

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Cotton Draw Unit
Well: 507H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.33°
Magnetic North: 6.55°

Magnetic Field
Strength: 48053.6nT
Dip Angle: 59.87°
Date: 3/30/2017
Model: HDGM



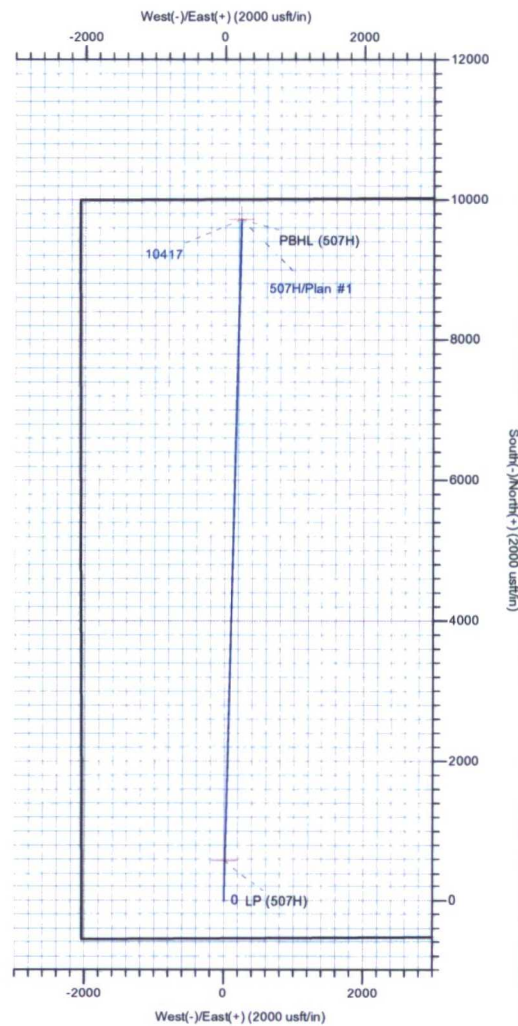
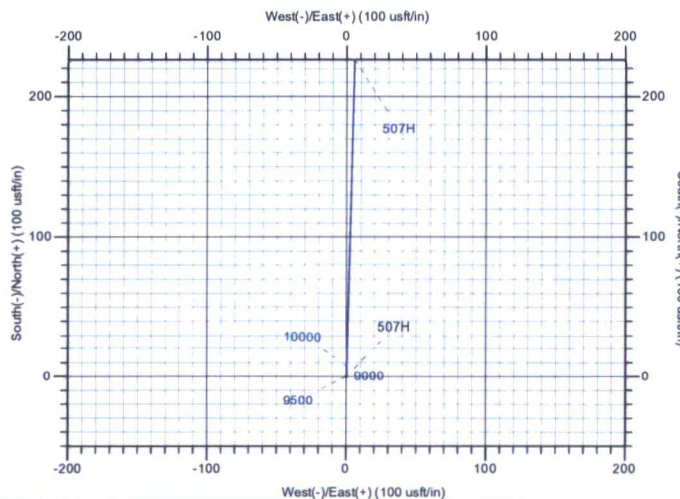
PROJECT DETAILS: Lea County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9908.13	0.00	0.00	9908.13	0.00	0.00	0.00	0.00	0.00	
10815.53	90.74	1.37	10481.04	580.19	13.88	10.00	1.37	580.36	
16935.68	90.74	1.37	10402.00	6698.08	160.19	0.00	0.00	6700.00	
17039.94	89.70	1.38	10401.60	6802.31	162.69	1.00	179.25	6804.26	
19956.71	89.70	1.38	10417.00	9718.19	233.12	0.00	0.00	9720.99	PBHL (507H)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (507H)	10481.04	580.19	13.88	410182.09	732320.67	32° 7' 34.199 N	103° 42' 59.018 W
PBHL (507H)	10417.00	9718.19	233.12	419320.09	732539.91	32° 9' 4.613 N	103° 42' 55.859 W
SHL (507H)	0.00	322704.89	-322704.88	732306.79	409601.91	33° 0' 44.538 N	104° 45' 47.126 W



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

Plan: Plan #1 (507H) OH
Cotton Draw Unit
Created By: Dustin Ault
Date: 14/09, March 30 2017
Approved: _____
Date: _____

HOBBS OCD
AUG 03 2017
RECEIVED

Devon Energy

Project: Lea County, NM (NAD-83)
 Site: Cotton Draw Unit
 Well: 507H
 Wellbore: OH
 Design: Plan #1

3407' GE + 25' KB @ 3432.00usft
 Ground Level: 3407.00



Azimuths to Grid North
 True North: -0.33°
 Magnetic North: 6.55°

Magnetic Field
 Strength: 48053.6nT
 Dip Angle: 59.87°
 Date: 3/30/2017
 Model: HDGM

PROJECT DETAILS: Lea County, NM (NAD-83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

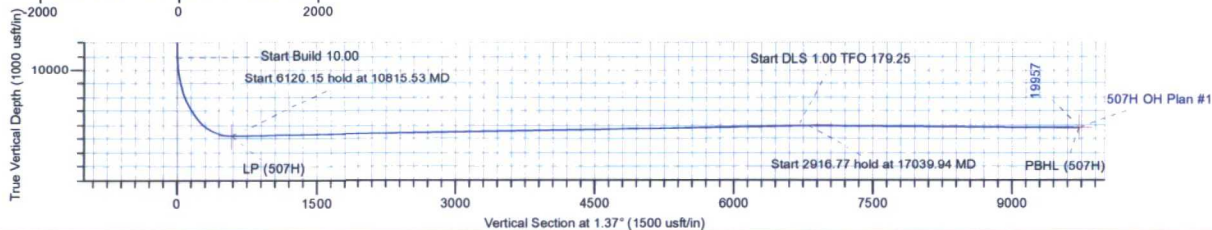
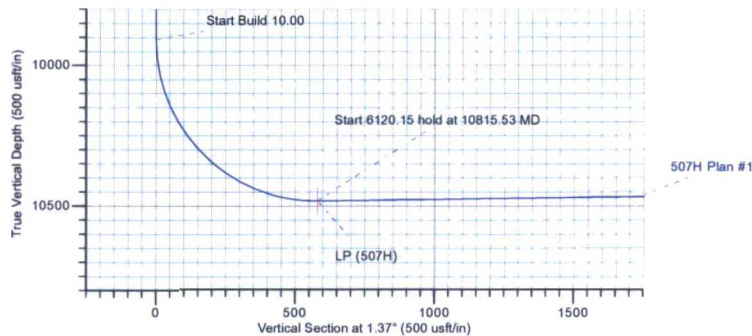
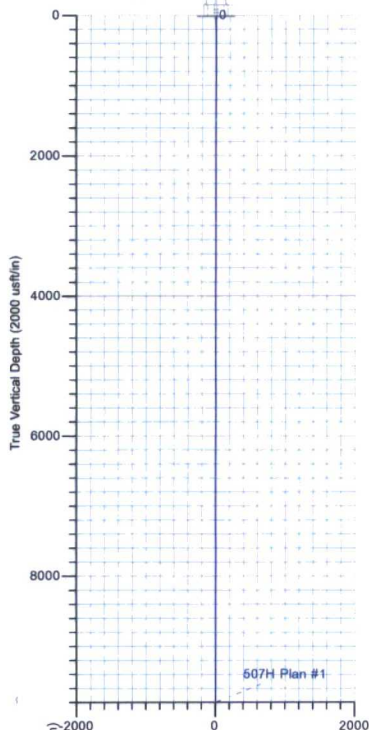


SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 10.00
9908.13	0.00	0.00	9908.13	0.00	0.00	0.00	0.00	0.00	Start 6120.15 hold at 10815.53 MD
10815.53	90.74	1.37	10481.04	580.19	13.88	10.00	1.37	580.36	Start DLS 1.00 TFO 179.25
16935.68	90.74	1.37	10402.00	6698.08	160.19	0.00	0.00	6700.00	Start 2916.77 hold at 17039.94 MD
17039.94	89.70	1.38	10401.60	6802.31	162.69	1.00	179.25	6804.26	TD at 19956.71
19956.71	89.70	1.38	10417.00	9718.19	233.12	0.00	0.00	9720.99	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (507H)	10481.04	580.19	13.88	32° 7' 34.199 N	103° 42' 59.018 W
PBHL (507H)	10417.00	9718.19	233.12	32° 9' 4.613 N	103° 42' 55.859 W
SHL (507H)	0.00	322704.89	322704.88	33° 0' 44.538 N	104° 45' 47.126 W



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

Plan: Plan #1 (507H/OH)
 Cotton Draw Unit
 Created By: Dustin Ault
 Date: 1404, March 30 2017
 Approved: _____ Date: _____

HOBBS OCD

AUG 03 2017

RECEIVED

Devon Energy

Lea County, NM (NAD-83)

Cotton Draw Unit

507H

OH

Plan: Plan #1

Standard Planning Report

30 March, 2017

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 507H
Company:	Devon Energy	TVD Reference:	3407' GE + 25' KB @ 3432.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3407' GE + 25' KB @ 3432.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	507H	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	Cotton Draw Unit				
Site Position:		Northing:	409,601.90 usft	Latitude:	32° 7' 28.458 N
From:	Map	Easting:	732,306.79 usft	Longitude:	103° 42' 59.218 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33

Well	507H					
Well Position	+N/-S	0.00 usft	Northing:	409,601.90 usft	Latitude:	32° 7' 28.458 N
	+E/-W	0.00 usft	Easting:	732,306.79 usft	Longitude:	103° 42' 59.218 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,407.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	3/30/2017	6.88	59.87	48,054

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	1.37

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	
9,908.13	0.00	0.00	9,908.13	0.00	0.00	0.00	0.00	0.00	0.00	
10,815.53	90.74	1.37	10,481.04	580.19	13.88	10.00	10.00	0.00	1.37	
16,935.68	90.74	1.37	10,402.00	6,698.08	160.19	0.00	0.00	0.00	0.00	
17,039.94	89.70	1.38	10,401.60	6,802.31	162.69	1.00	-1.00	0.01	179.25	
19,956.71	89.70	1.38	10,417.00	9,718.19	233.12	0.00	0.00	0.00	0.00	PBHL (507H)

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 507H
Company:	Devon Energy	TVD Reference:	3407' GE + 25' KB @ 3432.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3407' GE + 25' KB @ 3432.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	507H	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
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
1,300.00	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
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
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

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 507H
Company:	Devon Energy	TVD Reference:	3407' GE + 25' KB @ 3432.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3407' GE + 25' KB @ 3432.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	507H	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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
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
5,800.00	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
6,300.00	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
7,800.00	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
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,908.13	0.00	0.00	9,908.13	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 10.00									
9,950.00	4.19	1.37	9,949.96	1.53	0.04	1.53	10.00	10.00	0.00
10,000.00	9.19	1.37	9,999.61	7.35	0.18	7.35	10.00	10.00	0.00
10,050.00	14.19	1.37	10,048.55	17.47	0.42	17.47	10.00	10.00	0.00
10,100.00	19.19	1.37	10,096.43	31.82	0.76	31.83	10.00	10.00	0.00
10,150.00	24.19	1.37	10,142.88	50.28	1.20	50.30	10.00	10.00	0.00
10,200.00	29.19	1.37	10,187.54	72.73	1.74	72.75	10.00	10.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 507H
Company:	Devon Energy	TVD Reference:	3407' GE + 25' KB @ 3432.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3407' GE + 25' KB @ 3432.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	507H	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)
10,250.00	34.19	1.37	10,230.07	98.97	2.37	99.00	10.00	10.00	0.00
10,300.00	39.19	1.37	10,270.16	128.83	3.08	128.87	10.00	10.00	0.00
10,350.00	44.19	1.37	10,307.48	162.06	3.88	162.11	10.00	10.00	0.00
10,400.00	49.19	1.37	10,341.77	198.42	4.75	198.48	10.00	10.00	0.00
10,450.00	54.19	1.37	10,372.76	237.63	5.68	237.70	10.00	10.00	0.00
10,500.00	59.19	1.37	10,400.21	279.39	6.68	279.47	10.00	10.00	0.00
10,550.00	64.19	1.37	10,423.92	323.38	7.73	323.47	10.00	10.00	0.00
10,600.00	69.19	1.37	10,443.70	369.27	8.83	369.37	10.00	10.00	0.00
10,650.00	74.19	1.37	10,459.41	416.71	9.97	416.83	10.00	10.00	0.00
10,700.00	79.19	1.37	10,470.91	465.34	11.13	465.47	10.00	10.00	0.00
10,750.00	84.19	1.37	10,478.14	514.78	12.31	514.93	10.00	10.00	0.00
10,800.00	89.19	1.37	10,481.03	564.67	13.50	564.83	10.00	10.00	0.00
10,815.53	90.74	1.37	10,481.04	580.19	13.88	580.36	10.00	10.00	0.00
Start 6120.15 hold at 10815.53 MD - LP (507H)									
10,900.00	90.74	1.37	10,479.95	664.63	15.90	664.82	0.00	0.00	0.00
11,000.00	90.74	1.37	10,478.66	764.59	18.29	764.81	0.00	0.00	0.00
11,100.00	90.74	1.37	10,477.37	864.56	20.68	864.80	0.00	0.00	0.00
11,200.00	90.74	1.37	10,476.07	964.52	23.07	964.80	0.00	0.00	0.00
11,300.00	90.74	1.37	10,474.78	1,064.48	25.46	1,064.79	0.00	0.00	0.00
11,400.00	90.74	1.37	10,473.49	1,164.45	27.85	1,164.78	0.00	0.00	0.00
11,500.00	90.74	1.37	10,472.20	1,264.41	30.24	1,264.77	0.00	0.00	0.00
11,600.00	90.74	1.37	10,470.91	1,364.37	32.63	1,364.76	0.00	0.00	0.00
11,700.00	90.74	1.37	10,469.62	1,464.34	35.02	1,464.75	0.00	0.00	0.00
11,800.00	90.74	1.37	10,468.33	1,564.30	37.41	1,564.75	0.00	0.00	0.00
11,900.00	90.74	1.37	10,467.03	1,664.26	39.80	1,664.74	0.00	0.00	0.00
12,000.00	90.74	1.37	10,465.74	1,764.22	42.19	1,764.73	0.00	0.00	0.00
12,100.00	90.74	1.37	10,464.45	1,864.19	44.58	1,864.72	0.00	0.00	0.00
12,200.00	90.74	1.37	10,463.16	1,964.15	46.97	1,964.71	0.00	0.00	0.00
12,300.00	90.74	1.37	10,461.87	2,064.11	49.36	2,064.70	0.00	0.00	0.00
12,400.00	90.74	1.37	10,460.58	2,164.08	51.76	2,164.70	0.00	0.00	0.00
12,500.00	90.74	1.37	10,459.29	2,264.04	54.15	2,264.69	0.00	0.00	0.00
12,600.00	90.74	1.37	10,457.99	2,364.00	56.54	2,364.68	0.00	0.00	0.00
12,700.00	90.74	1.37	10,456.70	2,463.97	58.93	2,464.67	0.00	0.00	0.00
12,800.00	90.74	1.37	10,455.41	2,563.93	61.32	2,564.66	0.00	0.00	0.00
12,900.00	90.74	1.37	10,454.12	2,663.89	63.71	2,664.65	0.00	0.00	0.00
13,000.00	90.74	1.37	10,452.83	2,763.86	66.10	2,764.65	0.00	0.00	0.00
13,100.00	90.74	1.37	10,451.54	2,863.82	68.49	2,864.64	0.00	0.00	0.00
13,200.00	90.74	1.37	10,450.24	2,963.78	70.88	2,964.63	0.00	0.00	0.00
13,300.00	90.74	1.37	10,448.95	3,063.74	73.27	3,064.62	0.00	0.00	0.00
13,400.00	90.74	1.37	10,447.66	3,163.71	75.66	3,164.61	0.00	0.00	0.00
13,500.00	90.74	1.37	10,446.37	3,263.67	78.05	3,264.60	0.00	0.00	0.00
13,600.00	90.74	1.37	10,445.08	3,363.63	80.44	3,364.60	0.00	0.00	0.00
13,700.00	90.74	1.37	10,443.79	3,463.60	82.83	3,464.59	0.00	0.00	0.00
13,800.00	90.74	1.37	10,442.50	3,563.56	85.22	3,564.58	0.00	0.00	0.00
13,900.00	90.74	1.37	10,441.20	3,663.52	87.62	3,664.57	0.00	0.00	0.00
14,000.00	90.74	1.37	10,439.91	3,763.49	90.01	3,764.56	0.00	0.00	0.00
14,100.00	90.74	1.37	10,438.62	3,863.45	92.40	3,864.55	0.00	0.00	0.00
14,200.00	90.74	1.37	10,437.33	3,963.41	94.79	3,964.55	0.00	0.00	0.00
14,300.00	90.74	1.37	10,436.04	4,063.38	97.18	4,064.54	0.00	0.00	0.00
14,400.00	90.74	1.37	10,434.75	4,163.34	99.57	4,164.53	0.00	0.00	0.00
14,500.00	90.74	1.37	10,433.46	4,263.30	101.96	4,264.52	0.00	0.00	0.00
14,600.00	90.74	1.37	10,432.16	4,363.26	104.35	4,364.51	0.00	0.00	0.00
14,700.00	90.74	1.37	10,430.87	4,463.23	106.74	4,464.50	0.00	0.00	0.00
14,800.00	90.74	1.37	10,429.58	4,563.19	109.13	4,564.50	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 507H
Company:	Devon Energy	TVD Reference:	3407' GE + 25' KB @ 3432.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3407' GE + 25' KB @ 3432.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	507H	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)
14,900.00	90.74	1.37	10,428.29	4,663.15	111.52	4,664.49	0.00	0.00	0.00
15,000.00	90.74	1.37	10,427.00	4,763.12	113.91	4,764.48	0.00	0.00	0.00
15,100.00	90.74	1.37	10,425.71	4,863.08	116.30	4,864.47	0.00	0.00	0.00
15,200.00	90.74	1.37	10,424.41	4,963.04	118.69	4,964.46	0.00	0.00	0.00
15,300.00	90.74	1.37	10,423.12	5,063.01	121.08	5,064.45	0.00	0.00	0.00
15,400.00	90.74	1.37	10,421.83	5,162.97	123.48	5,164.45	0.00	0.00	0.00
15,500.00	90.74	1.37	10,420.54	5,262.93	125.87	5,264.44	0.00	0.00	0.00
15,600.00	90.74	1.37	10,419.25	5,362.90	128.26	5,364.43	0.00	0.00	0.00
15,700.00	90.74	1.37	10,417.96	5,462.86	130.65	5,464.42	0.00	0.00	0.00
15,800.00	90.74	1.37	10,416.67	5,562.82	133.04	5,564.41	0.00	0.00	0.00
15,900.00	90.74	1.37	10,415.37	5,662.78	135.43	5,664.40	0.00	0.00	0.00
16,000.00	90.74	1.37	10,414.08	5,762.75	137.82	5,764.40	0.00	0.00	0.00
16,100.00	90.74	1.37	10,412.79	5,862.71	140.21	5,864.39	0.00	0.00	0.00
16,200.00	90.74	1.37	10,411.50	5,962.67	142.60	5,964.38	0.00	0.00	0.00
16,300.00	90.74	1.37	10,410.21	6,062.64	144.99	6,064.37	0.00	0.00	0.00
16,400.00	90.74	1.37	10,408.92	6,162.60	147.38	6,164.36	0.00	0.00	0.00
16,500.00	90.74	1.37	10,407.62	6,262.56	149.77	6,264.35	0.00	0.00	0.00
16,600.00	90.74	1.37	10,406.33	6,362.53	152.16	6,364.35	0.00	0.00	0.00
16,700.00	90.74	1.37	10,405.04	6,462.49	154.55	6,464.34	0.00	0.00	0.00
16,800.00	90.74	1.37	10,403.75	6,562.45	156.94	6,564.33	0.00	0.00	0.00
16,900.00	90.74	1.37	10,402.46	6,662.42	159.34	6,664.32	0.00	0.00	0.00
16,935.68	90.74	1.37	10,402.00	6,698.08	160.19	6,700.00	0.00	0.00	0.00
Start DLS 1.00 TFO 179.25									
17,000.00	90.10	1.38	10,401.53	6,762.38	161.73	6,764.32	1.00	-1.00	0.01
17,039.94	89.70	1.38	10,401.60	6,802.31	162.69	6,804.26	1.00	-1.00	0.01
Start 2916.77 hold at 17039.94 MD									
17,100.00	89.70	1.38	10,401.92	6,862.35	164.14	6,864.31	0.00	0.00	0.00
17,200.00	89.70	1.38	10,402.45	6,962.32	166.56	6,964.31	0.00	0.00	0.00
17,300.00	89.70	1.38	10,402.97	7,062.29	168.97	7,064.31	0.00	0.00	0.00
17,400.00	89.70	1.38	10,403.50	7,162.26	171.39	7,164.31	0.00	0.00	0.00
17,500.00	89.70	1.38	10,404.03	7,262.23	173.80	7,264.31	0.00	0.00	0.00
17,600.00	89.70	1.38	10,404.56	7,362.20	176.22	7,364.31	0.00	0.00	0.00
17,700.00	89.70	1.38	10,405.08	7,462.17	178.63	7,464.31	0.00	0.00	0.00
17,800.00	89.70	1.38	10,405.61	7,562.14	181.05	7,564.30	0.00	0.00	0.00
17,900.00	89.70	1.38	10,406.14	7,662.11	183.46	7,664.30	0.00	0.00	0.00
18,000.00	89.70	1.38	10,406.67	7,762.08	185.87	7,764.30	0.00	0.00	0.00
18,100.00	89.70	1.38	10,407.20	7,862.05	188.29	7,864.30	0.00	0.00	0.00
18,200.00	89.70	1.38	10,407.72	7,962.02	190.70	7,964.30	0.00	0.00	0.00
18,300.00	89.70	1.38	10,408.25	8,061.98	193.12	8,064.30	0.00	0.00	0.00
18,400.00	89.70	1.38	10,408.78	8,161.95	195.53	8,164.30	0.00	0.00	0.00
18,500.00	89.70	1.38	10,409.31	8,261.92	197.95	8,264.29	0.00	0.00	0.00
18,600.00	89.70	1.38	10,409.84	8,361.89	200.36	8,364.29	0.00	0.00	0.00
18,700.00	89.70	1.38	10,410.36	8,461.86	202.78	8,464.29	0.00	0.00	0.00
18,800.00	89.70	1.38	10,410.89	8,561.83	205.19	8,564.29	0.00	0.00	0.00
18,900.00	89.70	1.38	10,411.42	8,661.80	207.61	8,664.29	0.00	0.00	0.00
19,000.00	89.70	1.38	10,411.95	8,761.77	210.02	8,764.29	0.00	0.00	0.00
19,100.00	89.70	1.38	10,412.48	8,861.74	212.43	8,864.29	0.00	0.00	0.00
19,200.00	89.70	1.38	10,413.00	8,961.71	214.85	8,964.28	0.00	0.00	0.00
19,300.00	89.70	1.38	10,413.53	9,061.68	217.26	9,064.28	0.00	0.00	0.00
19,400.00	89.70	1.38	10,414.06	9,161.65	219.68	9,164.28	0.00	0.00	0.00
19,500.00	89.70	1.38	10,414.59	9,261.62	222.09	9,264.28	0.00	0.00	0.00
19,600.00	89.70	1.38	10,415.12	9,361.59	224.51	9,364.28	0.00	0.00	0.00
19,700.00	89.70	1.38	10,415.64	9,461.56	226.92	9,464.28	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 507H
Company:	Devon Energy	TVD Reference:	3407' GE + 25' KB @ 3432.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3407' GE + 25' KB @ 3432.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	507H	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)
19,800.00	89.70	1.38	10,416.17	9,561.53	229.34	9,564.28	0.00	0.00	0.00
19,900.00	89.70	1.38	10,416.70	9,661.50	231.75	9,664.28	0.00	0.00	0.00
19,956.71	89.70	1.38	10,417.00	9,718.19	233.12	9,720.99	0.00	0.00	0.00
TD at 19956.71 - PBHL (507H) - SHL (507H)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SHL (507H)	0.00	0.00	0.00	322,704.89	-322,704.88	732,306.79	409,601.91	33° 0' 44.538 N	104° 45' 47.126 W
- plan misses target center by 449842.35usft at 19956.71usft MD (10417.00 TVD, 9718.19 N, 233.12 E)									
- Point									
PBHL (507H)	0.00	0.00	10,417.00	9,718.19	233.12	419,320.09	732,539.91	32° 9' 4.613 N	103° 42' 55.859 W
- plan hits target center									
- Point									
LP (507H)	0.00	0.01	10,481.04	580.19	13.88	410,182.09	732,320.67	32° 7' 34.199 N	103° 42' 59.018 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,908.13	9,908.13	0.00	0.00	Start Build 10.00
10,815.53	10,481.04	580.19	13.88	Start 6120.15 hold at 10815.53 MD
16,935.68	10,402.00	6,698.08	160.19	Start DLS 1.00 TFO 179.25
17,039.94	10,401.60	6,802.31	162.69	Start 2916.77 hold at 17039.94 MD
19,956.71	10,417.00	9,718.19	233.12	TD at 19956.71