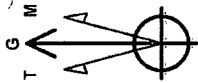
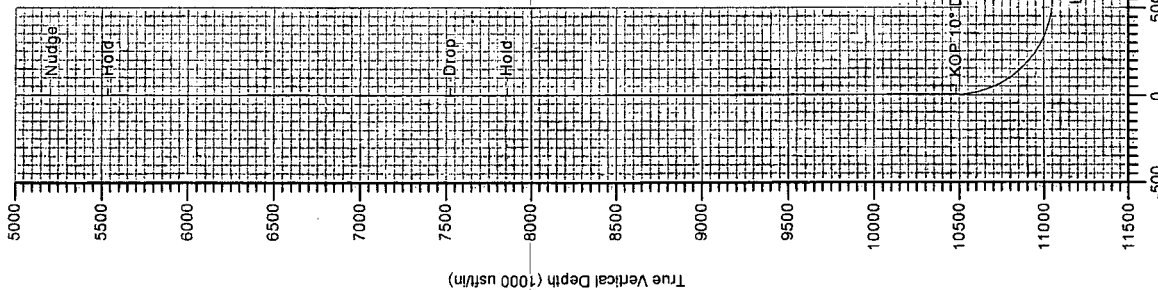




Project: Lea County, NM (NAD-83)
Site: Blue Krait 23 Fed
Well: 1H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.89°
Magnetic Field
Strength: 48207.9snT
Dip Angle: 60.07°
Date: 12/10/2014
Model: BGGM2014

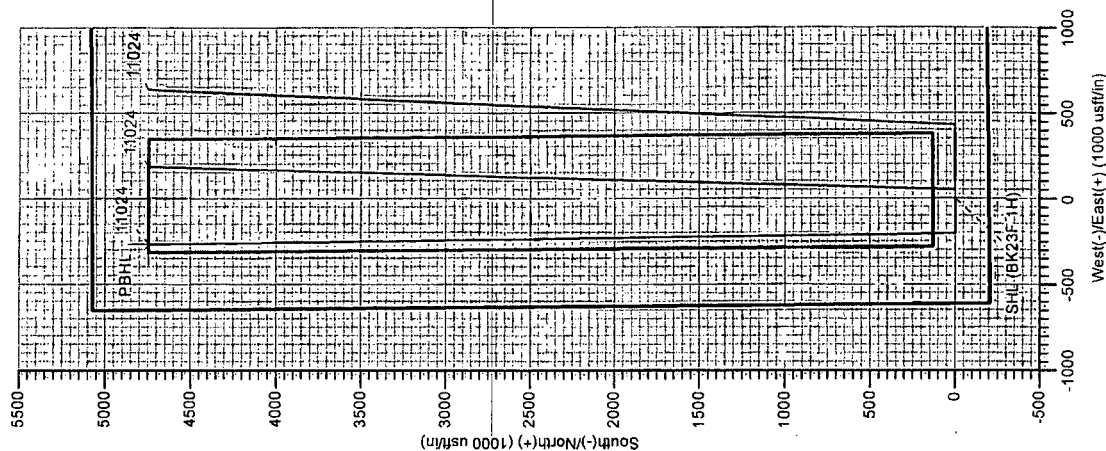


DESIGN TARGET DETAILS				
Name	TVD	+N/-S	+E/-W	Northing
SHL (BK23F 1H)	0.00	0.00	0.00	436068.01
PBHL (BK23F 1H)	11024.00	4745.15	-286.94	440813.16

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00	0.00	0.00	
5533.33	5.00	270.00	5532.91	0.00	-14.54	1.50	270.00	0.20	
7533.33	5.00	270.00	7525.30	0.00	-188.85	0.00	0.00	2.54	
7866.67	0.00	0.00	7858.21	0.00	-203.38	1.50	180.00	2.73	
10489.52	0.00	0.00	10481.06	0.00	-203.38	1.50	0.00	2.73	
11393.84	90.41	359.23	11054.00	577.03	-211.11	10.00	359.23	579.81	
15562.24	90.41	359.23	11024.00	4745.15	-266.94	0.00	0.00	4748.31	

FORMATION TOP DETAILS		PROJECT DETAILS: Lea County, NM	
TVDPath	MDPath	Geodetic System:	US State Plane 1983
1290.00	1290.00	Datum:	North American Datum-1983
1770.00	1770.00	Ellipsoid:	GRS 1980
5190.00	5190.00	Zone:	New Mexico Eastern Zone
6060.00	6062.44	System Datum:	Mean Sea Level
7640.00	7648.34		
9070.00	9078.46		
10640.00	10650.57		

Target Line:	
TL#1: LP 11054' TVD, TD 11024' TVD	



JAN 12 2016
JAN 7 @ 2:00 PM



DEVON ENERGY

Lea County, NM (NAD-83)

Blue Krait 23 Fed

1H

OH

Plan: Plan #1

Standard Planning Report

12 October, 2015





LEAM Drilling Systems LLC
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well: 1H
Company:	DEVON ENERGY	TVD Reference:	3551.3 GL + 25 RKB @ 3576.30usft
Project:	Lea County NM (NAD-83)	MD Reference:	3551.3 GL + 25 RKB @ 3576.30usft
Site:	Blue Krait 23 Fed	North Reference:	Grid
Well:	1H	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:	Blue Krait 23 Fed		
Site Position:		Northing:	436,068.33 usft
From:	Map	Easting:	783,797.48 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 11' 47.039 N
		Longitude:	103° 32' 58.234 W
		Grid Convergence:	0.42 °

Well:	1H		
Well Position	+N/-S	-0.32 usft	Northing:
	+E/-W	-49.95 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,576.30 usft
		Latitude:	32° 11' 47.040 N
		Longitude:	103° 32' 58.815 W
		Ground Level:	3,551.30 usft

Wellbore:	OH		
Magnetics	Model Name	Sample Date	Declination
	BGGM2014	12/10/2014	7.31
			Dip Angle
			60.07
			Field Strength
			48,208

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
			359.23

Plan Sections									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)
(usft)			(usft)			(%/100usft)	(%/100usft)	(%/100usft)	Target
0.00	0.00	0.00	0.00	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
5,533.33	5.00	270.00	5,532.91	0.00	-14.54	1.50	1.50	0.00	270.00
7,533.33	5.00	270.00	7,525.30	0.00	-188.85	0.00	0.00	0.00	0.00
7,866.67	0.00	0.00	7,858.21	0.00	-203.38	1.50	-1.50	0.00	180.00
10,489.52	0.00	0.00	10,481.06	0.00	-203.38	0.00	0.00	0.00	0.00
11,393.64	90.41	359.23	11,054.00	577.03	-211.11	10.00	10.00	-0.08	359.23
15,562.24	90.41	359.23	11,024.00	4,745.15	-266.94	0.00	0.00	0.00	0.00 PBHL (BK23F 1H)



LEAM Drilling Systems LLC
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well: 1H
Company:	DEVON ENERGY	TVD Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Project:	Lea County NM (NAD-83)	MD Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Site:	Blue Krait 23 Fed	North Reference:	Grid
Well:	1H	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 (BK23F 1H)									
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
1,290.00	0.00	0.00	1,290.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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
1,770.00	0.00	0.00	1,770.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
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 1H
Company:	DEVON ENERGY	TVD Reference:	3551.3 GL + 25' RKB @ 3576.30usft
Project:	Lea County NM (NAD-83)	MD Reference:	3551.3 GL + 25' RKB @ 3576.30usft
Site:	Blue Krait 23 Fed	North Reference:	Grid
Well:	1H	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
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,190.00	0.00	0.00	5,190.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
Nudge									
5,300.00	1.50	270.00	5,299.99	0.00	-1.31	0.02	1.50	1.50	0.00
5,400.00	3.00	270.00	5,399.91	0.00	-5.23	0.07	1.50	1.50	0.00
5,500.00	4.50	270.00	5,499.69	0.00	-11.77	0.16	1.50	1.50	0.00
5,533.33	5.00	270.00	5,532.91	0.00	-14.54	0.20	1.50	1.50	0.00
Hold									
5,600.00	5.00	270.00	5,599.32	0.00	-20.35	0.27	0.00	0.00	0.00
5,700.00	5.00	270.00	5,698.94	0.00	-29.06	0.39	0.00	0.00	0.00
5,800.00	5.00	270.00	5,798.56	0.00	-37.78	0.51	0.00	0.00	0.00
5,900.00	5.00	270.00	5,898.18	0.00	-46.49	0.62	0.00	0.00	0.00
6,000.00	5.00	270.00	5,997.80	0.00	-55.21	0.74	0.00	0.00	0.00
6,062.44	5.00	270.00	6,060.00	0.00	-60.65	0.82	0.00	0.00	0.00
Cherry Canyon									
6,100.00	5.00	270.00	6,097.42	0.00	-63.92	0.86	0.00	0.00	0.00
6,200.00	5.00	270.00	6,197.04	0.00	-72.64	0.98	0.00	0.00	0.00
6,300.00	5.00	270.00	6,296.66	0.00	-81.35	1.09	0.00	0.00	0.00
6,400.00	5.00	270.00	6,396.28	0.00	-90.07	1.21	0.00	0.00	0.00
6,500.00	5.00	270.00	6,495.90	0.00	-98.79	1.33	0.00	0.00	0.00
6,600.00	5.00	270.00	6,595.52	0.00	-107.50	1.44	0.00	0.00	0.00
6,700.00	5.00	270.00	6,695.14	0.00	-116.22	1.56	0.00	0.00	0.00
6,800.00	5.00	270.00	6,794.76	0.00	-124.93	1.68	0.00	0.00	0.00
6,900.00	5.00	270.00	6,894.38	0.00	-133.65	1.80	0.00	0.00	0.00
7,000.00	5.00	270.00	6,994.00	0.00	-142.36	1.91	0.00	0.00	0.00
7,100.00	5.00	270.00	7,093.62	0.00	-151.08	2.03	0.00	0.00	0.00
7,200.00	5.00	270.00	7,193.24	0.00	-159.79	2.15	0.00	0.00	0.00
7,300.00	5.00	270.00	7,292.85	0.00	-168.51	2.26	0.00	0.00	0.00
7,400.00	5.00	270.00	7,392.47	0.00	-177.23	2.38	0.00	0.00	0.00
7,500.00	5.00	270.00	7,492.09	0.00	-185.94	2.50	0.00	0.00	0.00
7,533.33	5.00	270.00	7,525.30	0.00	-188.85	2.54	0.00	0.00	0.00
Drop									
7,600.00	4.00	270.00	7,591.76	0.00	-194.08	2.61	1.50	-1.50	0.00
7,648.34	3.27	270.00	7,640.00	0.00	-197.14	2.65	1.50	-1.50	0.00
Brushy Canyon									
7,700.00	2.50	270.00	7,691.60	0.00	-199.75	2.68	1.50	-1.50	0.00
7,800.00	1.00	270.00	7,791.55	0.00	-202.80	2.73	1.50	-1.50	0.00
7,866.67	0.00	0.00	7,858.21	0.00	-203.38	2.73	1.50	-1.50	0.00
Hold									
7,900.00	0.00	0.00	7,891.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,000.00	0.00	0.00	7,991.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,100.00	0.00	0.00	8,091.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,200.00	0.00	0.00	8,191.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,300.00	0.00	0.00	8,291.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,400.00	0.00	0.00	8,391.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,500.00	0.00	0.00	8,491.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,600.00	0.00	0.00	8,591.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,700.00	0.00	0.00	8,691.54	0.00	-203.38	2.73	0.00	0.00	0.00



LEAM Drilling Systems LLC

Planning Report



Database:	EDM 5000.1 Single User Db.	Local Co-ordinate Reference:	Well 1H
Company:	DEVON ENERGY	TVD Reference:	3551.3 GL - 25 RKB @ 3576.30usft
Project:	Lea County, NM (NAD:83)	MD Reference:	3551.3 GL - 25 RKB @ 3576.30usft
Site:	Blue Krait 23 Fed	North Reference:	Grid
Well:	1H	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)	Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,800.00	0.00	0.00	8,791.54	0.00	-203.38	2.73	0.00	0.00	0.00
8,900.00	0.00	0.00	8,891.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,000.00	0.00	0.00	8,991.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,078.46	0.00	0.00	9,070.00	0.00	-203.38	2.73	0.00	0.00	0.00
Bone Spring									
9,100.00	0.00	0.00	9,091.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,200.00	0.00	0.00	9,191.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,300.00	0.00	0.00	9,291.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,400.00	0.00	0.00	9,391.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,500.00	0.00	0.00	9,491.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,600.00	0.00	0.00	9,591.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,700.00	0.00	0.00	9,691.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,800.00	0.00	0.00	9,791.54	0.00	-203.38	2.73	0.00	0.00	0.00
9,900.00	0.00	0.00	9,891.54	0.00	-203.38	2.73	0.00	0.00	0.00
10,000.00	0.00	0.00	9,991.54	0.00	-203.38	2.73	0.00	0.00	0.00
10,100.00	0.00	0.00	10,091.54	0.00	-203.38	2.73	0.00	0.00	0.00
10,200.00	0.00	0.00	10,191.54	0.00	-203.38	2.73	0.00	0.00	0.00
10,300.00	0.00	0.00	10,291.54	0.00	-203.38	2.73	0.00	0.00	0.00
10,400.00	0.00	0.00	10,391.54	0.00	-203.38	2.73	0.00	0.00	0.00
10,489.52	0.00	0.00	10,481.06	0.00	-203.38	2.73	0.00	0.00	0.00
KOP 10° DLS									
10,500.00	1.05	359.23	10,491.54	0.10	-203.38	2.83	10.00	10.00	0.00
10,550.00	6.05	359.23	10,541.43	3.19	-203.42	5.92	10.00	10.00	0.00
10,600.00	11.05	359.23	10,590.86	10.62	-203.52	13.35	10.00	10.00	0.00
10,650.00	16.05	359.23	10,639.45	22.33	-203.68	25.06	10.00	10.00	0.00
10,650.57	16.11	359.23	10,640.00	22.48	-203.68	25.22	10.00	10.00	0.00
2nd BS									
10,700.00	21.05	359.23	10,686.84	38.23	-203.89	40.96	10.00	10.00	0.00
10,750.00	26.05	359.23	10,732.66	58.19	-204.16	60.93	10.00	10.00	0.00
10,800.00	31.05	359.23	10,776.57	82.08	-204.48	84.82	10.00	10.00	0.00
10,850.00	36.05	359.23	10,818.23	109.70	-204.85	112.44	10.00	10.00	0.00
10,900.00	41.05	359.23	10,857.32	140.85	-205.27	143.59	10.00	10.00	0.00
10,950.00	46.05	359.23	10,893.55	175.28	-205.73	178.03	10.00	10.00	0.00
11,000.00	51.05	359.23	10,926.64	212.74	-206.23	215.49	10.00	10.00	0.00
11,050.00	56.05	359.23	10,956.33	252.94	-206.77	255.70	10.00	10.00	0.00
11,100.00	61.05	359.23	10,982.41	295.58	-207.34	298.34	10.00	10.00	0.00
11,150.00	66.05	359.23	11,004.68	340.33	-207.94	343.09	10.00	10.00	0.00
11,200.00	71.05	359.23	11,022.96	386.84	-208.56	389.61	10.00	10.00	0.00
11,250.00	76.05	359.23	11,037.12	434.78	-209.21	437.55	10.00	10.00	0.00
11,300.00	81.05	359.23	11,047.04	483.76	-209.86	486.54	10.00	10.00	0.00
11,350.00	86.05	359.23	11,052.66	533.42	-210.53	536.21	10.00	10.00	0.00
11,393.64	90.41	359.23	11,054.00	577.03	-211.11	579.81	10.00	10.00	0.00
LP									
11,400.00	90.41	359.23	11,053.96	583.39	-211.20	586.17	0.00	0.00	0.00
11,500.00	90.41	359.23	11,053.24	683.38	-212.54	686.17	0.00	0.00	0.00
11,600.00	90.41	359.23	11,052.52	783.37	-213.87	786.17	0.00	0.00	0.00
11,700.00	90.41	359.23	11,051.80	883.35	-215.21	886.17	0.00	0.00	0.00
11,800.00	90.41	359.23	11,051.08	983.34	-216.55	986.16	0.00	0.00	0.00
11,900.00	90.41	359.23	11,050.36	1,083.33	-217.89	1,086.16	0.00	0.00	0.00
12,000.00	90.41	359.23	11,049.64	1,183.32	-219.23	1,186.16	0.00	0.00	0.00
12,100.00	90.41	359.23	11,048.92	1,283.31	-220.57	1,286.16	0.00	0.00	0.00
12,200.00	90.41	359.23	11,048.20	1,383.30	-221.91	1,386.15	0.00	0.00	0.00
12,300.00	90.41	359.23	11,047.48	1,483.28	-223.25	1,486.15	0.00	0.00	0.00



LEAM Drilling Systems LLC

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 1H
Company:	DEVON ENERGY	TVD Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Project:	Lea County NM (NAD-83)	MD Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Site:	Blue Krait 23 Fed	North Reference:	Grid
Well:	1H	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)
12,400.00	90.41	359.23	11,046.76	1,583.27	-224.59	1,586.15	0.00	0.00	0.00
12,500.00	90.41	359.23	11,046.04	1,683.26	-225.93	1,686.15	0.00	0.00	0.00
12,600.00	90.41	359.23	11,045.32	1,783.25	-227.27	1,786.14	0.00	0.00	0.00
12,700.00	90.41	359.23	11,044.60	1,883.24	-228.61	1,886.14	0.00	0.00	0.00
12,800.00	90.41	359.23	11,043.88	1,983.23	-229.95	1,986.14	0.00	0.00	0.00
12,900.00	90.41	359.23	11,043.16	2,083.22	-231.29	2,086.14	0.00	0.00	0.00
13,000.00	90.41	359.23	11,042.44	2,183.20	-232.62	2,186.13	0.00	0.00	0.00
13,100.00	90.41	359.23	11,041.72	2,283.19	-233.96	2,286.13	0.00	0.00	0.00
13,200.00	90.41	359.23	11,041.00	2,383.18	-235.30	2,386.13	0.00	0.00	0.00
13,300.00	90.41	359.23	11,040.28	2,483.17	-236.64	2,486.13	0.00	0.00	0.00
13,400.00	90.41	359.23	11,039.56	2,583.16	-237.98	2,586.12	0.00	0.00	0.00
13,500.00	90.41	359.23	11,038.84	2,683.15	-239.32	2,686.12	0.00	0.00	0.00
13,600.00	90.41	359.23	11,038.12	2,783.13	-240.66	2,786.12	0.00	0.00	0.00
13,700.00	90.41	359.23	11,037.40	2,883.12	-242.00	2,886.11	0.00	0.00	0.00
13,800.00	90.41	359.23	11,036.68	2,983.11	-243.34	2,986.11	0.00	0.00	0.00
13,900.00	90.41	359.23	11,035.96	3,083.10	-244.68	3,086.11	0.00	0.00	0.00
14,000.00	90.41	359.23	11,035.24	3,183.09	-246.02	3,186.11	0.00	0.00	0.00
14,100.00	90.41	359.23	11,034.52	3,283.08	-247.36	3,286.10	0.00	0.00	0.00
14,200.00	90.41	359.23	11,033.80	3,383.07	-248.70	3,386.10	0.00	0.00	0.00
14,300.00	90.41	359.23	11,033.09	3,483.05	-250.04	3,486.10	0.00	0.00	0.00
14,400.00	90.41	359.23	11,032.37	3,583.04	-251.37	3,586.10	0.00	0.00	0.00
14,500.00	90.41	359.23	11,031.65	3,683.03	-252.71	3,686.09	0.00	0.00	0.00
14,600.00	90.41	359.23	11,030.93	3,783.02	-254.05	3,786.09	0.00	0.00	0.00
14,700.00	90.41	359.23	11,030.21	3,883.01	-255.39	3,886.09	0.00	0.00	0.00
14,800.00	90.41	359.23	11,029.49	3,983.00	-256.73	3,986.09	0.00	0.00	0.00
14,900.00	90.41	359.23	11,028.77	4,082.98	-258.07	4,086.08	0.00	0.00	0.00
15,000.00	90.41	359.23	11,028.05	4,182.97	-259.41	4,186.08	0.00	0.00	0.00
15,100.00	90.41	359.23	11,027.33	4,282.96	-260.75	4,286.08	0.00	0.00	0.00
15,200.00	90.41	359.23	11,026.61	4,382.95	-262.09	4,386.08	0.00	0.00	0.00
15,300.00	90.41	359.23	11,025.89	4,482.94	-263.43	4,486.07	0.00	0.00	0.00
15,400.00	90.41	359.23	11,025.17	4,582.93	-264.77	4,586.07	0.00	0.00	0.00
15,500.00	90.41	359.23	11,024.45	4,682.92	-266.11	4,686.07	0.00	0.00	0.00
15,562.24	90.41	359.23	11,024.00	4,745.15	-266.94	4,748.31	0.00	0.00	0.00
TD - PBHL (BK23F 1H)									

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 (BK23F 1H)	0.00	0.00	0.00	0.00	0.00	436,068.01	783,747.53	32° 11' 47.040 N	103° 32' 58.815 W
- plan hits target center									
- Point									
PBHL (BK23F 1H)	0.00	0.00	11,024.00	4,745.15	-266.94	440,813.16	783,480.59	32° 12' 34.013 N	103° 33' 1.520 W
- plan hits target center									
- Point									



Database:	EDM 5000.1 Single User Db	Local/Co-ordinate Reference:	Well 1H
Company:	DEVON ENERGY	TVD/Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Project:	Lea County NM (NAD-83)	MD/Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Site:	Blue Krait 23 Fed	North Reference:	Grid
Well:	1H	Survey Calculation/Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Direction (°)	
1,290.00	1,290.00	Rustler		0.00		
1,770.00	1,770.00	Top Salt		0.00		
5,190.00	5,190.00	Delaware		0.00		
6,062.44	6,060.00	Cherry Canyon		0.00		
7,648.34	7,640.00	Brushy Canyon		0.00		
9,078.46	9,070.00	Bone Spring		0.00		
10,650.57	10,640.00	2nd BS		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		N/S (usft)	E/W (usft)	Comment	
5,200.00	5,200.00	0.00	0.00	Nudge	
5,533.33	5,532.91	0.00	-14.54	Hold	
7,533.33	7,525.30	0.00	-188.85	Drop	
7,866.67	7,858.21	0.00	-203.38	Hold	
10,489.52	10,481.06	0.00	-203.38	KOP 10° DLS	
11,393.64	11,054.00	577.03	-211.11	LP	
15,562.24	11,024.00	4,745.15	-266.94	TD	



DEVON ENERGY

Lea County, NM (NAD-83)

Blue Krait 23 Fed

1H

OH

Plan #1

Anticollision Report

12 October, 2015





LEAM Drilling Systems LLC
Anticollision Report



Company:	DEVON ENERGY	Local/Co-ordinate Reference:	Well 1H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3551.3 GL +25' RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD Reference:	3551.3 GL +25' RKB @ 3576.30usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference:	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool/Program		Date: 10/12/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,562.24	Plan #1 (OH)	LEAM MWD-ADJ	MWD - Standard

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Blue Krait 23 Fed						
10H - OH - Plan #1	5,200.00	5,200.00	49.95	26.86	2.163	CC, ES, SF
5H - OH - Plan #1	5,200.00	5,199.60	99.97	76.88	4.329	CC, ES, SF

Offset Design	Blue Krait 23 Fed - 10H - OH - Plan #1										Offset Site Error:	0.00 usft
Survey Program:	LEAM MWD-ADJ										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	N/S (usft)	E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	89.63	0.32	49.95	49.95			
100.00	100.00	100.00	100.00	0.08	0.08	89.63	0.32	49.95	49.95	49.78	0.17	296.314
200.00	200.00	200.00	200.00	0.31	0.31	89.63	0.32	49.95	49.95	49.33	0.62	80.813
300.00	300.00	300.00	300.00	0.53	0.53	89.63	0.32	49.95	49.95	48.88	1.07	46.786
400.00	400.00	400.00	400.00	0.76	0.76	89.63	0.32	49.95	49.95	48.43	1.52	32.924
500.00	500.00	500.00	500.00	0.98	0.98	89.63	0.32	49.95	49.95	47.98	1.97	25.398
600.00	600.00	600.00	600.00	1.21	1.21	89.63	0.32	49.95	49.95	47.53	2.42	20.673
700.00	700.00	700.00	700.00	1.43	1.43	89.63	0.32	49.95	49.95	47.09	2.87	17.430
800.00	800.00	800.00	800.00	1.66	1.66	89.63	0.32	49.95	49.95	46.64	3.32	15.067
900.00	900.00	900.00	900.00	1.88	1.88	89.63	0.32	49.95	49.95	46.19	3.76	13.268
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	89.63	0.32	49.95	49.95	45.74	4.21	11.853
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	89.63	0.32	49.95	49.95	45.29	4.66	10.710
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	89.63	0.32	49.95	49.95	44.84	5.11	9.769
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	89.63	0.32	49.95	49.95	44.39	5.56	8.979
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	89.63	0.32	49.95	49.95	43.94	6.01	8.308
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	89.63	0.32	49.95	49.95	43.49	6.46	7.730
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	89.63	0.32	49.95	49.95	43.04	6.91	7.227
1,700.00	1,700.00	1,700.00	1,700.00	3.68	3.68	89.63	0.32	49.95	49.95	42.59	7.36	6.786
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	89.63	0.32	49.95	49.95	42.14	7.81	6.395
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	89.63	0.32	49.95	49.95	41.69	8.25	6.047
2,000.00	2,000.00	2,000.00	2,000.00	4.35	4.35	89.63	0.32	49.95	49.95	41.24	8.71	5.735
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	89.63	0.32	49.95	49.95	40.79	9.16	5.454
2,200.00	2,200.00	2,200.00	2,200.00	4.80	4.80	89.63	0.32	49.95	49.95	40.34	9.61	5.198
2,300.00	2,300.00	2,300.00	2,300.00	5.03	5.03	89.63	0.32	49.95	49.95	39.89	10.06	4.966
2,400.00	2,400.00	2,400.00	2,400.00	5.25	5.25	89.63	0.32	49.95	49.95	39.44	10.51	4.754

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



LEAM Drilling Systems LLC

Anticollision Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well: 1H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3551.3 GL - 25 RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD Reference:	3551.3 GL - 25 RKB @ 3576.30usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Blue Krait 23 Fed - 10H - OH - Plan #1												Offset Site Error: 0.00 usft	
Survey Program: LEAM MWD-ADJ												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,500.00	2,500.00	2,500.00	2,500.00	5.48	5.48	89.63	0.32	49.95	49.95	38.99	4.559		
2,600.00	2,600.00	2,600.00	2,600.00	5.70	5.70	89.63	0.32	49.95	49.95	38.54	4.379		
2,700.00	2,700.00	2,700.00	2,700.00	5.93	5.93	89.63	0.32	49.95	49.95	38.09	4.213		
2,800.00	2,800.00	2,800.00	2,800.00	6.15	6.15	89.63	0.32	49.95	49.95	37.65	4.059		
2,900.00	2,900.00	2,900.00	2,900.00	6.38	6.38	89.63	0.32	49.95	49.95	37.20	3.916		
3,000.00	3,000.00	3,000.00	3,000.00	6.60	6.60	89.63	0.32	49.95	49.95	36.75	3.783		
3,100.00	3,100.00	3,100.00	3,100.00	6.83	6.83	89.63	0.32	49.95	49.95	36.30	3.658		
3,200.00	3,200.00	3,200.00	3,200.00	7.05	7.05	89.63	0.32	49.95	49.95	35.85	3.542		
3,300.00	3,300.00	3,300.00	3,300.00	7.28	7.28	89.63	0.32	49.95	49.95	35.40	3.432		
3,400.00	3,400.00	3,400.00	3,400.00	7.50	7.50	89.63	0.32	49.95	49.95	34.95	3.329		
3,500.00	3,500.00	3,500.00	3,500.00	7.73	7.73	89.63	0.32	49.95	49.95	34.50	3.233		
3,600.00	3,600.00	3,600.00	3,600.00	7.95	7.95	89.63	0.32	49.95	49.95	34.05	3.141		
3,700.00	3,700.00	3,700.00	3,700.00	8.18	8.18	89.63	0.32	49.95	49.95	33.60	3.055		
3,800.00	3,800.00	3,800.00	3,800.00	8.40	8.40	89.63	0.32	49.95	49.95	33.15	2.973		
3,900.00	3,900.00	3,900.00	3,900.00	8.63	8.63	89.63	0.32	49.95	49.95	32.70	2.896		
4,000.00	4,000.00	4,000.00	4,000.00	8.85	8.85	89.63	0.32	49.95	49.95	32.25	2.822		
4,100.00	4,100.00	4,100.00	4,100.00	9.07	9.07	89.63	0.32	49.95	49.95	31.80	2.752		
4,200.00	4,200.00	4,200.00	4,200.00	9.30	9.30	89.63	0.32	49.95	49.95	31.35	2.686		
4,300.00	4,300.00	4,300.00	4,300.00	9.52	9.52	89.63	0.32	49.95	49.95	30.90	2.622		
4,400.00	4,400.00	4,400.00	4,400.00	9.75	9.75	89.63	0.32	49.95	49.95	30.45	2.562		
4,500.00	4,500.00	4,500.00	4,500.00	9.97	9.97	89.63	0.32	49.95	49.95	30.00	2.504		
4,600.00	4,600.00	4,600.00	4,600.00	10.20	10.20	89.63	0.32	49.95	49.95	29.55	2.449		
4,700.00	4,700.00	4,700.00	4,700.00	10.42	10.42	89.63	0.32	49.95	49.95	29.10	2.396		
4,800.00	4,800.00	4,800.00	4,800.00	10.65	10.65	89.63	0.32	49.95	49.95	28.65	2.345		
4,900.00	4,900.00	4,900.00	4,900.00	10.87	10.87	89.63	0.32	49.95	49.95	28.20	2.297		
5,000.00	5,000.00	5,000.00	5,000.00	11.10	11.10	89.63	0.32	49.95	49.95	27.76	2.250		
5,100.00	5,100.00	5,100.00	5,100.00	11.32	11.32	89.63	0.32	49.95	49.95	27.31	2.206		
5,200.00	5,200.00	5,200.00	5,200.00	11.55	11.55	89.63	0.32	49.95	49.95	26.86	2.163 CC, ES, SF		
5,300.00	5,299.99	5,299.99	5,299.99	11.76	11.77	179.64	0.32	49.95	51.26	27.74	2.179		
5,400.00	5,399.91	5,399.91	5,399.91	11.96	12.00	179.67	0.32	49.95	55.19	31.27	2.307		
5,500.00	5,499.89	5,499.89	5,499.89	12.16	12.22	179.70	0.32	49.95	61.73	37.42	2.540		
5,533.33	5,532.91	5,532.91	5,532.91	12.23	12.30	179.71	0.32	49.95	64.49	40.06	2.640		
5,600.00	5,599.32	5,599.32	5,599.32	12.36	12.44	179.74	0.32	49.95	70.30	45.59	2.845		
5,700.00	5,698.94	5,698.94	5,698.94	12.57	12.67	179.77	0.32	49.95	79.01	53.88	3.144		
5,800.00	5,798.56	5,798.56	5,798.56	12.78	12.89	179.79	0.32	49.95	87.73	62.17	3.433		
5,900.00	5,898.18	5,898.18	5,898.18	12.99	13.12	179.81	0.32	49.95	96.44	70.46	3.712		
6,000.00	5,997.80	5,997.80	5,997.80	13.21	13.34	179.82	0.32	49.95	105.16	78.75	3.983		
6,100.00	6,097.42	6,097.42	6,097.42	13.43	13.56	179.84	0.32	49.95	113.87	87.04	4.244		
6,200.00	6,197.04	6,197.04	6,197.04	13.65	13.79	179.85	0.32	49.95	122.59	95.33	4.497		
6,300.00	6,296.66	6,296.66	6,296.66	13.87	14.01	179.86	0.32	49.95	131.30	103.62	4.742		
6,400.00	6,396.28	6,396.28	6,396.28	14.09	14.24	179.87	0.32	49.95	140.02	111.90	4.980		
6,500.00	6,495.90	6,495.90	6,495.90	14.32	14.46	179.88	0.32	49.95	148.74	120.19	5.210		
6,600.00	6,595.52	6,595.52	6,595.52	14.54	14.68	179.88	0.32	49.95	157.45	128.47	5.433		
6,700.00	6,695.14	6,695.14	6,695.14	14.77	14.91	179.89	0.32	49.95	166.17	136.76	5.650		
6,800.00	6,794.76	6,794.76	6,794.76	15.00	15.13	179.89	0.32	49.95	174.88	145.04	5.860		
6,900.00	6,894.38	6,894.38	6,894.38	15.23	15.36	179.90	0.32	49.95	183.60	153.32	6.064		
7,000.00	6,994.00	6,994.00	6,994.00	15.46	15.58	179.90	0.32	49.95	192.31	161.60	6.262		
7,100.00	7,093.62	7,093.62	7,093.62	15.70	15.80	179.91	0.32	49.95	201.03	169.88	6.454		
7,200.00	7,193.24	7,193.24	7,193.24	15.93	16.03	179.91	0.32	49.95	209.75	178.16	6.641		
7,300.00	7,292.85	7,292.85	7,292.85	16.17	16.25	179.92	0.32	49.95	218.46	186.44	6.823		
7,400.00	7,392.47	7,392.47	7,392.47	16.41	16.48	179.92	0.32	49.95	227.18	194.72	7.000		
7,500.00	7,492.09	7,492.09	7,492.09	16.65	16.70	179.92	0.32	49.95	235.89	203.00	7.172		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



LEAM Drilling Systems LLC
Anticollision Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well-1H:
Project:	Lea County, NM (NAD-83)	TVD Reference:	3551.3 GL - 25' RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD Reference:	3551.3 GL - 25' RKB @ 3576.30usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM-5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Blue Krait 23 Fed 10H - OH - Plan #1														Offset Site Error:	0.00 usft
Survey Program: LEAM MWD ADJ														Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
7,533.33	7,525.30	7,525.30	7,525.30	16.73	16.77	179.92	0.32	49.95	238.80	205.78	33.04	7.228			
7,800.00	7,591.76	7,591.76	7,591.76	16.88	16.92	179.92	0.32	49.95	244.03	210.67	33.38	7.316			
7,700.00	7,691.60	7,691.60	7,691.60	17.08	17.15	179.93	0.32	49.95	249.70	215.89	33.81	7.385			
7,800.00	7,791.55	7,791.55	7,791.55	17.27	17.37	179.93	0.32	49.95	252.75	218.51	34.24	7.381			
7,886.67	7,858.21	7,858.21	7,858.21	17.40	17.52	89.93	0.32	49.95	253.33	218.81	34.52	7.339			
7,900.00	7,891.54	7,891.54	7,891.54	17.46	17.60	89.93	0.32	49.95	253.33	218.67	34.66	7.309			
8,000.00	7,991.54	7,991.54	7,991.54	17.68	17.82	89.93	0.32	49.95	253.33	218.23	35.11	7.216			
8,100.00	8,091.54	8,091.54	8,091.54	17.90	18.05	89.93	0.32	49.95	253.33	217.78	35.55	7.126			
8,200.00	8,191.54	8,191.54	8,191.54	18.12	18.27	89.93	0.32	49.95	253.33	217.33	36.00	7.037			
8,300.00	8,291.54	8,291.54	8,291.54	18.33	18.50	89.93	0.32	49.95	253.33	216.89	36.45	6.951			
8,400.00	8,391.54	8,391.54	8,391.54	18.55	18.72	89.93	0.32	49.95	253.33	216.44	36.89	6.867			
8,500.00	8,491.54	8,491.54	8,491.54	18.77	18.95	89.93	0.32	49.95	253.33	215.99	37.34	6.785			
8,600.00	8,591.54	8,591.54	8,591.54	18.99	19.17	89.93	0.32	49.95	253.33	215.55	37.78	6.705			
8,700.00	8,691.54	8,691.54	8,691.54	19.21	19.40	89.93	0.32	49.95	253.33	215.10	38.23	6.626			
8,800.00	8,791.54	8,791.54	8,791.54	19.43	19.62	89.93	0.32	49.95	253.33	214.65	38.68	6.550			
8,900.00	8,891.54	8,891.54	8,891.54	19.65	19.84	89.93	0.32	49.95	253.33	214.21	39.12	6.475			
9,000.00	8,991.54	8,991.54	8,991.54	19.86	20.07	89.93	0.32	49.95	253.33	213.76	39.57	6.402			
9,100.00	9,091.54	9,091.54	9,091.54	20.08	20.29	89.93	0.32	49.95	253.33	213.31	40.02	6.331			
9,200.00	9,191.54	9,191.54	9,191.54	20.30	20.52	89.93	0.32	49.95	253.33	212.87	40.46	6.261			
9,300.00	9,291.54	9,291.54	9,291.54	20.52	20.74	89.93	0.32	49.95	253.33	212.42	40.91	6.192			
9,400.00	9,391.54	9,391.54	9,391.54	20.74	20.97	89.93	0.32	49.95	253.33	211.97	41.36	6.125			
9,500.00	9,491.54	9,491.54	9,491.54	20.96	21.19	89.93	0.32	49.95	253.33	211.53	41.81	6.060			
9,600.00	9,591.54	9,591.54	9,591.54	21.18	21.42	89.93	0.32	49.95	253.33	211.08	42.25	5.996			
9,700.00	9,691.54	9,691.54	9,691.54	21.40	21.64	89.93	0.32	49.95	253.33	210.63	42.70	5.933			
9,800.00	9,791.54	9,791.54	9,791.54	21.62	21.87	89.93	0.32	49.95	253.33	210.19	43.15	5.871			
9,900.00	9,891.54	9,891.54	9,891.54	21.84	22.09	89.93	0.32	49.95	253.33	209.74	43.59	5.811			
10,000.00	9,991.54	9,991.54	9,991.54	22.06	22.32	89.93	0.32	49.95	253.33	209.29	44.04	5.752			
10,100.00	10,091.54	10,091.54	10,091.54	22.28	22.54	89.93	0.32	49.95	253.33	208.84	44.49	5.694			
10,200.00	10,191.54	10,191.54	10,191.54	22.50	22.77	89.93	0.32	49.95	253.33	208.40	44.94	5.638			
10,300.00	10,291.54	10,291.54	10,291.54	22.72	22.99	89.93	0.32	49.95	253.33	207.95	45.38	5.582			
10,400.00	10,391.54	10,391.54	10,391.54	22.94	23.22	89.93	0.32	49.95	253.33	207.50	45.83	5.528			
10,489.52	10,481.06	10,481.06	10,481.06	23.14	23.42	89.93	0.32	49.95	253.33	207.10	46.23	5.480			
10,500.00	10,491.54	10,491.42	10,491.42	23.16	23.44	90.70	0.40	49.95	253.34	207.06	46.28	5.474			
10,550.00	10,541.43	10,540.77	10,540.67	23.27	23.55	90.71	3.37	50.04	253.46	206.97	46.50	5.451			
10,600.00	10,590.88	10,590.14	10,589.49	23.39	23.66	90.71	10.86	50.24	253.77	207.06	46.71	5.433			
10,650.00	10,639.45	10,639.51	10,637.52	23.50	23.77	90.70	21.92	50.56	254.25	207.33	46.92	5.419			
10,700.00	10,688.84	10,688.91	10,684.42	23.61	23.88	90.70	37.38	51.00	254.91	207.78	47.13	5.408			
10,750.00	10,732.66	10,738.32	10,729.82	23.71	23.98	90.68	56.83	51.56	255.74	208.39	47.34	5.402			
10,800.00	10,776.57	10,787.76	10,773.40	23.82	24.08	90.67	80.13	52.22	256.73	209.16	47.56	5.397			
10,850.00	10,818.23	10,837.22	10,814.84	23.93	24.19	90.64	107.12	52.99	257.87	210.08	47.80	5.395			
10,900.00	10,857.32	10,886.72	10,853.81	24.04	24.31	90.61	137.59	53.85	259.17	211.12	48.05	5.394			
10,950.00	10,893.55	10,938.25	10,890.03	24.16	24.45	90.58	171.33	54.81	260.80	212.27	48.32	5.393			
11,000.00	10,926.84	10,985.82	10,923.23	24.30	24.60	90.54	208.11	55.86	262.15	213.52	48.63	5.390			
11,050.00	10,956.33	11,035.43	10,953.15	24.46	24.76	90.50	247.65	56.98	263.82	214.85	48.98	5.387			
11,100.00	10,982.41	11,085.08	10,979.55	24.64	24.95	90.45	289.66	58.18	265.60	216.23	49.36	5.380			
11,150.00	11,004.68	11,134.78	11,002.24	24.85	25.18	90.40	333.84	58.43	267.46	217.67	49.80	5.371			
11,200.00	11,022.96	11,184.54	11,021.03	25.09	25.39	90.34	379.88	60.74	269.40	219.12	50.28	5.358			
11,250.00	11,037.12	11,234.34	11,035.77	25.36	25.64	90.29	427.42	62.09	271.40	220.59	50.81	5.342			
11,300.00	11,047.04	11,284.20	11,046.34	25.65	25.92	90.22	476.11	63.48	273.45	222.08	51.39	5.321			
11,350.00	11,052.86	11,334.12	11,052.64	25.97	26.23	90.16	525.60	64.89	275.52	223.51	52.01	5.297			
11,393.64	11,054.00	11,377.74	11,054.59	26.27	26.51	90.10	569.14	66.12	277.35	224.75	52.59	5.274			
11,400.00	11,053.96	11,384.10	11,054.60	26.31	26.55	90.12	575.50	66.30	277.81	224.93	52.68	5.270			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



LEAM Drilling Systems LLC

Anticollision Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 1H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD Reference:	3551.3' GL + 25' RKB @ 3576.30usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	11H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Blue Krait 23 Fed - 10H - OH - Plan #1														Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD-ADJ														Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Reference		Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Depth (usft)	Offset Depth (usft)	Highside (usft)	Toolface (°)	N-S (usft)	E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
11,500.00	11,053.24	11,484.02	11,053.87	27.07	27.28	90.11		675.37	89.14	281.79	227.62	54.17	5.202		
11,600.00	11,052.52	11,583.93	11,053.14	27.93	28.10	90.11		775.24	71.98	285.97	230.12	55.85	5.120		
11,700.00	11,051.80	11,683.84	11,052.41	28.88	29.01	90.10		875.11	74.82	290.15	232.44	57.72	5.027		
11,800.00	11,051.08	11,783.76	11,051.67	29.91	30.00	90.10		974.98	77.66	294.34	234.59	59.75	4.927		
11,900.00	11,050.36	11,883.67	11,050.94	31.02	31.07	90.09		1,074.85	80.50	298.52	236.59	61.92	4.821		
12,000.00	11,049.64	11,983.58	11,050.21	32.19	32.20	90.09		1,174.72	83.34	302.70	238.46	64.23	4.712		
12,100.00	11,048.92	12,083.49	11,049.48	33.42	33.40	90.09		1,274.59	86.18	306.88	240.21	66.66	4.603		
12,200.00	11,048.20	12,183.41	11,048.74	34.70	34.65	90.08		1,374.46	89.02	311.06	241.86	69.20	4.495		
12,300.00	11,047.48	12,283.32	11,048.01	36.04	35.95	90.08		1,474.33	91.86	315.24	243.40	71.83	4.388		
12,400.00	11,046.76	12,383.23	11,047.28	37.41	37.29	90.08		1,574.20	94.70	319.42	244.87	74.55	4.285		
12,500.00	11,046.04	12,483.15	11,046.55	38.82	38.67	90.07		1,674.07	97.54	323.60	246.25	77.35	4.184		
12,600.00	11,045.32	12,583.06	11,045.82	40.26	40.08	90.07		1,773.94	100.38	327.78	247.57	80.21	4.087		
12,700.00	11,044.60	12,682.97	11,045.08	41.74	41.53	90.07		1,873.81	103.22	331.96	248.83	83.13	3.993		
12,800.00	11,043.88	12,782.88	11,044.35	43.24	43.01	90.06		1,973.68	106.06	336.14	250.03	86.11	3.903		
12,900.00	11,043.16	12,882.80	11,043.62	44.77	44.51	90.06		2,073.55	108.90	340.32	251.18	89.14	3.818		
13,000.00	11,042.44	12,982.71	11,042.89	46.32	46.03	90.06		2,173.42	111.74	344.50	252.28	92.22	3.736		
13,100.00	11,041.72	13,082.62	11,042.15	47.89	47.57	90.05		2,273.29	114.58	348.68	253.35	95.33	3.658		
13,200.00	11,041.00	13,182.53	11,041.42	49.47	49.14	90.05		2,373.15	117.42	352.86	254.38	98.48	3.583		
13,300.00	11,040.28	13,282.45	11,040.69	51.08	50.72	90.05		2,473.02	120.26	357.04	255.38	101.67	3.512		
13,400.00	11,039.56	13,382.36	11,039.96	52.69	52.31	90.05		2,572.89	123.10	361.22	256.34	104.88	3.444		
13,500.00	11,038.84	13,482.27	11,039.22	54.33	53.92	90.04		2,672.76	125.94	365.40	257.28	108.12	3.380		
13,600.00	11,038.12	13,582.18	11,038.49	55.97	55.54	90.04		2,772.63	128.78	369.58	258.19	111.39	3.318		
13,700.00	11,037.40	13,682.10	11,037.76	57.62	57.18	90.04		2,872.50	131.61	373.77	259.08	114.68	3.259		
13,800.00	11,036.68	13,782.01	11,037.03	59.29	58.82	90.03		2,972.37	134.45	377.95	259.95	117.99	3.203		
13,900.00	11,035.96	13,881.92	11,036.29	60.96	60.48	90.03		3,072.24	137.29	382.13	260.80	121.32	3.150		
14,000.00	11,035.24	13,981.83	11,035.56	62.65	62.14	90.03		3,172.11	140.13	386.31	261.64	124.67	3.099		
14,100.00	11,034.52	14,081.75	11,034.83	64.34	63.82	90.03		3,271.98	142.97	390.49	262.45	128.03	3.050		
14,200.00	11,033.80	14,181.66	11,034.10	66.04	65.50	90.03		3,371.85	145.81	394.67	263.25	131.41	3.003		
14,300.00	11,033.09	14,281.57	11,033.36	67.74	67.18	90.02		3,471.72	148.65	398.85	264.04	134.81	2.959		
14,400.00	11,032.37	14,381.48	11,032.63	69.46	68.88	90.02		3,571.59	151.49	403.03	264.82	138.21	2.916		
14,500.00	11,031.65	14,481.40	11,031.90	71.18	70.58	90.02		3,671.46	154.33	407.21	265.58	141.63	2.875		
14,600.00	11,030.93	14,581.31	11,031.17	72.90	72.28	90.02		3,771.33	157.17	411.39	266.33	145.06	2.836		
14,700.00	11,030.21	14,681.22	11,030.44	74.63	73.99	90.01		3,871.20	160.01	415.57	267.07	148.50	2.798		
14,800.00	11,029.49	14,781.13	11,029.70	76.36	75.71	90.01		3,971.07	162.85	419.75	267.80	151.95	2.762		
14,900.00	11,028.77	14,881.05	11,028.97	78.10	77.43	90.01		4,070.94	165.69	423.93	268.52	155.41	2.728		
15,000.00	11,028.05	14,980.96	11,028.24	79.84	79.16	90.01		4,170.81	168.53	428.11	269.24	158.87	2.695		
15,100.00	11,027.33	15,080.87	11,027.51	81.59	80.89	90.01		4,270.68	171.37	432.29	269.94	162.35	2.663		
15,200.00	11,026.61	15,180.78	11,026.77	83.34	82.62	90.00		4,370.55	174.21	436.47	270.64	165.83	2.632		
15,300.00	11,025.89	15,280.70	11,026.04	85.09	84.36	90.00		4,470.42	177.05	440.65	271.33	169.32	2.602		
15,400.00	11,025.17	15,380.61	11,025.31	86.85	86.10	90.00		4,570.28	179.89	444.83	272.02	172.82	2.574		
15,500.00	11,024.45	15,480.52	11,024.58	88.60	87.84	90.00		4,670.15	182.73	449.02	272.70	176.32	2.547		
15,582.24	11,024.00	15,542.71	11,024.12	89.70	88.79	90.00		4,732.32	184.49	451.62	273.25	178.37	2.532		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



LEAM Drilling Systems LLC

Anticollision Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 1H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3551.3' GL - 25' RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD Reference:	3551.3' GL - 25' RKB @ 3576.30usft
Site Error:	0.00 usft	North Reference:	2 Gnd
Reference Well:	1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	12.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design (Blue Krait 23 Fed - 5H - OH - Plan #1)														Offset Site Error:
Survey Program: 0-LEAM MWD ADJ														Offset Well Error:
Reference	Offset	Semi Major Axis		Highside	Offset Wellbore Centre		Between		Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	N-S (usft)	E-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.62	0.67	99.97	99.97	99.80	0.17	594.232		
100.00	100.00	99.60	99.60	0.08	0.08	89.62	0.67	99.97	99.97	99.36	0.62	161.975		
200.00	200.00	199.60	199.60	0.31	0.31	89.62	0.67	99.97	99.97	98.91	1.07	93.718		
300.00	300.00	299.60	299.60	0.53	0.53	89.62	0.67	99.97	99.97	98.46	1.52	65.933		
400.00	400.00	399.60	399.60	0.76	0.76	89.62	0.67	99.97	99.97	98.01	1.97	50.856		
500.00	500.00	499.60	499.60	0.98	0.98	89.62	0.67	99.97	99.97	97.56	2.42	41.391		
600.00	600.00	599.60	599.60	1.21	1.21	89.62	0.67	99.97	99.97	97.11	2.86	34.896		
700.00	700.00	699.60	699.60	1.43	1.43	89.62	0.67	99.97	99.97	96.66	3.31	30.163		
800.00	800.00	799.60	799.60	1.66	1.66	89.62	0.67	99.97	99.97	96.21	3.78	26.581		
900.00	900.00	899.60	899.60	1.88	1.88	89.62	0.67	99.97	99.97	95.76	4.21	23.727		
1,000.00	1,000.00	999.60	999.60	2.11	2.11	89.62	0.67	99.97	99.97	95.31	4.66	21.439		
1,100.00	1,100.00	1,099.60	1,099.60	2.33	2.33	89.62	0.67	99.97	99.97	94.86	5.11	19.554		
1,200.00	1,200.00	1,199.60	1,199.60	2.56	2.56	89.62	0.67	99.97	99.97	94.41	5.56	17.974		
1,300.00	1,300.00	1,299.60	1,299.60	2.78	2.78	89.62	0.67	99.97	99.97	93.96	6.01	16.630		
1,400.00	1,400.00	1,399.60	1,399.60	3.01	3.01	89.62	0.67	99.97	99.97	93.51	6.46	15.473		
1,500.00	1,500.00	1,499.60	1,499.60	3.23	3.23	89.62	0.67	99.97	99.97	93.06	6.91	14.466		
1,600.00	1,600.00	1,599.60	1,599.60	3.46	3.46	89.62	0.67	99.97	99.97	92.61	7.36	13.583		
1,700.00	1,700.00	1,699.60	1,699.60	3.68	3.68	89.62	0.67	99.97	99.97	92.16	7.81	12.801		
1,800.00	1,800.00	1,799.60	1,799.60	3.91	3.91	89.62	0.67	99.97	99.97	91.71	8.26	12.104		
1,900.00	1,900.00	1,899.60	1,899.60	4.13	4.13	89.62	0.67	99.97	99.97	91.26	8.71	11.479		
2,000.00	2,000.00	1,999.60	1,999.60	4.35	4.35	89.62	0.67	99.97	99.97	90.81	9.16	10.916		
2,100.00	2,100.00	2,099.60	2,099.60	4.58	4.58	89.62	0.67	99.97	99.97	90.36	9.61	10.405		
2,200.00	2,200.00	2,199.60	2,199.60	4.80	4.80	89.62	0.67	99.97	99.97	89.91	10.06	9.940		
2,300.00	2,300.00	2,299.60	2,299.60	5.03	5.03	89.62	0.67	99.97	99.97	89.47	10.51	9.515		
2,400.00	2,400.00	2,399.60	2,399.60	5.25	5.25	89.62	0.67	99.97	99.97	89.02	10.96	9.125		
2,500.00	2,500.00	2,499.60	2,499.60	5.48	5.48	89.62	0.67	99.97	99.97	88.57	11.41	8.765		
2,600.00	2,600.00	2,599.60	2,599.60	5.70	5.70	89.62	0.67	99.97	99.97	88.12	11.86	8.433		
2,700.00	2,700.00	2,699.60	2,699.60	5.93	5.93	89.62	0.67	99.97	99.97	87.67	12.31	8.124		
2,800.00	2,800.00	2,799.60	2,799.60	6.15	6.15	89.62	0.67	99.97	99.97	87.22	12.75	7.838		
2,900.00	2,900.00	2,899.60	2,899.60	6.38	6.38	89.62	0.67	99.97	99.97	86.77	13.20	7.571		
3,000.00	3,000.00	2,999.60	2,999.60	6.60	6.60	89.62	0.67	99.97	99.97	86.32	13.65	7.322		
3,100.00	3,100.00	3,099.60	3,099.60	6.83	6.83	89.62	0.67	99.97	99.97	85.87	14.10	7.089		
3,200.00	3,200.00	3,199.60	3,199.60	7.05	7.05	89.62	0.67	99.97	99.97	85.42	14.55	6.870		
3,300.00	3,300.00	3,299.60	3,299.60	7.28	7.28	89.62	0.67	99.97	99.97	84.97	15.00	6.664		
3,400.00	3,400.00	3,399.60	3,399.60	7.50	7.50	89.62	0.67	99.97	99.97	84.52	15.45	6.470		
3,500.00	3,500.00	3,499.60	3,499.60	7.73	7.73	89.62	0.67	99.97	99.97	84.07	15.90	6.287		
3,600.00	3,600.00	3,599.60	3,599.60	7.95	7.95	89.62	0.67	99.97	99.97	83.62	16.35	6.114		
3,700.00	3,700.00	3,699.60	3,699.60	8.18	8.17	89.62	0.67	99.97	99.97	83.17	16.80	5.951		
3,800.00	3,800.00	3,799.60	3,799.60	8.40	8.40	89.62	0.67	99.97	99.97	82.72	17.25	5.796		
3,900.00	3,900.00	3,899.60	3,899.60	8.63	8.62	89.62	0.67	99.97	99.97	82.27	17.70	5.648		
4,000.00	4,000.00	3,999.60	3,999.60	8.85	8.85	89.62	0.67	99.97	99.97	81.82	18.15	5.508		
4,100.00	4,100.00	4,099.60	4,099.60	9.07	9.07	89.62	0.67	99.97	99.97	81.37	18.60	5.375		
4,200.00	4,200.00	4,199.60	4,199.60	9.30	9.30	89.62	0.67	99.97	99.97	80.92	19.05	5.248		
4,300.00	4,300.00	4,299.60	4,299.60	9.52	9.52	89.62	0.67	99.97	99.97	80.47	19.50	5.127		
4,400.00	4,400.00	4,399.60	4,399.60	9.75	9.75	89.62	0.67	99.97	99.97	80.03	19.95	5.012		
4,500.00	4,500.00	4,499.60	4,499.60	9.97	9.97	89.62	0.67	99.97	99.97	79.58	20.40	4.901		
4,600.00	4,600.00	4,599.60	4,599.60	10.20	10.20	89.62	0.67	99.97	99.97	79.13	20.85	4.796		
4,700.00	4,700.00	4,599.60	4,599.60	10.42	10.42	89.62	0.67	99.97	99.97	78.68	21.30	4.694		
4,800.00	4,800.00	4,799.60	4,799.60	10.65	10.65	89.62	0.67	99.97	99.97	78.23	21.75	4.597		
4,900.00	4,900.00	4,899.60	4,899.60	10.87	10.87	89.62	0.67	99.97	99.97	77.78	22.19	4.504		
5,000.00	5,000.00	4,999.60	4,999.60	11.10	11.10	89.62	0.67	99.97	99.97	77.33	22.64	4.415		
5,100.00	5,100.00	5,099.60	5,099.60	11.32	11.32	89.62	0.67	99.97	99.97					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



LEAM Drilling Systems LLC
Anticollision Report



Company:	DEVON ENERGY	Local/Co-ordinate/Reference:	Well: 1H
Project:	Lea County NM (NAD-83)	TVD/Reference:	3551.3' GL - 25' RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD/Reference:	3551.3' GL - 25' RKB @ 3576.30usft
Site Error:	0.00 usft	North/Reference:	Grid
Reference Well:	1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD/Reference:	Offset Datum

Offset Design: Blue Krait 23 Fed - 5H - OH - Plan #1														Offset Site Error:	0.00 usft
Survey Program: LEAM (MWD/ADJ)														Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor				
5,200.00	5,200.00	5,199.60	5,199.60	11.55	11.55	89.62	0.67	99.97	99.97	76.88	23.09	4.329 CC, ES, SF			
5,300.00	5,299.99	5,297.85	5,297.84	11.76	11.75	179.62	0.67	100.81	102.13	78.63	23.50	4.345			
5,400.00	5,399.91	5,395.84	5,395.80	11.96	11.95	179.65	0.67	103.32	108.62	84.75	23.87	4.551			
5,500.00	5,499.69	5,493.31	5,493.18	12.16	12.14	179.88	0.67	107.48	119.41	95.19	24.22	4.930			
5,533.33	5,532.91	5,525.64	5,525.47	12.23	12.21	179.69	0.67	106.22	123.96	98.63	24.33	5.094			
5,600.00	5,599.32	5,590.11	5,589.81	12.36	12.34	179.71	0.67	113.25	133.90	109.31	24.59	5.445			
5,700.00	5,698.94	5,686.39	5,685.81	12.57	12.54	179.74	0.67	120.60	150.21	125.22	24.98	6.012			
5,800.00	5,798.56	5,784.52	5,783.56	12.78	12.74	179.77	0.67	129.14	167.55	142.18	25.38	6.802			
5,900.00	5,898.18	5,883.00	5,881.67	12.99	12.95	179.79	0.67	137.72	184.92	159.14	25.77	7.174			
6,000.00	5,897.80	5,881.48	5,879.77	13.21	13.16	179.81	0.67	146.31	202.28	176.11	26.17	7.729			
6,100.00	6,097.42	6,079.98	6,077.88	13.43	13.37	179.82	0.67	154.89	219.85	193.07	26.57	8.265			
6,200.00	6,197.04	6,178.44	6,175.98	13.65	13.58	179.84	0.67	163.47	237.01	210.04	26.98	8.786			
6,300.00	6,296.66	6,276.92	6,274.09	13.87	13.80	179.85	0.67	172.05	254.38	227.00	27.38	9.290			
6,400.00	6,396.28	6,375.40	6,372.20	14.09	14.02	179.86	0.67	180.64	271.74	243.95	27.79	9.779			
6,500.00	6,495.90	6,473.88	6,470.30	14.32	14.24	179.87	0.67	189.22	289.11	260.91	28.20	10.253			
6,600.00	6,595.52	6,572.38	6,568.41	14.54	14.46	179.87	0.67	197.80	306.47	277.86	28.61	10.713			
6,700.00	6,695.14	6,670.84	6,666.51	14.77	14.68	179.88	0.67	206.39	323.84	294.82	29.02	11.160			
6,800.00	6,794.76	6,769.32	6,764.62	15.00	14.91	179.89	0.67	214.97	341.20	311.77	29.43	11.593			
6,900.00	6,894.38	6,867.80	6,862.73	15.23	15.13	179.89	0.67	223.55	358.57	328.72	29.85	12.014			
7,000.00	6,994.00	6,966.28	6,960.83	15.46	15.36	179.90	0.67	232.14	375.93	345.67	30.26	12.422			
7,100.00	7,093.62	7,064.77	7,059.94	15.70	15.59	179.90	0.67	240.72	393.30	362.62	30.68	12.820			
7,200.00	7,193.24	7,163.25	7,157.04	15.93	15.82	179.91	0.67	249.30	410.66	379.56	31.10	13.205			
7,300.00	7,292.85	7,261.73	7,255.15	16.17	16.05	179.91	0.67	257.89	428.03	396.51	31.52	13.581			
7,400.00	7,392.47	7,360.21	7,353.26	16.41	16.28	179.91	0.67	266.47	445.39	413.45	31.94	13.945			
7,500.00	7,492.09	7,458.69	7,451.36	16.65	16.52	179.92	0.67	275.05	462.76	430.40	32.38	14.300			
7,533.33	7,525.30	7,491.52	7,484.06	16.73	16.59	179.92	0.67	277.91	468.54	436.04	32.50	14.416			
7,600.00	7,591.76	7,557.27	7,549.57	16.88	16.75	179.92	0.67	283.64	479.55	446.73	32.81	14.614			
7,700.00	7,691.80	7,656.23	7,648.15	17.08	16.99	179.92	0.67	292.27	493.90	460.84	33.26	14.850			
7,800.00	7,791.55	7,755.53	7,747.08	17.27	17.23	179.92	0.67	300.92	505.65	471.96	33.69	15.010			
7,866.67	7,858.21	7,821.89	7,813.18	17.40	17.39	89.92	0.67	306.71	512.04	478.08	33.96	15.078			
7,900.00	7,891.54	7,855.10	7,846.26	17.46	17.47	89.93	0.67	309.60	514.94	480.85	34.10	15.102			
8,000.00	7,991.54	7,954.72	7,945.50	17.68	17.71	89.93	0.67	318.28	523.66	488.13	34.53	15.164			
8,100.00	8,091.54	8,054.34	8,044.74	17.90	17.95	89.93	0.67	326.97	532.37	497.41	34.97	15.224			
8,200.00	8,191.54	8,153.96	8,143.98	18.12	18.19	89.93	0.67	335.65	541.09	505.68	35.41	15.282			
8,300.00	8,291.54	8,253.58	8,243.23	18.33	18.44	89.93	0.67	344.33	549.81	513.96	35.84	15.339			
8,400.00	8,391.54	8,353.20	8,342.47	18.55	18.68	89.93	0.67	353.01	558.52	522.24	36.28	15.394			
8,500.00	8,491.54	8,452.82	8,441.71	18.77	18.93	89.93	0.67	361.70	567.24	530.52	36.72	15.448			
8,600.00	8,591.54	8,552.43	8,540.95	18.99	19.17	89.93	0.67	370.38	575.95	538.79	37.16	15.500			
8,700.00	8,691.54	8,652.05	8,640.19	19.21	19.42	89.93	0.67	379.06	584.67	547.07	37.60	15.551			
8,800.00	8,791.54	8,751.67	8,739.43	19.43	19.67	89.94	0.67	387.74	593.38	555.35	38.04	15.600			
8,900.00	8,891.54	8,851.29	8,838.67	19.65	19.92	89.94	0.67	396.43	602.10	563.62	38.48	15.649			
9,000.00	8,991.54	8,950.91	8,937.91	19.86	20.17	89.94	0.67	405.11	610.82	571.90	38.92	15.695			
9,100.00	9,091.54	9,050.08	9,045.71	20.08	20.41	89.94	0.67	413.99	619.04	579.69	39.36	15.728			
9,200.00	9,191.54	9,171.04	9,157.44	20.30	20.64	89.94	0.67	421.12	625.41	585.61	39.80	15.715			
9,300.00	9,291.54	9,283.23	9,269.52	20.52	20.86	89.94	0.67	428.07	629.82	589.59	40.24	15.653			
9,400.00	9,391.54	9,385.57	9,381.83	20.74	21.08	89.94	0.67	428.82	632.28	591.60	40.67	15.545			
9,500.00	9,491.54	9,504.89	9,491.14	20.96	21.28	89.94	0.67	429.45	632.83	591.72	41.11	15.395			
9,600.00	9,591.54	9,604.89	9,591.14	21.18	21.49	89.94	0.67	429.45	632.83	591.28	41.55	15.232			
9,700.00	9,691.54	9,704.89	9,691.14	21.40	21.71	89.94	0.67	429.45	632.83	590.84	41.99	15.072			
9,800.00	9,791.54	9,804.89	9,791.14	21.62	21.92	89.94	0.67	429.45	632.83	590.40	42.43	14.915			
9,900.00	9,891.54	9,904.89	9,891.14	21.84	22.13	89.94	0.67	429.45	632.83	589.96	42.87	14.762			
10,000.00	9,991.54	10,004.89	9,991.14	22.06	22.34	89.94	0.67	429.45	632.83	589.52	43.31	14.611			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



LEAM Drilling Systems LLC
Anticollision Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 1H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3551.3 GL + 25 RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD Reference:	3551.3 GL + 25 RKB @ 3576.30usft
Site Error:	0.00 usft	North Reference:	Gnd
Reference Well:	1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Blue Krait 23 Fed - 5H - OH - Plan #1														Offset Site Error:	0.00 usft
Survey Program: LEAM MWD-ADJ														Offset Well Error:	0.00 usft
Reference		Offset		Semi-Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Footcandle (ft)	Offset Wellbore Centre N/S (usft)	Offset Wellbore Centre E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
10,100.00	10,091.54	10,104.89	10,091.14	22.28	22.56	89.94	0.87	429.45	632.83	589.08	43.75	14.464			
10,200.00	10,191.54	10,204.89	10,191.14	22.50	22.77	89.94	0.67	429.45	632.83	588.63	44.19	14.319			
10,300.00	10,291.54	10,304.89	10,291.14	22.72	22.99	89.94	0.67	429.45	632.83	588.19	44.64	14.177			
10,400.00	10,391.54	10,404.89	10,391.14	22.94	23.20	89.94	0.67	429.45	632.83	587.75	45.08	14.038			
10,489.52	10,481.06	10,494.41	10,480.66	23.14	23.39	89.94	0.67	429.45	632.83	587.35	45.47	13.916			
10,500.00	10,491.54	10,504.42	10,490.67	23.16	23.41	90.71	0.75	429.45	632.83	587.31	45.52	13.902			
10,550.00	10,541.43	10,552.07	10,538.23	23.27	23.52	90.71	3.53	429.57	633.00	587.27	45.73	13.841			
10,600.00	10,590.86	10,600.00	10,585.66	23.39	23.62	90.70	10.29	429.87	633.41	587.46	45.94	13.786			
10,650.00	10,639.45	10,647.46	10,631.91	23.50	23.72	90.69	20.88	430.33	634.05	587.90	46.15	13.738			
10,700.00	10,686.84	10,695.21	10,677.40	23.61	23.82	90.67	35.33	430.96	634.92	588.57	46.36	13.696			
10,750.00	10,732.66	10,743.02	10,721.58	23.71	23.93	90.64	53.55	431.75	636.02	589.45	46.57	13.657			
10,800.00	10,776.57	10,790.91	10,764.16	23.82	24.03	90.61	75.42	432.71	637.34	590.55	46.79	13.622			
10,850.00	10,818.23	10,838.89	10,804.83	23.93	24.13	90.58	100.82	433.82	638.86	591.84	47.02	13.587			
10,900.00	10,857.32	10,886.96	10,843.30	24.04	24.24	90.54	129.59	435.07	640.59	593.32	47.27	13.551			
10,950.00	10,893.55	10,935.15	10,879.32	24.16	24.35	90.49	161.56	436.47	642.50	594.95	47.55	13.513			
11,000.00	10,926.64	10,963.47	10,912.80	24.30	24.48	90.45	196.54	438.00	644.58	596.72	47.85	13.470			
11,050.00	10,956.33	11,031.93	10,942.90	24.46	24.62	90.39	234.31	439.85	646.82	598.62	48.20	13.420			
11,100.00	10,982.41	11,080.55	10,969.97	24.64	24.78	90.34	274.62	441.41	649.20	600.61	48.58	13.363			
11,150.00	11,004.68	11,129.32	10,993.60	24.85	24.96	90.28	317.24	443.27	651.70	602.69	49.01	13.296			
11,200.00	11,022.96	11,178.28	11,013.59	25.09	25.17	90.22	361.87	445.21	654.32	604.82	49.49	13.220			
11,250.00	11,037.12	11,227.42	11,029.74	25.36	25.42	90.15	408.22	447.24	657.02	607.00	50.02	13.135			
11,300.00	11,047.04	11,276.76	11,041.90	25.65	25.69	90.09	455.98	449.32	659.79	609.19	50.60	13.039			
11,350.00	11,052.66	11,326.31	11,049.93	25.97	25.99	90.02	504.81	451.45	662.60	611.38	51.23	12.935			
11,393.64	11,054.00	11,369.72	11,053.47	26.27	26.28	89.96	548.03	453.34	665.08	613.27	51.81	12.837			
11,400.00	11,053.96	11,376.07	11,053.71	26.31	26.32	89.99	554.36	453.62	665.45	613.55	51.90	12.822			
11,500.00	11,053.24	11,475.92	11,053.45	27.07	27.06	90.03	654.11	457.97	671.15	617.75	53.40	12.589			
11,600.00	11,052.52	11,575.75	11,052.73	27.93	27.89	90.03	753.85	462.33	676.84	621.76	55.08	12.288			
11,700.00	11,051.80	11,675.59	11,052.02	28.88	28.81	90.03	853.59	466.68	682.54	625.59	56.96	11.984			
11,800.00	11,051.08	11,775.43	11,051.30	29.91	29.82	90.03	953.33	471.03	688.24	629.25	58.99	11.666			
11,900.00	11,050.36	11,875.27	11,050.58	31.02	30.89	90.03	1,053.07	475.39	693.94	632.76	61.18	11.343			
12,000.00	11,049.64	11,975.10	11,049.87	32.19	32.04	90.03	1,152.81	479.74	699.64	636.14	63.50	11.018			
12,100.00	11,048.92	12,074.94	11,049.15	33.42	33.24	90.03	1,252.55	484.10	705.34	639.40	65.94	10.697			
12,200.00	11,048.20	12,174.78	11,048.43	34.70	34.50	90.03	1,352.29	488.45	711.04	642.55	68.49	10.382			
12,300.00	11,047.48	12,274.62	11,047.72	36.04	35.80	90.03	1,452.03	492.80	716.74	645.61	71.13	10.077			
12,400.00	11,046.76	12,374.45	11,047.00	37.41	37.15	90.03	1,551.77	497.16	722.43	648.58	73.85	9.782			
12,500.00	11,046.04	12,474.29	11,046.28	38.82	38.53	90.03	1,651.51	501.51	728.13	651.48	76.66	9.499			
12,600.00	11,045.32	12,574.13	11,045.57	40.26	39.95	90.03	1,751.25	505.87	733.83	654.31	79.53	9.228			
12,700.00	11,044.60	12,673.97	11,044.85	41.74	41.40	90.03	1,850.99	510.22	739.53	657.07	82.46	8.969			
12,800.00	11,043.88	12,773.80	11,044.13	43.24	42.88	90.03	1,950.73	514.57	745.23	659.79	85.44	8.722			
12,900.00	11,043.16	12,873.64	11,043.42	44.77	44.38	90.03	2,050.47	518.93	750.93	662.45	88.48	8.487			
13,000.00	11,042.44	12,973.48	11,042.70	46.32	45.90	90.03	2,150.21	523.28	756.63	665.07	91.56	8.264			
13,100.00	11,041.72	13,073.32	11,041.98	47.89	47.45	90.03	2,249.95	527.64	762.33	667.65	94.68	8.052			
13,200.00	11,041.00	13,173.15	11,041.27	49.47	49.01	90.03	2,349.69	531.99	768.02	670.19	97.83	7.850			
13,300.00	11,040.28	13,272.99	11,040.55	51.08	50.59	90.03	2,449.43	536.34	773.72	672.70	101.02	7.659			
13,400.00	11,039.56	13,372.83	11,039.83	52.69	52.19	90.03	2,549.17	540.70	779.42	675.18	104.24	7.477			
13,500.00	11,038.84	13,472.67	11,039.11	54.33	53.80	90.03	2,648.91	545.05	785.12	677.64	107.48	7.305			
13,600.00	11,038.12	13,572.50	11,038.40	55.97	55.42	90.03	2,748.65	549.41	790.82	680.07	110.75	7.140			
13,700.00	11,037.40	13,672.34	11,037.68	57.62	57.05	90.03	2,848.39	553.76	796.52	682.47	114.04	6.984			
13,800.00	11,036.68	13,772.18	11,036.96	59.29	58.69	90.03	2,948.13	558.12	802.22	684.86	117.36	6.836			
13,900.00	11,035.96	13,872.02	11,036.25	60.96	60.35	90.03	3,047.87	562.47	807.92	687.23	120.69	6.694			
14,000.00	11,035.24	13,971.85	11,035.53	62.65	62.01	90.02	3,147.61	566.82	813.61	689.58	124.04	6.560			
14,100.00	11,034.52	14,071.69	11,034.81	64.34	63.68	90.02	3,247.35	571.18	819.31	691.91	127.40	6.431			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



LEAM Drilling Systems LLC
Anticollision Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 1H
Project:	Lea County NM (NAD-83)	TVD Reference:	3551.3 GL + 25 RKB @ 3576.30usft
Reference Site:	Blue Krait 23 Fed	MD Reference:	3551.3 GL + 25 RKB @ 3576.30usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Blue Krait 23 Fed - 5H - OH - Plan #1														Offset Site Error: 0.00 usft	
Survey Program: O-LEAM MWD ADJ														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
14,200.00	11,033.80	14,171.53	11,034.10	66.04	65.36	90.02	3,347.09	575.53	825.01	694.23	130.78	6.308			
14,300.00	11,033.09	14,271.37	11,033.38	67.74	67.04	90.02	3,446.83	579.89	830.71	696.54	134.17	6.191			
14,400.00	11,032.37	14,371.20	11,032.66	69.46	68.73	90.02	3,546.57	584.24	836.41	698.83	137.58	6.079			
14,500.00	11,031.65	14,471.04	11,031.95	71.18	70.43	90.02	3,646.31	588.59	842.11	701.11	141.00	5.973			
14,600.00	11,030.93	14,570.88	11,031.23	72.90	72.14	90.02	3,746.05	592.95	847.81	703.38	144.43	5.870			
14,700.00	11,030.21	14,670.72	11,030.51	74.63	73.84	90.02	3,845.79	597.30	853.51	705.64	147.86	5.772			
14,800.00	11,029.49	14,770.55	11,029.80	76.36	75.56	90.02	3,945.53	601.66	859.20	707.89	151.31	5.678			
14,900.00	11,028.77	14,870.39	11,029.08	78.10	77.27	90.02	4,045.27	606.01	864.90	710.13	154.77	5.588			
15,000.00	11,028.05	14,970.23	11,028.36	79.84	79.00	90.02	4,145.01	610.36	870.60	712.37	158.23	5.502			
15,100.00	11,027.33	15,070.07	11,027.65	81.59	80.72	90.02	4,244.75	614.72	876.30	714.59	161.71	5.419			
15,200.00	11,026.61	15,169.90	11,026.93	83.34	82.45	90.02	4,344.49	619.07	882.00	716.81	165.19	5.339			
15,300.00	11,025.89	15,269.74	11,026.21	85.09	84.19	90.02	4,444.23	623.43	887.70	719.02	168.67	5.263			
15,400.00	11,025.17	15,369.58	11,025.50	86.85	85.92	90.02	4,543.97	627.78	893.40	721.23	172.17	5.189			
15,500.00	11,024.45	15,469.42	11,024.78	88.60	87.66	90.02	4,643.71	632.13	899.10	723.43	175.67	5.118			
15,562.24	11,024.00	15,531.56	11,024.33	89.70	88.75	90.02	4,705.79	634.84	902.64	724.80	177.85	5.075			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation