

HOBBS OCD

APR 29 2016

RECEIVED

DEVON ENERGY

Lea County, NM (NAD-83)

Hognose Viper 23 Fed

8H

OH

Plan: Plan #1

Standard Planning Report

20 May, 2015

MAY 03 2016

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 8H
Company:	DEVON ENERGY	TVD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Site:	Hognose Viper 23 Fed	North Reference:	Grid
Well:	8H	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:	Hognose Viper 23 Fed		
Site Position:		Northing:	467,883.33 usft
From:	Map	Easting:	785,266.95 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 17' 1.746 N
		Longitude:	103° 32' 38.413 W
		Grid Convergence:	0.42 °

Well:	8H		
Well Position	+N/-S	0.46 usft	Northing:
	+E/-W	99.96 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,708.90 usft
		Latitude:	32° 17' 1.743 N
		Longitude:	103° 32' 37.248 W
		Ground Level:	3,683.90 usft

Wellbore:	OH		
Magnetics:	Model Name	Sample Date	Declination
	BGGM2014	5/20/2015	7.27
			Dip Angle
			60.14
			Field Strength
			48,206

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
			(°)
			0.00

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	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	
5,900.00	6.00	223.00	5,899.27	-15.30	-14.27	1.50	1.50	0.00	223.00	
8,930.00	6.00	223.00	8,912.67	-246.94	-230.27	0.00	0.00	0.00	0.00	
9,330.00	0.00	0.00	9,311.94	-262.24	-244.54	1.50	-1.50	0.00	180.00	
9,955.23	0.00	0.00	9,937.17	-262.24	-244.54	0.00	0.00	0.00	0.00	
10,867.23	91.20	360.00	10,510.00	322.71	-244.59	10.00	10.00	0.00	360.00	
15,165.32	91.20	360.00	10,420.00	4,619.86	-244.96	0.00	0.00	0.00	0.00	PBHL (HV23F 8H)

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 8H
Company:	DEVON ENERGY	TVD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Site:	Hognose Viper-23 Fed	North Reference:	Grid
Well:	8H	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 (HV23F 8H)									
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
1,360.00	0.00	0.00	1,360.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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
1,630.00	0.00	0.00	1,630.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
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

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 8H
Company:	DEVON ENERGY	TVD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Site:	Hognose Viper 23 Fed	North Reference:	Gnd
Well:	8H	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)
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
5,090.00	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
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,285.00	0.00	0.00	5,285.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
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
Nudge									
5,600.00	1.50	223.00	5,599.99	-0.96	-0.89	-0.96	1.50	1.50	0.00
5,700.00	3.00	223.00	5,699.91	-3.83	-3.57	-3.83	1.50	1.50	0.00
5,800.00	4.50	223.00	5,799.69	-8.61	-8.03	-8.61	1.50	1.50	0.00
5,900.00	6.00	223.00	5,899.27	-15.30	-14.27	-15.30	1.50	1.50	0.00
Hold									
6,000.00	6.00	223.00	5,998.72	-22.95	-21.40	-22.95	0.00	0.00	0.00
6,100.00	6.00	223.00	6,098.17	-30.59	-28.53	-30.59	0.00	0.00	0.00
6,200.00	6.00	223.00	6,197.63	-38.24	-35.66	-38.24	0.00	0.00	0.00
6,252.66	6.00	223.00	6,250.00	-42.26	-39.41	-42.26	0.00	0.00	0.00
Cherry Canyon									
6,300.00	6.00	223.00	6,297.08	-45.88	-42.79	-45.88	0.00	0.00	0.00
6,400.00	6.00	223.00	6,396.53	-53.53	-49.91	-53.53	0.00	0.00	0.00
6,500.00	6.00	223.00	6,495.98	-61.17	-57.04	-61.17	0.00	0.00	0.00
6,600.00	6.00	223.00	6,595.43	-68.82	-64.17	-68.82	0.00	0.00	0.00
6,700.00	6.00	223.00	6,694.89	-76.46	-71.30	-76.46	0.00	0.00	0.00
6,800.00	6.00	223.00	6,794.34	-84.11	-78.43	-84.11	0.00	0.00	0.00
6,900.00	6.00	223.00	6,893.79	-91.75	-85.56	-91.75	0.00	0.00	0.00
7,000.00	6.00	223.00	6,993.24	-99.40	-92.69	-99.40	0.00	0.00	0.00
7,100.00	6.00	223.00	7,092.70	-107.04	-99.82	-107.04	0.00	0.00	0.00
7,200.00	6.00	223.00	7,192.15	-114.68	-106.95	-114.68	0.00	0.00	0.00
7,300.00	6.00	223.00	7,291.60	-122.33	-114.07	-122.33	0.00	0.00	0.00
7,400.00	6.00	223.00	7,391.05	-129.97	-121.20	-129.97	0.00	0.00	0.00
7,500.00	6.00	223.00	7,490.50	-137.62	-128.33	-137.62	0.00	0.00	0.00
7,600.00	6.00	223.00	7,589.96	-145.26	-135.46	-145.26	0.00	0.00	0.00
7,600.04	6.00	223.00	7,590.00	-145.27	-135.46	-145.27	0.00	0.00	0.00
Brushy Canyon									
7,700.00	6.00	223.00	7,689.41	-152.91	-142.59	-152.91	0.00	0.00	0.00
7,800.00	6.00	223.00	7,788.86	-160.55	-149.72	-160.55	0.00	0.00	0.00
7,900.00	6.00	223.00	7,888.31	-168.20	-156.85	-168.20	0.00	0.00	0.00
8,000.00	6.00	223.00	7,987.77	-175.84	-163.98	-175.84	0.00	0.00	0.00
8,100.00	6.00	223.00	8,087.22	-183.49	-171.10	-183.49	0.00	0.00	0.00
8,200.00	6.00	223.00	8,186.67	-191.13	-178.23	-191.13	0.00	0.00	0.00
8,300.00	6.00	223.00	8,286.12	-198.78	-185.36	-198.78	0.00	0.00	0.00
8,400.00	6.00	223.00	8,385.57	-206.42	-192.49	-206.42	0.00	0.00	0.00
8,500.00	6.00	223.00	8,485.03	-214.07	-199.62	-214.07	0.00	0.00	0.00
8,600.00	6.00	223.00	8,584.48	-221.71	-206.75	-221.71	0.00	0.00	0.00
8,700.00	6.00	223.00	8,683.93	-229.36	-213.88	-229.36	0.00	0.00	0.00
8,800.00	6.00	223.00	8,783.38	-237.00	-221.01	-237.00	0.00	0.00	0.00
8,900.00	6.00	223.00	8,882.84	-244.65	-228.14	-244.65	0.00	0.00	0.00
8,930.00	6.00	223.00	8,912.67	-246.94	-230.27	-246.94	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 8H
Company:	DEVON ENERGY	TVD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Site:	Hognose Viper 23 Fed	North Reference:	Grid
Well:	8H	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)
Drop									
9,000.00	4.95	223.00	8,982.35	-251.82	-234.83	-251.82	1.50	-1.50	0.00
9,100.00	3.45	223.00	9,082.08	-257.18	-239.82	-257.18	1.50	-1.50	0.00
9,168.01	2.43	223.00	9,150.00	-259.73	-242.20	-259.73	1.50	-1.50	0.00
Bone Spring									
9,200.00	1.95	223.00	9,181.97	-260.62	-243.04	-260.62	1.50	-1.50	0.00
9,300.00	0.45	223.00	9,281.94	-262.16	-244.46	-262.16	1.50	-1.50	0.00
9,330.00	0.00	0.00	9,311.94	-262.24	-244.54	-262.24	1.50	-1.50	0.00
Hold									
9,400.00	0.00	0.00	9,381.94	-262.24	-244.54	-262.24	0.00	0.00	0.00
9,500.00	0.00	0.00	9,481.94	-262.24	-244.54	-262.24	0.00	0.00	0.00
9,600.00	0.00	0.00	9,581.94	-262.24	-244.54	-262.24	0.00	0.00	0.00
9,700.00	0.00	0.00	9,681.94	-262.24	-244.54	-262.24	0.00	0.00	0.00
9,800.00	0.00	0.00	9,781.94	-262.24	-244.54	-262.24	0.00	0.00	0.00
9,900.00	0.00	0.00	9,881.94	-262.24	-244.54	-262.24	0.00	0.00	0.00
9,955.23	0.00	0.00	9,937.17	-262.24	-244.54	-262.24	0.00	0.00	0.00
KOP 10° DLS									
10,000.00	4.48	360.00	9,981.89	-260.49	-244.54	-260.49	10.00	10.00	0.00
10,050.00	9.48	360.00	10,031.51	-254.42	-244.55	-254.42	10.00	10.00	0.00
10,100.00	14.48	360.00	10,080.40	-244.05	-244.55	-244.05	10.00	10.00	0.00
10,150.00	19.48	360.00	10,128.21	-229.45	-244.55	-229.45	10.00	10.00	0.00
10,200.00	24.48	360.00	10,174.56	-210.75	-244.55	-210.75	10.00	10.00	0.00
10,250.00	29.48	360.00	10,219.11	-188.07	-244.55	-188.07	10.00	10.00	0.00
10,286.15	33.09	360.00	10,250.00	-169.30	-244.55	-169.30	10.00	10.00	0.00
1st BS SS									
10,300.00	34.48	360.00	10,261.51	-161.60	-244.55	-161.60	10.00	10.00	0.00
10,350.00	39.48	360.00	10,301.44	-131.54	-244.56	-131.54	10.00	10.00	0.00
10,400.00	44.48	360.00	10,338.60	-98.11	-244.56	-98.11	10.00	10.00	0.00
10,450.00	49.48	360.00	10,372.70	-61.57	-244.56	-61.57	10.00	10.00	0.00
10,500.00	54.48	360.00	10,403.49	-22.19	-244.57	-22.19	10.00	10.00	0.00
10,550.00	59.48	360.00	10,430.73	19.72	-244.57	19.72	10.00	10.00	0.00
10,600.00	64.48	360.00	10,454.21	63.84	-244.57	63.84	10.00	10.00	0.00
10,650.00	69.48	360.00	10,473.76	109.85	-244.58	109.85	10.00	10.00	0.00
10,700.00	74.48	360.00	10,489.23	157.38	-244.58	157.38	10.00	10.00	0.00
10,750.00	79.48	360.00	10,500.49	206.08	-244.58	206.08	10.00	10.00	0.00
10,800.00	84.48	360.00	10,507.47	255.57	-244.59	255.57	10.00	10.00	0.00
10,850.00	89.48	360.00	10,510.10	305.49	-244.59	305.49	10.00	10.00	0.00
10,867.23	91.20	360.00	10,510.00	322.71	-244.59	322.71	10.00	10.00	0.00
LP									
10,900.00	91.20	360.00	10,509.32	355.48	-244.60	355.48	0.00	0.00	0.00
11,000.00	91.20	360.00	10,507.22	455.46	-244.61	455.46	0.00	0.00	0.00
11,100.00	91.20	360.00	10,505.13	555.43	-244.61	555.43	0.00	0.00	0.00
11,200.00	91.20	360.00	10,503.03	655.41	-244.62	655.41	0.00	0.00	0.00
11,300.00	91.20	360.00	10,500.94	755.39	-244.63	755.39	0.00	0.00	0.00
11,400.00	91.20	360.00	10,498.85	855.37	-244.64	855.37	0.00	0.00	0.00
11,500.00	91.20	360.00	10,496.75	955.35	-244.65	955.35	0.00	0.00	0.00
11,600.00	91.20	360.00	10,494.66	1,055.32	-244.66	1,055.32	0.00	0.00	0.00
11,700.00	91.20	360.00	10,492.56	1,155.30	-244.67	1,155.30	0.00	0.00	0.00
11,800.00	91.20	360.00	10,490.47	1,255.28	-244.67	1,255.28	0.00	0.00	0.00
11,900.00	91.20	360.00	10,488.38	1,355.26	-244.68	1,355.26	0.00	0.00	0.00
12,000.00	91.20	360.00	10,486.28	1,455.24	-244.69	1,455.24	0.00	0.00	0.00
12,100.00	91.20	360.00	10,484.19	1,555.21	-244.70	1,555.21	0.00	0.00	0.00
12,200.00	91.20	360.00	10,482.09	1,655.19	-244.71	1,655.19	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 8H
Company:	DEVON ENERGY	TVD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Site:	Hognose Viper 23 Fed	North Reference:	Grid
Well:	8H	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)
12,300.00	91.20	360.00	10,480.00	1,755.17	-244.72	1,755.17	0.00	0.00	0.00
12,400.00	91.20	360.00	10,477.91	1,855.15	-244.72	1,855.15	0.00	0.00	0.00
12,500.00	91.20	360.00	10,475.81	1,955.13	-244.73	1,955.13	0.00	0.00	0.00
12,600.00	91.20	360.00	10,473.72	2,055.10	-244.74	2,055.10	0.00	0.00	0.00
12,700.00	91.20	360.00	10,471.62	2,155.08	-244.75	2,155.08	0.00	0.00	0.00
12,800.00	91.20	360.00	10,469.53	2,255.06	-244.76	2,255.06	0.00	0.00	0.00
12,900.00	91.20	360.00	10,467.44	2,355.04	-244.77	2,355.04	0.00	0.00	0.00
13,000.00	91.20	360.00	10,465.34	2,455.02	-244.78	2,455.02	0.00	0.00	0.00
13,100.00	91.20	360.00	10,463.25	2,555.00	-244.78	2,555.00	0.00	0.00	0.00
13,200.00	91.20	360.00	10,461.15	2,654.97	-244.79	2,654.97	0.00	0.00	0.00
13,300.00	91.20	360.00	10,459.06	2,754.95	-244.80	2,754.95	0.00	0.00	0.00
13,400.00	91.20	360.00	10,456.97	2,854.93	-244.81	2,854.93	0.00	0.00	0.00
13,500.00	91.20	360.00	10,454.87	2,954.91	-244.82	2,954.91	0.00	0.00	0.00
13,600.00	91.20	360.00	10,452.78	3,054.89	-244.83	3,054.89	0.00	0.00	0.00
13,700.00	91.20	360.00	10,450.68	3,154.86	-244.84	3,154.86	0.00	0.00	0.00
13,800.00	91.20	360.00	10,448.59	3,254.84	-244.84	3,254.84	0.00	0.00	0.00
13,900.00	91.20	360.00	10,446.50	3,354.82	-244.85	3,354.82	0.00	0.00	0.00
14,000.00	91.20	360.00	10,444.40	3,454.80	-244.86	3,454.80	0.00	0.00	0.00
14,100.00	91.20	360.00	10,442.31	3,554.78	-244.87	3,554.78	0.00	0.00	0.00
14,200.00	91.20	360.00	10,440.21	3,654.75	-244.88	3,654.75	0.00	0.00	0.00
14,300.00	91.20	360.00	10,438.12	3,754.73	-244.89	3,754.73	0.00	0.00	0.00
14,400.00	91.20	360.00	10,436.03	3,854.71	-244.89	3,854.71	0.00	0.00	0.00
14,500.00	91.20	360.00	10,433.93	3,954.69	-244.90	3,954.69	0.00	0.00	0.00
14,600.00	91.20	360.00	10,431.84	4,054.67	-244.91	4,054.67	0.00	0.00	0.00
14,700.00	91.20	360.00	10,429.74	4,154.64	-244.92	4,154.64	0.00	0.00	0.00
14,800.00	91.20	360.00	10,427.65	4,254.62	-244.93	4,254.62	0.00	0.00	0.00
14,900.00	91.20	360.00	10,425.56	4,354.60	-244.94	4,354.60	0.00	0.00	0.00
15,000.00	91.20	360.00	10,423.46	4,454.58	-244.95	4,454.58	0.00	0.00	0.00
15,100.00	91.20	360.00	10,421.37	4,554.56	-244.95	4,554.56	0.00	0.00	0.00
15,165.32	91.20	360.00	10,420.00	4,619.86	-244.96	4,619.86	0.00	0.00	0.00
TD - PBHL (HV23F 8H)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (HV23F 8H)	0.00	0.00	0.00	0.00	0.00	467,883.79	785,366.91	32° 17' 1.743 N	103° 32' 37.248 W
- plan hits target center									
- Point									
PBHL (HV23F 8H)	0.00	0.00	10,420.00	4,619.86	-244.96	472,503.65	785,121.95	32° 17' 47.474 N	103° 32' 39.706 W
- plan hits target center									
- Point									

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 8H
Company:	DEVON ENERGY	TVD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3683.9' GL + 25' RKB @ 3708.90usft
Site:	Hognose Viper 23 Fed	North Reference:	Grid
Well:	8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,360.00	1,360.00	Rustler		0.00	
1,630.00	1,630.00	Top Salt		0.00	
5,090.00	5,090.00	Base Salt		0.00	
5,285.00	5,285.00	Delaware		0.00	
6,252.66	6,250.00	Cherry Canyon		0.00	
7,600.04	7,590.00	Brushy Canyon		0.00	
9,168.01	9,150.00	Bone Spring		0.00	
10,286.15	10,250.00	1st BS SS		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,500.00	5,500.00	0.00	0.00	Nudge	
5,900.00	5,899.27	-15.30	-14.27	Hold	
8,930.00	8,912.67	-246.94	-230.27	Drop	
9,330.00	9,311.94	-262.24	-244.54	Hold	
9,955.23	9,937.17	-262.24	-244.54	KOP 10° DLS	
10,867.23	10,510.00	322.71	-244.59	LP	
15,165.32	10,420.00	4,619.86	-244.96	TD	