

Devon Energy

Project: Lea County, NM (NAD-83)

Site: Flagler 8 Federal

Well: Flagler 8 Federal 4H

Wellbore: OH

Design: Plan #1

3437.5' GE + 25' KB @ 3462.50usft

Ground Level: 3437.50



Azimuths to Grid North
True North: -0.40°
Magnetic North: 6.39°

Magnetic Field
Strength: 47948.9snT
Dip Angle: 59.82°
Date: 2/14/2018
Model: HDGM

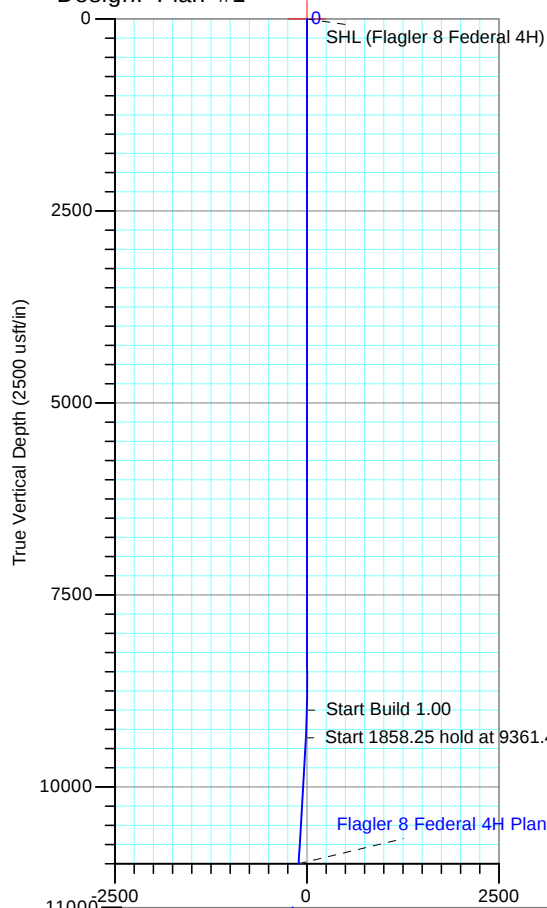
PROJECT DETAILS: Lea County, NM (NAD-83)

Geodetic System: US State Plane 1983

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone

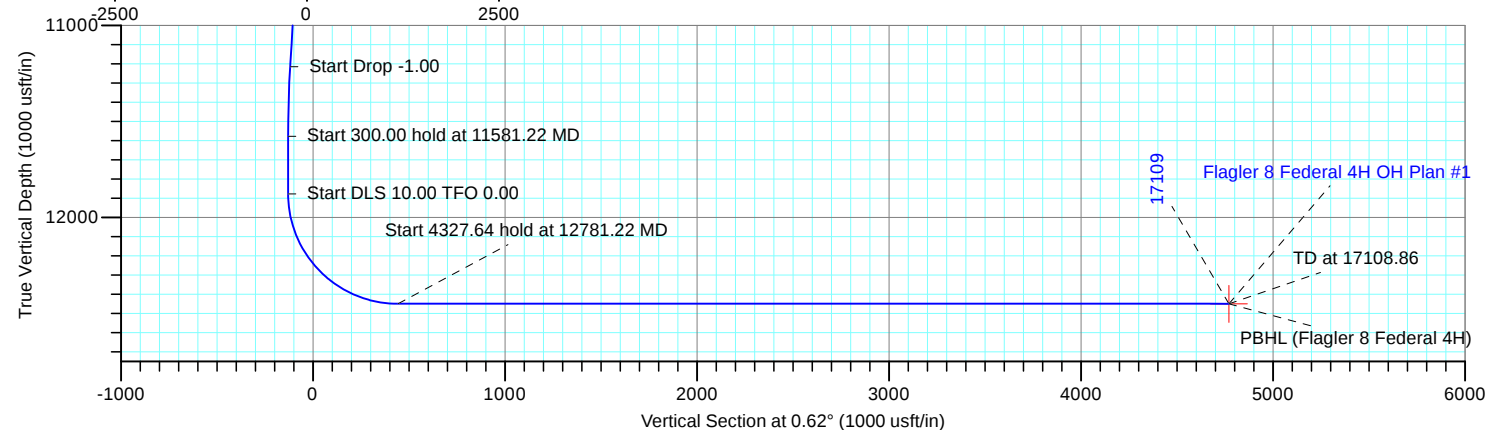


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	9000.00	0.00	0.00	9000.00	0.00	0.00	0.00	0.00	0.00	
3	9361.48	3.61	158.26	9361.24	-10.59	4.22	1.00	158.26	-10.54	
4	11219.74	3.61	158.26	11215.80	-119.41	47.63	0.00	0.00	-118.89	
5	11581.22	0.00	0.00	11577.04	-130.00	51.85	1.00	180.00	-129.43	
6	11881.22	0.00	0.00	11877.04	-130.00	51.85	0.00	0.00	-129.43	
7	12781.22	90.00	0.00	12450.00	442.96	51.85	10.00	0.00	443.49	
8	17108.86	90.00	0.00	12450.00	4770.60	51.85	0.00	0.00	4770.88	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PBHL	12450.00	4770.60	51.85	32° 9' 5.2578 N	103° 35' 27.9510 W
SHL	0.00	0.00	0.00	32° 8' 18.0546 N	103° 35' 28.9364 W



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

Plan: Plan #1 (Flagler 8 Federal 4H/OH)
Created By: Dustin Ault
Date: 11:32, February 14 2018
Approved: _____ Date: _____

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Flagler 8 Federal
Well: Flagler 8 Federal 4H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.40°
Magnetic North: 6.39°

Magnetic Field
Strength: 47948.9snT
Dip Angle: 59.82°
Date: 2/14/2018
Model: HDGM



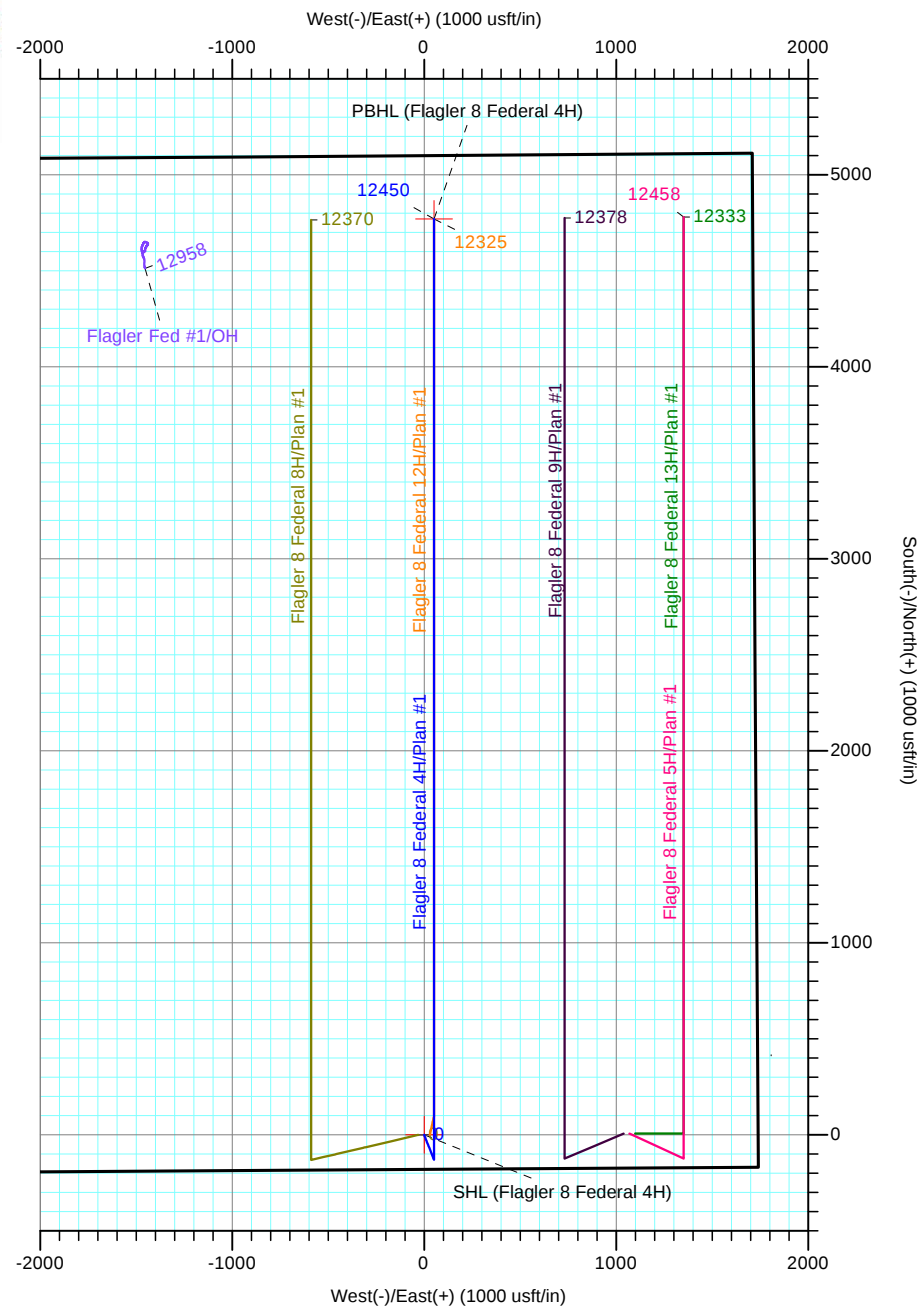
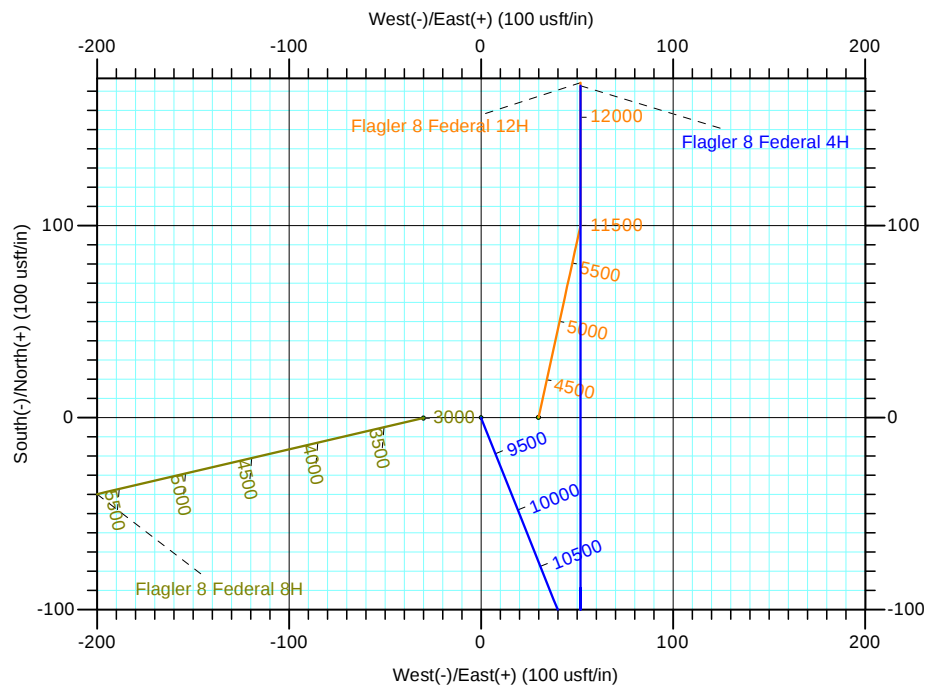
PROJECT DETAILS: Lea County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	9000.00	0.00	0.00	9000.00	0.00	0.00	0.00	0.00	0.00	
3	9361.48	3.61	158.26	9361.24	-10.59	4.22	1.00	158.26	-10.54	
4	11219.74	3.61	158.26	11215.80	-119.41	47.63	0.00	0.00	-118.89	
5	11581.22	0.00	0.00	11577.04	-130.00	51.85	1.00	180.00	-129.43	
6	11881.22	0.00	0.00	11877.04	-130.00	51.85	0.00	0.00	-129.43	
7	12781.22	90.00	0.00	12450.00	442.96	51.85	10.00	0.00	443.49	
8	17108.86	90.00	0.00	12450.00	4770.60	51.85	0.00	0.00	4770.88	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	12450.00	4770.60	51.85	419628.50	771045.53	32° 9' 5.2578 N	103° 35' 27.9510 W
SHL	0.00	0.00	0.00	414857.90	770993.68	32° 8' 18.0546 N	103° 35' 28.9364 W



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

Plan: Plan #1 (Flagler 8 Federal 4H/OH)
Flagler 8 Federal
Created By: Dustin Ault
Date: 11:35, February 14 2018
Approved: _____ Date: _____

Devon Energy

Lea County, NM (NAD-83)

Flagler 8 Federal

Flagler 8 Federal 4H

OH

Plan: Plan #1

Standard Planning Report

14 February, 2018

LEAM Drilling Services

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well Flagler 8 Federal 4H
Company:	Devon Energy	TVD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Site:	Flagler 8 Federal	North Reference:	Grid
Well:	Flagler 8 Federal 4H	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		Flagler 8 Federal			
Site Position:		Northing:	414,857.70 usft	Latitude:	32° 8' 18.0547 N
From:	Map	Easting:	770,963.69 usft	Longitude:	103° 35' 29.2852 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	Flagler 8 Federal 4H					
Well Position	+N/-S	0.20 usft	Northing:	414,857.90 usft	Latitude:	32° 8' 18.0546 N
	+E/-W	29.99 usft	Easting:	770,993.68 usft	Longitude:	103° 35' 28.9364 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,437.50 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/14/2018	6.78	59.82	47,949

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	0.62

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	
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,361.48	3.61	158.26	9,361.24	-10.59	4.22	1.00	1.00	0.00	158.26	
11,219.74	3.61	158.26	11,215.80	-119.41	47.63	0.00	0.00	0.00	0.00	
11,581.22	0.00	0.00	11,577.04	-130.00	51.85	1.00	-1.00	0.00	180.00	
11,881.22	0.00	0.00	11,877.04	-130.00	51.85	0.00	0.00	0.00	0.00	
12,781.22	90.00	0.00	12,450.00	442.96	51.85	10.00	10.00	0.00	0.00	
17,108.86	90.00	0.00	12,450.00	4,770.60	51.85	0.00	0.00	0.00	0.00	PBHL (Flagler 8 Fede

LEAM Drilling Services

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well Flagler 8 Federal 4H
Company:	Devon Energy	TVD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Site:	Flagler 8 Federal	North Reference:	Grid
Well:	Flagler 8 Federal 4H	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 (Flagler 8 Federal 4H)									
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

LEAM Drilling Services

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well Flagler 8 Federal 4H
Company:	Devon Energy	TVD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Site:	Flagler 8 Federal	North Reference:	Grid
Well:	Flagler 8 Federal 4H	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)	
5,300.00	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	1.00	158.26	9,100.00	-0.81	0.32	-0.81	1.00	1.00	0.00	
9,200.00	2.00	158.26	9,199.96	-3.24	1.29	-3.23	1.00	1.00	0.00	
9,300.00	3.00	158.26	9,299.86	-7.29	2.91	-7.26	1.00	1.00	0.00	
9,361.48	3.61	158.26	9,361.24	-10.59	4.22	-10.54	1.00	1.00	0.00	
9,400.00	3.61	158.26	9,399.68	-12.84	5.12	-12.79	0.00	0.00	0.00	
9,500.00	3.61	158.26	9,499.48	-18.70	7.46	-18.62	0.00	0.00	0.00	
9,600.00	3.61	158.26	9,599.29	-24.56	9.79	-24.45	0.00	0.00	0.00	
9,700.00	3.61	158.26	9,699.09	-30.41	12.13	-30.28	0.00	0.00	0.00	
9,800.00	3.61	158.26	9,798.89	-36.27	14.47	-36.11	0.00	0.00	0.00	
9,900.00	3.61	158.26	9,898.69	-42.13	16.80	-41.94	0.00	0.00	0.00	
10,000.00	3.61	158.26	9,998.49	-47.98	19.14	-47.77	0.00	0.00	0.00	
10,100.00	3.61	158.26	10,098.29	-53.84	21.47	-53.60	0.00	0.00	0.00	
10,200.00	3.61	158.26	10,198.09	-59.69	23.81	-59.43	0.00	0.00	0.00	
10,300.00	3.61	158.26	10,297.89	-65.55	26.14	-65.26	0.00	0.00	0.00	
10,400.00	3.61	158.26	10,397.69	-71.41	28.48	-71.09	0.00	0.00	0.00	
10,500.00	3.61	158.26	10,497.50	-77.26	30.82	-76.92	0.00	0.00	0.00	

LEAM Drilling Services

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well Flagler 8 Federal 4H
Company:	Devon Energy	TVD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Site:	Flagler 8 Federal	North Reference:	Grid
Well:	Flagler 8 Federal 4H	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)
10,600.00	3.61	158.26	10,597.30	-83.12	33.15	-82.75	0.00	0.00	0.00
10,700.00	3.61	158.26	10,697.10	-88.97	35.49	-88.58	0.00	0.00	0.00
10,800.00	3.61	158.26	10,796.90	-94.83	37.82	-94.41	0.00	0.00	0.00
10,900.00	3.61	158.26	10,896.70	-100.69	40.16	-100.25	0.00	0.00	0.00
11,000.00	3.61	158.26	10,996.50	-106.54	42.49	-106.08	0.00	0.00	0.00
11,100.00	3.61	158.26	11,096.30	-112.40	44.83	-111.91	0.00	0.00	0.00
11,200.00	3.61	158.26	11,196.10	-118.26	47.17	-117.74	0.00	0.00	0.00
11,219.74	3.61	158.26	11,215.80	-119.41	47.63	-118.89	0.00	0.00	0.00
11,300.00	2.81	158.26	11,295.94	-123.59	49.29	-123.05	1.00	-1.00	0.00
11,400.00	1.81	158.26	11,395.85	-127.34	50.79	-126.78	1.00	-1.00	0.00
11,500.00	0.81	158.26	11,495.83	-129.47	51.64	-128.90	1.00	-1.00	0.00
11,581.22	0.00	0.00	11,577.04	-130.00	51.85	-129.43	1.00	-1.00	0.00
11,600.00	0.00	0.00	11,595.82	-130.00	51.85	-129.43	0.00	0.00	0.00
11,700.00	0.00	0.00	11,695.82	-130.00	51.85	-129.43	0.00	0.00	0.00
11,800.00	0.00	0.00	11,795.82	-130.00	51.85	-129.43	0.00	0.00	0.00
11,881.22	0.00	0.00	11,877.04	-130.00	51.85	-129.43	0.00	0.00	0.00
11,900.00	1.88	0.00	11,895.82	-129.69	51.85	-129.12	10.00	10.00	0.00
11,950.00	6.88	0.00	11,945.66	-125.88	51.85	-125.31	10.00	10.00	0.00
12,000.00	11.88	0.00	11,994.97	-117.73	51.85	-117.16	10.00	10.00	0.00
12,050.00	16.88	0.00	12,043.39	-105.32	51.85	-104.75	10.00	10.00	0.00
12,100.00	21.88	0.00	12,090.55	-88.73	51.85	-88.17	10.00	10.00	0.00
12,150.00	26.88	0.00	12,136.07	-68.10	51.85	-67.53	10.00	10.00	0.00
12,200.00	31.88	0.00	12,179.63	-43.58	51.85	-43.02	10.00	10.00	0.00
12,250.00	36.88	0.00	12,220.88	-15.36	51.85	-14.79	10.00	10.00	0.00
12,300.00	41.88	0.00	12,259.52	16.35	51.85	16.92	10.00	10.00	0.00
12,350.00	46.88	0.00	12,295.24	51.31	51.85	51.87	10.00	10.00	0.00
12,400.00	51.88	0.00	12,327.79	89.25	51.85	89.81	10.00	10.00	0.00
12,450.00	56.88	0.00	12,356.90	129.88	51.85	130.44	10.00	10.00	0.00
12,500.00	61.88	0.00	12,382.36	172.90	51.85	173.45	10.00	10.00	0.00
12,550.00	66.88	0.00	12,403.97	217.97	51.85	218.52	10.00	10.00	0.00
12,600.00	71.88	0.00	12,421.58	264.75	51.85	265.30	10.00	10.00	0.00
12,650.00	76.88	0.00	12,435.04	312.89	51.85	313.43	10.00	10.00	0.00
12,700.00	81.88	0.00	12,444.25	362.01	51.85	362.56	10.00	10.00	0.00
12,750.00	86.88	0.00	12,449.15	411.76	51.85	412.30	10.00	10.00	0.00
12,781.22	90.00	0.00	12,450.00	442.96	51.85	443.49	10.00	10.00	0.00
12,800.00	90.00	0.00	12,450.00	461.74	51.85	462.28	0.00	0.00	0.00
12,900.00	90.00	0.00	12,450.00	561.74	51.85	562.27	0.00	0.00	0.00
13,000.00	90.00	0.00	12,450.00	661.74	51.85	662.27	0.00	0.00	0.00
13,100.00	90.00	0.00	12,450.00	761.74	51.85	762.26	0.00	0.00	0.00
13,200.00	90.00	0.00	12,450.00	861.74	51.85	862.25	0.00	0.00	0.00
13,300.00	90.00	0.00	12,450.00	961.74	51.85	962.25	0.00	0.00	0.00
13,400.00	90.00	0.00	12,450.00	1,061.74	51.85	1,062.24	0.00	0.00	0.00
13,500.00	90.00	0.00	12,450.00	1,161.74	51.85	1,162.24	0.00	0.00	0.00
13,600.00	90.00	0.00	12,450.00	1,261.74	51.85	1,262.23	0.00	0.00	0.00
13,700.00	90.00	0.00	12,450.00	1,361.74	51.85	1,362.22	0.00	0.00	0.00
13,800.00	90.00	0.00	12,450.00	1,461.74	51.85	1,462.22	0.00	0.00	0.00
13,900.00	90.00	0.00	12,450.00	1,561.74	51.85	1,562.21	0.00	0.00	0.00
14,000.00	90.00	0.00	12,450.00	1,661.74	51.85	1,662.21	0.00	0.00	0.00
14,100.00	90.00	0.00	12,450.00	1,761.74	51.85	1,762.20	0.00	0.00	0.00
14,200.00	90.00	0.00	12,450.00	1,861.74	51.85	1,862.19	0.00	0.00	0.00
14,300.00	90.00	0.00	12,450.00	1,961.74	51.85	1,962.19	0.00	0.00	0.00
14,400.00	90.00	0.00	12,450.00	2,061.74	51.85	2,062.18	0.00	0.00	0.00
14,500.00	90.00	0.00	12,450.00	2,161.74	51.85	2,162.18	0.00	0.00	0.00
14,600.00	90.00	0.00	12,450.00	2,261.74	51.85	2,262.17	0.00	0.00	0.00

LEAM Drilling Services

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well Flagler 8 Federal 4H
Company:	Devon Energy	TVD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3437.5' GE + 25' KB @ 3462.50usft
Site:	Flagler 8 Federal	North Reference:	Grid
Well:	Flagler 8 Federal 4H	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)
14,700.00	90.00	0.00	12,450.00	2,361.74	51.85	2,362.17	0.00	0.00	0.00
14,800.00	90.00	0.00	12,450.00	2,461.74	51.85	2,462.16	0.00	0.00	0.00
14,900.00	90.00	0.00	12,450.00	2,561.74	51.85	2,562.15	0.00	0.00	0.00
15,000.00	90.00	0.00	12,450.00	2,661.74	51.85	2,662.15	0.00	0.00	0.00
15,100.00	90.00	0.00	12,450.00	2,761.74	51.85	2,762.14	0.00	0.00	0.00
15,200.00	90.00	0.00	12,450.00	2,861.74	51.85	2,862.14	0.00	0.00	0.00
15,300.00	90.00	0.00	12,450.00	2,961.74	51.85	2,962.13	0.00	0.00	0.00
15,400.00	90.00	0.00	12,450.00	3,061.74	51.85	3,062.12	0.00	0.00	0.00
15,500.00	90.00	0.00	12,450.00	3,161.74	51.85	3,162.12	0.00	0.00	0.00
15,600.00	90.00	0.00	12,450.00	3,261.74	51.85	3,262.11	0.00	0.00	0.00
15,700.00	90.00	0.00	12,450.00	3,361.74	51.85	3,362.11	0.00	0.00	0.00
15,800.00	90.00	0.00	12,450.00	3,461.74	51.85	3,462.10	0.00	0.00	0.00
15,900.00	90.00	0.00	12,450.00	3,561.74	51.85	3,562.09	0.00	0.00	0.00
16,000.00	90.00	0.00	12,450.00	3,661.74	51.85	3,662.09	0.00	0.00	0.00
16,100.00	90.00	0.00	12,450.00	3,761.74	51.85	3,762.08	0.00	0.00	0.00
16,200.00	90.00	0.00	12,450.00	3,861.74	51.85	3,862.08	0.00	0.00	0.00
16,300.00	90.00	0.00	12,450.00	3,961.74	51.85	3,962.07	0.00	0.00	0.00
16,400.00	90.00	0.00	12,450.00	4,061.74	51.85	4,062.06	0.00	0.00	0.00
16,500.00	90.00	0.00	12,450.00	4,161.74	51.85	4,162.06	0.00	0.00	0.00
16,600.00	90.00	0.00	12,450.00	4,261.74	51.85	4,262.05	0.00	0.00	0.00
16,700.00	90.00	0.00	12,450.00	4,361.74	51.85	4,362.05	0.00	0.00	0.00
16,800.00	90.00	0.00	12,450.00	4,461.74	51.85	4,462.04	0.00	0.00	0.00
16,900.00	90.00	0.00	12,450.00	4,561.74	51.85	4,562.04	0.00	0.00	0.00
17,000.00	90.00	0.00	12,450.00	4,661.74	51.85	4,662.03	0.00	0.00	0.00
17,108.86	90.00	0.00	12,450.00	4,770.60	51.85	4,770.88	0.00	0.00	0.00
PBHL (Flagler 8 Federal 4H)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (Flagler 8 Federal 4 - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	414,857.90	770,993.68	32° 8' 18.0546 N	103° 35' 28.9364 W
PBHL (Flagler 8 Federal - plan hits target center - Point	0.00	0.00	12,450.00	4,770.60	51.85	419,628.50	771,045.53	32° 9' 5.2578 N	103° 35' 27.9510 W