

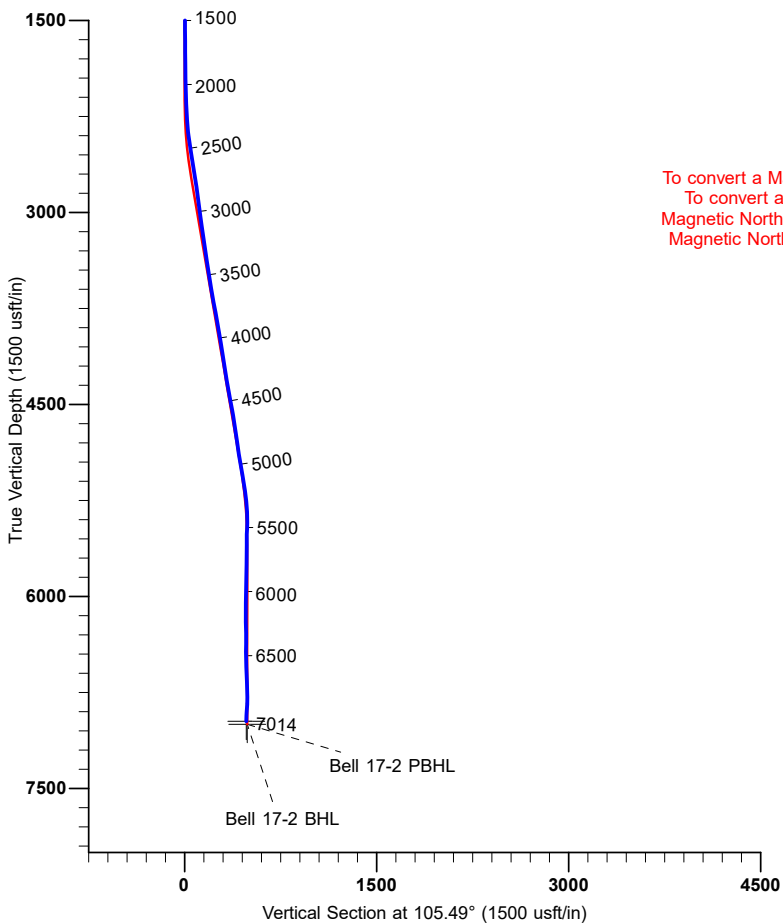
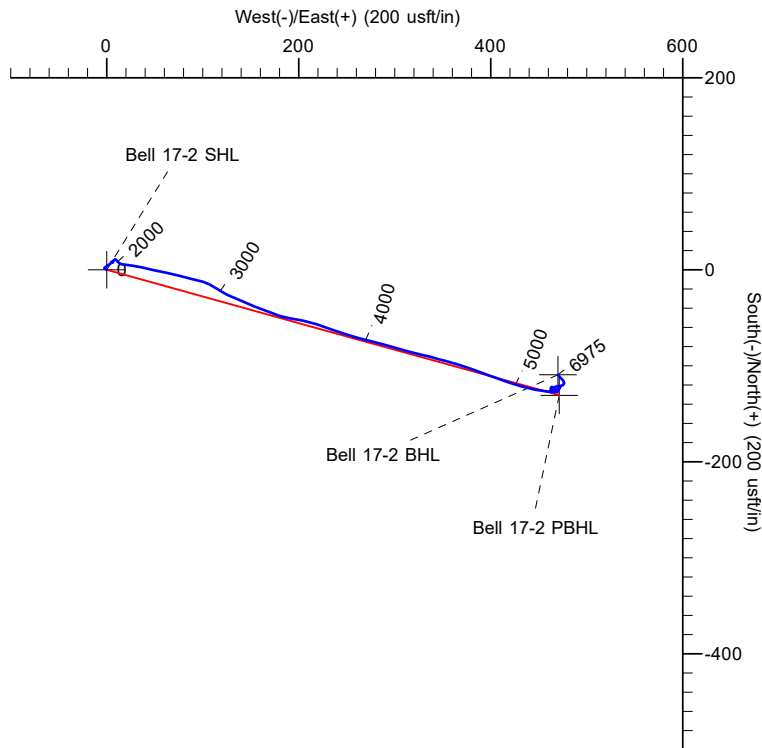
CPC MINERALS LLC

Project: Bonneville County, ID (NAD27) IDEZ
 Site: Bell 17-2
 Well: Bell 17-2
 Wellbore: 17-2 OH
 Design: 17-2 OH (AsDrilled)



Azimuths to True North
 Magnetic North: 11.54°

Magnetic Field
 Strength: 52830.0nT
 Dip Angle: 67.84°
 Date: 10/01/2018
 Model: IGRF2015



To convert a Magnetic Direction to a True Direction, Add 11.54° East
 To convert a Magnetic Direction to a Grid Direction, Add 11.05°
 Magnetic North is 11.05° East of Grid North (Magnetic Convergence)
 Magnetic North is 11.54° East of True North (Magnetic Declination)

6407+11 @ 6418.00usft (Capstar316)
 Well Bell 17-2, True North

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Bell 17-2 SHL	0.00	0.00	0.00	43° 9' 38.310 N	111° 27' 0.060 W	Point
Bell 17-2 BHL	6975.43	-109.36	470.19	43° 9' 37.230 N	111° 26' 53.716 W	Point
Bell 17-2 PBHL	7000.00	-130.60	471.40	43° 9' 37.020 N	111° 26' 53.700 W	Point

Survey Report

Company: CPC MINERALS LLC	Local Co-ordinate Reference: Well Bell 17-2
Project: Bonneville County, ID (NAD27) IDEZ	TVD Reference: 6407+11 @ 6418.00usft (Capstar316)
Site: Bell 17-2	MD Reference: 6407+11 @ 6418.00usft (Capstar316)
Well: Bell 17-2	North Reference: True
Wellbore: 17-2 OH	Survey Calculation Method: Minimum Curvature
Design: 17-2 OH (AsDrilled)	Database: SIERRA_EDM

Project Bonneville County, ID (NAD27) IDEZ	
Map System: US State Plane 1927 (Exact solution)	System Datum: Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)	
Map Zone: Idaho East 1101	

Site Bell 17-2		
Site Position:	Northing: 545,246.38 usft	Latitude: 43° 9' 38.320 N
From: Lat/Long	Easting: 691,197.54 usft	Longitude: 111° 27' 0.300 W
Position Uncertainty: 0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.49 °

Well Bell 17-2			
Well Position	+N/-S 0.00 usft	Northing: 545,245.52 usft	Latitude: 43° 9' 38.310 N
	+E/-W 0.00 usft	Easting: 691,215.34 usft	Longitude: 111° 27' 0.060 W
Position Uncertainty	0.00 usft	Wellhead Elevation: usft	Ground Level: 6,407.00 usft

Wellbore 17-2 OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/01/18	11.54	67.84	52,830.00816055

Design 17-2 OH (AsDrilled)					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.00			
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	105.49	

Survey Program		Date 11/14/18		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
65.00	6,970.00	Survey #1 (17-2 OH)	MWD	OWSG MWD - Standard
7,014.00	7,014.00	Survey #2 (17-2 OH)	MWD	OWSG MWD - Standard

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	
Bell 17-2 SHL										
65.00	0.00	0.00	65.00	0.00	0.00	0.00	0.00	0.00	0.00	
178.00	0.53	318.63	178.00	0.39	-0.35	-0.44	0.47	0.47	0.00	
271.00	0.50	291.40	270.99	0.86	-1.01	-1.20	0.26	-0.03	-29.28	
365.00	0.50	295.20	364.99	1.19	-1.76	-2.01	0.04	0.00	4.04	
457.00	0.35	297.20	456.99	1.49	-2.37	-2.68	0.16	-0.16	2.17	
547.00	0.75	40.00	546.99	2.06	-2.24	-2.71	0.99	0.44	114.22	
640.00	1.45	57.30	639.97	3.17	-0.86	-1.67	0.82	0.75	18.60	
733.00	2.46	54.17	732.91	4.97	1.75	0.36	1.09	1.09	-3.37	

Survey Report

Company:	CPC MINERALS LLC	Local Co-ordinate Reference:	Well Bell 17-2
Project:	Bonneville County, ID (NAD27) IDEZ	TVD Reference:	6407+11 @ 6418.00usft (Capstar316)
Site:	Bell 17-2	MD Reference:	6407+11 @ 6418.00usft (Capstar316)
Well:	Bell 17-2	North Reference:	True
Wellbore:	17-2 OH	Survey Calculation Method:	Minimum Curvature
Design:	17-2 OH (AsDrilled)	Database:	SIERRA_EDM

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)	
807.00	1.41	58.39	806.87	6.38	3.81	1.97	1.43	-1.42	5.70	
891.00	0.97	3.81	890.85	7.63	4.74	2.53	1.38	-0.52	-64.98	
978.00	0.22	140.48	977.85	8.23	4.90	2.52	1.31	-0.86	157.09	
1,064.00	0.44	120.44	1,063.85	7.94	5.29	2.97	0.29	0.26	-23.30	
1,151.00	0.92	96.18	1,150.84	7.69	6.27	3.99	0.63	0.55	-27.89	
1,235.00	0.40	356.33	1,234.84	7.91	6.92	4.55	1.27	-0.62	-118.87	
1,321.00	0.48	335.07	1,320.84	8.54	6.75	4.22	0.21	0.09	-24.72	
1,405.00	0.57	206.57	1,404.83	8.49	6.41	3.91	1.13	0.11	-152.98	
1,490.00	0.92	24.55	1,489.83	8.73	6.51	3.94	1.75	0.41	209.39	
1,576.00	0.35	43.44	1,575.83	9.55	6.98	4.17	0.70	-0.66	21.97	
1,662.00	0.79	49.95	1,661.82	10.12	7.61	4.63	0.52	0.51	7.57	
1,747.00	0.88	58.39	1,746.81	10.84	8.61	5.41	0.18	0.11	9.93	
1,832.00	0.62	120.96	1,831.81	10.94	9.56	6.29	0.95	-0.31	73.61	
1,917.00	1.10	150.58	1,916.80	10.00	10.36	7.31	0.75	0.56	34.85	
1,995.00	1.58	136.34	1,994.78	8.57	11.47	8.77	0.74	0.62	-18.26	
2,087.00	1.85	127.56	2,086.73	6.74	13.52	11.23	0.41	0.29	-9.54	
2,172.00	2.11	96.62	2,171.69	5.73	16.16	14.05	1.28	0.31	-36.40	
2,258.00	3.87	95.39	2,257.57	5.27	20.63	18.47	2.05	2.05	-1.43	
2,344.00	5.36	98.73	2,343.28	4.39	27.49	25.32	1.76	1.73	3.88	
2,430.00	7.34	103.21	2,428.75	2.52	36.81	34.80	2.37	2.30	5.21	
2,516.00	9.19	102.42	2,513.86	-0.21	48.86	47.14	2.16	2.15	-0.92	
2,602.00	9.71	101.72	2,598.69	-3.16	62.67	61.24	0.62	0.60	-0.81	
2,689.00	8.57	105.32	2,684.58	-6.36	76.11	75.04	1.47	-1.31	4.14	
2,773.00	8.75	102.68	2,767.63	-9.42	88.38	87.68	0.52	0.21	-3.14	
2,858.00	8.13	106.55	2,851.71	-12.55	100.45	100.15	0.99	-0.73	4.55	
2,943.00	7.65	122.55	2,935.91	-17.31	110.98	111.57	2.64	-0.56	18.82	
3,028.00	7.96	120.61	3,020.12	-23.35	120.81	122.66	0.48	0.36	-2.28	
3,112.00	8.09	112.26	3,103.30	-28.55	131.29	134.14	1.40	0.15	-9.94	
3,198.00	8.40	113.84	3,188.42	-33.38	142.63	146.37	0.45	0.36	1.84	
3,284.00	8.62	111.03	3,273.47	-38.23	154.40	159.00	0.55	0.26	-3.27	
3,369.00	8.48	110.77	3,357.52	-42.74	166.20	171.58	0.17	-0.16	-0.31	
3,456.00	8.13	110.59	3,443.61	-47.18	177.96	184.09	0.40	-0.40	-0.21	
3,542.00	9.63	98.90	3,528.59	-50.43	190.76	197.30	2.72	1.74	-13.59	
3,628.00	9.27	101.98	3,613.42	-52.98	204.64	211.36	0.72	-0.42	3.58	
3,715.00	10.55	106.64	3,699.12	-56.71	219.13	226.32	1.74	1.47	5.36	
3,800.00	10.51	111.65	3,782.69	-61.80	233.79	241.80	1.08	-0.05	5.89	
3,887.00	10.33	106.46	3,868.26	-66.94	248.65	257.49	1.10	-0.21	-5.97	
3,972.00	9.14	107.17	3,952.03	-71.09	262.40	271.86	1.41	-1.40	0.84	
4,058.00	9.14	102.42	4,036.94	-74.58	275.60	285.51	0.88	0.00	-5.52	
4,143.00	9.05	104.26	4,120.87	-77.68	288.67	298.93	0.36	-0.11	2.16	
4,228.00	9.14	108.04	4,204.81	-81.41	301.57	312.36	0.71	0.11	4.45	
4,315.00	9.41	104.00	4,290.67	-85.28	315.04	326.37	0.81	0.31	-4.64	
4,402.00	10.11	103.30	4,376.41	-88.75	329.38	341.11	0.82	0.80	-0.80	

Survey Report

Company:	CPC MINERALS LLC	Local Co-ordinate Reference:	Well Bell 17-2
Project:	Bonneville County, ID (NAD27) IDEZ	TVD Reference:	6407+11 @ 6418.00usft (Capstar316)
Site:	Bell 17-2	MD Reference:	6407+11 @ 6418.00usft (Capstar316)
Well:	Bell 17-2	North Reference:	True
Wellbore:	17-2 OH	Survey Calculation Method:	Minimum Curvature
Design:	17-2 OH (AsDrilled)	Database:	SIERRA_EDM

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)	
4,488.00	11.16	104.70	4,460.93	-92.60	344.77	356.98	1.26	1.22	1.63	
4,574.00	10.24	106.90	4,545.43	-96.94	360.14	372.94	1.17	-1.07	2.56	
4,659.00	8.48	109.63	4,629.30	-101.24	373.27	386.75	2.13	-2.07	3.21	
4,743.00	8.31	107.17	4,712.40	-105.11	384.90	398.99	0.47	-0.20	-2.93	
4,828.00	8.48	110.68	4,796.49	-109.14	396.63	411.38	0.64	0.20	4.13	
4,915.00	8.57	109.01	4,882.53	-113.51	408.76	424.23	0.30	0.10	-1.92	
5,000.00	8.79	111.03	4,966.56	-117.91	420.81	437.02	0.44	0.26	2.38	
5,086.00	10.02	104.62	5,051.40	-122.15	434.19	451.04	1.88	1.43	-7.45	
5,128.00	10.02	99.69	5,092.76	-123.69	441.33	458.33	2.04	0.00	-11.74	
5,213.00	9.63	99.17	5,176.51	-126.07	455.63	472.75	0.47	-0.46	-0.61	
5,255.00	7.12	99.25	5,218.06	-127.05	461.67	478.83	5.98	-5.98	0.19	
5,298.00	4.79	81.33	5,260.83	-127.21	466.08	483.12	6.87	-5.42	-41.67	
5,341.00	5.05	51.09	5,303.68	-125.75	469.33	485.86	5.99	0.60	-70.33	
5,383.00	3.96	39.23	5,345.55	-123.46	471.68	487.52	3.40	-2.60	-28.24	
5,427.00	1.10	14.09	5,389.50	-121.87	472.75	488.12	6.82	-6.50	-57.14	
5,470.00	1.67	214.22	5,432.50	-121.99	472.49	487.91	6.35	1.33	-371.79	
5,511.00	2.86	206.92	5,473.47	-123.40	471.69	487.52	2.98	2.90	-17.80	
5,553.00	3.16	211.93	5,515.41	-125.31	470.61	486.98	0.95	0.71	11.93	
5,596.00	1.89	210.17	5,558.37	-126.93	469.62	486.47	2.96	-2.95	-4.09	
5,640.00	0.31	301.49	5,602.36	-127.50	469.16	486.17	4.37	-3.59	207.55	
5,684.00	0.79	344.65	5,646.36	-127.14	468.98	485.90	1.37	1.09	98.09	
5,726.00	1.19	345.52	5,688.35	-126.44	468.79	485.53	0.95	0.95	2.07	
5,768.00	1.63	338.93	5,730.34	-125.46	468.47	484.96	1.11	1.05	-15.69	
5,854.00	0.57	290.33	5,816.32	-124.17	467.63	483.80	1.54	-1.23	-56.51	
5,940.00	1.67	309.40	5,902.30	-123.23	466.26	482.23	1.33	1.28	22.17	
5,981.00	1.85	311.16	5,943.28	-122.41	465.30	481.09	0.46	0.44	4.29	
6,067.00	1.19	246.21	6,029.26	-121.86	463.43	479.15	2.01	-0.77	-75.52	
6,153.00	1.71	177.21	6,115.24	-123.50	462.68	478.86	1.97	0.60	-80.23	
6,239.00	1.71	182.40	6,201.20	-126.07	462.69	479.55	0.18	0.00	6.03	
6,325.00	0.79	107.87	6,287.18	-127.53	463.20	480.43	1.96	-1.07	-86.66	
6,411.00	1.45	36.33	6,373.17	-126.84	464.41	481.41	1.64	0.77	-83.19	
6,497.00	2.24	3.10	6,459.12	-124.28	465.14	481.44	1.51	0.92	-38.64	
6,582.00	2.11	69.28	6,544.08	-122.07	466.70	482.35	2.80	-0.15	77.86	
6,670.00	2.37	78.95	6,632.01	-121.15	470.00	485.28	0.52	0.30	10.99	
6,756.00	2.64	85.37	6,717.93	-120.65	473.72	488.73	0.45	0.31	7.47	
6,799.00	2.73	55.57	6,760.88	-119.99	475.55	490.32	3.22	0.21	-69.30	
6,841.00	3.74	13.21	6,802.82	-118.09	476.69	490.91	6.00	2.40	-100.86	
6,884.00	5.05	319.51	6,845.71	-115.28	475.78	489.29	9.62	3.05	-124.88	
6,928.00	4.57	310.28	6,889.55	-112.68	473.18	486.09	2.07	-1.09	-20.98	
6,948.00	3.38	315.64	6,909.51	-111.74	472.16	484.86	6.23	-5.95	26.80	
6,970.00	2.55	321.53	6,931.48	-110.89	471.41	483.90	4.01	-3.77	26.77	
7,014.00	2.55	321.53	6,975.43	-109.36	470.19	482.32	0.00	0.00	0.00	
Bell 17-2 PBHL										

Survey Report

Company:	CPC MINERALS LLC	Local Co-ordinate Reference:	Well Bell 17-2
Project:	Bonneville County, ID (NAD27) IDEZ	TVD Reference:	6407+11 @ 6418.00usft (Capstar316)
Site:	Bell 17-2	MD Reference:	6407+11 @ 6418.00usft (Capstar316)
Well:	Bell 17-2	North Reference:	True
Wellbore:	17-2 OH	Survey Calculation Method:	Minimum Curvature
Design:	17-2 OH (AsDrilled)	Database:	SIERRA_EDM

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Bell 17-2 SHL - actual wellpath hits target center - Point	0.00	0.49	0.00	0.00	0.00	545,245.52	691,215.34	43° 9' 38.310 N	111° 27' 0.060 W
Bell 17-2 BHL - actual wellpath hits target center - Point	0.00	0.49	6,975.43	-109.36	470.19	545,140.18	691,686.45	43° 9' 37.230 N	111° 26' 53.716 W
Bell 17-2 PBHL - actual wellpath misses target center by 32.50usft at 7014.00usft MD (6975.43 TVD, -109.36 N, 470.19 E) - Point	0.00	0.49	7,000.00	-130.60	471.40	545,118.96	691,687.84	43° 9' 37.020 N	111° 26' 53.700 W

Checked By: _____ Approved By: _____ Date: _____