10.00	10.00	0.00
11,089.11	89.80	179.54	10,755.00	-570.94	233.84	572.80	10.00	10.00	0.00
LP									
11,100.00	89.80	179.54	10,755.04	-581.83	233.93	583.69	0.00	0.00	0.00
11,200.00	89.80	179.54	10,755.39	-681.83	234.73	683.69	0.00	0.00	0.00
11,300.00	89.80	179.54	10,755.74	-781.82	235.54	783.69	0.00	0.00	0.00
11,400.00	89.80	179.54	10,756.09	-881.82	236.34	883.69	0.00	0.00	0.00
11,500.00	89.80	179.54	10,756.44	-981.82	237.14	983.69	0.00	0.00	0.00
11,600.00	89.80	179.54	10,756.79	-1,081.81	237.95	1,083.69	0.00	0.00	0.00
11,700.00	89.80	179.54	10,757.14	-1,181.81	238.75	1,183.69	0.00	0.00	0.00
11,800.00	89.80	179.54	10,757.49	-1,281.81	239.55	1,283.69	0.00	0.00	0.00
11,900.00	89.80	179.54	10,757.84	-1,381.80	240.35	1,383.69	0.00	0.00	0.00
12,000.00	89.80	179.54	10,758.19	-1,481.80	241.16	1,483.69	0.00	0.00	0.00
12,100.00	89.80	179.54	10,758.53	-1,581.79	241.96	1,583.69	0.00	0.00	0.00
12,200.00	89.80	179.54	10,758.88	-1,681.79	242.76	1,683.68	0.00	0.00	0.00
12,300.00	89.80	179.54	10,759.23	-1,781.79	243.56	1,783.68	0.00	0.00	0.00
12,400.00	89.80	179.54	10,759.58	-1,881.78	244.37	1,883.68	0.00	0.00	0.00
12,500.00	89.80	179.54	10,759.93	-1,981.78	245.17	1,983.68	0.00	0.00	0.00
12,600.00	89.80	179.54	10,760.28	-2,081.77	245.97	2,083.68	0.00	0.00	0.00



LEAM Drilling Systems LLC

Planning Report



Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Boomsiang 14-23 Fed
Well: 4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well 4H
3601.9' GL + 25' RKB @ 3626.90usft
3601.9' GL + 25' RKB @ 3626.90usft
Grid
Minimum Curvature

Planned 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)
12,700.00	89.80	179.54	10,760.63	-2,181.77	246.78	2,183.68	0.00	0.00	0.00
12,800.00	89.80	179.54	10,760.98	-2,281.77	247.58	2,283.68	0.00	0.00	0.00
12,900.00	89.80	179.54	10,761.33	-2,381.76	248.38	2,383.68	0.00	0.00	0.00
13,000.00	89.80	179.54	10,761.68	-2,481.76	249.18	2,483.68	0.00	0.00	0.00
13,100.00	89.80	179.54	10,762.03	-2,581.76	249.99	2,583.68	0.00	0.00	0.00
13,200.00	89.80	179.54	10,762.38	-2,681.75	250.79	2,683.68	0.00	0.00	0.00
13,300.00	89.80	179.54	10,762.73	-2,781.75	251.59	2,783.68	0.00	0.00	0.00
13,400.00	89.80	179.54	10,763.08	-2,881.74	252.39	2,883.68	0.00	0.00	0.00
13,500.00	89.80	179.54	10,763.42	-2,981.74	253.20	2,983.68	0.00	0.00	0.00
13,600.00	89.80	179.54	10,763.77	-3,081.74	254.00	3,083.68	0.00	0.00	0.00
13,700.00	89.80	179.54	10,764.12	-3,181.73	254.80	3,183.68	0.00	0.00	0.00
13,800.00	89.80	179.54	10,764.47	-3,281.73	255.61	3,283.67	0.00	0.00	0.00
13,900.00	89.80	179.54	10,764.82	-3,381.72	256.41	3,383.67	0.00	0.00	0.00
14,000.00	89.80	179.54	10,765.17	-3,481.72	257.21	3,483.67	0.00	0.00	0.00
14,100.00	89.80	179.54	10,765.52	-3,581.72	258.01	3,583.67	0.00	0.00	0.00
14,200.00	89.80	179.54	10,765.87	-3,681.71	258.82	3,683.67	0.00	0.00	0.00
14,300.00	89.80	179.54	10,766.22	-3,781.71	259.62	3,783.67	0.00	0.00	0.00
14,400.00	89.80	179.54	10,766.57	-3,881.71	260.42	3,883.67	0.00	0.00	0.00
14,500.00	89.80	179.54	10,766.92	-3,981.70	261.22	3,983.67	0.00	0.00	0.00
14,600.00	89.80	179.54	10,767.27	-4,081.70	262.03	4,083.67	0.00	0.00	0.00
14,700.00	89.80	179.54	10,767.62	-4,181.69	262.83	4,183.67	0.00	0.00	0.00
14,800.00	89.80	179.54	10,767.96	-4,281.69	263.63	4,283.67	0.00	0.00	0.00
14,900.00	89.80	179.54	10,768.31	-4,381.69	264.43	4,383.67	0.00	0.00	0.00
15,000.00	89.80	179.54	10,768.66	-4,481.68	265.24	4,483.67	0.00	0.00	0.00
15,100.00	89.80	179.54	10,769.01	-4,581.68	266.04	4,583.67	0.00	0.00	0.00
15,200.00	89.80	179.54	10,769.36	-4,681.67	266.84	4,683.67	0.00	0.00	0.00
15,300.00	89.80	179.54	10,769.71	-4,781.67	267.65	4,783.67	0.00	0.00	0.00
15,400.00	89.80	179.54	10,770.06	-4,881.67	268.45	4,883.67	0.00	0.00	0.00
15,500.00	89.80	179.54	10,770.41	-4,981.66	269.25	4,983.66	0.00	0.00	0.00
15,600.00	89.80	179.54	10,770.76	-5,081.66	270.05	5,083.66	0.00	0.00	0.00
15,700.00	89.80	179.54	10,771.11	-5,181.66	270.86	5,183.66	0.00	0.00	0.00
15,800.00	89.80	179.54	10,771.46	-5,281.65	271.66	5,283.66	0.00	0.00	0.00
15,900.00	89.80	179.54	10,771.81	-5,381.65	272.46	5,383.66	0.00	0.00	0.00
16,000.00	89.80	179.54	10,772.16	-5,481.64	273.26	5,483.66	0.00	0.00	0.00
16,100.00	89.80	179.54	10,772.50	-5,581.64	274.07	5,583.66	0.00	0.00	0.00
16,200.00	89.80	179.54	10,772.85	-5,681.64	274.87	5,683.66	0.00	0.00	0.00
16,300.00	89.80	179.54	10,773.20	-5,781.63	275.67	5,783.66	0.00	0.00	0.00
16,400.00	89.80	179.54	10,773.55	-5,881.63	276.48	5,883.66	0.00	0.00	0.00
16,500.00	89.80	179.54	10,773.90	-5,981.63	277.28	5,983.66	0.00	0.00	0.00
16,600.00	89.80	179.54	10,774.25	-6,081.62	278.08	6,083.66	0.00	0.00	0.00
16,700.00	89.80	179.54	10,774.60	-6,181.62	278.88	6,183.66	0.00	0.00	0.00
16,800.00	89.80	179.54	10,774.95	-6,281.61	279.69	6,283.66	0.00	0.00	0.00
16,900.00	89.80	179.54	10,775.30	-6,381.61	280.49	6,383.66	0.00	0.00	0.00
17,000.00	89.80	179.54	10,775.65	-6,481.61	281.29	6,483.66	0.00	0.00	0.00
17,100.00	89.80	179.54	10,776.00	-6,581.60	282.09	6,583.65	0.00	0.00	0.00
17,200.00	89.80	179.54	10,776.35	-6,681.60	282.90	6,683.65	0.00	0.00	0.00
17,300.00	89.80	179.54	10,776.70	-6,781.59	283.70	6,783.65	0.00	0.00	0.00
17,400.00	89.80	179.54	10,777.04	-6,881.59	284.50	6,883.65	0.00	0.00	0.00
17,500.00	89.80	179.54	10,777.39	-6,981.59	285.31	6,983.65	0.00	0.00	0.00
17,600.00	89.80	179.54	10,777.74	-7,081.58	286.11	7,083.65	0.00	0.00	0.00
17,700.00	89.80	179.54	10,778.09	-7,181.58	286.91	7,183.65	0.00	0.00	0.00
17,800.00	89.80	179.54	10,778.44	-7,281.58	287.71	7,283.65	0.00	0.00	0.00
17,900.00	89.80	179.54	10,778.79	-7,381.57	288.52	7,383.65	0.00	0.00	0.00
18,000.00	89.80	179.54	10,779.14	-7,481.57	289.32	7,483.65	0.00	0.00	0.00



Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Boomslang 14-23 Fed
Well: 4H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 4H
TVD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
MD Reference: 3601.9' GL + 25' RKB @ 3626.90usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned 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)
18,100.00	89.80	179.54	10,779.49	-7,581.56	290.12	7,583.65	0.00	0.00	0.00
18,200.00	89.80	179.54	10,779.84	-7,681.56	290.92	7,683.65	0.00	0.00	0.00
18,300.00	89.80	179.54	10,780.19	-7,781.56	291.73	7,783.65	0.00	0.00	0.00
18,400.00	89.80	179.54	10,780.54	-7,881.55	292.53	7,883.65	0.00	0.00	0.00
18,500.00	89.80	179.54	10,780.89	-7,981.55	293.33	7,983.65	0.00	0.00	0.00
18,600.00	89.80	179.54	10,781.24	-8,081.54	294.14	8,083.65	0.00	0.00	0.00
18,700.00	89.80	179.54	10,781.58	-8,181.54	294.94	8,183.65	0.00	0.00	0.00
18,800.00	89.80	179.54	10,781.93	-8,281.54	295.74	8,283.64	0.00	0.00	0.00
18,900.00	89.80	179.54	10,782.28	-8,381.53	296.54	8,383.64	0.00	0.00	0.00
19,000.00	89.80	179.54	10,782.63	-8,481.53	297.35	8,483.64	0.00	0.00	0.00
19,100.00	89.80	179.54	10,782.98	-8,581.53	298.15	8,583.64	0.00	0.00	0.00
19,200.00	89.80	179.54	10,783.33	-8,681.52	298.95	8,683.64	0.00	0.00	0.00
19,300.00	89.80	179.54	10,783.68	-8,781.52	299.75	8,783.64	0.00	0.00	0.00
19,400.00	89.80	179.54	10,784.03	-8,881.51	300.56	8,883.64	0.00	0.00	0.00
19,500.00	89.80	179.54	10,784.38	-8,981.51	301.36	8,983.64	0.00	0.00	0.00
19,600.00	89.80	179.54	10,784.73	-9,081.51	302.16	9,083.64	0.00	0.00	0.00
19,700.00	89.80	179.54	10,785.08	-9,181.50	302.97	9,183.64	0.00	0.00	0.00
19,800.00	89.80	179.54	10,785.43	-9,281.50	303.77	9,283.64	0.00	0.00	0.00
19,900.00	89.80	179.54	10,785.78	-9,381.49	304.57	9,383.64	0.00	0.00	0.00
20,000.00	89.80	179.54	10,786.12	-9,481.49	305.37	9,483.64	0.00	0.00	0.00
20,100.00	89.80	179.54	10,786.47	-9,581.49	306.18	9,583.64	0.00	0.00	0.00
20,200.00	89.80	179.54	10,786.82	-9,681.48	306.98	9,683.64	0.00	0.00	0.00
20,300.00	89.80	179.54	10,787.17	-9,781.48	307.78	9,783.64	0.00	0.00	0.00
20,400.00	89.80	179.54	10,787.52	-9,881.48	308.58	9,883.63	0.00	0.00	0.00
20,500.00	89.80	179.54	10,787.87	-9,981.47	309.39	9,983.63	0.00	0.00	0.00
20,542.75	89.80	179.54	10,788.02	-10,024.22	309.73	10,026.38	0.00	0.00	0.00

TD - PBHL (B14F 4H)

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (B14F 4H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	446,243.43	786,403.41	32° 13' 27.534 N	103° 32' 27.036 W
PBHL (B14F 4H) - plan hits target center - Point	0.00	0.00	10,788.02	-10,024.22	309.73	436,219.21	786,713.14	32° 11' 48.321 N	103° 32' 24.291 W



LEAM Drilling Systems LLC
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 4H
Company:	DEVON ENERGY	TVD Reference:	3601.9' GL + 25' RKB @ 3626.90usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3601.9' GL + 25' RKB @ 3626.90usft
Site:	Boomslang 14-23 Fed	North Reference:	Grid
Well:	4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,290.00	1,290.00	Rustler		0.00		
1,865.00	1,865.00	Top Salt		0.00		
5,090.00	5,090.00	Base Salt		0.00		
5,190.00	5,190.00	Delaware		0.00		
6,062.01	6,060.00	Cherry Canyon		0.00		
7,648.03	7,640.00	Brushy Canyon		0.00		
9,079.06	9,070.00	1st BS LM		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,200.00	5,200.00	0.00	0.00	Nudge	
5,700.00	5,699.37	0.00	21.80	Hold	
7,580.00	7,572.21	0.00	185.66	Drop	
8,580.00	8,570.94	0.00	229.26	Hold	
10,191.11	10,182.05	0.00	229.26	KOP 10° DLS	
11,089.11	10,755.00	-570.94	233.84	LP	
20,542.75	10,788.02	-10,024.22	309.73	TD	