

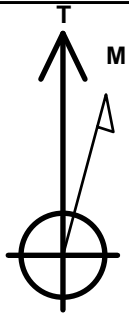
# Magpie Operating, Inc.

Well Name: **Bunker 8-3H**

Surface Location: Bunker 8 Well Pad Sec.29-T5N-R68W  
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
 Ground Elevation: 4992.0  
 +N/-S/E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0377757.03 3130398.29 40.369400 -105.032010  
 Original Well Elev WELL @ 5008.0ft (Original Well Elev)

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 2020'FSL, 2275'FWL, SEC.29	1.0	0.0	0.0	Point
BHL 1393'FSL, 1993'FEL, SEC.30	4400.0	-619.0	-4269.0	Point
LPL 1401'FSL, 658'FEL, SEC.29	4520.0	-641.1	2307.3	Point



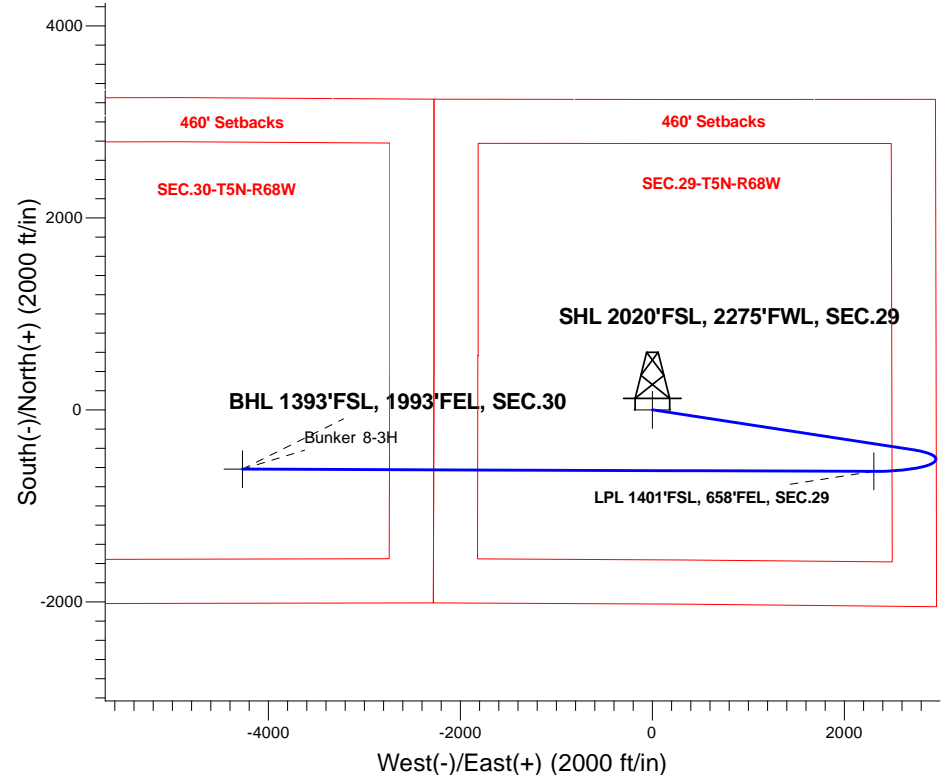
Azimuths to True North  
 Magnetic North: 8.37°

Magnetic Field  
 Strength: 52204.5snT  
 Dip Angle: 66.62°  
 Date: 12/7/2018  
 Model: HDGM

Bunker 8 Well Pad Sec.29-T5N-R68W  
 Bunker 8-3H  
 Plan #2 (12-06-18)  
 9:18, December 07 2018

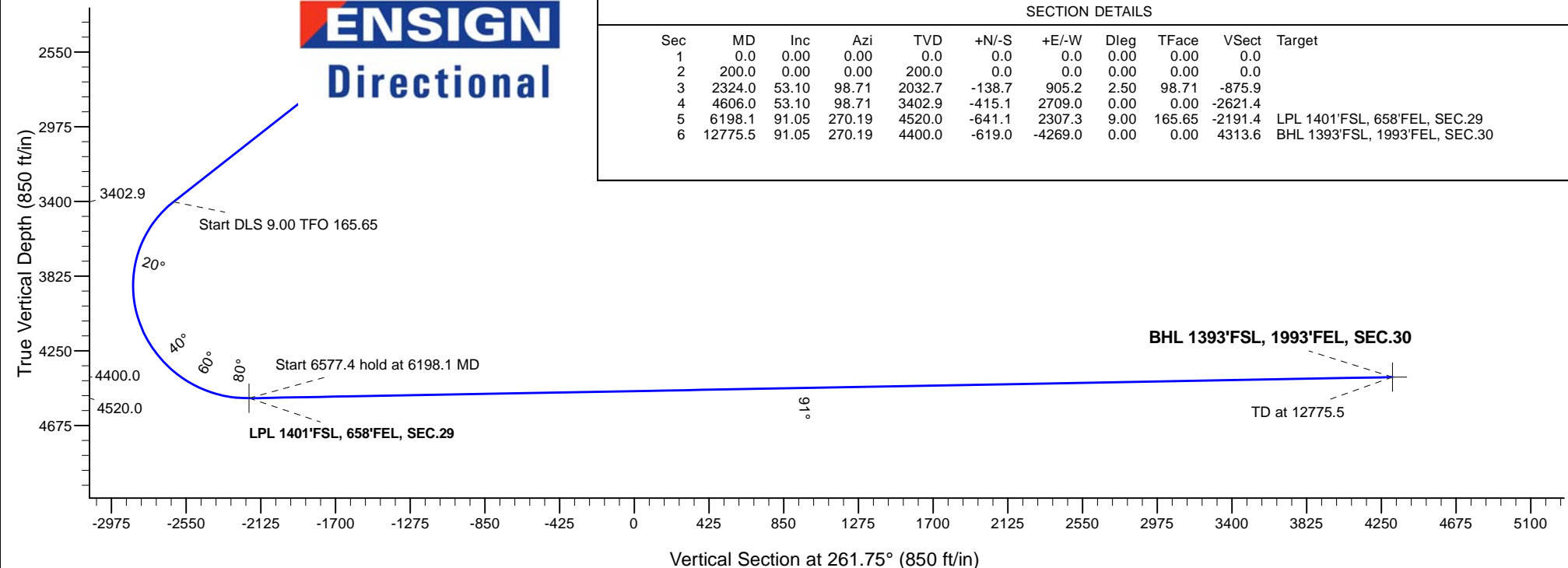
## ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP - Start Build 2.50
2032.7	2324.0	Start 2282.0 hold at 2324.0 MD
3402.9	4606.0	Start DLS 9.00 TFO 165.65
4520.0	6198.1	Start 6577.4 hold at 6198.1 MD
4400.0	12775.5	TD at 12775.5



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	2324.0	53.10	98.71	2032.7	-138.7	905.2	2.50	98.71	-875.9	
4	4606.0	53.10	98.71	3402.9	-415.1	2709.0	0.00	0.00	-2621.4	
5	6198.1	91.05	270.19	4520.0	-641.1	2307.3	9.00	165.65	-2191.4	LPL 1401'FSL, 658'FEL, SEC.29
6	12775.5	91.05	270.19	4400.0	-619.0	-4269.0	0.00	0.00	4313.6	BHL 1393'FSL, 1993'FEL, SEC.30





## **Magpie Operating, Inc.**

**SEC.29-T5N-R68W**

**Bunker 8 Well Pad Sec.29-T5N-R68W**

**Bunker 8-3H**

**Wellbore #1**

**Plan: Plan #2 (12-06-18)**

## **Standard Planning Report**

**07 December, 2018**

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Project:</b>	SEC.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (12-06-18)		

<b>Project</b>	SEC.29-T5N-R68W, Laramier County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	Bunker 8 Well Pad Sec.29-T5N-R68W				
Site Position:		Northing:	1,377,695.11 usft	Latitude:	40.369230
From:	Lat/Long	Easting:	3,130,398.62 usft	Longitude:	-105.032010
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.30

Well	Bunker 8-3H					
Well Position	+N/-S	61.9 ft	Northing:	1,377,757.03 usft	Latitude:	40.369400
	+E/-W	0.0 ft	Easting:	3,130,398.29 usft	Longitude:	-105.032010
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,992.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	12/7/2018	8.37	66.62	52,205

<b>Design</b>	Plan #2 (12-06-18)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	261.75

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,324.0	53.10	98.71	2,032.7	-138.7	905.2	2.50	2.50	0.00	98.71	
4,606.0	53.10	98.71	3,402.9	-415.1	2,709.0	0.00	0.00	0.00	0.00	
6,198.1	91.05	270.19	4,520.0	-641.1	2,307.3	9.00	2.38	10.77	165.65	LPL 1401'FSL, 658'FE
12,775.5	91.05	270.19	4,400.0	-619.0	-4,269.0	0.00	0.00	0.00	0.00	BHL 1393'FSL, 1993'I

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Project:</b>	SEC.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (12-06-18)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP - Start Build 2.50</b>									
300.0	2.50	98.71	300.0	-0.3	2.2	-2.1	2.50	2.50	0.00
400.0	5.00	98.71	399.7	-1.3	8.6	-8.3	2.50	2.50	0.00
500.0	7.50	98.71	499.1	-3.0	19.4	-18.8	2.50	2.50	0.00
600.0	10.00	98.71	598.0	-5.3	34.4	-33.3	2.50	2.50	0.00
700.0	12.50	98.71	696.0	-8.2	53.7	-52.0	2.50	2.50	0.00
800.0	15.00	98.71	793.2	-11.8	77.2	-74.7	2.50	2.50	0.00
900.0	17.50	98.71	889.2	-16.1	104.8	-101.5	2.50	2.50	0.00
1,000.0	20.00	98.71	983.9	-20.9	136.6	-132.2	2.50	2.50	0.00
1,100.0	22.50	98.71	1,077.0	-26.4	172.4	-166.9	2.50	2.50	0.00
1,200.0	25.00	98.71	1,168.6	-32.5	212.2	-205.4	2.50	2.50	0.00
1,300.0	27.50	98.71	1,258.3	-39.2	256.0	-247.7	2.50	2.50	0.00
1,400.0	30.00	98.71	1,345.9	-46.5	303.5	-293.7	2.50	2.50	0.00
1,500.0	32.50	98.71	1,431.4	-54.4	354.8	-343.3	2.50	2.50	0.00
1,600.0	35.00	98.71	1,514.5	-62.8	409.7	-396.4	2.50	2.50	0.00
1,700.0	37.50	98.71	1,595.2	-71.7	468.1	-453.0	2.50	2.50	0.00
1,800.0	40.00	98.71	1,673.2	-81.2	530.0	-512.9	2.50	2.50	0.00
1,900.0	42.50	98.71	1,748.3	-91.2	595.2	-575.9	2.50	2.50	0.00
2,000.0	45.00	98.71	1,820.6	-101.7	663.5	-642.1	2.50	2.50	0.00
2,100.0	47.50	98.71	1,889.7	-112.6	734.9	-711.2	2.50	2.50	0.00
2,200.0	50.00	98.71	1,955.6	-124.0	809.2	-783.1	2.50	2.50	0.00
2,300.0	52.50	98.71	2,018.2	-135.8	886.3	-857.6	2.50	2.50	0.00
2,324.0	53.10	98.71	2,032.7	-138.7	905.2	-875.9	2.50	2.50	0.00
<b>Start 2282.0 hold at 2324.0 MD</b>									
2,400.0	53.10	98.71	2,078.4	-147.9	965.3	-934.1	0.00	0.00	0.00
2,500.0	53.10	98.71	2,138.4	-160.0	1,044.3	-1,010.6	0.00	0.00	0.00
2,600.0	53.10	98.71	2,198.5	-172.1	1,123.4	-1,087.0	0.00	0.00	0.00
2,700.0	53.10	98.71	2,258.5	-184.2	1,202.4	-1,163.5	0.00	0.00	0.00
2,800.0	53.10	98.71	2,318.5	-196.4	1,281.5	-1,240.0	0.00	0.00	0.00
2,900.0	53.10	98.71	2,378.6	-208.5	1,360.5	-1,316.5	0.00	0.00	0.00
3,000.0	53.10	98.71	2,438.6	-220.6	1,439.6	-1,393.0	0.00	0.00	0.00
3,100.0	53.10	98.71	2,498.7	-232.7	1,518.6	-1,469.5	0.00	0.00	0.00
3,200.0	53.10	98.71	2,558.7	-244.8	1,597.6	-1,546.0	0.00	0.00	0.00
3,300.0	53.10	98.71	2,618.8	-256.9	1,676.7	-1,622.5	0.00	0.00	0.00
3,400.0	53.10	98.71	2,678.8	-269.0	1,755.7	-1,699.0	0.00	0.00	0.00
3,500.0	53.10	98.71	2,738.8	-281.1	1,834.8	-1,775.5	0.00	0.00	0.00
3,600.0	53.10	98.71	2,798.9	-293.3	1,913.8	-1,851.9	0.00	0.00	0.00
3,700.0	53.10	98.71	2,858.9	-305.4	1,992.9	-1,928.4	0.00	0.00	0.00
3,800.0	53.10	98.71	2,919.0	-317.5	2,071.9	-2,004.9	0.00	0.00	0.00
3,900.0	53.10	98.71	2,979.0	-329.6	2,151.0	-2,081.4	0.00	0.00	0.00
4,000.0	53.10	98.71	3,039.0	-341.7	2,230.0	-2,157.9	0.00	0.00	0.00
4,100.0	53.10	98.71	3,099.1	-353.8	2,309.1	-2,234.4	0.00	0.00	0.00
4,200.0	53.10	98.71	3,159.1	-365.9	2,388.1	-2,310.9	0.00	0.00	0.00
4,300.0	53.10	98.71	3,219.2	-378.0	2,467.1	-2,387.4	0.00	0.00	0.00
4,400.0	53.10	98.71	3,279.2	-390.2	2,546.2	-2,463.9	0.00	0.00	0.00
4,500.0	53.10	98.71	3,339.3	-402.3	2,625.2	-2,540.4	0.00	0.00	0.00
4,600.0	53.10	98.71	3,399.3	-414.4	2,704.3	-2,616.8	0.00	0.00	0.00
4,606.0	53.10	98.71	3,402.9	-415.1	2,709.0	-2,621.4	0.00	0.00	0.00
<b>Start DLS 9.00 TFO 165.65</b>									
4,700.0	44.94	101.67	3,464.5	-427.5	2,778.8	-2,688.7	9.00	-8.68	3.15

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<b>Project:</b>	SEC.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (12-06-18)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.0	36.37	105.92	3,540.3	-442.8	2,842.0	-2,749.1	9.00	-8.57	4.24
4,900.0	28.03	112.30	3,624.9	-459.9	2,892.4	-2,796.5	9.00	-8.34	6.39
5,000.0	20.20	123.32	3,716.1	-478.4	2,928.6	-2,829.7	9.00	-7.83	11.02
5,100.0	13.79	145.45	3,811.8	-497.7	2,949.9	-2,847.9	9.00	-6.41	22.13
5,200.0	11.49	186.20	3,909.6	-517.5	2,955.5	-2,850.7	9.00	-2.29	40.75
5,300.0	15.30	222.33	4,007.0	-537.2	2,945.6	-2,838.0	9.00	3.80	36.13
5,400.0	22.26	240.39	4,101.7	-556.3	2,920.2	-2,810.1	9.00	6.97	18.06
5,500.0	30.28	249.73	4,191.3	-574.4	2,880.0	-2,767.7	9.00	8.02	9.34
5,600.0	38.71	255.37	4,273.7	-591.1	2,825.9	-2,711.9	9.00	8.42	5.64
5,700.0	47.32	259.24	4,346.8	-605.9	2,759.4	-2,643.9	9.00	8.61	3.87
5,800.0	56.02	262.15	4,408.7	-618.5	2,682.1	-2,565.6	9.00	8.71	2.91
5,900.0	64.78	264.52	4,458.1	-628.5	2,595.8	-2,478.8	9.00	8.76	2.37
6,000.0	73.58	266.57	4,493.6	-635.7	2,502.7	-2,385.6	9.00	8.79	2.05
6,100.0	82.39	268.43	4,514.4	-639.9	2,405.1	-2,288.4	9.00	8.81	1.87
6,198.1	91.05	270.19	4,520.0	-641.1	2,307.3	-2,191.4	9.00	8.82	1.79
Start 6577.4 hold at 6198.1 MD									
6,200.0	91.05	270.19	4,520.0	-641.1	2,305.4	-2,189.5	0.00	0.00	0.00
6,300.0	91.05	270.19	4,518.1	-640.7	2,205.4	-2,090.6	0.00	0.00	0.00
6,400.0	91.05	270.19	4,516.3	-640.4	2,105.4	-1,991.7	0.00	0.00	0.00
6,500.0	91.05	270.19	4,514.5	-640.1	2,005.4	-1,892.8	0.00	0.00	0.00
6,600.0	91.05	270.19	4,512.7	-639.7	1,905.4	-1,793.9	0.00	0.00	0.00
6,700.0	91.05	270.19	4,510.8	-639.4	1,805.5	-1,695.0	0.00	0.00	0.00
6,800.0	91.05	270.19	4,509.0	-639.0	1,705.5	-1,596.1	0.00	0.00	0.00
6,900.0	91.05	270.19	4,507.2	-638.7	1,605.5	-1,497.2	0.00	0.00	0.00
7,000.0	91.05	270.19	4,505.4	-638.4	1,505.5	-1,398.3	0.00	0.00	0.00
7,100.0	91.05	270.19	4,503.5	-638.0	1,405.5	-1,299.4	0.00	0.00	0.00
7,200.0	91.05	270.19	4,501.7	-637.7	1,305.5	-1,200.5	0.00	0.00	0.00
7,300.0	91.05	270.19	4,499.9	-637.4	1,205.6	-1,101.6	0.00	0.00	0.00
7,400.0	91.05	270.19	4,498.1	-637.0	1,105.6	-1,002.7	0.00	0.00	0.00
7,500.0	91.05	270.19	4,496.2	-636.7	1,005.6	-903.8	0.00	0.00	0.00
7,600.0	91.05	270.19	4,494.4	-636.4	905.6	-804.9	0.00	0.00	0.00
7,700.0	91.05	270.19	4,492.6	-636.0	805.6	-706.0	0.00	0.00	0.00
7,800.0	91.05	270.19	4,490.8	-635.7	705.6	-607.1	0.00	0.00	0.00
7,900.0	91.05	270.19	4,489.0	-635.3	605.7	-508.2	0.00	0.00	0.00
8,000.0	91.05	270.19	4,487.1	-635.0	505.7	-409.3	0.00	0.00	0.00
8,100.0	91.05	270.19	4,485.3	-634.7	405.7	-310.4	0.00	0.00	0.00
8,200.0	91.05	270.19	4,483.5	-634.3	305.7	-211.5	0.00	0.00	0.00
8,300.0	91.05	270.19	4,481.7	-634.0	205.7	-112.6	0.00	0.00	0.00
8,400.0	91.05	270.19	4,479.8	-633.7	105.8	-13.7	0.00	0.00	0.00
8,500.0	91.05	270.19	4,478.0	-633.3	5.8	85.2	0.00	0.00	0.00
8,600.0	91.05	270.19	4,476.2	-633.0	-94.2	184.1	0.00	0.00	0.00
8,700.0	91.05	270.19	4,474.4	-632.7	-194.2	283.0	0.00	0.00	0.00
8,800.0	91.05	270.19	4,472.5	-632.3	-294.2	381.9	0.00	0.00	0.00
8,900.0	91.05	270.19	4,470.7	-632.0	-394.2	480.8	0.00	0.00	0.00
9,000.0	91.05	270.19	4,468.9	-631.6	-494.1	579.7	0.00	0.00	0.00
9,100.0	91.05	270.19	4,467.1	-631.3	-594.1	678.6	0.00	0.00	0.00
9,200.0	91.05	270.19	4,465.2	-631.0	-694.1	777.5	0.00	0.00	0.00
9,300.0	91.05	270.19	4,463.4	-630.6	-794.1	876.4	0.00	0.00	0.00
9,400.0	91.05	270.19	4,461.6	-630.3	-894.1	975.3	0.00	0.00	0.00
9,500.0	91.05	270.19	4,459.8	-630.0	-994.1	1,074.2	0.00	0.00	0.00
9,600.0	91.05	270.19	4,457.9	-629.6	-1,094.0	1,173.1	0.00	0.00	0.00
9,700.0	91.05	270.19	4,456.1	-629.3	-1,194.0	1,272.0	0.00	0.00	0.00
9,800.0	91.05	270.19	4,454.3	-629.0	-1,294.0	1,370.9	0.00	0.00	0.00
9,900.0	91.05	270.19	4,452.5	-628.6	-1,394.0	1,469.8	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Project:</b>	SEC.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (12-06-18)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,000.0	91.05	270.19	4,450.6	-628.3	-1,494.0	1,568.7	0.00	0.00	0.00	
10,100.0	91.05	270.19	4,448.8	-627.9	-1,594.0	1,667.6	0.00	0.00	0.00	
10,200.0	91.05	270.19	4,447.0	-627.6	-1,693.9	1,766.5	0.00	0.00	0.00	
10,300.0	91.05	270.19	4,445.2	-627.3	-1,793.9	1,865.4	0.00	0.00	0.00	
10,400.0	91.05	270.19	4,443.3	-626.9	-1,893.9	1,964.3	0.00	0.00	0.00	
10,500.0	91.05	270.19	4,441.5	-626.6	-1,993.9	2,063.2	0.00	0.00	0.00	
10,600.0	91.05	270.19	4,439.7	-626.3	-2,093.9	2,162.1	0.00	0.00	0.00	
10,700.0	91.05	270.19	4,437.9	-625.9	-2,193.9	2,261.0	0.00	0.00	0.00	
10,800.0	91.05	270.19	4,436.0	-625.6	-2,293.8	2,359.9	0.00	0.00	0.00	
10,900.0	91.05	270.19	4,434.2	-625.3	-2,393.8	2,458.8	0.00	0.00	0.00	
11,000.0	91.05	270.19	4,432.4	-624.9	-2,493.8	2,557.7	0.00	0.00	0.00	
11,100.0	91.05	270.19	4,430.6	-624.6	-2,593.8	2,656.6	0.00	0.00	0.00	
11,200.0	91.05	270.19	4,428.7	-624.2	-2,693.8	2,755.5	0.00	0.00	0.00	
11,300.0	91.05	270.19	4,426.9	-623.9	-2,793.7	2,854.4	0.00	0.00	0.00	
11,400.0	91.05	270.19	4,425.1	-623.6	-2,893.7	2,953.3	0.00	0.00	0.00	
11,500.0	91.05	270.19	4,423.3	-623.2	-2,993.7	3,052.2	0.00	0.00	0.00	
11,600.0	91.05	270.19	4,421.4	-622.9	-3,093.7	3,151.1	0.00	0.00	0.00	
11,700.0	91.05	270.19	4,419.6	-622.6	-3,193.7	3,250.0	0.00	0.00	0.00	
11,800.0	91.05	270.19	4,417.8	-622.2	-3,293.7	3,348.9	0.00	0.00	0.00	
11,900.0	91.05	270.19	4,416.0	-621.9	-3,393.6	3,447.8	0.00	0.00	0.00	
12,000.0	91.05	270.19	4,414.1	-621.6	-3,493.6	3,546.7	0.00	0.00	0.00	
12,100.0	91.05	270.19	4,412.3	-621.2	-3,593.6	3,645.6	0.00	0.00	0.00	
12,200.0	91.05	270.19	4,410.5	-620.9	-3,693.6	3,744.5	0.00	0.00	0.00	
12,300.0	91.05	270.19	4,408.7	-620.5	-3,793.6	3,843.4	0.00	0.00	0.00	
12,400.0	91.05	270.19	4,406.9	-620.2	-3,893.6	3,942.3	0.00	0.00	0.00	
12,500.0	91.05	270.19	4,405.0	-619.9	-3,993.5	4,041.2	0.00	0.00	0.00	
12,600.0	91.05	270.19	4,403.2	-619.5	-4,093.5	4,140.1	0.00	0.00	0.00	
12,700.0	91.05	270.19	4,401.4	-619.2	-4,193.5	4,239.0	0.00	0.00	0.00	
12,775.5	91.05	270.19	4,400.0	-619.0	-4,269.0	4,313.6	0.00	0.00	0.00	
TD at 12775.5										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 2020'FSL, 2275'FW - hit/miss target - Shape - Point	0.00	0.00	1.0	0.0	0.0	1,377,757.04	3,130,398.29	40.369400	-105.032010	
BHL 1393'FSL, 1993'FEI - plan hits target center - Point	0.00	0.00	4,400.0	-619.0	-4,269.0	1,377,115.58	3,126,132.80	40.367700	-105.047330	
LPL 1401'FSL, 658'FEL, - plan hits target center - Point	0.00	0.00	4,520.0	-641.1	2,307.3	1,377,128.17	3,132,708.81	40.367640	-105.023730	

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Company:</b>	Magpie Operating, Inc.	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Project:</b>	SEC.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>North Reference:</b>	True
<b>Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (12-06-18)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP - Start Build 2.50
2,324.0	2,032.7	-138.7	905.2	Start 2282.0 hold at 2324.0 MD
4,606.0	3,402.9	-415.1	2,709.0	Start DLS 9.00 TFO 165.65
6,198.1	4,520.0	-641.1	2,307.3	Start 6577.4 hold at 6198.1 MD
12,775.5	4,400.0	-619.0	-4,269.0	TD at 12775.5



## **Magpie Operating, Inc.**

**SEC.29-T5N-R68W**

**Bunker 8 Well Pad Sec.29-T5N-R68W**

**Bunker 8-3H**

**Wellbore #1**

**Plan #2 (12-06-18)**

## **Anticollision Report**

**07 December, 2018**

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2 (12-06-18)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 800.0 ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.45 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	12/7/2018		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	12,775.5	Plan #2 (12-06-18) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Bunker 8 Well Pad Sec.29-T5N-R68W						
Bunker 8-1H - Wellbore #1 - Plan #2 (12-06-18)	164.9	169.9	61.9	61.3	95.794	CC
Bunker 8-1H - Wellbore #1 - Plan #2 (12-06-18)	200.0	204.9	61.9	61.1	73.903	ES
Bunker 8-1H - Wellbore #1 - Plan #2 (12-06-18)	8,100.0	4,470.5	798.6	662.0	5.846	SF
Bunker 8-2H - Wellbore #1 - Plan #2 (12-06-18)	330.3	332.2	28.8	27.3	18.849	CC
Bunker 8-2H - Wellbore #1 - Plan #2 (12-06-18)	400.0	401.7	29.1	27.2	15.281	ES
Bunker 8-2H - Wellbore #1 - Plan #2 (12-06-18)	12,775.5	13,065.9	539.1	123.5	1.297	Level 3, SF
Bunker 8-4H - Wellbore #1 - Plan #2 (12-06-18)	200.0	199.0	29.1	28.3	35.402	CC
Bunker 8-4H - Wellbore #1 - Plan #2 (12-06-18)	12,775.5	12,876.8	408.0	-73.4	0.848	Level 1, ES, SF
Bunker 8-5H - Wellbore #1 - Plan #2 (12-06-18)	200.0	197.0	58.3	57.5	71.280	CC
Bunker 8-5H - Wellbore #1 - Plan #2 (12-06-18)	300.0	296.9	58.7	57.3	43.635	ES
Bunker 8-5H - Wellbore #1 - Plan #2 (12-06-18)	4,950.0	4,872.5	618.7	455.6	3.793	SF
Bunker 8-6H - Wellbore #1 - Plan #2 (12-06-18)	200.0	195.0	91.1	90.3	112.130	CC
Bunker 8-6H - Wellbore #1 - Plan #2 (12-06-18)	300.0	294.6	91.6	90.3	68.375	ES
Bunker 8-6H - Wellbore #1 - Plan #2 (12-06-18)	4,606.0	4,526.2	776.7	614.6	4.792	SF
Bunker 8-7H - Wellbore #1 - Plan #2 (12-06-18)	200.0	193.0	120.2	119.4	149.022	CC
Bunker 8-7H - Wellbore #1 - Plan #2 (12-06-18)	300.0	293.0	120.6	119.2	89.668	ES
Bunker 8-7H - Wellbore #1 - Plan #2 (12-06-18)	3,600.0	3,520.7	788.3	681.8	7.400	SF
Bunker 8-8H - Wellbore #1 - Plan #2 (12-06-18)	200.0	191.0	149.4	148.6	186.416	CC
Bunker 8-8H - Wellbore #1 - Plan #2 (12-06-18)	300.0	291.0	149.7	148.4	111.797	ES
Bunker 8-8H - Wellbore #1 - Plan #2 (12-06-18)	2,900.0	2,814.4	772.1	704.4	11.410	SF
Bunker 8-9H - Wellbore #1 - Plan #2 (12-16-18)	200.0	190.0	178.5	177.7	223.570	CC, ES
Bunker 8-9H - Wellbore #1 - Plan #2 (12-16-18)	2,600.0	2,400.5	772.0	715.4	13.641	SF

<b>Offset Design</b>	Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-1H - Wellbore #1 - Plan #2 (12-06-18)											<b>Offset Site Error:</b>	0.0 ft
<b>Survey Program:</b>	0-MWD											<b>Offset Well Error:</b>	0.0 ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>									
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
0.0	0.0	5.0	5.0	0.0	0.0	180.00	-61.9	0.0	61.9	61.9	0.01	8,703.625	
100.0	100.0	105.0	105.0	0.1	0.2	180.00	-61.9	0.0	61.9	61.6	0.29	214.236	
164.9	164.9	169.9	169.9	0.3	0.3	180.00	-61.9	0.0	61.9	61.3	0.65	95.794	CC
200.0	200.0	204.9	204.9	0.4	0.4	180.00	-61.9	0.0	61.9	61.1	0.84	73.903	ES
300.0	300.0	302.9	302.8	0.7	0.7	82.59	-63.7	0.6	63.4	62.0	1.34	47.142	
400.0	399.7	400.0	399.8	1.0	0.9	86.23	-68.5	2.4	67.6	65.8	1.87	36.143	

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

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
500.0	499.1	498.0	497.4	1.3	1.2	91.43	-76.5	5.3	75.1	72.7	2.48	30.289		
600.0	598.0	594.7	593.5	1.7	1.5	97.05	-87.4	9.3	86.4	83.2	3.19	27.108		
700.0	696.0	690.7	688.3	2.2	1.9	102.32	-101.3	14.4	101.8	97.8	4.01	25.380		
800.0	793.2	785.6	781.5	2.7	2.4	106.82	-118.0	20.5	121.5	116.5	4.96	24.491		
900.0	889.2	879.4	873.1	3.4	2.9	110.45	-137.2	27.5	145.3	139.2	6.03	24.088		
1,000.0	983.9	971.9	962.6	4.2	3.5	113.27	-159.0	35.5	173.1	165.9	7.23	23.963		
1,100.0	1,077.0	1,063.0	1,050.0	5.1	4.1	115.42	-183.1	44.3	204.9	196.4	8.54	23.991		
1,200.0	1,168.6	1,152.5	1,135.0	6.1	4.7	117.02	-209.3	53.9	240.4	230.5	9.98	24.099		
1,300.0	1,258.3	1,240.3	1,217.6	7.2	5.5	118.17	-237.4	64.2	279.5	268.0	11.53	24.247		
1,400.0	1,345.9	1,327.1	1,298.3	8.5	6.2	118.99	-267.5	75.2	322.1	308.9	13.20	24.391		
1,500.0	1,431.4	1,415.7	1,380.3	9.9	7.0	119.88	-298.9	86.6	367.2	352.2	14.99	24.502		
1,600.0	1,514.5	1,502.8	1,461.0	11.4	7.8	120.84	-329.7	97.9	414.6	397.8	16.83	24.637		
1,700.0	1,595.2	1,588.2	1,540.1	13.0	8.6	121.80	-360.0	109.0	464.4	445.7	18.73	24.799		
1,800.0	1,673.2	1,671.8	1,617.5	14.8	9.4	122.72	-389.6	119.9	516.8	496.1	20.68	24.993		
1,900.0	1,748.3	1,753.4	1,693.1	16.7	10.1	123.56	-418.6	130.4	571.7	549.0	22.67	25.217		
2,000.0	1,820.6	1,832.9	1,766.7	18.7	10.9	124.31	-446.7	140.7	629.2	604.5	24.70	25.467		
2,100.0	1,889.7	1,910.1	1,838.1	20.8	11.6	124.93	-474.1	150.7	689.3	662.5	26.78	25.736		
2,200.0	1,955.6	1,984.8	1,907.3	23.1	12.3	125.43	-500.6	160.4	752.1	723.2	28.91	26.014		
8,083.0	4,485.6	4,466.2	4,204.9	124.4	34.7	-69.03	-1,380.3	425.4	798.4	662.5	136.00	5.871		
8,100.0	4,485.3	4,470.5	4,208.8	124.8	34.8	-69.33	-1,381.8	424.2	798.6	662.0	136.60	5.846 SF		

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-2H - Wellbore #1 - Plan #2 (12-06-18)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	2.0	2.0	0.0	0.0	-180.00	-29.1	0.0	29.1	29.1	0.00	9,736.085		
100.0	100.0	102.0	102.0	0.1	0.1	-180.00	-29.1	0.0	29.1	28.9	0.28	103.775		
200.0	200.0	202.0	202.0	0.4	0.4	-180.00	-29.1	0.0	29.1	28.3	0.83	35.050		
300.0	300.0	302.0	302.0	0.7	0.7	85.57	-29.1	0.0	28.9	27.5	1.37	21.117		
330.3	330.2	332.2	332.2	0.8	0.8	88.14	-29.2	0.2	28.8	27.3	1.53	18.849 CC		
400.0	399.7	401.7	401.7	1.0	1.0	94.04	-29.7	2.2	29.1	27.2	1.90	15.281 ES		
500.0	499.1	501.7	501.4	1.3	1.2	102.07	-31.4	8.6	30.4	27.9	2.50	12.123		
600.0	598.0	601.8	601.0	1.7	1.5	109.11	-34.1	19.2	32.6	29.4	3.21	10.142		
700.0	696.0	702.2	700.1	2.2	1.9	114.88	-37.9	34.1	35.6	31.6	4.04	8.822		
800.0	793.2	802.7	798.6	2.7	2.4	119.38	-42.8	53.2	39.4	34.4	4.99	7.890		
900.0	889.2	903.3	896.4	3.4	2.9	122.77	-48.8	76.5	43.6	37.6	6.07	7.193		
1,000.0	983.9	1,004.2	993.1	4.2	3.6	125.22	-55.9	103.9	48.4	41.1	7.29	6.640		
1,100.0	1,077.0	1,105.2	1,088.7	5.1	4.4	126.92	-64.0	135.6	53.5	44.9	8.66	6.178		
1,200.0	1,168.6	1,206.3	1,182.9	6.1	5.3	128.04	-73.2	171.3	59.0	48.8	10.21	5.777		
1,300.0	1,258.3	1,307.7	1,275.5	7.2	6.3	128.69	-83.4	211.1	64.8	52.8	11.95	5.421		
1,400.0	1,345.9	1,409.1	1,366.4	8.5	7.5	128.99	-94.7	254.9	70.9	57.0	13.90	5.098		
1,500.0	1,431.4	1,510.8	1,455.2	9.9	8.7	129.01	-106.9	302.6	77.2	61.1	16.07	4.804		
1,600.0	1,514.5	1,612.6	1,542.0	11.4	10.2	128.81	-120.2	354.2	83.8	65.3	18.48	4.536		
1,700.0	1,595.2	1,714.5	1,626.4	13.0	11.7	128.44	-134.4	409.5	90.7	69.5	21.14	4.289		
1,800.0	1,673.2	1,816.6	1,708.3	14.8	13.4	127.93	-149.6	468.5	97.8	73.7	24.05	4.064		
1,900.0	1,748.3	1,918.8	1,787.5	16.7	15.2	127.32	-165.7	531.0	105.1	77.8	27.23	3.858		
2,000.0	1,820.6	2,021.1	1,863.8	18.7	17.2	126.63	-182.6	597.0	112.6	81.9	30.68	3.669		
2,100.0	1,889.7	2,123.6	1,937.2	20.8	19.3	125.87	-200.5	666.4	120.3	85.9	34.41	3.497		
2,200.0	1,955.6	2,226.2	2,007.3	23.1	21.5	125.07	-219.1	738.9	128.3	89.9	38.41	3.340		
2,300.0	2,018.2	2,328.1	2,073.7	25.5	23.8	124.29	-238.3	813.7	136.5	93.9	42.62	3.203		
2,324.0	2,032.7	2,352.0	2,089.0	26.0	24.3	124.23	-242.9	831.5	138.7	95.1	43.61	3.181		
2,400.0	2,078.4	2,427.6	2,137.6	27.9	26.1	124.32	-257.4	887.7	145.9	99.2	46.69	3.124		
2,500.0	2,138.4	2,527.2	2,201.5	30.4	28.4	124.42	-276.4	961.6	155.3	104.5	50.75	3.060		
2,600.0	2,198.5	2,626.8	2,265.4	32.9	30.8	124.51	-295.4	1,035.5	164.7	109.9	54.83	3.004		
2,700.0	2,258.5	2,726.3	2,329.3	35.4	33.1	124.59	-314.4	1,109.4	174.1	115.2	58.92	2.955		
2,800.0	2,318.5	2,825.9	2,393.3	37.9	35.4	124.66	-333.4	1,183.4	183.5	120.5	63.01	2.913		
2,900.0	2,378.6	2,925.4	2,457.2	40.4	37.8	124.73	-352.4	1,257.3	192.9	125.8	67.11	2.875		
3,000.0	2,438.6	3,025.0	2,521.1	42.9	40.1	124.78	-371.4	1,331.2	202.4	131.1	71.22	2.841		
3,100.0	2,498.7	3,124.5	2,585.0	45.4	42.5	124.84	-390.4	1,405.1	211.8	136.5	75.33	2.811		
3,200.0	2,558.7	3,224.1	2,648.9	47.9	44.8	124.89	-409.4	1,479.1	221.2	141.8	79.45	2.784		
3,300.0	2,618.8	3,323.6	2,712.8	50.4	47.2	124.93	-428.4	1,553.0	230.6	147.1	83.57	2.760		
3,400.0	2,678.8	3,423.2	2,776.8	53.0	49.6	124.97	-447.4	1,626.9	240.0	152.4	87.69	2.737		
3,500.0	2,738.8	3,522.8	2,840.7	55.5	51.9	125.01	-466.4	1,700.8	249.5	157.7	91.81	2.717		
3,600.0	2,798.9	3,622.3	2,904.6	58.0	54.3	125.05	-485.4	1,774.8	258.9	162.9	95.94	2.698		
3,700.0	2,858.9	3,721.9	2,968.5	60.5	56.7	125.08	-504.4	1,848.7	268.3	168.2	100.06	2.681		
3,800.0	2,919.0	3,821.4	3,032.4	63.0	59.0	125.11	-523.4	1,922.6	277.7	173.5	104.19	2.665		
3,900.0	2,979.0	3,921.0	3,096.3	65.6	61.4	125.14	-542.4	1,996.5	287.1	178.8	108.32	2.651		
4,000.0	3,039.0	4,020.5	3,160.3	68.1	63.8	125.17	-561.4	2,070.5	296.6	184.1	112.45	2.637		
4,100.0	3,099.1	4,120.1	3,224.2	70.6	66.1	125.19	-580.4	2,144.4	306.0	189.4	116.58	2.625		
4,200.0	3,159.1	4,219.6	3,288.1	73.1	68.5	125.22	-599.4	2,218.3	315.4	194.7	120.72	2.613		
4,300.0	3,219.2	4,319.2	3,352.0	75.7	70.9	125.24	-618.4	2,292.2	324.8	200.0	124.85	2.602		
4,400.0	3,279.2	4,418.7	3,415.9	78.2	73.2	125.26	-637.4	2,366.1	334.2	205.3	128.98	2.591		
4,500.0	3,339.3	4,518.3	3,479.8	80.7	75.6	125.28	-656.5	2,440.1	343.7	210.5	133.12	2.582		
4,606.0	3,402.9	4,623.8	3,547.6	83.4	78.1	125.30	-676.6	2,518.4	353.6	216.1	137.50	2.572		
4,650.0	3,430.5	4,667.7	3,575.8	84.4	79.2	124.51	-685.0	2,551.0	356.6	217.1	139.55	2.556		
4,700.0	3,464.5	4,717.6	3,607.8	85.5	80.3	122.86	-694.5	2,588.0	357.2	214.9	142.29	2.511		
4,750.0	3,501.2	4,767.1	3,639.6	86.4	81.5	120.34	-704.0	2,624.8	354.9	209.5	145.49	2.440		

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

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-2H - Wellbore #1 - Plan #2 (12-06-18)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,800.0	3,540.3	4,816.1	3,671.0	87.2	82.7	116.83	-713.3	2,661.2	349.9	200.7	149.14	2.346		
4,850.0	3,581.6	4,864.2	3,701.9	87.9	83.8	112.15	-722.5	2,696.9	342.3	189.1	153.22	2.234		
4,900.0	3,624.9	4,911.1	3,732.0	88.5	84.9	106.02	-731.4	2,731.7	332.5	174.9	157.66	2.109		
4,950.0	3,669.8	4,950.0	3,757.0	89.0	85.9	98.54	-738.9	2,760.6	321.1	159.4	161.69	1.986		
5,000.0	3,716.1	4,986.2	3,781.4	89.4	86.6	89.11	-746.1	2,786.5	309.7	144.4	165.24	1.874		
5,050.0	3,763.6	5,020.4	3,805.5	89.6	87.3	76.88	-753.3	2,809.4	298.9	130.7	168.26	1.777		
5,100.0	3,811.8	5,055.0	3,831.2	89.8	87.9	60.23	-760.9	2,831.4	289.2	118.3	170.87	1.692		
5,150.0	3,860.6	5,090.3	3,858.5	90.0	88.5	37.96	-769.0	2,852.2	280.9	107.9	172.96	1.624		
5,200.0	3,909.6	5,126.3	3,887.5	90.0	89.0	11.68	-777.6	2,871.7	274.4	100.0	174.41	1.573		
5,250.0	3,958.5	5,163.1	3,918.1	90.0	89.5	-13.17	-786.7	2,890.0	270.2	95.0	175.14	1.543		
5,300.0	4,007.0	5,200.0	3,949.8	90.0	89.9	-32.78	-796.2	2,906.3	268.6	93.5	175.09	1.534		
5,303.5	4,010.4	5,203.6	3,952.9	90.0	90.0	-34.08	-797.1	2,907.8	268.6	93.5	175.06	1.534		
5,350.0	4,054.8	5,239.7	3,984.9	89.9	90.3	-47.81	-806.6	2,921.8	269.8	95.6	174.27	1.548		
5,400.0	4,101.7	5,279.9	4,021.3	89.8	90.7	-59.40	-817.4	2,935.1	274.2	101.5	172.74	1.587		
5,450.0	4,147.3	5,321.6	4,059.8	89.7	91.0	-68.78	-828.8	2,946.3	281.6	111.0	170.62	1.651		
5,500.0	4,191.3	5,365.2	4,100.6	89.6	91.2	-76.64	-840.9	2,955.2	292.0	124.0	168.05	1.738		
5,550.0	4,233.6	5,410.9	4,144.0	89.5	91.4	-83.41	-853.8	2,961.3	305.2	140.0	165.18	1.848		
5,600.0	4,273.7	5,459.2	4,190.2	89.4	91.5	-89.34	-867.5	2,964.3	320.7	158.6	162.15	1.978		
5,650.0	4,311.5	5,510.6	4,239.5	89.4	91.5	-94.63	-882.2	2,963.5	338.3	179.3	159.06	2.127		
5,700.0	4,346.8	5,565.8	4,292.1	89.4	91.5	-99.40	-897.8	2,957.9	357.5	201.5	156.01	2.291		
5,750.0	4,379.2	5,625.6	4,348.4	89.4	91.5	-103.75	-914.5	2,946.6	377.8	224.7	153.06	2.468		
5,800.0	4,408.7	5,691.0	4,408.5	89.5	91.4	-107.75	-932.3	2,927.9	398.7	248.4	150.26	2.653		
5,850.0	4,435.1	5,763.2	4,472.3	89.6	91.2	-111.45	-951.3	2,900.0	419.7	272.0	147.67	2.842		
5,900.0	4,458.1	5,843.7	4,539.3	89.8	91.1	-114.88	-971.1	2,860.3	440.0	294.7	145.37	3.027		
5,950.0	4,477.6	5,933.8	4,608.0	90.0	91.0	-117.99	-991.5	2,805.7	459.1	315.6	143.53	3.199		
6,000.0	4,493.6	6,034.9	4,675.4	90.3	90.9	-120.72	-1,011.5	2,733.1	476.0	333.7	142.36	3.344		
6,050.0	4,505.9	6,147.5	4,736.4	90.6	91.1	-122.95	-1,029.5	2,640.4	489.9	347.7	142.17	3.446		
6,100.0	4,514.4	6,270.6	4,784.1	91.0	91.5	-124.54	-1,043.6	2,528.0	499.8	356.5	143.28	3.488		
6,150.0	4,519.1	6,401.2	4,811.0	91.4	92.2	-125.35	-1,051.6	2,400.7	504.8	359.0	145.83	3.461		
6,198.1	4,520.0	6,499.1	4,814.8	91.7	92.9	-125.43	-1,052.7	2,303.0	505.2	356.0	149.20	3.386		
6,200.0	4,520.0	6,501.0	4,814.8	91.8	92.9	-125.43	-1,052.7	2,301.1	505.2	355.9	149.23	3.385		
6,300.0	4,518.1	6,601.0	4,813.8	92.6	93.7	-125.51	-1,052.3	2,201.1	505.7	354.9	150.72	3.355		
6,400.0	4,516.3	6,701.0	4,812.8	93.6	94.6	-125.58	-1,052.0	2,101.1	506.1	353.7	152.40	3.321		
6,500.0	4,514.5	6,801.0	4,811.8	94.8	95.6	-125.66	-1,051.7	2,001.1	506.6	352.3	154.28	3.284		
6,600.0	4,512.7	6,901.0	4,810.9	96.0	96.7	-125.74	-1,051.3	1,901.1	507.1	350.8	156.33	3.244		
6,700.0	4,510.8	7,001.0	4,809.9	97.3	98.0	-125.81	-1,051.0	1,801.1	507.6	349.1	158.55	3.201		
6,800.0	4,509.0	7,101.0	4,808.9	98.7	99.3	-125.89	-1,050.7	1,701.2	508.1	347.2	160.94	3.157		
6,900.0	4,507.2	7,201.0	4,807.9	100.3	100.7	-125.97	-1,050.3	1,601.2	508.6	345.1	163.48	3.111		
7,000.0	4,505.4	7,301.0	4,806.9	101.9	102.2	-126.04	-1,050.0	1,501.2	509.1	342.9	166.17	3.064		
7,100.0	4,503.5	7,401.0	4,805.9	103.6	103.9	-126.12	-1,049.6	1,401.2	509.6	340.6	169.00	3.015		
7,200.0	4,501.7	7,501.0	4,804.9	105.4	105.6	-126.20	-1,049.3	1,301.2	510.1	338.1	171.96	2.966		
7,300.0	4,499.9	7,600.9	4,803.9	107.3	107.4	-126.27	-1,049.0	1,201.2	510.6	335.5	175.04	2.917		
7,400.0	4,498.1	7,700.9	4,803.0	109.2	109.2	-126.35	-1,048.6	1,101.2	511.1	332.8	178.24	2.867		
7,500.0	4,496.2	7,800.9	4,802.0	111.3	111.2	-126.42	-1,048.3	1,001.2	511.6	330.0	181.55	2.818		
7,600.0	4,494.4	7,900.9	4,801.0	113.4	113.2	-126.50	-1,048.0	901.2	512.1	327.1	184.96	2.768		
7,700.0	4,492.6	8,000.9	4,800.0	115.5	115.3	-126.57	-1,047.6	801.2	512.6	324.1	188.47	2.720		
7,800.0	4,490.8	8,100.9	4,799.0	117.8	117.5	-126.65	-1,047.3	701.2	513.1	321.0	192.07	2.671		
7,900.0	4,489.0	8,200.9	4,798.0	120.1	119.7	-126.72	-1,047.0	601.3	513.6	317.8	195.75	2.624		
8,000.0	4,487.1	8,300.9	4,797.0	122.4	122.0	-126.80	-1,046.6	501.3	514.1	314.5	199.51	2.577		
8,100.0	4,485.3	8,400.9	4,796.0	124.8	124.3	-126.87	-1,046.3	401.3	514.6	311.2	203.34	2.530		
8,200.0	4,483.5	8,500.9	4,795.1	127.2	126.7	-126.95	-1,046.0	301.3	515.1	307.8	207.25	2.485		
8,300.0	4,481.7	8,600.9	4,794.1	129.7	129.2	-127.02	-1,045.6	201.3	515.6	304.4	211.21	2.441		

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

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,400.0	4,479.8	8,700.9	4,793.1	132.2	131.7	-127.10	-1,045.3	101.3	516.1	300.8	215.24	2.398		
8,500.0	4,478.0	8,800.9	4,792.1	134.8	134.2	-127.17	-1,044.9	1.3	516.6	297.3	219.32	2.355		
8,600.0	4,476.2	8,900.9	4,791.1	137.4	136.8	-127.24	-1,044.6	-98.7	517.1	293.6	223.46	2.314		
8,700.0	4,474.4	9,000.9	4,790.1	140.1	139.4	-127.32	-1,044.3	-198.7	517.6	290.0	227.64	2.274		
8,800.0	4,472.5	9,100.9	4,789.1	142.8	142.1	-127.39	-1,043.9	-298.7	518.1	286.2	231.87	2.234		
8,900.0	4,470.7	9,200.9	4,788.2	145.5	144.7	-127.46	-1,043.6	-398.7	518.6	282.5	236.14	2.196		
9,000.0	4,468.9	9,300.9	4,787.2	148.2	147.5	-127.54	-1,043.3	-498.6	519.1	278.7	240.45	2.159		
9,100.0	4,467.1	9,400.9	4,786.2	151.0	150.2	-127.61	-1,042.9	-598.6	519.6	274.8	244.79	2.123		
9,200.0	4,465.2	9,500.9	4,785.2	153.8	153.0	-127.68	-1,042.6	-698.6	520.1	271.0	249.17	2.087		
9,300.0	4,463.4	9,600.9	4,784.2	156.6	155.8	-127.76	-1,042.3	-798.6	520.7	267.1	253.58	2.053		
9,400.0	4,461.6	9,700.9	4,783.2	159.5	158.6	-127.83	-1,041.9	-898.6	521.2	263.1	258.02	2.020		
9,500.0	4,459.8	9,800.9	4,782.2	162.3	161.5	-127.90	-1,041.6	-998.6	521.7	259.2	262.49	1.987		
9,600.0	4,457.9	9,900.9	4,781.2	165.2	164.4	-127.97	-1,041.3	-1,098.6	522.2	255.2	266.99	1.956		
9,700.0	4,456.1	10,000.9	4,780.3	168.2	167.3	-128.05	-1,040.9	-1,198.6	522.7	251.2	271.50	1.925		
9,800.0	4,454.3	10,100.9	4,779.3	171.1	170.2	-128.12	-1,040.6	-1,298.6	523.2	247.2	276.04	1.895		
9,900.0	4,452.5	10,200.9	4,778.3	174.0	173.1	-128.19	-1,040.2	-1,398.6	523.7	243.1	280.60	1.867		
10,000.0	4,450.6	10,300.9	4,777.3	177.0	176.1	-128.26	-1,039.9	-1,498.6	524.3	239.1	285.18	1.838		
10,100.0	4,448.8	10,400.8	4,776.3	180.0	179.1	-128.33	-1,039.6	-1,598.5	524.8	235.0	289.78	1.811		
10,200.0	4,447.0	10,500.8	4,775.3	183.0	182.1	-128.41	-1,039.2	-1,698.5	525.3	230.9	294.39	1.784		
10,300.0	4,445.2	10,600.8	4,774.3	186.0	185.1	-128.48	-1,038.9	-1,798.5	525.8	226.8	299.01	1.759		
10,400.0	4,443.3	10,700.8	4,773.3	189.1	188.1	-128.55	-1,038.6	-1,898.5	526.4	222.7	303.65	1.733		
10,500.0	4,441.5	10,800.8	4,772.4	192.1	191.2	-128.62	-1,038.2	-1,998.5	526.9	218.6	308.30	1.709		
10,600.0	4,439.7	10,900.8	4,771.4	195.2	194.2	-128.69	-1,037.9	-2,098.5	527.4	214.4	312.97	1.685		
10,700.0	4,437.9	11,000.8	4,770.4	198.3	197.3	-128.76	-1,037.6	-2,198.5	527.9	210.3	317.64	1.662		
10,800.0	4,436.0	11,100.8	4,769.4	201.3	200.4	-128.83	-1,037.2	-2,298.5	528.4	206.1	322.32	1.639		
10,900.0	4,434.2	11,200.8	4,768.4	204.4	203.5	-128.90	-1,036.9	-2,398.5	529.0	202.0	327.02	1.618		
11,000.0	4,432.4	11,300.8	4,767.4	207.6	206.6	-128.97	-1,036.5	-2,498.5	529.5	197.8	331.72	1.596		
11,100.0	4,430.6	11,400.8	4,766.4	210.7	209.7	-129.04	-1,036.2	-2,598.5	530.0	193.6	336.42	1.575		
11,200.0	4,428.7	11,500.8	4,765.4	213.8	212.8	-129.11	-1,035.9	-2,698.5	530.6	189.4	341.14	1.555		
11,300.0	4,426.9	11,600.8	4,764.5	216.9	216.0	-129.18	-1,035.5	-2,798.4	531.1	185.2	345.86	1.536		
11,400.0	4,425.1	11,700.8	4,763.5	220.1	219.1	-129.25	-1,035.2	-2,898.4	531.6	181.0	350.58	1.516		
11,500.0	4,423.3	11,800.8	4,762.5	223.3	222.3	-129.32	-1,034.9	-2,998.4	532.1	176.8	355.31	1.498 Level 3		
11,600.0	4,421.4	11,900.8	4,761.5	226.4	225.4	-129.39	-1,034.5	-3,098.4	532.7	172.6	360.04	1.479 Level 3		
11,700.0	4,419.6	12,000.8	4,760.5	229.6	228.6	-129.46	-1,034.2	-3,198.4	533.2	168.4	364.78	1.462 Level 3		
11,800.0	4,417.8	12,100.8	4,759.5	232.8	231.8	-129.53	-1,033.9	-3,298.4	533.7	164.2	369.52	1.444 Level 3		
11,900.0	4,416.0	12,200.8	4,758.5	236.0	235.0	-129.60	-1,033.5	-3,398.4	534.3	160.0	374.26	1.428 Level 3		
12,000.0	4,414.1	12,300.8	4,757.6	239.2	238.1	-129.67	-1,033.2	-3,498.4	534.8	155.8	379.00	1.411 Level 3		
12,100.0	4,412.3	12,400.8	4,756.6	242.4	241.3	-129.74	-1,032.9	-3,598.4	535.3	151.6	383.75	1.395 Level 3		
12,200.0	4,410.5	12,500.8	4,755.6	245.6	244.6	-129.81	-1,032.5	-3,698.4	535.9	147.4	388.49	1.379 Level 3		
12,300.0	4,408.7	12,600.8	4,754.6	248.8	247.8	-129.88	-1,032.2	-3,798.4	536.4	143.2	393.24	1.364 Level 3		
12,400.0	4,406.9	12,700.8	4,753.6	252.0	251.0	-129.95	-1,031.8	-3,898.3	537.0	139.0	397.99	1.349 Level 3		
12,500.0	4,405.0	12,800.8	4,752.6	255.2	254.2	-130.01	-1,031.5	-3,998.3	537.5	134.8	402.73	1.335 Level 3		
12,600.0	4,403.2	12,900.8	4,751.6	258.5	257.4	-130.08	-1,031.2	-4,098.3	538.0	130.6	407.48	1.320 Level 3		
12,700.0	4,401.4	13,000.8	4,750.6	261.7	260.7	-130.15	-1,030.8	-4,198.3	538.6	126.3	412.23	1.306 Level 3		
12,775.5	4,400.0	13,065.9	4,750.0	264.1	262.8	-130.20	-1,030.6	-4,263.5	539.1	123.5	415.58	1.297 Level 3, SF		

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-4H - Wellbore #1 - Plan #2 (12-06-18)													Offset Site Error:	0.0 ft
Offset Design		Survey Program: 0-MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	0.00	29.1	0.0	29.2					
100.0	100.0	99.0	99.0	0.1	0.1	0.00	29.1	0.0	29.1	28.9	0.27	106.382		
200.0	200.0	199.0	199.0	0.4	0.4	0.00	29.1	0.0	29.1	28.3	0.82	35.402	CC	
300.0	300.0	299.0	299.0	0.7	0.7	-102.88	29.1	0.0	29.6	28.2	1.36	21.701		
400.0	399.7	399.1	399.1	1.0	0.9	-110.76	29.0	2.1	31.0	29.1	1.91	16.255		
500.0	499.1	499.5	499.3	1.3	1.2	-117.53	28.5	8.7	33.3	30.8	2.50	13.298		
600.0	598.0	600.1	599.2	1.7	1.5	-123.03	27.8	19.6	36.3	33.1	3.18	11.413		
700.0	696.0	700.8	698.8	2.2	1.9	-127.31	26.7	34.9	39.9	35.9	3.94	10.108		
800.0	793.2	801.8	797.8	2.7	2.4	-130.54	25.3	54.6	43.8	39.0	4.80	9.136		
900.0	889.2	902.9	896.0	3.4	2.9	-132.90	23.6	78.6	48.2	42.4	5.76	8.365		
1,000.0	983.9	1,004.2	993.2	4.2	3.6	-134.56	21.6	107.1	52.8	46.0	6.85	7.718		
1,100.0	1,077.0	1,105.7	1,089.2	5.1	4.4	-135.66	19.3	139.8	57.7	49.6	8.07	7.154		
1,200.0	1,168.6	1,207.3	1,183.8	6.1	5.3	-136.31	16.7	176.8	62.8	53.4	9.45	6.647		
1,300.0	1,258.3	1,309.1	1,276.8	7.2	6.3	-136.60	13.8	218.1	68.1	57.1	11.00	6.190		
1,400.0	1,345.9	1,411.1	1,368.1	8.5	7.5	-136.61	10.7	263.4	73.5	60.8	12.75	5.769		
1,500.0	1,431.4	1,513.2	1,457.3	9.9	8.8	-136.40	7.2	312.9	79.2	64.5	14.71	5.382		
1,600.0	1,514.5	1,615.5	1,544.5	11.4	10.2	-136.00	3.4	366.4	84.9	68.0	16.90	5.026		
1,700.0	1,595.2	1,718.0	1,629.2	13.0	11.7	-135.46	-0.6	423.8	90.9	71.5	19.33	4.700		
1,800.0	1,673.2	1,820.6	1,711.4	14.8	13.4	-134.81	-4.9	485.0	96.9	74.9	22.02	4.402		
1,900.0	1,748.3	1,923.3	1,790.9	16.7	15.3	-134.06	-9.4	549.9	103.1	78.2	24.97	4.129		
2,000.0	1,820.6	2,026.2	1,867.5	18.7	17.2	-133.23	-14.2	618.4	109.5	81.3	28.20	3.881		
2,100.0	1,889.7	2,129.2	1,941.1	20.8	19.3	-132.35	-19.3	690.3	115.9	84.2	31.71	3.655		
2,200.0	1,955.6	2,232.3	2,011.4	23.1	21.6	-131.41	-24.6	765.6	122.5	87.0	35.51	3.450		
2,300.0	2,018.2	2,335.5	2,078.3	25.5	23.9	-130.45	-30.1	844.0	129.2	89.6	39.59	3.264		
2,324.0	2,032.7	2,360.3	2,093.8	26.0	24.5	-130.21	-31.4	863.3	130.9	90.2	40.61	3.222		
2,400.0	2,078.4	2,436.8	2,141.0	27.9	26.4	-129.42	-35.6	923.3	135.7	91.8	43.95	3.088		
2,500.0	2,138.4	2,536.5	2,202.4	30.4	28.8	-128.43	-41.1	1,001.7	142.1	93.7	48.41	2.935		
2,600.0	2,198.5	2,636.3	2,263.9	32.9	31.2	-127.54	-46.6	1,080.0	148.5	95.6	52.92	2.806		
2,700.0	2,258.5	2,736.1	2,325.4	35.4	33.6	-126.71	-52.1	1,158.4	154.9	97.5	57.47	2.696		
2,800.0	2,318.5	2,835.8	2,386.9	37.9	36.1	-125.95	-57.6	1,236.8	161.4	99.4	62.05	2.601		
2,900.0	2,378.6	2,935.6	2,448.4	40.4	38.5	-125.26	-63.1	1,315.2	167.9	101.2	66.66	2.519		
3,000.0	2,438.6	3,035.4	2,509.8	42.9	41.0	-124.61	-68.6	1,393.6	174.4	103.1	71.29	2.447		
3,100.0	2,498.7	3,135.1	2,571.3	45.4	43.4	-124.01	-74.1	1,472.0	181.0	105.0	75.94	2.383		
3,200.0	2,558.7	3,234.9	2,632.8	47.9	45.9	-123.45	-79.6	1,550.3	187.5	106.9	80.61	2.326		
3,300.0	2,618.8	3,334.7	2,694.3	50.4	48.3	-122.93	-85.1	1,628.7	194.1	108.8	85.29	2.276		
3,400.0	2,678.8	3,434.5	2,755.8	53.0	50.8	-122.44	-90.6	1,707.1	200.7	110.7	89.98	2.230		
3,500.0	2,738.8	3,534.2	2,817.2	55.5	53.2	-121.99	-96.1	1,785.5	207.3	112.6	94.69	2.189		
3,600.0	2,798.9	3,634.0	2,878.7	58.0	55.7	-121.56	-101.6	1,863.9	213.9	114.5	99.40	2.152		
3,700.0	2,858.9	3,733.8	2,940.2	60.5	58.1	-121.16	-107.1	1,942.3	220.5	116.4	104.12	2.118		
3,800.0	2,919.0	3,833.5	3,001.7	63.0	60.6	-120.78	-112.6	2,020.6	227.2	118.3	108.85	2.087		
3,900.0	2,979.0	3,933.3	3,063.2	65.6	63.1	-120.42	-118.1	2,099.0	233.8	120.2	113.59	2.059		
4,000.0	3,039.0	4,033.1	3,124.6	68.1	65.5	-120.09	-123.6	2,177.4	240.5	122.2	118.33	2.032		
4,100.0	3,099.1	4,132.8	3,186.1	70.6	68.0	-119.77	-129.1	2,255.8	247.2	124.1	123.08	2.008		
4,200.0	3,159.1	4,232.6	3,247.6	73.1	70.5	-119.47	-134.6	2,334.2	253.8	126.0	127.83	1.986		
4,300.0	3,219.2	4,332.4	3,309.1	75.7	72.9	-119.18	-140.1	2,412.5	260.5	127.9	132.58	1.965		
4,400.0	3,279.2	4,432.1	3,370.5	78.2	75.4	-118.91	-145.6	2,490.9	267.2	129.9	137.34	1.946		
4,500.0	3,339.3	4,531.9	3,432.0	80.7	77.9	-118.65	-151.1	2,569.3	273.9	131.8	142.10	1.927		
4,606.0	3,402.9	4,637.6	3,497.2	83.4	80.5	-118.39	-156.9	2,652.4	281.0	133.8	147.15	1.910		
4,650.0	3,430.5	4,681.5	3,524.2	84.4	81.6	-119.02	-159.3	2,686.9	283.6	134.2	149.38	1.898		
4,700.0	3,464.5	4,729.8	3,554.0	85.5	82.7	-119.24	-162.0	2,724.7	285.7	133.1	152.61	1.872		
4,750.0	3,501.2	4,773.5	3,582.7	86.4	83.7	-119.59	-164.6	2,757.7	287.8	132.1	155.71	1.849		
4,800.0	3,540.3	4,817.6	3,613.7	87.2	84.6	-120.28	-167.3	2,788.8	290.3	131.6	158.67	1.830		

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

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,850.0	3,581.6	4,862.0	3,647.1	87.9	85.4	-121.44	-170.3	2,818.0	293.1	131.6	161.45	1.815		
4,900.0	3,624.9	4,906.8	3,682.8	88.5	86.1	-123.33	-173.5	2,844.9	296.2	132.2	164.01	1.806		
4,950.0	3,669.8	4,952.1	3,720.6	89.0	86.7	-126.30	-176.9	2,869.5	299.8	133.4	166.32	1.802		
5,000.0	3,716.1	4,997.8	3,760.5	89.4	87.2	-130.96	-180.4	2,891.5	303.6	135.3	168.35	1.804		
5,050.0	3,763.6	5,044.1	3,802.4	89.6	87.7	-138.27	-184.2	2,910.8	307.9	137.8	170.08	1.810		
5,100.0	3,811.8	5,090.9	3,846.0	89.8	88.0	-149.71	-188.1	2,927.2	312.4	140.9	171.51	1.822		
5,150.0	3,860.6	5,138.2	3,891.3	90.0	88.3	-166.51	-192.1	2,940.4	317.4	144.7	172.62	1.838		
5,200.0	3,909.6	5,186.3	3,938.1	90.0	88.5	172.87	-196.3	2,950.4	322.6	149.1	173.43	1.860		
5,250.0	3,958.5	5,235.0	3,986.2	90.0	88.6	153.82	-200.6	2,956.8	328.1	154.1	173.93	1.886		
5,300.0	4,007.0	5,284.5	4,035.4	90.0	88.7	139.94	-204.9	2,959.6	333.8	159.7	174.15	1.917		
5,350.0	4,054.8	5,334.7	4,085.4	89.9	88.7	130.83	-209.4	2,958.4	339.7	165.6	174.11	1.951		
5,400.0	4,101.7	5,385.7	4,135.9	89.8	88.7	124.93	-213.9	2,953.2	345.8	172.0	173.83	1.989		
5,450.0	4,147.3	5,437.6	4,186.8	89.7	88.6	121.06	-218.4	2,943.8	352.0	178.6	173.36	2.030		
5,500.0	4,191.3	5,490.4	4,237.5	89.6	88.5	118.47	-222.9	2,929.9	358.2	185.4	172.72	2.074		
5,550.0	4,233.6	5,544.2	4,287.8	89.5	88.4	116.72	-227.4	2,911.5	364.3	192.3	171.96	2.119		
5,600.0	4,273.7	5,598.8	4,337.2	89.4	88.2	115.52	-231.8	2,888.6	370.4	199.2	171.12	2.164		
5,650.0	4,311.5	5,654.4	4,385.2	89.4	88.1	114.70	-236.1	2,860.9	376.3	206.0	170.25	2.210		
5,700.0	4,346.8	5,711.0	4,431.4	89.4	88.1	114.15	-240.2	2,828.6	381.9	212.5	169.38	2.255		
5,750.0	4,379.2	5,768.5	4,475.2	89.4	88.0	113.78	-244.1	2,791.6	387.3	218.7	168.57	2.297		
5,800.0	4,408.7	5,826.9	4,516.2	89.5	88.1	113.53	-247.7	2,750.2	392.2	224.4	167.84	2.337		
5,850.0	4,435.1	5,886.1	4,553.7	89.6	88.1	113.38	-251.0	2,704.4	396.7	229.5	167.22	2.373		
5,900.0	4,458.1	5,946.1	4,587.2	89.8	88.3	113.28	-254.0	2,654.8	400.8	234.0	166.76	2.403		
5,950.0	4,477.6	6,006.9	4,616.2	90.0	88.5	113.22	-256.6	2,601.5	404.2	237.7	166.48	2.428		
6,000.0	4,493.6	6,068.2	4,640.2	90.3	88.8	113.17	-258.7	2,545.1	407.1	240.7	166.40	2.446		
6,050.0	4,505.9	6,130.0	4,658.9	90.6	89.2	113.14	-260.4	2,486.2	409.2	242.7	166.51	2.458		
6,100.0	4,514.4	6,192.2	4,671.8	91.0	89.7	113.10	-261.5	2,425.5	410.7	243.9	166.83	2.462		
6,150.0	4,519.1	6,254.6	4,678.8	91.4	90.1	113.05	-262.1	2,363.5	411.5	244.2	167.34	2.459		
6,198.1	4,520.0	6,312.8	4,679.9	91.7	90.6	113.01	-262.2	2,305.3	411.6	243.7	167.99	2.450		
6,200.0	4,520.0	6,314.7	4,679.9	91.8	90.6	113.01	-262.2	2,303.4	411.6	243.6	168.02	2.450		
6,300.0	4,518.1	6,414.7	4,678.3	92.6	91.6	113.05	-262.0	2,203.5	411.6	241.8	169.76	2.424		
6,400.0	4,516.3	6,514.7	4,676.7	93.6	92.6	113.09	-261.8	2,103.5	411.5	239.8	171.72	2.396		
6,500.0	4,514.5	6,614.7	4,675.1	94.8	93.7	113.13	-261.7	2,003.5	411.4	237.6	173.89	2.366		
6,600.0	4,512.7	6,714.7	4,673.5	96.0	95.0	113.16	-261.5	1,903.5	411.4	235.1	176.25	2.334		
6,700.0	4,510.8	6,814.7	4,671.9	97.3	96.4	113.20	-261.3	1,803.5	411.3	232.5	178.82	2.300		
6,800.0	4,509.0	6,914.7	4,670.3	98.7	97.8	113.24	-261.1	1,703.5	411.3	229.7	181.56	2.265		
6,900.0	4,507.2	7,014.7	4,668.7	100.3	99.4	113.28	-261.0	1,603.5	411.2	226.7	184.48	2.229		
7,000.0	4,505.4	7,114.7	4,667.1	101.9	101.0	113.32	-260.8	1,503.6	411.1	223.6	187.57	2.192		
7,100.0	4,503.5	7,214.7	4,665.5	103.6	102.8	113.35	-260.6	1,403.6	411.1	220.3	190.81	2.154		
7,200.0	4,501.7	7,314.7	4,663.9	105.4	104.6	113.39	-260.5	1,303.6	411.0	216.8	194.21	2.116		
7,300.0	4,499.9	7,414.7	4,662.3	107.3	106.5	113.43	-260.3	1,203.6	410.9	213.2	197.75	2.078		
7,400.0	4,498.1	7,514.7	4,660.7	109.2	108.5	113.47	-260.1	1,103.6	410.9	209.5	201.42	2.040		
7,500.0	4,496.2	7,614.7	4,659.1	111.3	110.6	113.51	-260.0	1,003.6	410.8	205.6	205.22	2.002		
7,600.0	4,494.4	7,714.7	4,657.5	113.4	112.7	113.55	-259.8	903.6	410.8	201.6	209.14	1.964		
7,700.0	4,492.6	7,814.7	4,655.9	115.5	114.9	113.58	-259.6	803.6	410.7	197.5	213.17	1.927		
7,800.0	4,490.8	7,914.7	4,654.3	117.8	117.1	113.62	-259.4	703.7	410.6	193.3	217.31	1.890		
7,900.0	4,489.0	8,014.7	4,652.7	120.1	119.4	113.66	-259.3	603.7	410.6	189.0	221.55	1.853		
8,000.0	4,487.1	8,114.7	4,651.1	122.4	121.8	113.70	-259.1	503.7	410.5	184.6	225.88	1.817		
8,100.0	4,485.3	8,214.7	4,649.5	124.8	124.2	113.74	-258.9	403.7	410.5	180.2	230.30	1.782		
8,200.0	4,483.5	8,314.7	4,647.9	127.2	126.6	113.78	-258.8	303.7	410.4	175.6	234.80	1.748		
8,300.0	4,481.7	8,414.7	4,646.3	129.7	129.1	113.81	-258.6	203.7	410.3	170.9	239.39	1.714		
8,400.0	4,479.8	8,514.7	4,644.7	132.2	131.7	113.85	-258.4	103.7	410.3	166.2	244.04	1.681		
8,500.0	4,478.0	8,614.7	4,643.1	134.8	134.3	113.89	-258.3	3.8	410.2	161.4	248.77	1.649		

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

Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-4H - Wellbore #1 - Plan #2 (12-06-18)													Offset Site Error:		0.0 ft
Offset Design		Survey Program: 0-MWD											Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
8,600.0	4,476.2	8,714.7	4,641.5	137.4	136.9	113.93	-258.1	-96.2	410.2	156.6	253.56	1.618			
8,700.0	4,474.4	8,814.7	4,639.9	140.1	139.6	113.97	-257.9	-196.2	410.1	151.7	258.41	1.587			
8,800.0	4,472.5	8,914.7	4,638.3	142.8	142.3	114.01	-257.7	-296.2	410.0	146.7	263.31	1.557			
8,900.0	4,470.7	9,014.7	4,636.7	145.5	145.0	114.04	-257.6	-396.2	410.0	141.7	268.27	1.528			
9,000.0	4,468.9	9,114.7	4,635.1	148.2	147.7	114.08	-257.4	-496.2	409.9	136.6	273.29	1.500	Level 3		
9,100.0	4,467.1	9,214.7	4,633.5	151.0	150.5	114.12	-257.2	-596.2	409.9	131.5	278.35	1.472	Level 3		
9,200.0	4,465.2	9,314.7	4,631.9	153.8	153.3	114.16	-257.1	-696.2	409.8	126.3	283.45	1.446	Level 3		
9,300.0	4,463.4	9,414.7	4,630.3	156.6	156.2	114.20	-256.9	-796.1	409.7	121.1	288.60	1.420	Level 3		
9,400.0	4,461.6	9,514.7	4,628.7	159.5	159.0	114.24	-256.7	-896.1	409.7	115.9	293.79	1.394	Level 3		
9,500.0	4,459.8	9,614.7	4,627.1	162.3	161.9	114.27	-256.5	-996.1	409.6	110.6	299.01	1.370	Level 3		
9,600.0	4,457.9	9,714.7	4,625.5	165.2	164.8	114.31	-256.4	-1,096.1	409.6	105.3	304.27	1.346	Level 3		
9,700.0	4,456.1	9,814.7	4,623.9	168.2	167.7	114.35	-256.2	-1,196.1	409.5	99.9	309.57	1.323	Level 3		
9,800.0	4,454.3	9,914.7	4,622.3	171.1	170.7	114.39	-256.0	-1,296.1	409.4	94.6	314.89	1.300	Level 3		
9,900.0	4,452.5	10,014.7	4,620.7	174.0	173.6	114.43	-255.9	-1,396.1	409.4	89.1	320.25	1.278	Level 3		
10,000.0	4,450.6	10,114.7	4,619.1	177.0	176.6	114.47	-255.7	-1,496.0	409.3	83.7	325.63	1.257	Level 3		
10,100.0	4,448.8	10,214.7	4,617.5	180.0	179.6	114.50	-255.5	-1,596.0	409.3	78.2	331.04	1.236	Level 2		
10,200.0	4,447.0	10,314.7	4,615.9	183.0	182.6	114.54	-255.4	-1,696.0	409.2	72.7	336.48	1.216	Level 2		
10,300.0	4,445.2	10,414.7	4,614.3	186.0	185.6	114.58	-255.2	-1,796.0	409.2	67.2	341.93	1.197	Level 2		
10,400.0	4,443.3	10,514.7	4,612.7	189.1	188.7	114.62	-255.0	-1,896.0	409.1	61.7	347.41	1.178	Level 2		
10,500.0	4,441.5	10,614.7	4,611.1	192.1	191.7	114.66	-254.8	-1,996.0	409.0	56.1	352.91	1.159	Level 2		
10,600.0	4,439.7	10,714.7	4,609.5	195.2	194.8	114.70	-254.7	-2,096.0	409.0	50.6	358.44	1.141	Level 2		
10,700.0	4,437.9	10,814.7	4,607.9	198.3	197.9	114.74	-254.5	-2,196.0	408.9	45.0	363.98	1.124	Level 2		
10,800.0	4,436.0	10,914.7	4,606.4	201.3	200.9	114.77	-254.3	-2,295.9	408.9	39.3	369.53	1.106	Level 2		
10,900.0	4,434.2	11,014.7	4,604.8	204.4	204.1	114.81	-254.2	-2,395.9	408.8	33.7	375.11	1.090	Level 2		
11,000.0	4,432.4	11,114.7	4,603.2	207.6	207.2	114.85	-254.0	-2,495.9	408.8	28.1	380.70	1.074	Level 2		
11,100.0	4,430.6	11,214.7	4,601.6	210.7	210.3	114.89	-253.8	-2,595.9	408.7	22.4	386.30	1.058	Level 2		
11,200.0	4,428.7	11,314.7	4,600.0	213.8	213.4	114.93	-253.7	-2,695.9	408.7	16.7	391.92	1.043	Level 2		
11,300.0	4,426.9	11,414.7	4,598.4	216.9	216.6	114.97	-253.5	-2,795.9	408.6	11.1	397.55	1.028	Level 2		
11,400.0	4,425.1	11,514.7	4,596.8	220.1	219.7	115.01	-253.3	-2,895.9	408.5	5.4	403.20	1.013	Level 2		
11,500.0	4,423.3	11,614.7	4,595.2	223.3	222.9	115.05	-253.1	-2,995.8	408.5	-0.4	408.86	0.999	Level 1		
11,600.0	4,421.4	11,714.7	4,593.6	226.4	226.0	115.08	-253.0	-3,095.8	408.4	-6.1	414.52	0.985	Level 1		
11,700.0	4,419.6	11,814.7	4,592.0	229.6	229.2	115.12	-252.8	-3,195.8	408.4	-11.8	420.20	0.972	Level 1		
11,800.0	4,417.8	11,914.7	4,590.4	232.8	232.4	115.16	-252.6	-3,295.8	408.3	-17.6	425.89	0.959	Level 1		
11,900.0	4,416.0	12,014.6	4,588.8	236.0	235.6	115.20	-252.5	-3,395.8	408.3	-23.3	431.59	0.946	Level 1		
12,000.0	4,414.1	12,114.6	4,587.2	239.2	238.8	115.24	-252.3	-3,495.8	408.2	-29.1	437.29	0.934	Level 1		
12,100.0	4,412.3	12,214.6	4,585.6	242.4	242.0	115.28	-252.1	-3,595.8	408.2	-34.8	443.01	0.921	Level 1		
12,200.0	4,410.5	12,314.6	4,584.0	245.6	245.2	115.32	-252.0	-3,695.8	408.1	-40.6	448.73	0.909	Level 1		
12,300.0	4,408.7	12,414.6	4,582.4	248.8	248.4	115.35	-251.8	-3,795.7	408.1	-46.4	454.46	0.898	Level 1		
12,400.0	4,406.9	12,514.6	4,580.8	252.0	251.6	115.39	-251.6	-3,895.7	408.0	-52.2	460.20	0.887	Level 1		
12,500.0	4,405.0	12,614.6	4,579.2	255.2	254.9	115.43	-251.4	-3,995.7	408.0	-58.0	465.94	0.876	Level 1		
12,600.0	4,403.2	12,714.6	4,577.6	258.5	258.1	115.47	-251.3	-4,095.7	407.9	-63.8	471.69	0.865	Level 1		
12,700.0	4,401.4	12,814.6	4,576.0	261.7	261.3	115.51	-251.1	-4,195.7	407.9	-69.6	477.45	0.854	Level 1		
12,750.7	4,400.5	12,865.4	4,575.2	263.3	263.0	115.53	-251.0	-4,246.4	407.8	-72.5	480.37	0.849	Level 1		
12,775.5	4,400.0	12,876.8	4,575.0	264.1	263.3	115.53	-251.0	-4,257.8	408.0	-73.4	481.42	0.848 Level 1, ES, SF			

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-5H - Wellbore #1 - Plan #2 (12-06-18)												Offset Site Error:	0.0 ft
Survey Program:		0-MWD										Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	58.3	0.0	58.4				
100.0	100.0	97.0	97.0	0.1	0.1	0.00	58.3	0.0	58.3	58.0	0.27	214.920	
200.0	200.0	197.0	197.0	0.4	0.4	0.00	58.3	0.0	58.3	57.5	0.82	71.280	CC
300.0	300.0	296.9	296.9	0.7	0.7	-98.81	58.3	2.0	58.7	57.3	1.34	43.635	ES
400.0	399.7	396.9	396.6	1.0	1.0	-98.83	58.5	8.4	59.8	57.9	1.90	31.444	
500.0	499.1	496.8	496.0	1.3	1.3	-98.80	58.8	19.2	61.8	59.2	2.56	24.148	
600.0	598.0	596.7	594.7	1.7	1.7	-98.70	59.2	34.2	64.5	61.1	3.34	19.283	
700.0	696.0	696.5	692.7	2.2	2.1	-98.55	59.7	53.6	68.0	63.7	4.29	15.839	
800.0	793.2	796.4	789.7	2.7	2.7	-98.37	60.4	77.1	72.2	66.8	5.42	13.318	
900.0	889.2	896.2	885.5	3.4	3.4	-98.14	61.1	104.9	77.2	70.4	6.75	11.432	
1,000.0	983.9	995.9	980.0	4.2	4.1	-97.90	62.0	136.8	82.9	74.6	8.30	9.995	
1,100.0	1,077.0	1,095.6	1,072.9	5.1	5.0	-97.64	63.0	172.7	89.4	79.3	10.06	8.883	
1,200.0	1,168.6	1,195.2	1,164.2	6.1	6.0	-97.37	64.0	212.6	96.6	84.5	12.06	8.008	
1,300.0	1,258.3	1,294.7	1,253.6	7.2	7.1	-97.09	65.2	256.4	104.5	90.2	14.29	7.308	
1,400.0	1,345.9	1,394.2	1,340.9	8.5	8.4	-96.81	66.5	304.0	113.0	96.3	16.77	6.741	
1,500.0	1,431.4	1,493.6	1,426.0	9.9	9.7	-96.53	67.9	355.3	122.3	102.8	19.49	6.275	
1,600.0	1,514.5	1,592.9	1,508.7	11.4	11.2	-96.25	69.4	410.2	132.2	109.7	22.46	5.887	
1,700.0	1,595.2	1,692.1	1,588.9	13.0	12.8	-95.97	71.0	468.6	142.7	117.1	25.67	5.560	
1,800.0	1,673.2	1,791.2	1,666.4	14.8	14.5	-95.70	72.6	530.3	153.9	124.7	29.14	5.281	
1,900.0	1,748.3	1,890.2	1,741.1	16.7	16.4	-95.42	74.4	595.3	165.6	132.8	32.85	5.042	
2,000.0	1,820.6	1,989.2	1,812.9	18.7	18.4	-95.15	76.2	663.4	178.0	141.1	36.81	4.834	
2,100.0	1,889.7	2,088.1	1,881.6	20.8	20.4	-94.88	78.1	734.5	190.8	149.8	41.01	4.653	
2,200.0	1,955.6	2,187.1	1,948.0	23.1	22.6	-94.88	80.1	807.9	204.2	158.8	45.41	4.496	
2,300.0	2,018.2	2,286.0	2,014.2	25.5	24.8	-95.92	82.1	881.4	218.0	168.1	49.91	4.368	
2,324.0	2,032.7	2,309.7	2,030.0	26.0	25.4	-96.31	82.6	899.0	221.4	170.4	51.00	4.341	
2,400.0	2,078.4	2,384.6	2,080.2	27.9	27.0	-97.81	84.1	954.7	232.3	177.9	54.42	4.269	
2,500.0	2,138.4	2,483.3	2,146.2	30.4	29.2	-99.59	86.1	1,028.0	246.9	188.0	58.88	4.193	
2,600.0	2,198.5	2,582.0	2,212.2	32.9	31.5	-101.17	88.1	1,101.3	261.7	198.4	63.31	4.133	
2,700.0	2,258.5	2,680.6	2,278.2	35.4	33.7	-102.59	90.0	1,174.6	276.6	208.9	67.70	4.086	
2,800.0	2,318.5	2,779.3	2,344.2	37.9	35.9	-103.85	92.0	1,247.9	291.7	219.7	72.06	4.049	
2,900.0	2,378.6	2,877.9	2,410.2	40.4	38.1	-104.99	94.0	1,321.2	307.0	230.6	76.39	4.019	
3,000.0	2,438.6	2,976.6	2,476.2	42.9	40.4	-106.03	96.0	1,394.5	322.3	241.6	80.70	3.994	
3,100.0	2,498.7	3,075.2	2,542.2	45.4	42.6	-106.97	98.0	1,467.8	337.8	252.8	84.98	3.974	
3,200.0	2,558.7	3,173.9	2,608.1	47.9	44.8	-107.83	100.0	1,541.1	353.3	264.0	89.25	3.958	
3,300.0	2,618.8	3,272.6	2,674.1	50.4	47.1	-108.61	101.9	1,614.4	368.9	275.4	93.50	3.945	
3,400.0	2,678.8	3,371.2	2,740.1	53.0	49.3	-109.33	103.9	1,687.7	384.5	286.8	97.73	3.935	
3,500.0	2,738.8	3,469.9	2,806.1	55.5	51.5	-110.00	105.9	1,761.0	400.2	298.3	101.95	3.926	
3,600.0	2,798.9	3,568.5	2,872.1	58.0	53.8	-110.61	107.9	1,834.3	416.0	309.8	106.15	3.919	
3,700.0	2,858.9	3,667.2	2,938.1	60.5	56.0	-111.18	109.9	1,907.7	431.8	321.4	110.35	3.913	
3,800.0	2,919.0	3,765.8	3,004.1	63.0	58.3	-111.71	111.8	1,981.0	447.6	333.1	114.53	3.908	
3,900.0	2,979.0	3,864.5	3,070.1	65.6	60.5	-112.21	113.8	2,054.3	463.5	344.8	118.71	3.905	
4,000.0	3,039.0	3,963.1	3,136.1	68.1	62.7	-112.67	115.8	2,127.6	479.4	356.5	122.87	3.902	
4,100.0	3,099.1	4,061.8	3,202.1	70.6	65.0	-113.10	117.8	2,200.9	495.3	368.3	127.03	3.899	
4,200.0	3,159.1	4,160.5	3,268.1	73.1	67.2	-113.51	119.8	2,274.2	511.3	380.1	131.18	3.897	
4,300.0	3,219.2	4,259.1	3,334.1	75.7	69.5	-113.89	121.8	2,347.5	527.3	391.9	135.33	3.896	
4,400.0	3,279.2	4,357.8	3,400.1	78.2	71.7	-114.24	123.7	2,420.8	543.3	403.8	139.47	3.895	
4,500.0	3,339.3	4,456.4	3,466.1	80.7	74.0	-114.58	125.7	2,494.1	559.3	415.7	143.61	3.895	
4,606.0	3,402.9	4,561.0	3,536.0	83.4	76.3	-114.92	127.8	2,571.8	576.3	428.3	147.98	3.894	
4,650.0	3,430.5	4,604.5	3,565.1	84.4	77.3	-116.32	128.7	2,604.1	583.1	433.6	149.45	3.901	
4,700.0	3,464.5	4,653.8	3,598.1	85.5	78.5	-117.71	129.7	2,640.8	590.1	438.7	151.42	3.897	
4,750.0	3,501.2	4,702.8	3,630.9	86.4	79.6	-118.97	130.7	2,677.2	596.4	442.7	153.72	3.880	
4,800.0	3,540.3	4,751.2	3,663.3	87.2	80.7	-120.23	131.6	2,713.1	602.1	445.8	156.28	3.853	

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

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,850.0	3,581.6	4,798.6	3,695.0	87.9	81.7	-121.68	132.6	2,748.4	607.3	448.3	159.00	3.820		
4,900.0	3,624.9	4,835.5	3,720.4	88.5	82.5	-124.04	133.4	2,775.1	612.7	451.6	161.16	3.802		
4,950.0	3,669.8	4,872.5	3,747.3	89.0	83.2	-127.51	134.2	2,800.4	618.7	455.6	163.11	3.793 SF		
5,000.0	3,716.1	4,909.8	3,776.0	89.4	83.9	-132.67	135.1	2,824.3	625.4	460.5	164.86	3.793		
5,050.0	3,763.6	4,950.0	3,808.3	89.6	84.5	-140.42	136.1	2,848.1	632.7	466.2	166.51	3.800		
5,100.0	3,811.8	4,986.1	3,838.6	89.8	84.9	-152.44	137.0	2,867.7	640.7	472.9	167.77	3.819		
5,150.0	3,860.6	5,025.2	3,872.6	90.0	85.4	-169.75	138.1	2,886.9	649.4	480.5	168.92	3.844		
5,200.0	3,909.6	5,065.0	3,908.4	90.0	85.8	169.14	139.3	2,904.4	658.7	488.8	169.88	3.878		
5,250.0	3,958.5	5,105.7	3,946.0	90.0	86.2	149.62	140.5	2,919.8	668.7	498.0	170.65	3.919		
5,300.0	4,007.0	5,147.5	3,985.6	90.0	86.4	135.30	141.8	2,933.2	679.3	508.0	171.23	3.967		
5,350.0	4,054.8	5,190.3	4,027.0	89.9	86.7	125.77	143.1	2,944.1	690.5	518.8	171.64	4.023		
5,400.0	4,101.7	5,234.6	4,070.4	89.8	86.8	119.50	144.6	2,952.5	702.2	530.3	171.90	4.085		
5,450.0	4,147.3	5,280.4	4,115.9	89.7	86.9	115.31	146.1	2,957.9	714.4	542.4	172.00	4.153		
5,500.0	4,191.3	5,328.0	4,163.4	89.6	87.0	112.45	147.7	2,960.1	727.0	555.0	171.98	4.227		
5,550.0	4,233.6	5,377.7	4,213.0	89.5	87.0	110.49	149.3	2,958.6	739.9	568.0	171.83	4.306		
5,600.0	4,273.7	5,429.8	4,264.7	89.4	86.9	109.16	151.1	2,952.9	753.0	581.4	171.57	4.389		
5,650.0	4,311.5	5,484.6	4,318.5	89.4	86.8	108.29	152.9	2,942.3	766.2	595.0	171.21	4.475		
5,700.0	4,346.8	5,542.7	4,374.2	89.4	86.7	107.78	154.9	2,926.1	779.4	608.6	170.76	4.564		
5,750.0	4,379.2	5,604.3	4,431.5	89.4	86.6	107.54	156.9	2,903.4	792.4	622.1	170.25	4.654		

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	0.00	91.1	0.0	91.2						
100.0	100.0	95.0	95.0	0.1	0.1	0.00	91.1	0.0	91.1	90.8	0.27	339.250			
200.0	200.0	195.0	195.0	0.4	0.4	0.00	91.1	0.0	91.1	90.3	0.81	112.130	CC		
300.0	300.0	294.6	294.6	0.7	0.7	-98.83	91.3	1.9	91.6	90.3	1.34	68.375	ES		
400.0	399.7	394.2	394.0	1.0	0.9	-98.91	91.9	8.2	93.2	91.3	1.90	49.107			
500.0	499.1	493.8	493.0	1.3	1.3	-98.95	93.0	18.7	95.9	93.4	2.55	37.593			
600.0	598.0	593.3	591.4	1.7	1.7	-98.94	94.4	33.5	99.7	96.4	3.33	29.911			
700.0	696.0	692.8	689.0	2.2	2.1	-98.90	96.3	52.5	104.6	100.3	4.27	24.470			
800.0	793.2	792.2	785.6	2.7	2.7	-98.83	98.7	75.7	110.5	105.1	5.40	20.486			
900.0	889.2	891.5	881.1	3.4	3.3	-98.72	101.4	103.0	117.5	110.8	6.71	17.505			
1,000.0	983.9	990.7	975.1	4.2	4.1	-98.58	104.6	134.4	125.6	117.3	8.24	15.235			
1,100.0	1,077.0	1,089.8	1,067.7	5.1	5.0	-98.42	108.1	169.7	134.6	124.6	9.99	13.479			
1,200.0	1,168.6	1,188.8	1,158.4	6.1	5.9	-98.23	112.0	209.0	144.7	132.7	11.96	12.099			
1,300.0	1,258.3	1,287.7	1,247.3	7.2	7.0	-98.03	116.4	252.0	155.7	141.6	14.16	10.997			
1,400.0	1,345.9	1,386.4	1,334.1	8.5	8.3	-97.81	121.0	298.8	167.8	151.2	16.60	10.106			
1,500.0	1,431.4	1,484.9	1,418.6	9.9	9.6	-97.58	126.1	349.1	180.7	161.4	19.28	9.374			
1,600.0	1,514.5	1,583.3	1,500.8	11.4	11.0	-97.33	131.5	402.9	194.6	172.4	22.20	8.766			
1,700.0	1,595.2	1,681.5	1,580.5	13.0	12.6	-97.08	137.2	460.1	209.3	184.0	25.36	8.256			
1,800.0	1,673.2	1,779.6	1,657.5	14.8	14.3	-96.82	143.3	520.5	225.0	196.2	28.76	7.822			
1,900.0	1,748.3	1,877.5	1,731.7	16.7	16.1	-96.54	149.7	584.1	241.4	209.0	32.40	7.450			
2,000.0	1,820.6	1,975.2	1,803.0	18.7	18.0	-96.26	156.3	650.6	258.6	222.4	36.28	7.128			
2,100.0	1,889.7	2,072.8	1,871.2	20.8	20.0	-95.97	163.3	720.0	276.6	236.2	40.40	6.848			
2,200.0	1,955.6	2,170.3	1,936.4	23.1	22.2	-95.67	170.5	792.0	295.4	250.6	44.74	6.602			
2,300.0	2,018.2	2,267.5	1,998.3	25.5	24.4	-95.37	178.0	866.7	314.8	265.5	49.30	6.385			
2,324.0	2,032.7	2,290.9	2,012.7	26.0	25.0	-95.30	179.8	885.0	319.5	269.1	50.42	6.338			
2,400.0	2,078.4	2,365.0	2,057.2	27.9	26.8	-95.27	185.8	943.9	334.7	280.7	54.05	6.194			
2,500.0	2,138.4	2,462.9	2,115.6	30.4	29.2	-95.14	193.6	1,022.1	354.8	295.9	58.87	6.026			
2,600.0	2,198.5	2,560.9	2,174.1	32.9	31.6	-95.02	201.4	1,100.4	374.8	311.1	63.71	5.883			
2,700.0	2,258.5	2,658.9	2,232.5	35.4	34.0	-94.92	209.3	1,178.6	394.8	326.3	68.57	5.758			
2,800.0	2,318.5	2,756.8	2,291.0	37.9	36.4	-94.82	217.1	1,256.8	414.8	341.4	73.44	5.649			
2,900.0	2,378.6	2,854.8	2,349.4	40.4	38.9	-94.74	225.0	1,335.1	434.9	356.6	78.31	5.553			
3,000.0	2,438.6	2,952.8	2,407.9	42.9	41.3	-94.66	232.8	1,413.3	454.9	371.7	83.19	5.468			
3,100.0	2,498.7	3,050.8	2,466.3	45.4	43.8	-94.59	240.7	1,491.6	474.9	386.9	88.08	5.392			
3,200.0	2,558.7	3,148.7	2,524.7	47.9	46.2	-94.52	248.5	1,569.8	495.0	402.0	92.98	5.324			
3,300.0	2,618.8	3,246.7	2,583.2	50.4	48.6	-94.46	256.4	1,648.0	515.0	417.1	97.88	5.262			
3,400.0	2,678.8	3,344.7	2,641.6	53.0	51.1	-94.41	264.2	1,726.3	535.0	432.3	102.78	5.206			
3,500.0	2,738.8	3,442.6	2,700.1	55.5	53.5	-94.35	272.1	1,804.5	555.1	447.4	107.68	5.155			
3,600.0	2,798.9	3,540.6	2,758.5	58.0	56.0	-94.30	279.9	1,882.7	575.1	462.5	112.59	5.108			
3,700.0	2,858.9	3,638.6	2,817.0	60.5	58.4	-94.26	287.8	1,961.0	595.1	477.6	117.50	5.065			
3,800.0	2,919.0	3,736.6	2,875.4	63.0	60.9	-94.22	295.6	2,039.2	615.2	492.8	122.41	5.025			
3,900.0	2,979.0	3,834.5	2,933.8	65.6	63.3	-94.18	303.5	2,117.5	635.2	507.9	127.33	4.989			
4,000.0	3,039.0	3,932.5	2,992.3	68.1	65.8	-94.14	311.3	2,195.7	655.3	523.0	132.25	4.955			
4,100.0	3,099.1	4,030.5	3,050.7	70.6	68.3	-94.11	319.2	2,273.9	675.3	538.1	137.16	4.923			
4,200.0	3,159.1	4,128.4	3,109.2	73.1	70.7	-94.07	327.0	2,352.2	695.3	553.2	142.08	4.894			
4,300.0	3,219.2	4,226.4	3,167.6	75.7	73.2	-94.04	334.9	2,430.4	715.4	568.4	147.00	4.866			
4,400.0	3,279.2	4,324.4	3,226.1	78.2	75.6	-94.01	342.7	2,508.7	735.4	583.5	151.92	4.841			
4,500.0	3,339.3	4,422.4	3,284.5	80.7	78.1	-93.99	350.6	2,586.9	755.4	598.6	156.85	4.816			
4,606.0	3,402.9	4,526.2	3,346.4	83.4	80.7	-93.96	358.9	2,669.8	776.7	614.6	162.06	4.792	SF		
4,650.0	3,430.5	4,568.3	3,371.6	84.4	81.7	-95.48	362.3	2,703.4	785.8	621.9	163.90	4.794			
4,700.0	3,464.5	4,612.1	3,399.3	85.5	82.7	-97.42	366.0	2,737.1	796.9	631.3	165.64	4.811			

<b>Company:</b>	Magpie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-7H - Wellbore #1 - Plan #2 (12-06-18)													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	0.01	120.2	0.0	120.4					
100.0	100.0	93.0	93.0	0.1	0.1	0.01	120.2	0.0	120.2	120.0	0.27	452.442		
200.0	200.0	193.0	193.0	0.4	0.4	0.01	120.2	0.0	120.2	119.4	0.81	149.022 CC		
300.0	300.0	293.0	293.0	0.7	0.7	-99.73	120.2	0.0	120.6	119.2	1.34	89.668 ES		
400.0	399.7	392.1	392.0	1.0	0.9	-101.84	120.6	1.8	122.1	120.2	1.89	64.659		
500.0	499.1	491.2	491.0	1.3	1.2	-103.83	121.8	7.8	125.3	122.8	2.49	50.316		
600.0	598.0	590.5	589.7	1.7	1.5	-105.63	123.9	18.0	130.2	127.0	3.19	40.778		
700.0	696.0	689.9	688.0	2.2	1.9	-107.18	126.8	32.4	136.7	132.7	4.03	33.966		
800.0	793.2	789.3	785.6	2.7	2.3	-108.47	130.6	51.0	144.9	139.8	5.01	28.889		
900.0	889.2	888.7	882.2	3.4	2.9	-109.49	135.3	73.7	154.5	148.3	6.18	25.013		
1,000.0	983.9	988.1	977.8	4.2	3.5	-110.25	140.7	100.4	165.7	158.2	7.53	22.001		
1,100.0	1,077.0	1,087.5	1,072.1	5.1	4.2	-110.77	147.0	131.2	178.3	169.2	9.09	19.624		
1,200.0	1,168.6	1,186.8	1,164.8	6.1	5.1	-111.08	154.1	166.0	192.3	181.5	10.85	17.723		
1,300.0	1,258.3	1,286.0	1,255.8	7.2	6.0	-111.21	162.0	204.6	207.8	194.9	12.84	16.181		
1,400.0	1,345.9	1,385.1	1,345.0	8.5	7.1	-111.19	170.7	247.0	224.5	209.5	15.05	14.916		
1,500.0	1,431.4	1,484.1	1,432.1	9.9	8.3	-111.03	180.1	293.1	242.6	225.1	17.50	13.865		
1,600.0	1,514.5	1,582.9	1,516.9	11.4	9.6	-110.77	190.2	342.7	261.9	241.7	20.18	12.981		
1,700.0	1,595.2	1,681.5	1,599.4	13.0	11.0	-110.43	201.1	395.8	282.5	259.4	23.09	12.232		
1,800.0	1,673.2	1,780.0	1,679.3	14.8	12.6	-110.01	212.6	452.2	304.2	278.0	26.25	11.590		
1,900.0	1,748.3	1,878.4	1,756.5	16.7	14.3	-109.53	224.8	511.8	327.2	297.5	29.65	11.036		
2,000.0	1,820.6	1,976.5	1,830.9	18.7	16.0	-109.00	237.6	574.5	351.2	317.9	33.28	10.553		
2,100.0	1,889.7	2,074.4	1,902.4	20.8	17.9	-108.44	251.0	640.1	376.3	339.2	37.14	10.131		
2,200.0	1,955.6	2,172.2	1,970.8	23.1	19.9	-107.84	265.0	708.5	402.4	361.2	41.24	9.758		
2,300.0	2,018.2	2,269.8	2,036.1	25.5	22.0	-107.22	279.5	779.6	429.5	384.0	45.56	9.429		
2,324.0	2,032.7	2,293.2	2,051.3	26.0	22.6	-107.07	283.1	797.0	436.2	389.6	46.62	9.357		
2,400.0	2,078.4	2,367.3	2,098.2	27.9	24.3	-106.95	294.6	853.3	457.2	407.2	50.07	9.132		
2,500.0	2,138.4	2,463.9	2,157.1	30.4	26.6	-106.49	309.9	928.2	484.7	430.0	54.71	8.860		
2,600.0	2,198.5	2,560.0	2,215.6	32.9	28.8	-106.04	325.1	1,002.8	512.2	452.9	59.37	8.628		
2,700.0	2,258.5	2,656.0	2,274.1	35.4	31.1	-105.65	340.4	1,077.5	539.8	475.7	64.05	8.427		
2,800.0	2,318.5	2,752.1	2,332.6	37.9	33.5	-105.29	355.6	1,152.1	567.3	498.6	68.75	8.253		
2,900.0	2,378.6	2,848.2	2,391.1	40.4	35.8	-104.97	370.9	1,226.8	594.9	521.5	73.45	8.100		
3,000.0	2,438.6	2,944.2	2,449.6	42.9	38.1	-104.67	386.2	1,301.5	622.5	544.4	78.16	7.964		
3,100.0	2,498.7	3,040.3	2,508.1	45.4	40.4	-104.40	401.4	1,376.1	650.1	567.3	82.88	7.844		
3,200.0	2,558.7	3,136.4	2,566.6	47.9	42.7	-104.15	416.7	1,450.8	677.8	590.1	87.60	7.737		
3,300.0	2,618.8	3,232.4	2,625.1	50.4	45.1	-103.92	431.9	1,525.5	705.4	613.1	92.33	7.640		
3,400.0	2,678.8	3,328.5	2,683.6	53.0	47.4	-103.71	447.2	1,600.1	733.0	636.0	97.06	7.552		
3,500.0	2,738.8	3,424.6	2,742.1	55.5	49.7	-103.51	462.4	1,674.8	760.7	658.9	101.80	7.473		
3,600.0	2,798.9	3,520.7	2,800.6	58.0	52.0	-103.33	477.7	1,749.4	788.3	681.8	106.53	7.400 SF		

<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-8H - Wellbore #1 - Plan #2 (12-06-18)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	149.4	0.0	149.6					
100.0	100.0	91.0	91.0	0.1	0.1	0.00	149.4	0.0	149.4	149.1	0.26	567.985		
200.0	200.0	191.0	191.0	0.4	0.4	0.00	149.4	0.0	149.4	148.6	0.80	186.416 CC		
300.0	300.0	291.0	291.0	0.7	0.7	-99.53	149.4	0.0	149.7	148.4	1.34	111.797 ES		
400.0	399.7	390.7	390.7	1.0	0.9	-101.94	149.4	0.0	150.9	149.0	1.89	79.707		
500.0	499.1	488.9	488.9	1.3	1.2	-105.15	149.9	1.6	153.9	151.4	2.49	61.903		
600.0	598.0	587.2	587.0	1.7	1.5	-108.15	151.8	7.2	159.4	156.3	3.15	50.662		
700.0	696.0	685.7	684.9	2.2	1.8	-110.82	155.0	16.9	167.3	163.4	3.91	42.847		
800.0	793.2	784.3	782.5	2.7	2.1	-113.10	159.5	30.5	177.6	172.8	4.79	37.107		
900.0	889.2	883.0	879.4	3.4	2.5	-114.96	165.4	48.1	190.2	184.3	5.81	32.716		
1,000.0	983.9	981.7	975.4	4.2	3.0	-116.41	172.6	69.6	204.8	197.8	7.00	29.263		
1,100.0	1,077.0	1,080.3	1,070.4	5.1	3.6	-117.48	181.1	95.1	221.5	213.1	8.36	26.487		
1,200.0	1,168.6	1,178.9	1,164.0	6.1	4.3	-118.21	190.9	124.4	240.1	230.2	9.92	24.216		
1,300.0	1,258.3	1,277.4	1,256.1	7.2	5.2	-118.64	201.9	157.4	260.6	248.9	11.67	22.335		
1,400.0	1,345.9	1,375.8	1,346.5	8.5	6.1	-118.83	214.2	194.1	282.9	269.3	13.63	20.752		
1,500.0	1,431.4	1,473.9	1,435.0	9.9	7.1	-118.81	227.6	234.3	306.9	291.1	15.81	19.413		
1,600.0	1,514.5	1,571.8	1,521.4	11.4	8.2	-118.61	242.2	278.0	332.6	314.4	18.21	18.266		
1,700.0	1,595.2	1,669.5	1,605.5	13.0	9.5	-118.28	257.9	325.0	359.9	339.1	20.83	17.277		
1,800.0	1,673.2	1,766.9	1,687.3	14.8	10.9	-117.82	274.7	375.3	388.8	365.1	23.68	16.418		
1,900.0	1,748.3	1,863.9	1,766.4	16.7	12.3	-117.27	292.5	428.6	419.2	392.4	26.76	15.666		
2,000.0	1,820.6	1,960.7	1,842.9	18.7	13.9	-116.64	311.3	484.9	451.0	421.0	30.06	15.005		
2,100.0	1,889.7	2,057.2	1,916.5	20.8	15.6	-115.95	331.0	544.0	484.3	450.7	33.59	14.420		
2,200.0	1,955.6	2,153.4	1,987.3	23.1	17.4	-115.20	351.7	605.8	518.9	481.6	37.33	13.900		
2,300.0	2,018.2	2,249.3	2,055.0	25.5	19.3	-114.40	373.1	670.1	554.9	513.6	41.30	13.436		
2,324.0	2,032.7	2,272.2	2,070.8	26.0	19.8	-114.20	378.4	685.9	563.7	521.4	42.28	13.332		
2,400.0	2,078.4	2,345.0	2,119.8	27.9	21.3	-114.14	395.5	737.0	591.6	546.1	45.43	13.022		
2,500.0	2,138.4	2,440.9	2,181.7	30.4	23.4	-113.73	418.7	806.5	627.9	578.1	49.75	12.621		
2,600.0	2,198.5	2,535.4	2,239.9	32.9	25.6	-113.04	442.3	877.0	663.9	609.6	54.21	12.247		
2,700.0	2,258.5	2,628.4	2,296.8	35.4	27.7	-112.39	465.6	946.8	699.9	641.2	58.68	11.927		
2,800.0	2,318.5	2,721.4	2,353.7	37.9	29.9	-111.80	488.9	1,016.6	736.0	672.8	63.17	11.651		
2,900.0	2,378.6	2,814.4	2,410.7	40.4	32.1	-111.27	512.2	1,086.3	772.1	704.4	67.67	11.410 SF		

Offset Design		Bunker 8 Well Pad Sec.29-T5N-R68W - Bunker 8-9H - Wellbore #1 - Plan #2 (12-16-18)											Offset Site Error:		0.0 ft
Survey Program:		O-MWDD											Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	0.01	178.5	0.0	178.8						
100.0	100.0	90.0	90.0	0.1	0.1	0.01	178.5	0.0	178.5	178.3	0.26	682.411			
200.0	200.0	190.0	190.0	0.4	0.4	0.01	178.5	0.0	178.5	177.7	0.80	223.570	CC, ES		
300.0	300.0	287.3	287.3	0.7	0.7	-98.87	179.2	1.5	179.5	178.2	1.32	135.507			
400.0	399.7	384.3	384.2	1.0	0.9	-99.09	181.4	6.8	182.8	180.9	1.88	97.182			
500.0	499.1	481.2	480.5	1.3	1.2	-99.36	185.2	15.9	188.4	185.9	2.52	74.717			
600.0	598.0	577.9	576.2	1.7	1.6	-99.66	190.6	28.6	196.3	193.0	3.28	59.905			
700.0	696.0	674.3	670.9	2.2	2.0	-99.96	197.5	45.1	206.5	202.3	4.17	49.474			
800.0	793.2	770.4	764.5	2.7	2.6	-100.26	206.0	65.0	218.9	213.7	5.23	41.846			
900.0	889.2	866.0	856.7	3.4	3.2	-100.52	215.9	88.5	233.6	227.1	6.47	36.130			
1,000.0	983.9	961.2	947.3	4.2	3.8	-100.75	227.2	115.4	250.5	242.6	7.88	31.768			
1,100.0	1,077.0	1,055.9	1,036.2	5.1	4.6	-100.92	240.0	145.5	269.5	260.0	9.49	28.385			
1,200.0	1,168.6	1,150.1	1,123.1	6.1	5.5	-101.04	254.0	178.8	290.6	279.3	11.30	25.720			
1,300.0	1,258.3	1,243.6	1,207.9	7.2	6.5	-101.10	269.3	215.1	313.9	300.5	13.30	23.590			
1,400.0	1,345.9	1,336.5	1,290.5	8.5	7.5	-101.10	285.9	254.3	339.1	323.6	15.51	21.865			
1,500.0	1,431.4	1,428.7	1,370.7	9.9	8.7	-101.04	303.6	296.3	366.2	348.3	17.91	20.449			
1,600.0	1,514.5	1,520.3	1,448.5	11.4	9.9	-100.92	322.4	340.8	395.3	374.8	20.51	19.273			
1,700.0	1,595.2	1,611.2	1,523.7	13.0	11.2	-100.74	342.2	387.8	426.1	402.8	23.31	18.284			
1,800.0	1,673.2	1,700.0	1,595.2	14.8	12.6	-100.51	362.7	436.3	458.8	432.5	26.28	17.458			
1,900.0	1,748.3	1,790.8	1,666.1	16.7	14.1	-100.24	384.7	488.5	493.1	463.6	29.49	16.720			
2,000.0	1,820.6	1,879.5	1,733.2	18.7	15.7	-99.91	407.3	542.0	529.0	496.1	32.87	16.093			
2,100.0	1,889.7	1,967.5	1,797.4	20.8	17.4	-99.54	430.7	597.4	566.5	530.0	36.43	15.547			
2,200.0	1,955.6	2,054.9	1,858.9	23.1	19.1	-99.13	454.9	654.6	605.4	565.2	40.17	15.069			
2,300.0	2,018.2	2,141.6	1,917.5	25.5	20.9	-98.67	479.7	713.4	645.7	601.6	44.09	14.647			
2,324.0	2,032.7	2,162.3	1,931.2	26.0	21.3	-98.56	485.8	727.8	655.6	610.5	45.05	14.553			
2,400.0	2,078.4	2,227.8	1,973.4	27.9	22.8	-98.94	505.2	773.9	687.2	639.0	48.16	14.268			
2,500.0	2,138.4	2,313.8	2,026.6	30.4	24.7	-99.15	531.5	836.2	729.3	677.0	52.33	13.936			
2,600.0	2,198.5	2,400.5	2,077.8	32.9	26.7	-99.08	558.7	900.7	772.0	715.4	56.60	13.641	SF		

Reference Depths are relative to WELL @ 5008.0ft (Original Well Elev)	Coordinates are relative to: Bunker 8-3H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000	Grid Convergence at Surface is: 0.30°



<b>Company:</b>	Maggie Operating, Inc.	<b>Local Co-ordinate Reference:</b>	Well Bunker 8-3H
<b>Project:</b>	SEC.29-T5N-R68W	<b>TVD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Reference Site:</b>	Bunker 8 Well Pad Sec.29-T5N-R68W	<b>MD Reference:</b>	WELL @ 5008.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bunker 8-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #2 (12-06-18)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5008.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: Bunker 8-3H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is:  $0.30^\circ$

