

VERDAD RESOURCES

**WATTENBERG FIELD
2N-64W-32 KIWI 2920 PAD
KIWI 2920-03H**

Wellbore #1

Plan: Design #2

Standard Planning Report

15 December, 2022

Project: WATTENBERG FIELD
Site: 2N-64W-32 KIWI 2920 PAD
Well: KIWI 2920-03H
Wellbore: Wellbore #1
Design: Design #2

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
2486.00	2581.64	9 5/8"	9-5/8

SHL
1955' FNL
2592' FWL

LP/TPZ
460' FSL
1553' FWL

BPZ
460' FNL
1567' FWL

BHL
370' FNL
1567' FWL

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
239.10	0.00	0.00	239.10	0.00	0.00	0.00	0.00	0.00	
1204.60	19.31	332.45	1186.43	142.89	-74.54	2.00	332.45	143.79	
6895.03	19.31	332.45	6556.73	1811.22	-944.87	0.00	0.00	1822.63	
7704.35	90.00	359.29	7000.00	2418.59	-1022.53	9.00	28.20	2430.90	
10004.35	90.00	359.29	7000.00	4718.41	-1051.03	0.00	0.00	4730.89	
10156.35	90.00	356.25	7000.00	4870.27	-1056.95	2.00	-90.00	4882.82	
11256.35	90.00	356.25	7000.00	5967.92	-1128.89	0.00	0.00	5981.26	
11493.85	90.00	1.00	7000.00	6205.28	-1134.59	2.00	90.00	6218.68	
11593.85	90.00	1.00	7000.00	6305.27	-1132.84	0.00	0.00	6318.63	
11648.41	90.00	359.91	7000.00	6359.82	-1132.41	2.00	-90.00	6373.18	
17402.95	90.00	359.91	7000.00	12114.36	-1141.57	0.00	0.00	12127.40	KIWI 2920-03H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
KIWI 2920-03H_SHL	0.00	1279507.65	3258757.14	40.096936	-104.575043
KIWI 2920-03H_LP/TPZ	7000.00	1281915.41	3257709.48	40.103575	-104.578698
KIWI 2920-03H_BPZ	7000.00	1291519.46	3257491.31	40.129944	-104.579121
KIWI 2920-03H_BHL	7000.00	1291609.44	3257489.27	40.130191	-104.579125

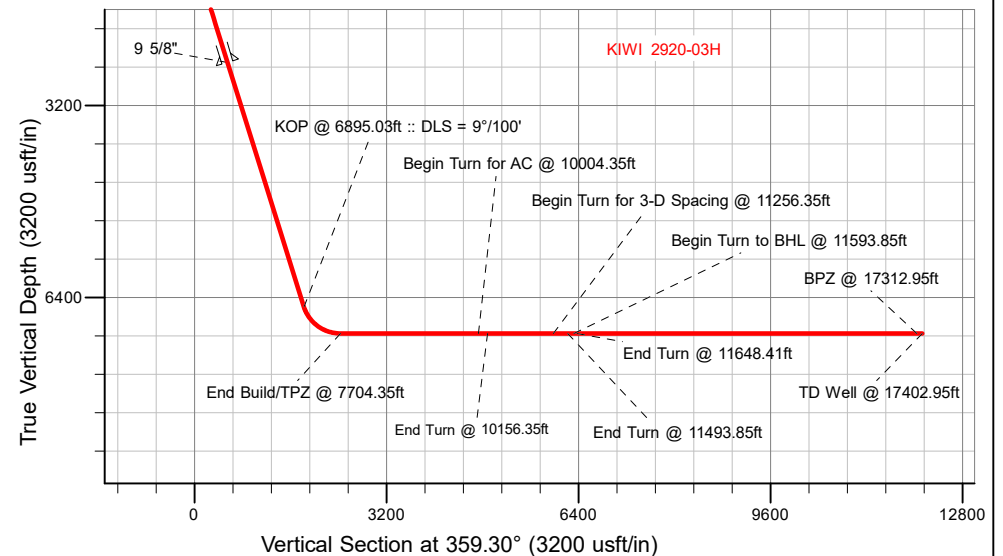
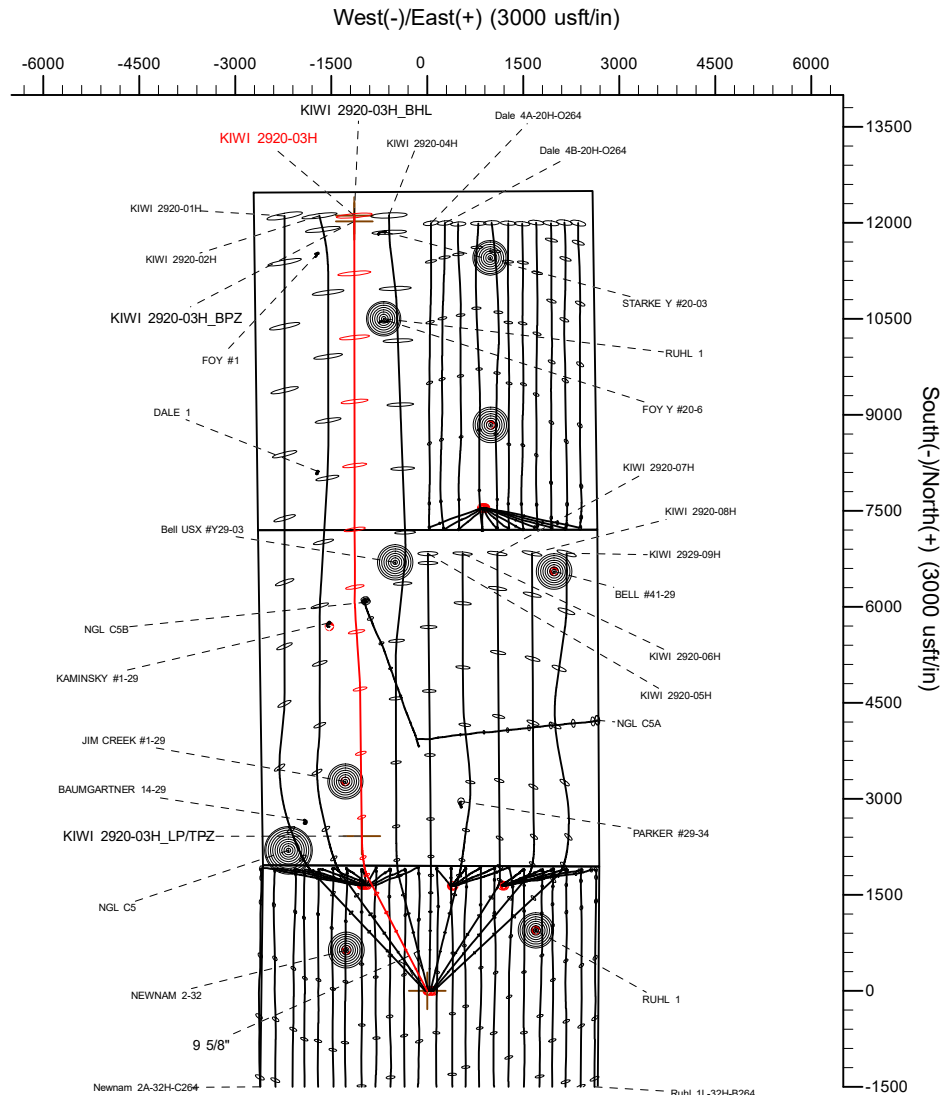
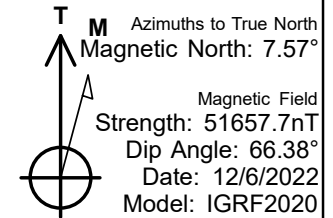
WELL DETAILS: KIWI 2920-03H

GL = 4971'

RKB = 20' @ 4991.00usft (RIG)

Plan: Design #2 (KIWI 2920-03H/Wellbore #1)

Date: 12/16/2022



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KIWI 2920-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4991.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2920-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Project	WATTENBERG FIELD		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		2N-64W-32 KIWI 2920 PAD				
Site Position:		Northing:	1,279,507.68	usft	Latitude:	40.096937
From:	Map	Easting:	3,258,725.14	usft	Longitude:	-104.575157
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well		KIWI 2920-03H				
Well Position	+N/-S	0.00 usft	Northing:	1,279,507.65 usft	Latitude:	40.096936
	+E/-W	0.00 usft	Easting:	3,258,757.14 usft	Longitude:	-104.575043
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,971.00 usft
Grid Convergence:		0.60 °				

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	12/6/2022	7.57	66.38	51,657.71528050

Design	Design #2				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.30	

Plan Survey Tool Program	Date	12/15/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	2,486.00	Design #2 (Wellbore #1)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,486.00	17,402.95	Design #2 (Wellbore #1)	ISCWSA MWD	
				Fixed:v2:standard declination	

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Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2920-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
239.10	0.00	0.00	239.10	0.00	0.00	0.00	0.00	0.00	0.00	
1,204.60	19.31	332.45	1,186.43	142.89	-74.54	2.00	2.00	0.00	332.45	
6,895.03	19.31	332.45	6,556.73	1,811.22	-944.87	0.00	0.00	0.00	0.00	
7,704.35	90.00	359.29	7,000.00	2,418.59	-1,022.53	9.00	8.73	3.32	28.20	
10,004.35	90.00	359.29	7,000.00	4,718.41	-1,051.03	0.00	0.00	0.00	0.00	
10,156.35	90.00	356.25	7,000.00	4,870.27	-1,056.95	2.00	0.00	-2.00	-90.00	
11,256.35	90.00	356.25	7,000.00	5,967.92	-1,128.89	0.00	0.00	0.00	0.00	
11,493.85	90.00	1.00	7,000.00	6,205.28	-1,134.59	2.00	0.00	2.00	90.00	
11,593.85	90.00	1.00	7,000.00	6,305.27	-1,132.84	0.00	0.00	0.00	0.00	
11,648.41	90.00	359.91	7,000.00	6,359.82	-1,132.41	2.00	0.00	-2.00	-90.00	
17,402.95	90.00	359.91	7,000.00	12,114.36	-1,141.57	0.00	0.00	0.00	0.00	KIWI 2920-03H_BHL

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4991.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2920-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
239.10	0.00	0.00	239.10	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 239.10ft									
300.00	1.22	332.45	300.00	0.57	-0.30	0.58	2.00	2.00	0.00
400.00	3.22	332.45	399.92	4.01	-2.09	4.03	2.00	2.00	0.00
500.00	5.22	332.45	499.64	10.53	-5.49	10.59	2.00	2.00	0.00
600.00	7.22	332.45	599.05	20.13	-10.50	20.26	2.00	2.00	0.00
700.00	9.22	332.45	698.01	32.80	-17.11	33.01	2.00	2.00	0.00
800.00	11.22	332.45	796.42	48.53	-25.32	48.83	2.00	2.00	0.00
900.00	13.22	332.45	894.15	67.29	-35.10	67.71	2.00	2.00	0.00
1,000.00	15.22	332.45	991.09	89.07	-46.46	89.63	2.00	2.00	0.00
1,100.00	17.22	332.45	1,087.10	113.83	-59.38	114.54	2.00	2.00	0.00
1,204.60	19.31	332.45	1,186.43	142.89	-74.54	143.79	2.00	2.00	0.00
Hold Tangent @ 1204.60ft									
1,300.00	19.31	332.45	1,276.46	170.86	-89.13	171.93	0.00	0.00	0.00
1,400.00	19.31	332.45	1,370.83	200.18	-104.43	201.44	0.00	0.00	0.00
1,500.00	19.31	332.45	1,465.21	229.50	-119.72	230.94	0.00	0.00	0.00
1,600.00	19.31	332.45	1,559.58	258.81	-135.02	260.44	0.00	0.00	0.00
1,700.00	19.31	332.45	1,653.96	288.13	-150.31	289.95	0.00	0.00	0.00
1,800.00	19.31	332.45	1,748.33	317.45	-165.61	319.45	0.00	0.00	0.00
1,900.00	19.31	332.45	1,842.70	346.77	-180.90	348.95	0.00	0.00	0.00
2,000.00	19.31	332.45	1,937.08	376.09	-196.20	378.46	0.00	0.00	0.00
2,100.00	19.31	332.45	2,031.45	405.40	-211.49	407.96	0.00	0.00	0.00
2,200.00	19.31	332.45	2,125.83	434.72	-226.78	437.46	0.00	0.00	0.00
2,300.00	19.31	332.45	2,220.20	464.04	-242.08	466.96	0.00	0.00	0.00
2,400.00	19.31	332.45	2,314.58	493.36	-257.37	496.47	0.00	0.00	0.00
2,500.00	19.31	332.45	2,408.95	522.68	-272.67	525.97	0.00	0.00	0.00
2,581.64	19.31	332.45	2,486.00	546.61	-285.16	550.06	0.00	0.00	0.00
9 5/8"									
2,600.00	19.31	332.45	2,503.33	552.00	-287.96	555.47	0.00	0.00	0.00
2,700.00	19.31	332.45	2,597.70	581.31	-303.26	584.98	0.00	0.00	0.00
2,800.00	19.31	332.45	2,692.07	610.63	-318.55	614.48	0.00	0.00	0.00
2,900.00	19.31	332.45	2,786.45	639.95	-333.85	643.98	0.00	0.00	0.00
3,000.00	19.31	332.45	2,880.82	669.27	-349.14	673.48	0.00	0.00	0.00
3,100.00	19.31	332.45	2,975.20	698.59	-364.44	702.99	0.00	0.00	0.00
3,200.00	19.31	332.45	3,069.57	727.91	-379.73	732.49	0.00	0.00	0.00
3,300.00	19.31	332.45	3,163.95	757.22	-395.03	761.99	0.00	0.00	0.00
3,400.00	19.31	332.45	3,258.32	786.54	-410.32	791.50	0.00	0.00	0.00
3,500.00	19.31	332.45	3,352.69	815.86	-425.62	821.00	0.00	0.00	0.00
3,600.00	19.31	332.45	3,447.07	845.18	-440.91	850.50	0.00	0.00	0.00
3,700.00	19.31	332.45	3,541.44	874.50	-456.20	880.01	0.00	0.00	0.00
3,800.00	19.31	332.45	3,635.82	903.82	-471.50	909.51	0.00	0.00	0.00
3,900.00	19.31	332.45	3,730.19	933.13	-486.79	939.01	0.00	0.00	0.00
4,000.00	19.31	332.45	3,824.57	962.45	-502.09	968.51	0.00	0.00	0.00
4,100.00	19.31	332.45	3,918.94	991.77	-517.38	998.02	0.00	0.00	0.00
4,200.00	19.31	332.45	4,013.31	1,021.09	-532.68	1,027.52	0.00	0.00	0.00
4,300.00	19.31	332.45	4,107.69	1,050.41	-547.97	1,057.02	0.00	0.00	0.00
4,400.00	19.31	332.45	4,202.06	1,079.72	-563.27	1,086.53	0.00	0.00	0.00
4,500.00	19.31	332.45	4,296.44	1,109.04	-578.56	1,116.03	0.00	0.00	0.00
4,600.00	19.31	332.45	4,390.81	1,138.36	-593.86	1,145.53	0.00	0.00	0.00
4,700.00	19.31	332.45	4,485.19	1,167.68	-609.15	1,175.03	0.00	0.00	0.00

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4991.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2920-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.00	19.31	332.45	4,579.56	1,197.00	-624.45	1,204.54	0.00	0.00	0.00
4,900.00	19.31	332.45	4,673.93	1,226.32	-639.74	1,234.04	0.00	0.00	0.00
5,000.00	19.31	332.45	4,768.31	1,255.63	-655.04	1,263.54	0.00	0.00	0.00
5,100.00	19.31	332.45	4,862.68	1,284.95	-670.33	1,293.05	0.00	0.00	0.00
5,200.00	19.31	332.45	4,957.06	1,314.27	-685.62	1,322.55	0.00	0.00	0.00
5,300.00	19.31	332.45	5,051.43	1,343.59	-700.92	1,352.05	0.00	0.00	0.00
5,400.00	19.31	332.45	5,145.81	1,372.91	-716.21	1,381.55	0.00	0.00	0.00
5,500.00	19.31	332.45	5,240.18	1,402.23	-731.51	1,411.06	0.00	0.00	0.00
5,600.00	19.31	332.45	5,334.56	1,431.54	-746.80	1,440.56	0.00	0.00	0.00
5,700.00	19.31	332.45	5,428.93	1,460.86	-762.10	1,470.06	0.00	0.00	0.00
5,800.00	19.31	332.45	5,523.30	1,490.18	-777.39	1,499.57	0.00	0.00	0.00
5,900.00	19.31	332.45	5,617.68	1,519.50	-792.69	1,529.07	0.00	0.00	0.00
6,000.00	19.31	332.45	5,712.05	1,548.82	-807.98	1,558.57	0.00	0.00	0.00
6,100.00	19.31	332.45	5,806.43	1,578.14	-823.28	1,588.08	0.00	0.00	0.00
6,200.00	19.31	332.45	5,900.80	1,607.45	-838.57	1,617.58	0.00	0.00	0.00
6,300.00	19.31	332.45	5,995.18	1,636.77	-853.87	1,647.08	0.00	0.00	0.00
6,400.00	19.31	332.45	6,089.55	1,666.09	-869.16	1,676.58	0.00	0.00	0.00
6,500.00	19.31	332.45	6,183.92	1,695.41	-884.45	1,706.09	0.00	0.00	0.00
6,600.00	19.31	332.45	6,278.30	1,724.73	-899.75	1,735.59	0.00	0.00	0.00
6,700.00	19.31	332.45	6,372.67	1,754.04	-915.04	1,765.09	0.00	0.00	0.00
6,800.00	19.31	332.45	6,467.05	1,783.36	-930.34	1,794.60	0.00	0.00	0.00
6,895.03	19.31	332.45	6,556.73	1,811.22	-944.87	1,822.63	0.00	0.00	0.00
KOP @ 6895.03ft :: DLS = 9°/100'									
6,900.00	19.71	333.08	6,561.42	1,812.70	-945.63	1,824.12	9.00	7.95	12.61
6,950.00	23.78	338.25	6,607.85	1,829.59	-953.19	1,841.10	9.00	8.15	10.35
7,000.00	27.98	341.97	6,652.83	1,850.11	-960.56	1,861.71	9.00	8.40	7.43
7,050.00	32.26	344.77	6,696.07	1,874.15	-967.70	1,885.84	9.00	8.55	5.61
7,100.00	36.58	346.98	6,737.31	1,901.56	-974.56	1,913.32	9.00	8.65	4.42
7,150.00	40.94	348.78	6,776.29	1,932.16	-981.11	1,944.00	9.00	8.71	3.60
7,200.00	45.32	350.29	6,812.78	1,965.76	-987.30	1,977.68	9.00	8.76	3.02
7,250.00	49.71	351.58	6,846.54	2,002.17	-993.09	2,014.15	9.00	8.80	2.59
7,300.00	54.13	352.72	6,877.37	2,041.15	-998.45	2,053.19	9.00	8.82	2.27
7,350.00	58.55	353.74	6,905.08	2,082.46	-1,003.35	2,094.56	9.00	8.84	2.03
7,400.00	62.97	354.66	6,929.50	2,125.85	-1,007.75	2,138.01	9.00	8.85	1.85
7,450.00	67.41	355.52	6,950.48	2,171.06	-1,011.63	2,183.26	9.00	8.87	1.71
7,500.00	71.84	356.32	6,967.88	2,217.80	-1,014.96	2,230.04	9.00	8.87	1.60
7,550.00	76.28	357.08	6,981.61	2,265.79	-1,017.73	2,278.05	9.00	8.88	1.52
7,600.00	80.72	357.81	6,991.57	2,314.72	-1,019.91	2,327.01	9.00	8.88	1.47
7,650.00	85.17	358.52	6,997.71	2,364.31	-1,021.50	2,376.61	9.00	8.89	1.43
7,704.35	90.00	359.29	7,000.00	2,418.59	-1,022.53	2,430.90	9.00	8.89	1.41
End Build/TPZ @ 7704.35ft									
7,800.00	90.00	359.29	7,000.00	2,514.22	-1,023.72	2,526.54	0.00	0.00	0.00
7,900.00	90.00	359.29	7,000.00	2,614.22	-1,024.96	2,626.54	0.00	0.00	0.00
8,000.00	90.00	359.29	7,000.00	2,714.21	-1,026.19	2,726.54	0.00	0.00	0.00
8,100.00	90.00	359.29	7,000.00	2,814.20	-1,027.43	2,826.54	0.00	0.00	0.00
8,200.00	90.00	359.29	7,000.00	2,914.19	-1,028.67	2,926.54	0.00	0.00	0.00
8,300.00	90.00	359.29	7,000.00	3,014.19	-1,029.91	3,026.54	0.00	0.00	0.00
8,400.00	90.00	359.29	7,000.00	3,114.18	-1,031.15	3,126.54	0.00	0.00	0.00
8,500.00	90.00	359.29	7,000.00	3,214.17	-1,032.39	3,226.54	0.00	0.00	0.00
8,600.00	90.00	359.29	7,000.00	3,314.16	-1,033.63	3,326.54	0.00	0.00	0.00
8,700.00	90.00	359.29	7,000.00	3,414.16	-1,034.87	3,426.54	0.00	0.00	0.00
8,800.00	90.00	359.29	7,000.00	3,514.15	-1,036.11	3,526.54	0.00	0.00	0.00
8,900.00	90.00	359.29	7,000.00	3,614.14	-1,037.35	3,626.54	0.00	0.00	0.00
9,000.00	90.00	359.29	7,000.00	3,714.13	-1,038.59	3,726.54	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KIWI 2920-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4991.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2920-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,100.00	90.00	359.29	7,000.00	3,814.12	-1,039.83	3,826.54	0.00	0.00	0.00
9,200.00	90.00	359.29	7,000.00	3,914.12	-1,041.06	3,926.54	0.00	0.00	0.00
9,300.00	90.00	359.29	7,000.00	4,014.11	-1,042.30	4,026.54	0.00	0.00	0.00
9,400.00	90.00	359.29	7,000.00	4,114.10	-1,043.54	4,126.54	0.00	0.00	0.00
9,500.00	90.00	359.29	7,000.00	4,214.09	-1,044.78	4,226.54	0.00	0.00	0.00
9,600.00	90.00	359.29	7,000.00	4,314.09	-1,046.02	4,326.54	0.00	0.00	0.00
9,700.00	90.00	359.29	7,000.00	4,414.08	-1,047.26	4,426.54	0.00	0.00	0.00
9,800.00	90.00	359.29	7,000.00	4,514.07	-1,048.50	4,526.54	0.00	0.00	0.00
9,900.00	90.00	359.29	7,000.00	4,614.06	-1,049.74	4,626.54	0.00	0.00	0.00
10,004.35	90.00	359.29	7,000.00	4,718.41	-1,051.03	4,730.89	0.00	0.00	0.00
Begin Turn for AC @ 10004.35ft									
10,100.00	90.00	357.38	7,000.00	4,814.01	-1,053.81	4,826.53	2.00	0.00	-2.00
10,156.35	90.00	356.25	7,000.00	4,870.27	-1,056.95	4,882.82	2.00	0.00	-2.00
End Turn @ 10156.35ft									
10,200.00	90.00	356.25	7,000.00	4,913.83	-1,059.80	4,926.41	0.00	0.00	0.00
10,300.00	90.00	356.25	7,000.00	5,013.62	-1,066.34	5,026.27	0.00	0.00	0.00
10,400.00	90.00	356.25	7,000.00	5,113.40	-1,072.88	5,126.13	0.00	0.00	0.00
10,500.00	90.00	356.25	7,000.00	5,213.19	-1,079.42	5,225.99	0.00	0.00	0.00
10,600.00	90.00	356.25	7,000.00	5,312.97	-1,085.96	5,325.84	0.00	0.00	0.00
10,700.00	90.00	356.25	7,000.00	5,412.76	-1,092.50	5,425.70	0.00	0.00	0.00
10,800.00	90.00	356.25	7,000.00	5,512.54	-1,099.04	5,525.56	0.00	0.00	0.00
10,900.00	90.00	356.25	7,000.00	5,612.33	-1,105.58	5,625.42	0.00	0.00	0.00
11,000.00	90.00	356.25	7,000.00	5,712.12	-1,112.12	5,725.28	0.00	0.00	0.00
11,100.00	90.00	356.25	7,000.00	5,811.90	-1,118.66	5,825.14	0.00	0.00	0.00
11,200.00	90.00	356.25	7,000.00	5,911.69	-1,125.20	5,924.99	0.00	0.00	0.00
11,256.35	90.00	356.25	7,000.00	5,967.92	-1,128.89	5,981.26	0.00	0.00	0.00
Begin Turn for 3-D Spacing @ 11256.35ft									
11,300.00	90.00	357.12	7,000.00	6,011.49	-1,131.41	6,024.87	2.00	0.00	2.00
11,400.00	90.00	359.12	7,000.00	6,111.44	-1,134.69	6,124.84	2.00	0.00	2.00
11,493.85	90.00	1.00	7,000.00	6,205.28	-1,134.59	6,218.68	2.00	0.00	2.00
End Turn @ 11493.85ft									
11,500.00	90.00	1.00	7,000.00	6,211.43	-1,134.48	6,224.83	0.00	0.00	0.00
11,593.85	90.00	1.00	7,000.00	6,305.27	-1,132.84	6,318.64	0.00	0.00	0.00
Begin Turn to BHL @ 11593.85ft									
11,600.00	90.00	0.88	7,000.00	6,311.42	-1,132.74	6,324.78	2.00	0.00	-2.00
11,648.41	90.00	359.91	7,000.00	6,359.82	-1,132.41	6,373.18	2.00	0.00	-2.00
End Turn @ 11648.41ft									
11,700.00	90.00	359.91	7,000.00	6,411.41	-1,132.49	6,424.77	0.00	0.00	0.00
11,800.00	90.00	359.91	7,000.00	6,511.41	-1,132.65	6,524.76	0.00	0.00	0.00
11,900.00	90.00	359.91	7,000.00	6,611.41	-1,132.81	6,624.76	0.00	0.00	0.00
12,000.00	90.00	359.91	7,000.00	6,711.41	-1,132.97	6,724.75	0.00	0.00	0.00
12,100.00	90.00	359.91	7,000.00	6,811.41	-1,133.13	6,824.75	0.00	0.00	0.00
12,200.00	90.00	359.91	7,000.00	6,911.41	-1,133.29	6,924.74	0.00	0.00	0.00
12,300.00	90.00	359.91	7,000.00	7,011.41	-1,133.45	7,024.74	0.00	0.00	0.00
12,400.00	90.00	359.91	7,000.00	7,111.41	-1,133.61	7,124.73	0.00	0.00	0.00
12,500.00	90.00	359.91	7,000.00	7,211.41	-1,133.76	7,224.73	0.00	0.00	0.00
12,600.00	90.00	359.91	7,000.00	7,311.41	-1,133.92	7,324.72	0.00	0.00	0.00
12,700.00	90.00	359.91	7,000.00	7,411.41	-1,134.08	7,424.71	0.00	0.00	0.00
12,800.00	90.00	359.91	7,000.00	7,511.41	-1,134.24	7,524.71	0.00	0.00	0.00
12,900.00	90.00	359.91	7,000.00	7,611.41	-1,134.40	7,624.70	0.00	0.00	0.00
13,000.00	90.00	359.91	7,000.00	7,711.41	-1,134.56	7,724.70	0.00	0.00	0.00
13,100.00	90.00	359.91	7,000.00	7,811.41	-1,134.72	7,824.69	0.00	0.00	0.00
13,200.00	90.00	359.91	7,000.00	7,911.41	-1,134.88	7,924.69	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KIWI 2920-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4991.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2920-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,300.00	90.00	359.91	7,000.00	8,011.41	-1,135.04	8,024.68	0.00	0.00	0.00	
13,400.00	90.00	359.91	7,000.00	8,111.41	-1,135.20	8,124.67	0.00	0.00	0.00	
13,500.00	90.00	359.91	7,000.00	8,211.41	-1,135.36	8,224.67	0.00	0.00	0.00	
13,600.00	90.00	359.91	7,000.00	8,311.41	-1,135.52	8,324.66	0.00	0.00	0.00	
13,700.00	90.00	359.91	7,000.00	8,411.41	-1,135.68	8,424.66	0.00	0.00	0.00	
13,800.00	90.00	359.91	7,000.00	8,511.41	-1,135.83	8,524.65	0.00	0.00	0.00	
13,900.00	90.00	359.91	7,000.00	8,611.41	-1,135.99	8,624.65	0.00	0.00	0.00	
14,000.00	90.00	359.91	7,000.00	8,711.41	-1,136.15	8,724.64	0.00	0.00	0.00	
14,100.00	90.00	359.91	7,000.00	8,811.41	-1,136.31	8,824.64	0.00	0.00	0.00	
14,200.00	90.00	359.91	7,000.00	8,911.41	-1,136.47	8,924.63	0.00	0.00	0.00	
14,300.00	90.00	359.91	7,000.00	9,011.41	-1,136.63	9,024.62	0.00	0.00	0.00	
14,400.00	90.00	359.91	7,000.00	9,111.41	-1,136.79	9,124.62	0.00	0.00	0.00	
14,500.00	90.00	359.91	7,000.00	9,211.41	-1,136.95	9,224.61	0.00	0.00	0.00	
14,600.00	90.00	359.91	7,000.00	9,311.41	-1,137.11	9,324.61	0.00	0.00	0.00	
14,700.00	90.00	359.91	7,000.00	9,411.41	-1,137.27	9,424.60	0.00	0.00	0.00	
14,800.00	90.00	359.91	7,000.00	9,511.41	-1,137.43	9,524.60	0.00	0.00	0.00	
14,900.00	90.00	359.91	7,000.00	9,611.41	-1,137.59	9,624.59	0.00	0.00	0.00	
15,000.00	90.00	359.91	7,000.00	9,711.41	-1,137.74	9,724.58	0.00	0.00	0.00	
15,100.00	90.00	359.91	7,000.00	9,811.41	-1,137.90	9,824.58	0.00	0.00	0.00	
15,200.00	90.00	359.91	7,000.00	9,911.41	-1,138.06	9,924.57	0.00	0.00	0.00	
15,300.00	90.00	359.91	7,000.00	10,011.41	-1,138.22	10,024.57	0.00	0.00	0.00	
15,400.00	90.00	359.91	7,000.00	10,111.41	-1,138.38	10,124.56	0.00	0.00	0.00	
15,500.00	90.00	359.91	7,000.00	10,211.41	-1,138.54	10,224.56	0.00	0.00	0.00	
15,600.00	90.00	359.91	7,000.00	10,311.41	-1,138.70	10,324.55	0.00	0.00	0.00	
15,700.00	90.00	359.91	7,000.00	10,411.41	-1,138.86	10,424.54	0.00	0.00	0.00	
15,800.00	90.00	359.91	7,000.00	10,511.41	-1,139.02	10,524.54	0.00	0.00	0.00	
15,900.00	90.00	359.91	7,000.00	10,611.41	-1,139.18	10,624.53	0.00	0.00	0.00	
16,000.00	90.00	359.91	7,000.00	10,711.41	-1,139.34	10,724.53	0.00	0.00	0.00	
16,100.00	90.00	359.91	7,000.00	10,811.41	-1,139.50	10,824.52	0.00	0.00	0.00	
16,200.00	90.00	359.91	7,000.00	10,911.41	-1,139.66	10,924.52	0.00	0.00	0.00	
16,300.00	90.00	359.91	7,000.00	11,011.41	-1,139.81	11,024.51	0.00	0.00	0.00	
16,400.00	90.00	359.91	7,000.00	11,111.41	-1,139.97	11,124.51	0.00	0.00	0.00	
16,500.00	90.00	359.91	7,000.00	11,211.41	-1,140.13	11,224.50	0.00	0.00	0.00	
16,600.00	90.00	359.91	7,000.00	11,311.41	-1,140.29	11,324.49	0.00	0.00	0.00	
16,700.00	90.00	359.91	7,000.00	11,411.41	-1,140.45	11,424.49	0.00	0.00	0.00	
16,800.00	90.00	359.91	7,000.00	11,511.41	-1,140.61	11,524.48	0.00	0.00	0.00	
16,900.00	90.00	359.91	7,000.00	11,611.41	-1,140.77	11,624.48	0.00	0.00	0.00	
17,000.00	90.00	359.91	7,000.00	11,711.41	-1,140.93	11,724.47	0.00	0.00	0.00	
17,100.00	90.00	359.91	7,000.00	11,811.41	-1,141.09	11,824.47	0.00	0.00	0.00	
17,200.00	90.00	359.91	7,000.00	11,911.41	-1,141.25	11,924.46	0.00	0.00	0.00	
17,300.00	90.00	359.91	7,000.00	12,011.41	-1,141.41	12,024.45	0.00	0.00	0.00	
17,312.95	90.00	359.91	7,000.00	12,024.36	-1,141.43	12,037.40	0.00	0.00	0.00	
BPZ @ 17312.95ft										
17,402.95	90.00	359.91	7,000.00	12,114.36	-1,141.57	12,127.40	0.00	0.00	0.00	
TD Well @ 17402.95ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,581.64	2,486.00	9 5/8"		9-5/8	13-1/2

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KIWI 2920-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 4991.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2920-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
239.10	239.10	0.00	0.00	Begin Nudge @ 239.10ft
1,204.60	1,186.43	142.89	-74.54	Hold Tangent @ 1204.60ft
6,895.03	6,556.73	1,811.22	-944.87	KOP @ 6895.03ft :: DLS = 9°/100'
7,704.35	7,000.00	2,418.59	-1,022.53	End Build/TPZ @ 7704.35ft
10,004.35	7,000.00	4,718.41	-1,051.03	Begin Turn for AC @ 10004.35ft
10,156.35	7,000.00	4,870.27	-1,056.95	End Turn @ 10156.35ft
11,256.35	7,000.00	5,967.92	-1,128.89	Begin Turn for 3-D Spacing @ 11256.35ft
11,493.85	7,000.00	6,205.28	-1,134.59	End Turn @ 11493.85ft
11,593.85	7,000.00	6,305.27	-1,132.84	Begin Turn to BHL @ 11593.85ft
11,648.41	7,000.00	6,359.82	-1,132.41	End Turn @ 11648.41ft
17,312.95	7,000.00	12,024.36	-1,141.43	BPZ @ 17312.95ft
17,402.95	7,000.00	12,114.36	-1,141.57	TD Well @ 17402.95ft