



LEAM

Drilling Systems, Inc.

HOBBS OCD

APR 29 2016

RECEIVED

DEVON ENERGY

Lea County, NM (NAD-83)

Arena Roja Fed Unit

14H

OH

Plan: Plan #1

Standard Planning Report

02 December, 2014


devon

MAY 03 2016



LEAM Drilling Systems LLC
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 14H
Company:	DEVON ENERGY	TVD Reference:	3085.3' GL + 25' RKB @ 3110.30usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3085.3' GL + 25' RKB @ 3110.30usft
Site:	Arena Roja Fed Unit	North Reference:	Grid
Well:	14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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

Site	Arena Roja Fed Unit		
Site Position:	Map	Northings:	372,721.16 usft
From:		Easting:	843,594.22 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 1' 15.387 N
		Longitude:	103° 21' 29.063 W
		Grid Convergence:	0.52 °

Well	14H, Madera					
Well Position	+N-S	0.00 usft	Northings:	372,721.16 usft	Latitude:	32° 1' 15.387 N
	+E-W	0.00 usft	Easting:	843,594.22 usft	Longitude:	103° 21' 29.063 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,110.30 usft	Ground Level:	3,085.30 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	BGGM2014	12/2/2014	7.21	59.94	48,130
			(°)	(°)	(nT)

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	177.97

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	
8,157.04	0.00	0.00	8,157.04	0.00	0.00	0.00	0.00	0.00	0.00	
9,057.04	90.00	177.97	8,730.00	-572.60	20.29	10.00	10.00	0.00	177.97	
15,571.86	90.00	177.97	8,730.00	-7,083.33	251.04	0.00	0.00	0.00	0.00	PBHL (ARFU 14H)



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Site:	Arena Roja Fed Unit	North Reference:	Grid
Well:	14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
SHL (ARFU 14H)									
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
1,018.00	0.00	0.00	1,018.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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
1,300.00	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
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,978.00	0.00	0.00	1,978.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
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



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Wellbore:	OH		
Design:	Plan #1		

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)
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,850.00	0.00	0.00	4,850.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt									
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	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
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,759.00	0.00	0.00	5,759.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,255.00	0.00	0.00	6,255.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,750.00	0.00	0.00	7,750.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,157.04	0.00	0.00	8,157.04	0.00	0.00	0.00	0.00	0.00	0.00
KOP 10° DLS									
8,200.00	4.30	177.97	8,199.96	-1.61	0.06	1.61	10.00	10.00	0.00
8,250.00	9.30	177.97	8,249.59	-7.52	0.27	7.52	10.00	10.00	0.00
8,300.00	14.30	177.97	8,298.52	-17.73	0.63	17.74	10.00	10.00	0.00
8,350.00	19.30	177.97	8,346.37	-32.17	1.14	32.19	10.00	10.00	0.00
8,400.00	24.30	177.97	8,392.78	-50.71	1.80	50.74	10.00	10.00	0.00
8,450.00	29.30	177.97	8,437.40	-73.23	2.60	73.28	10.00	10.00	0.00
8,500.00	34.30	177.97	8,479.88	-99.55	3.53	99.61	10.00	10.00	0.00
8,550.00	39.30	177.97	8,519.91	-129.47	4.59	129.55	10.00	10.00	0.00



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Project:	Lea County, NM (NAD-83)	MD Reference:	3085.3' GL + 25' RKB @ 3110.30usft
Site:	Aréna Roja Fed Unit	North Reference:	Grid
Well:	14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
8,600.00	44.30	177.97	8,557.17	-162.76	5.77	162.87	10.00	10.00	0.00
8,650.00	49.30	177.97	8,591.39	-199.18	7.06	199.30	10.00	10.00	0.00
8,700.00	54.30	177.97	8,622.31	-238.43	8.45	238.58	10.00	10.00	0.00
8,750.00	59.30	177.97	8,649.68	-280.23	9.93	280.40	10.00	10.00	0.00
8,800.00	64.30	177.97	8,673.30	-324.25	11.49	324.45	10.00	10.00	0.00
8,850.00	69.30	177.97	8,693.00	-370.16	13.12	370.39	10.00	10.00	0.00
8,900.00	74.30	177.97	8,708.61	-417.61	14.80	417.87	10.00	10.00	0.00
8,950.00	79.30	177.97	8,720.03	-466.24	16.52	466.54	10.00	10.00	0.00
9,000.00	84.30	177.97	8,727.16	-515.69	18.28	516.01	10.00	10.00	0.00
9,050.00	89.30	177.97	8,729.96	-565.56	20.04	565.92	10.00	10.00	0.00
9,057.04	90.00	177.97	8,730.00	-572.59	20.29	572.95	10.00	10.00	0.00
Madera									
9,057.04	90.00	177.97	8,730.00	-572.60	20.29	572.96	10.00	10.00	0.00
LP - 8730' TVD									
9,100.00	90.00	177.97	8,730.00	-615.53	21.81	615.92	0.00	0.00	0.00
9,200.00	90.00	177.97	8,730.00	-715.47	25.36	715.92	0.00	0.00	0.00
9,300.00	90.00	177.97	8,730.00	-815.40	28.90	815.92	0.00	0.00	0.00
9,400.00	90.00	177.97	8,730.00	-915.34	32.44	915.92	0.00	0.00	0.00
9,500.00	90.00	177.97	8,730.00	-1,015.28	35.98	1,015.92	0.00	0.00	0.00
9,600.00	90.00	177.97	8,730.00	-1,115.22	39.52	1,115.92	0.00	0.00	0.00
9,700.00	90.00	177.97	8,730.00	-1,215.15	43.07	1,215.92	0.00	0.00	0.00
9,800.00	90.00	177.97	8,730.00	-1,315.09	46.61	1,315.92	0.00	0.00	0.00
9,900.00	90.00	177.97	8,730.00	-1,415.03	50.15	1,415.92	0.00	0.00	0.00
10,000.00	90.00	177.97	8,730.00	-1,514.96	53.69	1,515.92	0.00	0.00	0.00
10,100.00	90.00	177.97	8,730.00	-1,614.90	57.23	1,615.92	0.00	0.00	0.00
10,200.00	90.00	177.97	8,730.00	-1,714.84	60.78	1,715.92	0.00	0.00	0.00
10,300.00	90.00	177.97	8,730.00	-1,814.78	64.32	1,815.92	0.00	0.00	0.00
10,400.00	90.00	177.97	8,730.00	-1,914.71	67.86	1,915.92	0.00	0.00	0.00
10,500.00	90.00	177.97	8,730.00	-2,014.65	71.40	2,015.92	0.00	0.00	0.00
10,600.00	90.00	177.97	8,730.00	-2,114.59	74.94	2,115.92	0.00	0.00	0.00
10,700.00	90.00	177.97	8,730.00	-2,214.53	78.48	2,215.92	0.00	0.00	0.00
10,800.00	90.00	177.97	8,730.00	-2,314.46	82.03	2,315.92	0.00	0.00	0.00
10,900.00	90.00	177.97	8,730.00	-2,414.40	85.57	2,415.92	0.00	0.00	0.00
11,000.00	90.00	177.97	8,730.00	-2,514.34	89.11	2,515.92	0.00	0.00	0.00
11,100.00	90.00	177.97	8,730.00	-2,614.27	92.65	2,615.92	0.00	0.00	0.00
11,200.00	90.00	177.97	8,730.00	-2,714.21	96.19	2,715.92	0.00	0.00	0.00
11,300.00	90.00	177.97	8,730.00	-2,814.15	99.74	2,815.92	0.00	0.00	0.00
11,400.00	90.00	177.97	8,730.00	-2,914.09	103.28	2,915.92	0.00	0.00	0.00
11,500.00	90.00	177.97	8,730.00	-3,014.02	106.82	3,015.92	0.00	0.00	0.00
11,600.00	90.00	177.97	8,730.00	-3,113.96	110.36	3,115.92	0.00	0.00	0.00
11,700.00	90.00	177.97	8,730.00	-3,213.90	113.90	3,215.92	0.00	0.00	0.00
11,800.00	90.00	177.97	8,730.00	-3,313.84	117.45	3,315.92	0.00	0.00	0.00
11,900.00	90.00	177.97	8,730.00	-3,413.77	120.99	3,415.92	0.00	0.00	0.00
12,000.00	90.00	177.97	8,730.00	-3,513.71	124.53	3,515.92	0.00	0.00	0.00
12,100.00	90.00	177.97	8,730.00	-3,613.65	128.07	3,615.92	0.00	0.00	0.00
12,200.00	90.00	177.97	8,730.00	-3,713.58	131.61	3,715.92	0.00	0.00	0.00
12,300.00	90.00	177.97	8,730.00	-3,813.52	135.15	3,815.92	0.00	0.00	0.00
12,400.00	90.00	177.97	8,730.00	-3,913.46	138.70	3,915.92	0.00	0.00	0.00
12,500.00	90.00	177.97	8,730.00	-4,013.40	142.24	4,015.92	0.00	0.00	0.00
12,600.00	90.00	177.97	8,730.00	-4,113.33	145.78	4,115.92	0.00	0.00	0.00
12,700.00	90.00	177.97	8,730.00	-4,213.27	149.32	4,215.92	0.00	0.00	0.00
12,800.00	90.00	177.97	8,730.00	-4,313.21	152.86	4,315.92	0.00	0.00	0.00
12,900.00	90.00	177.97	8,730.00	-4,413.14	156.41	4,415.92	0.00	0.00	0.00
13,000.00	90.00	177.97	8,730.00	-4,513.08	159.95	4,515.92	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 14H
Company:	DEVON ENERGY	TVD Reference:	3085.3' GL + 25' RKB @ 3110.30usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3085.3' GL + 25' RKB @ 3110.30usft
Site:	Arena Roja Fed Unit	North Reference:	Grid
Well:	14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)	
13,100.00	90.00	177.97	8,730.00	-4,613.02	163.49	4,615.92	0.00	0.00	0.00	
13,200.00	90.00	177.97	8,730.00	-4,712.96	167.03	4,715.92	0.00	0.00	0.00	
13,300.00	90.00	177.97	8,730.00	-4,812.89	170.57	4,815.92	0.00	0.00	0.00	
13,400.00	90.00	177.97	8,730.00	-4,912.83	174.12	4,915.92	0.00	0.00	0.00	
13,500.00	90.00	177.97	8,730.00	-5,012.77	177.66	5,015.92	0.00	0.00	0.00	
13,600.00	90.00	177.97	8,730.00	-5,112.71	181.20	5,115.92	0.00	0.00	0.00	
13,700.00	90.00	177.97	8,730.00	-5,212.64	184.74	5,215.92	0.00	0.00	0.00	
13,800.00	90.00	177.97	8,730.00	-5,312.58	188.28	5,315.92	0.00	0.00	0.00	
13,900.00	90.00	177.97	8,730.00	-5,412.52	191.82	5,415.92	0.00	0.00	0.00	
14,000.00	90.00	177.97	8,730.00	-5,512.45	195.37	5,515.92	0.00	0.00	0.00	
14,100.00	90.00	177.97	8,730.00	-5,612.39	198.91	5,615.92	0.00	0.00	0.00	
14,200.00	90.00	177.97	8,730.00	-5,712.33	202.45	5,715.92	0.00	0.00	0.00	
14,300.00	90.00	177.97	8,730.00	-5,812.27	205.99	5,815.92	0.00	0.00	0.00	
14,400.00	90.00	177.97	8,730.00	-5,912.20	209.53	5,915.92	0.00	0.00	0.00	
14,500.00	90.00	177.97	8,730.00	-6,012.14	213.08	6,015.92	0.00	0.00	0.00	
14,600.00	90.00	177.97	8,730.00	-6,112.08	216.62	6,115.92	0.00	0.00	0.00	
14,700.00	90.00	177.97	8,730.00	-6,212.02	220.16	6,215.92	0.00	0.00	0.00	
14,800.00	90.00	177.97	8,730.00	-6,311.95	223.70	6,315.92	0.00	0.00	0.00	
14,900.00	90.00	177.97	8,730.00	-6,411.89	227.24	6,415.92	0.00	0.00	0.00	
15,000.00	90.00	177.97	8,730.00	-6,511.83	230.79	6,515.92	0.00	0.00	0.00	
15,100.00	90.00	177.97	8,730.00	-6,611.76	234.33	6,615.92	0.00	0.00	0.00	
15,200.00	90.00	177.97	8,730.00	-6,711.70	237.87	6,715.92	0.00	0.00	0.00	
15,300.00	90.00	177.97	8,730.00	-6,811.64	241.41	6,815.92	0.00	0.00	0.00	
15,400.00	90.00	177.97	8,730.00	-6,911.58	244.95	6,915.92	0.00	0.00	0.00	
15,500.00	90.00	177.97	8,730.00	-7,011.51	248.49	7,015.92	0.00	0.00	0.00	
15,571.86	90.00	177.97	8,730.00	-7,083.33	251.04	7,087.78	0.00	0.00	0.00	
TD - 8730' TVD - PBHL (ARFU 14H)										

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (ARFU 14H)	- plan hits target center	0.00	0.00	0.00	0.00	0.00	372,721.16	843,594.22	32° 1' 15.387 N	103° 21' 29.063 W
	- Point									
PBHL (ARFU 14H)	- plan hits target center	0.00	0.00	8,730.00	-7,083.33	251.04	365,637.83	843,845.26	32° 0' 5.275 N	103° 21' 26.891 W
	- Point									



LEAM Drilling Systems LLC
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 14H
Company:	DEVON ENERGY	TVD Reference:	3085.3' GL + 25' RKB @ 3110.30usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3085.3' GL + 25' RKB @ 3110.30usft
Site:	Arena Roja Fed Unit	North Reference:	Grid
Well:	14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,018.00	1,018.00	Rustler		0.00		
1,978.00	1,978.00	Top Salt		0.00		
4,850.00	4,850.00	Base Salt		0.00		
5,400.00	5,400.00	Delaware		0.00		
5,759.00	5,759.00	Bell Canyon		0.00		
6,255.00	6,255.00	Cherry Canyon		0.00		
7,750.00	7,750.00	Brushy Canyon		0.00		
9,057.04	8,730.00	Madera		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
8,157.04	8,157.04	0.00	0.00	KOP 10° DLS	
9,057.04	8,730.00	-572.60	20.29	LP - 8730' TVD	
15,571.86	8,730.00	-7,083.33	251.04	TD - 8730' TVD	