

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Fighting Okra 18-19 Fed
Well: 14H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.36°

Magnetic Field
Strength: 47891.0snT
Dip Angle: 59.78°
Date: 9/13/2017
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



3371.2' GE +25' KB @ 3396.20usft
Ground Level: 3371.20

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11931.04	0.00	0.00	11931.04	0.00	0.00	0.00	0.00	0.00
12756.04	82.50	180.23	12499.10	-498.17	-2.00	10.00	180.23	498.17
12831.08	90.00	180.00	12504.00	-572.99	-2.15	10.00	-1.76	572.99
22161.88	90.00	180.00	12504.00	-9903.79	-2.15	0.00	0.00	9903.79

Start Build 10.00
Start DLS 10.00 TFO -1.76
Start 9330.80 hold at 12831.08 MD
TD at 22161.88

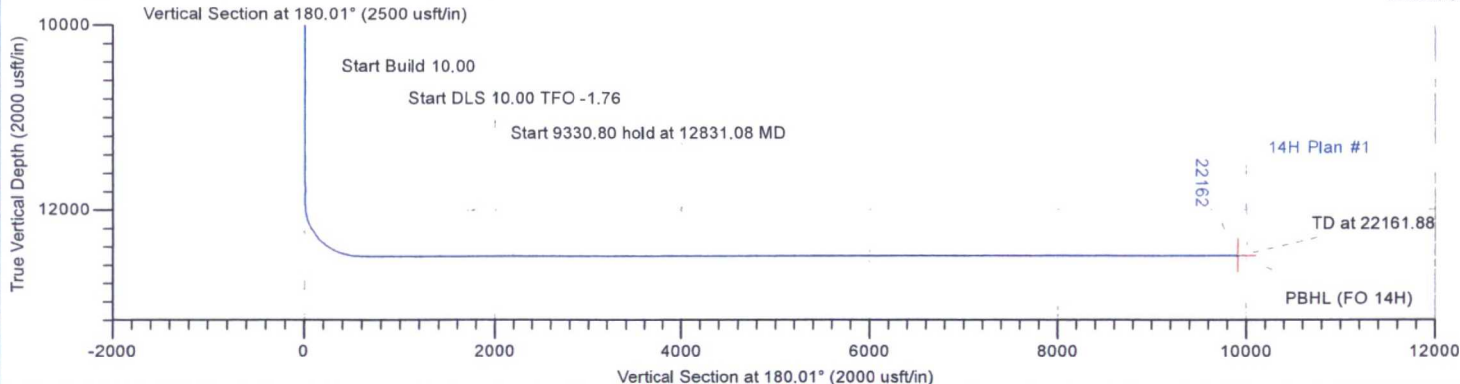
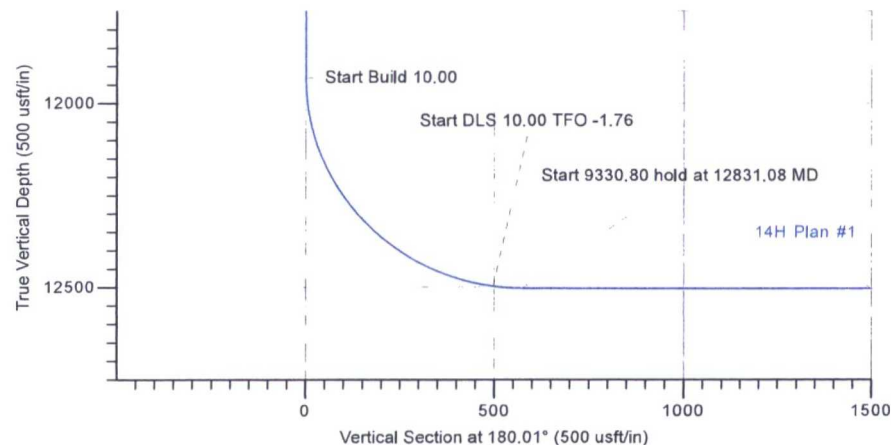
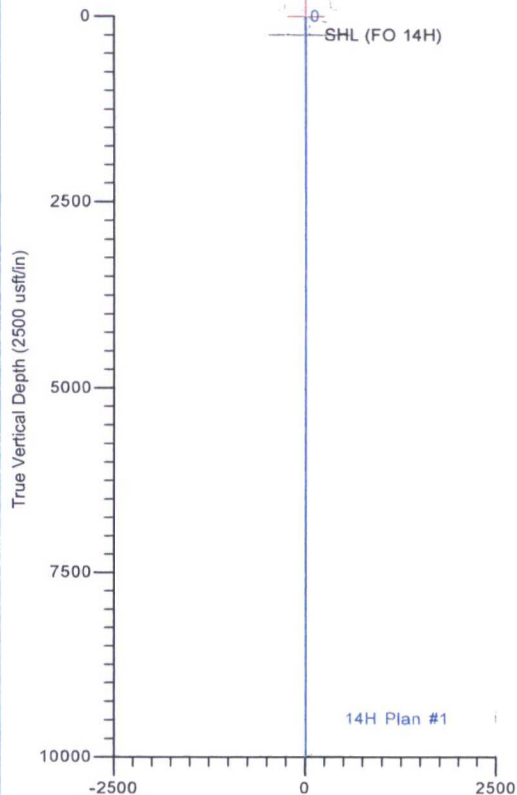
HOBBS OCD

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RECEIVED

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PBHL (FO 14H)	12504.00	-9903.79	-2.15	32° 1' 21.2389 N	103° 30' 44.3348 W
SHL (FO 14H)	0.00	0.00	0.00	32° 2' 59.2401 N	103° 30' 43.4352 W



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

Plan: Plan #1 (14H/OH)
Fighting Okra 18-19 Fed
Created By: Dustin Ault
Date: _____
Approved: _____
Date: 12:00, September 13 2017

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Fighting Okra 18-19 Fed
Well: 14H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.36°

Magnetic Field
Strength: 47891.0snT
Dip Angle: 59.78°
Date: 9/13/2017
Model: HDGM



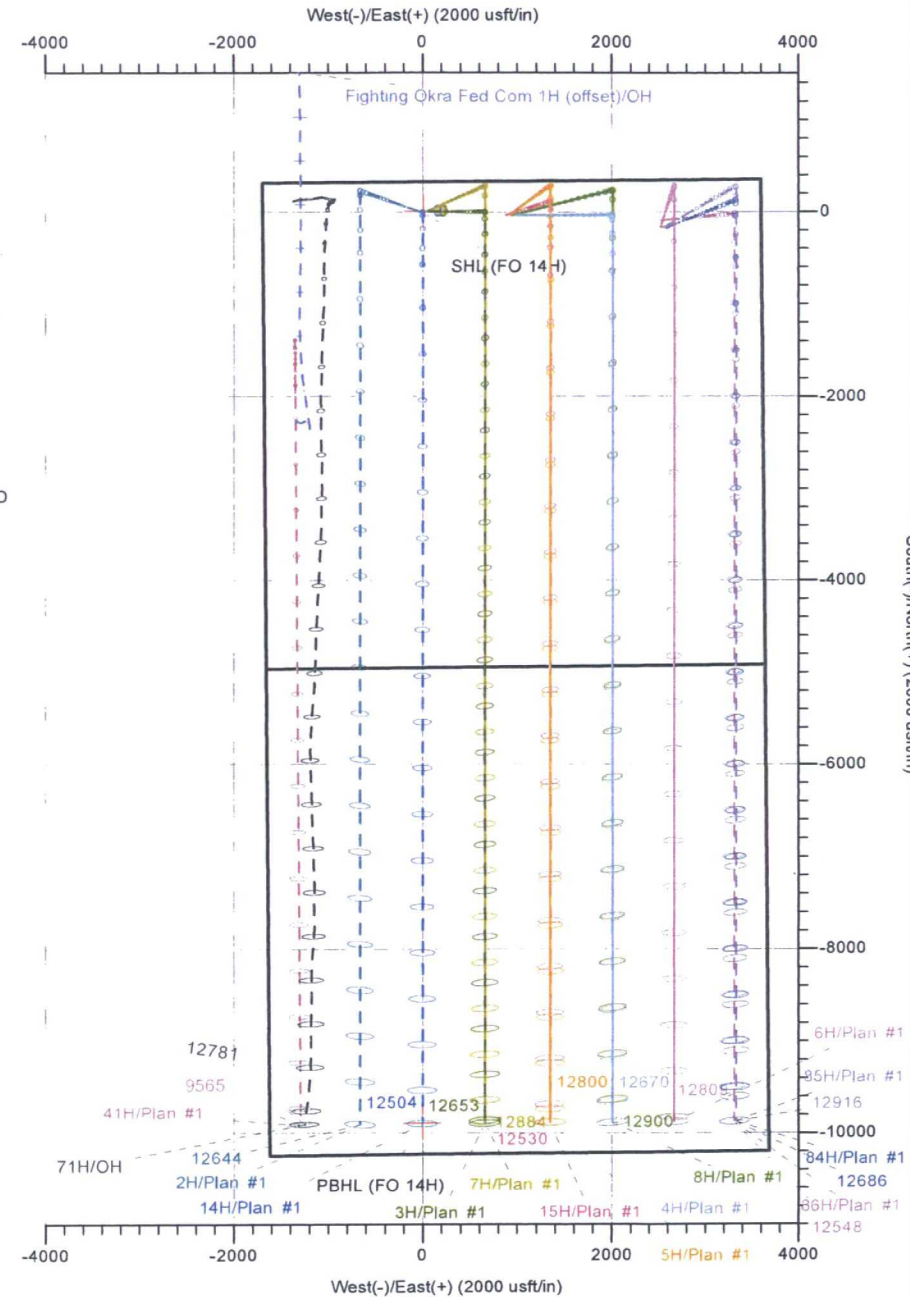
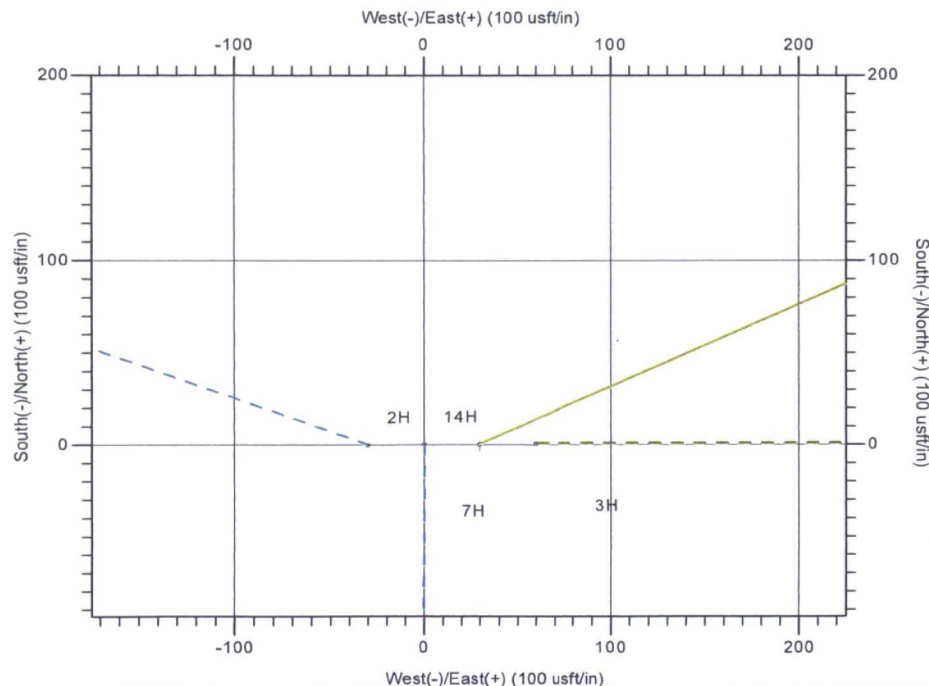
PROJECT DETAILS: Lea County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (FO 14H)	12504.00	-9903.79	-2.15	372915.19	795784.80	32° 1' 21.2389 N	103° 30' 44.3348 W
SHL (FO 14H)	0.00	0.00	0.00	382818.98	795786.95	32° 2' 59.2401 N	103° 30' 43.4352 W

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	
11931.04	0.00	0.00	11931.04	0.00	0.00	0.00	0.00	0.00	Start Build 10.00
12756.04	82.50	180.23	12499.10	-498.17	-2.00	10.00	180.23	498.17	Start DLS 10.00 TFO -1.76
12831.08	90.00	180.00	12504.00	-572.99	-2.15	10.00	-1.76	572.99	Start 9330.80 hold at 12831.08 MD
22161.88	90.00	180.00	12504.00	-9903.79	-2.15	0.00	0.00	9903.79	TD at 22161.88



LEAM DRILLING SYSTEMS LLC
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Phone: 936/756-7577, Fax: 936/756-7595

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Fighting Okra 18-19 Fed
Created By: Dustin Ault
Date: 12/01, September 13 2017
Approved: _____ Date: _____

HOBBS OCD

NOV 06 2017

RECEIVED

Devon Energy

Lea County, NM (NAD-83)

Fighting Okra 18-19 Fed

14H

OH

Plan: Plan #1

Standard Planning Report

13 September, 2017

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Multi User Db
 Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Site: Fighting Okra 18-19 Fed
 Well: 14H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well 14H
 TVD Reference: 3371.2' GE + 25' KB @ 3396.20usft
 MD Reference: 3371.2' GE + 25' KB @ 3396.20usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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	Fighting Okra 18-19 Fed		
Site Position:		Northing:	382,937.52 usft
From:	Map	Easting:	794,421.25 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 0.5157 N
		Longitude:	103° 30' 59.2921 W
		Grid Convergence:	0.43 °

Well	14H		
Well Position	+N/-S	-118.54 usft	Northing:
	+E/-W	1,365.70 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,383.00 usft
		Latitude:	32° 2' 59.2402 N
		Longitude:	103° 30' 43.4352 W
		Ground Level:	3,371.20 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	9/13/2017	6.80
			Dip Angle
			(°)
			Field Strength
			(nT)
			47,891

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			180.01

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	
11,931.04	0.00	0.00	11,931.04	0.00	0.00	0.00	0.00	0.00	0.00	
12,756.04	82.50	180.23	12,499.10	-498.17	-2.00	10.00	10.00	0.00	180.23	
12,831.08	90.00	180.00	12,504.00	-572.99	-2.15	10.00	10.00	-0.31	-1.76	
22,161.88	90.00	180.00	12,504.00	-9,903.79	-2.15	0.00	0.00	0.00	0.00	PBHL (FO 14H)

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Multi User Db
 Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Site: Fighting Okra 18-19 Fed
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 Design: Plan #1

Local Co-ordinate Reference: Well 14H
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 MD Reference: 3371.2' GE + 25' KB @ 3396.20usft
 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
SHL (FO 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
1,100.00	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

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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)
5,300.00	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
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
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	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
Company: Devon Energy
Project: Lea County, NM (NAD-83)
Site: Fighting Okra 18-19 Fed
Well: 14H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 14H
TVD Reference: 3371.2' GE + 25' KB @ 3396.20usft
MD Reference: 3371.2' GE + 25' KB @ 3396.20usft
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)
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.00	0.00	0.00
11,300.00	0.00	0.00	11,300.00	0.00	0.00	0.00	0.00	0.00	0.00
11,400.00	0.00	0.00	11,400.00	0.00	0.00	0.00	0.00	0.00	0.00
11,500.00	0.00	0.00	11,500.00	0.00	0.00	0.00	0.00	0.00	0.00
11,600.00	0.00	0.00	11,600.00	0.00	0.00	0.00	0.00	0.00	0.00
11,700.00	0.00	0.00	11,700.00	0.00	0.00	0.00	0.00	0.00	0.00
11,800.00	0.00	0.00	11,800.00	0.00	0.00	0.00	0.00	0.00	0.00
11,900.00	0.00	0.00	11,900.00	0.00	0.00	0.00	0.00	0.00	0.00
11,931.04	0.00	0.00	11,931.04	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 10.00									
11,950.00	1.90	180.23	11,950.00	-0.31	0.00	0.31	10.00	10.00	0.00
12,000.00	6.90	180.23	11,999.83	-4.14	-0.02	4.14	10.00	10.00	0.00
12,050.00	11.90	180.23	12,049.15	-12.31	-0.05	12.31	10.00	10.00	0.00
12,100.00	16.90	180.23	12,097.56	-24.73	-0.10	24.73	10.00	10.00	0.00
12,150.00	21.90	180.23	12,144.71	-41.33	-0.17	41.33	10.00	10.00	0.00
12,200.00	26.90	180.23	12,190.23	-61.98	-0.25	61.98	10.00	10.00	0.00
12,250.00	31.90	180.23	12,233.78	-86.51	-0.35	86.51	10.00	10.00	0.00
12,300.00	36.90	180.23	12,275.02	-114.75	-0.46	114.75	10.00	10.00	0.00
12,350.00	41.90	180.23	12,313.65	-146.47	-0.59	146.47	10.00	10.00	0.00
12,400.00	46.90	180.23	12,349.37	-181.44	-0.73	181.44	10.00	10.00	0.00
12,450.00	51.90	180.23	12,381.90	-219.39	-0.88	219.39	10.00	10.00	0.00
12,500.00	56.90	180.23	12,411.00	-260.03	-1.04	260.03	10.00	10.00	0.00
12,550.00	61.90	180.23	12,436.44	-303.05	-1.22	303.05	10.00	10.00	0.00
12,600.00	66.90	180.23	12,458.04	-348.13	-1.40	348.13	10.00	10.00	0.00
12,650.00	71.90	180.23	12,475.63	-394.91	-1.59	394.91	10.00	10.00	0.00
12,700.00	76.90	180.23	12,489.08	-443.05	-1.78	443.05	10.00	10.00	0.00
12,750.00	81.90	180.23	12,498.28	-492.18	-1.98	492.18	10.00	10.00	0.00
12,756.04	82.50	180.23	12,499.10	-498.17	-2.00	498.17	10.00	10.00	0.00
Start DLS 10.00 TFO -1.76									
12,800.00	86.89	180.09	12,503.16	-541.93	-2.12	541.93	10.00	10.00	-0.31
12,831.08	90.00	180.00	12,504.00	-572.99	-2.15	572.99	10.00	10.00	-0.31
Start 9330.80 hold at 12831.08 MD									
12,900.00	90.00	180.00	12,504.00	-641.91	-2.15	641.91	0.00	0.00	0.00
13,000.00	90.00	180.00	12,504.00	-741.91	-2.15	741.91	0.00	0.00	0.00
13,100.00	90.00	180.00	12,504.00	-841.91	-2.15	841.91	0.00	0.00	0.00
13,200.00	90.00	180.00	12,504.00	-941.91	-2.15	941.91	0.00	0.00	0.00
13,300.00	90.00	180.00	12,504.00	-1,041.91	-2.15	1,041.91	0.00	0.00	0.00
13,400.00	90.00	180.00	12,504.00	-1,141.91	-2.15	1,141.91	0.00	0.00	0.00
13,500.00	90.00	180.00	12,504.00	-1,241.91	-2.15	1,241.91	0.00	0.00	0.00
13,600.00	90.00	180.00	12,504.00	-1,341.91	-2.15	1,341.91	0.00	0.00	0.00
13,700.00	90.00	180.00	12,504.00	-1,441.91	-2.15	1,441.91	0.00	0.00	0.00
13,800.00	90.00	180.00	12,504.00	-1,541.91	-2.15	1,541.91	0.00	0.00	0.00
13,900.00	90.00	180.00	12,504.00	-1,641.91	-2.15	1,641.91	0.00	0.00	0.00
14,000.00	90.00	180.00	12,504.00	-1,741.91	-2.15	1,741.91	0.00	0.00	0.00
14,100.00	90.00	180.00	12,504.00	-1,841.91	-2.15	1,841.91	0.00	0.00	0.00
14,200.00	90.00	180.00	12,504.00	-1,941.91	-2.15	1,941.91	0.00	0.00	0.00
14,300.00	90.00	180.00	12,504.00	-2,041.91	-2.15	2,041.91	0.00	0.00	0.00
14,400.00	90.00	180.00	12,504.00	-2,141.91	-2.15	2,141.91	0.00	0.00	0.00

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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)
14,500.00	90.00	180.00	12,504.00	-2,241.91	-2.15	2,241.91	0.00	0.00	0.00
14,600.00	90.00	180.00	12,504.00	-2,341.91	-2.15	2,341.91	0.00	0.00	0.00
14,700.00	90.00	180.00	12,504.00	-2,441.91	-2.15	2,441.91	0.00	0.00	0.00
14,800.00	90.00	180.00	12,504.00	-2,541.91	-2.15	2,541.91	0.00	0.00	0.00
14,900.00	90.00	180.00	12,504.00	-2,641.91	-2.15	2,641.91	0.00	0.00	0.00
15,000.00	90.00	180.00	12,504.00	-2,741.91	-2.15	2,741.91	0.00	0.00	0.00
15,100.00	90.00	180.00	12,504.00	-2,841.91	-2.15	2,841.91	0.00	0.00	0.00
15,200.00	90.00	180.00	12,504.00	-2,941.91	-2.15	2,941.91	0.00	0.00	0.00
15,300.00	90.00	180.00	12,504.00	-3,041.91	-2.15	3,041.91	0.00	0.00	0.00
15,400.00	90.00	180.00	12,504.00	-3,141.91	-2.15	3,141.91	0.00	0.00	0.00
15,500.00	90.00	180.00	12,504.00	-3,241.91	-2.15	3,241.91	0.00	0.00	0.00
15,600.00	90.00	180.00	12,504.00	-3,341.91	-2.15	3,341.91	0.00	0.00	0.00
15,700.00	90.00	180.00	12,504.00	-3,441.91	-2.15	3,441.91	0.00	0.00	0.00
15,800.00	90.00	180.00	12,504.00	-3,541.91	-2.15	3,541.91	0.00	0.00	0.00
15,900.00	90.00	180.00	12,504.00	-3,641.91	-2.15	3,641.91	0.00	0.00	0.00
16,000.00	90.00	180.00	12,504.00	-3,741.91	-2.15	3,741.91	0.00	0.00	0.00
16,100.00	90.00	180.00	12,504.00	-3,841.91	-2.15	3,841.91	0.00	0.00	0.00
16,200.00	90.00	180.00	12,504.00	-3,941.91	-2.15	3,941.91	0.00	0.00	0.00
16,300.00	90.00	180.00	12,504.00	-4,041.91	-2.15	4,041.91	0.00	0.00	0.00
16,400.00	90.00	180.00	12,504.00	-4,141.91	-2.15	4,141.91	0.00	0.00	0.00
16,500.00	90.00	180.00	12,504.00	-4,241.91	-2.15	4,241.91	0.00	0.00	0.00
16,600.00	90.00	180.00	12,504.00	-4,341.91	-2.15	4,341.91	0.00	0.00	0.00
16,700.00	90.00	180.00	12,504.00	-4,441.91	-2.15	4,441.91	0.00	0.00	0.00
16,800.00	90.00	180.00	12,504.00	-4,541.91	-2.15	4,541.91	0.00	0.00	0.00
16,900.00	90.00	180.00	12,504.00	-4,641.91	-2.15	4,641.91	0.00	0.00	0.00
17,000.00	90.00	180.00	12,504.00	-4,741.91	-2.15	4,741.91	0.00	0.00	0.00
17,100.00	90.00	180.00	12,504.00	-4,841.91	-2.15	4,841.91	0.00	0.00	0.00
17,200.00	90.00	180.00	12,504.00	-4,941.91	-2.15	4,941.91	0.00	0.00	0.00
17,300.00	90.00	180.00	12,504.00	-5,041.91	-2.15	5,041.91	0.00	0.00	0.00
17,400.00	90.00	180.00	12,504.00	-5,141.91	-2.15	5,141.91	0.00	0.00	0.00
17,500.00	90.00	180.00	12,504.00	-5,241.91	-2.15	5,241.91	0.00	0.00	0.00
17,600.00	90.00	180.00	12,504.00	-5,341.91	-2.15	5,341.91	0.00	0.00	0.00
17,700.00	90.00	180.00	12,504.00	-5,441.91	-2.15	5,441.91	0.00	0.00	0.00
17,800.00	90.00	180.00	12,504.00	-5,541.91	-2.15	5,541.91	0.00	0.00	0.00
17,900.00	90.00	180.00	12,504.00	-5,641.91	-2.15	5,641.91	0.00	0.00	0.00
18,000.00	90.00	180.00	12,504.00	-5,741.91	-2.15	5,741.91	0.00	0.00	0.00
18,100.00	90.00	180.00	12,504.00	-5,841.91	-2.15	5,841.91	0.00	0.00	0.00
18,200.00	90.00	180.00	12,504.00	-5,941.91	-2.15	5,941.91	0.00	0.00	0.00
18,300.00	90.00	180.00	12,504.00	-6,041.91	-2.15	6,041.91	0.00	0.00	0.00
18,400.00	90.00	180.00	12,504.00	-6,141.91	-2.15	6,141.91	0.00	0.00	0.00
18,500.00	90.00	180.00	12,504.00	-6,241.91	-2.15	6,241.91	0.00	0.00	0.00
18,600.00	90.00	180.00	12,504.00	-6,341.91	-2.15	6,341.91	0.00	0.00	0.00
18,700.00	90.00	180.00	12,504.00	-6,441.91	-2.15	6,441.91	0.00	0.00	0.00
18,800.00	90.00	180.00	12,504.00	-6,541.91	-2.15	6,541.91	0.00	0.00	0.00
18,900.00	90.00	180.00	12,504.00	-6,641.91	-2.15	6,641.91	0.00	0.00	0.00
19,000.00	90.00	180.00	12,504.00	-6,741.91	-2.15	6,741.91	0.00	0.00	0.00
19,100.00	90.00	180.00	12,504.00	-6,841.91	-2.15	6,841.91	0.00	0.00	0.00
19,200.00	90.00	180.00	12,504.00	-6,941.91	-2.15	6,941.91	0.00	0.00	0.00
19,300.00	90.00	180.00	12,504.00	-7,041.91	-2.15	7,041.91	0.00	0.00	0.00
19,400.00	90.00	180.00	12,504.00	-7,141.91	-2.15	7,141.91	0.00	0.00	0.00
19,500.00	90.00	180.00	12,504.00	-7,241.91	-2.15	7,241.91	0.00	0.00	0.00
19,600.00	90.00	180.00	12,504.00	-7,341.91	-2.15	7,341.91	0.00	0.00	0.00
19,700.00	90.00	180.00	12,504.00	-7,441.91	-2.15	7,441.91	0.00	0.00	0.00
19,800.00	90.00	180.00	12,504.00	-7,541.91	-2.15	7,541.91	0.00	0.00	0.00

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MD Reference: 3371.2' GE + 25' KB @ 3396.20usft
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)
19,900.00	90.00	180.00	12,504.00	-7,641.91	-2.15	7,641.91	0.00	0.00	0.00
20,000.00	90.00	180.00	12,504.00	-7,741.91	-2.15	7,741.91	0.00	0.00	0.00
20,100.00	90.00	180.00	12,504.00	-7,841.91	-2.15	7,841.91	0.00	0.00	0.00
20,200.00	90.00	180.00	12,504.00	-7,941.91	-2.15	7,941.91	0.00	0.00	0.00
20,300.00	90.00	180.00	12,504.00	-8,041.91	-2.15	8,041.91	0.00	0.00	0.00
20,400.00	90.00	180.00	12,504.00	-8,141.91	-2.15	8,141.91	0.00	0.00	0.00
20,500.00	90.00	180.00	12,504.00	-8,241.91	-2.15	8,241.91	0.00	0.00	0.00
20,600.00	90.00	180.00	12,504.00	-8,341.91	-2.15	8,341.91	0.00	0.00	0.00
20,700.00	90.00	180.00	12,504.00	-8,441.91	-2.15	8,441.91	0.00	0.00	0.00
20,800.00	90.00	180.00	12,504.00	-8,541.91	-2.15	8,541.91	0.00	0.00	0.00
20,900.00	90.00	180.00	12,504.00	-8,641.91	-2.15	8,641.91	0.00	0.00	0.00
21,000.00	90.00	180.00	12,504.00	-8,741.91	-2.15	8,741.91	0.00	0.00	0.00
21,100.00	90.00	180.00	12,504.00	-8,841.91	-2.15	8,841.91	0.00	0.00	0.00
21,200.00	90.00	180.00	12,504.00	-8,941.91	-2.15	8,941.91	0.00	0.00	0.00
21,300.00	90.00	180.00	12,504.00	-9,041.91	-2.15	9,041.91	0.00	0.00	0.00
21,400.00	90.00	180.00	12,504.00	-9,141.91	-2.15	9,141.91	0.00	0.00	0.00
21,500.00	90.00	180.00	12,504.00	-9,241.91	-2.15	9,241.91	0.00	0.00	0.00
21,600.00	90.00	180.00	12,504.00	-9,341.91	-2.15	9,341.91	0.00	0.00	0.00
21,700.00	90.00	180.00	12,504.00	-9,441.91	-2.15	9,441.91	0.00	0.00	0.00
21,800.00	90.00	180.00	12,504.00	-9,541.91	-2.15	9,541.91	0.00	0.00	0.00
21,900.00	90.00	180.00	12,504.00	-9,641.91	-2.15	9,641.91	0.00	0.00	0.00
22,000.00	90.00	180.00	12,504.00	-9,741.91	-2.15	9,741.91	0.00	0.00	0.00
22,100.00	90.00	180.00	12,504.00	-9,841.91	-2.15	9,841.91	0.00	0.00	0.00
22,161.88	90.00	180.00	12,504.00	-9,903.79	-2.15	9,903.79	0.00	0.00	0.00

TD at 22161.88 - PBHL (FO 14H)

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 (FO 14H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	382,818.98	795,786.95	32° 2' 59.2402 N	103° 30' 43.4352 W
PBHL (FO 14H) - plan hits target center - Point	0.00	0.00	12,504.00	-9,903.79	-2.15	372,915.19	795,784.80	32° 1' 21.2389 N	103° 30' 44.3348 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
11,931.04	11,931.04	0.00	0.00	Start Build 10.00
12,756.04	12,499.10	-498.17	-2.00	Start DLS 10.00 TFO -1.76
12,831.08	12,504.00	-572.99	-2.15	Start 9330.80 hold at 12831.08 MD
22,161.88	12,504.00	-9,903.79	-2.15	TD at 22161.88