

VERDAD RESOURCES

**WATTENBERG FIELD
2N-64W-32 KIWI 2920 PAD
KIWI 2929-09H**

Wellbore #1

Plan: Design #2

Standard Planning Report

15 December, 2022

Project: WATTENBERG FIELD
Site: 2N-64W-32 KIWI 2920 PAD
Well: KIWI 2929-09H
Wellbore: Wellbore #1
Design: Design #2

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
2486.00	2634.37	9 5/8"	9-5/8

SHL
1956' FNL
2577' FEL

LP/TPZ
460' FSL
480' FEL

BPZ
460' FNL
480' FEL

BHL
370' FNL
480' FEL

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	
201.50	0.00	0.00	201.50	0.00	0.00	0.00	0.00	0.00	
1441.50	24.80	47.07	1403.14	179.95	193.44	2.00	47.07	178.80	
7139.56	24.80	47.07	6575.71	1807.83	1943.41	0.00	0.00	1796.26	
7945.90	90.00	2.64	7000.00	2408.25	2108.49	9.00	-47.20	2395.70	
8045.90	90.00	2.64	7000.00	2508.15	2113.09	0.00	0.00	2495.57	
8707.90	90.00	349.40	7000.00	3167.08	2067.25	2.00	-90.00	3154.76	
9380.00	90.00	349.40	7000.00	3827.71	1943.61	0.00	0.00	3816.11	
10317.50	90.00	8.15	7000.00	4760.82	1923.66	2.00	90.00	4749.32	
11217.50	90.00	8.15	7000.00	5651.73	2051.25	0.00	0.00	5639.46	
11617.33	90.00	0.15	7000.00	6050.19	2080.17	2.00	-90.00	6037.74	
12405.84	90.00	0.15	7000.00	6838.69	2082.28	0.00	0.00	6826.22	KIWI 2929-09H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
KIWI 2929-09H_SHL	0.00	1279507.54	3258853.14	40.096932	-104.574699
KIWI 2929-09H_LP/TPZ	7000.00	1281937.73	3260936.30	40.103543	-104.567162
KIWI 2929-09H_BPZ	7000.00	1286277.61	3260865.42	40.115458	-104.567252
KIWI 2929-09H_BHL	7000.00	1286367.59	3260863.95	40.115706	-104.567254

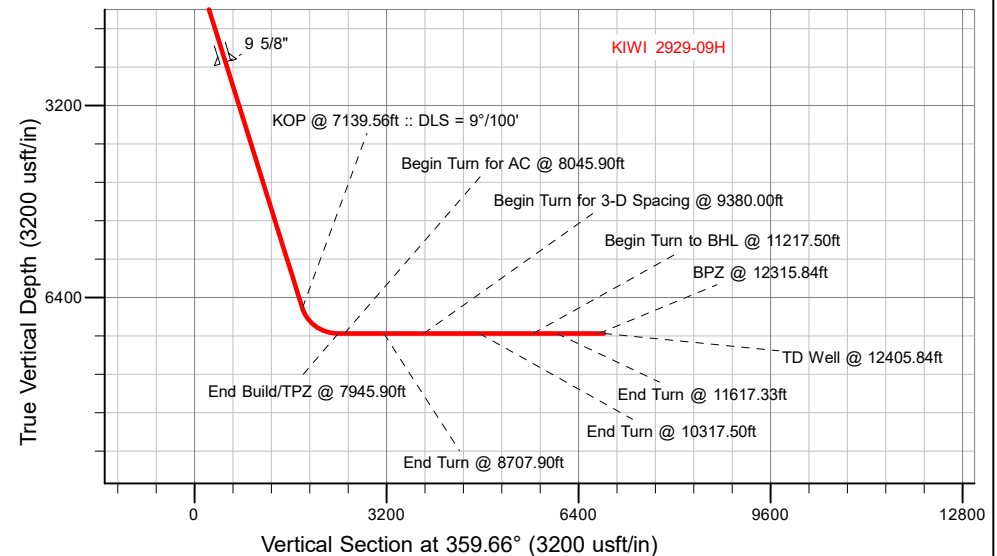
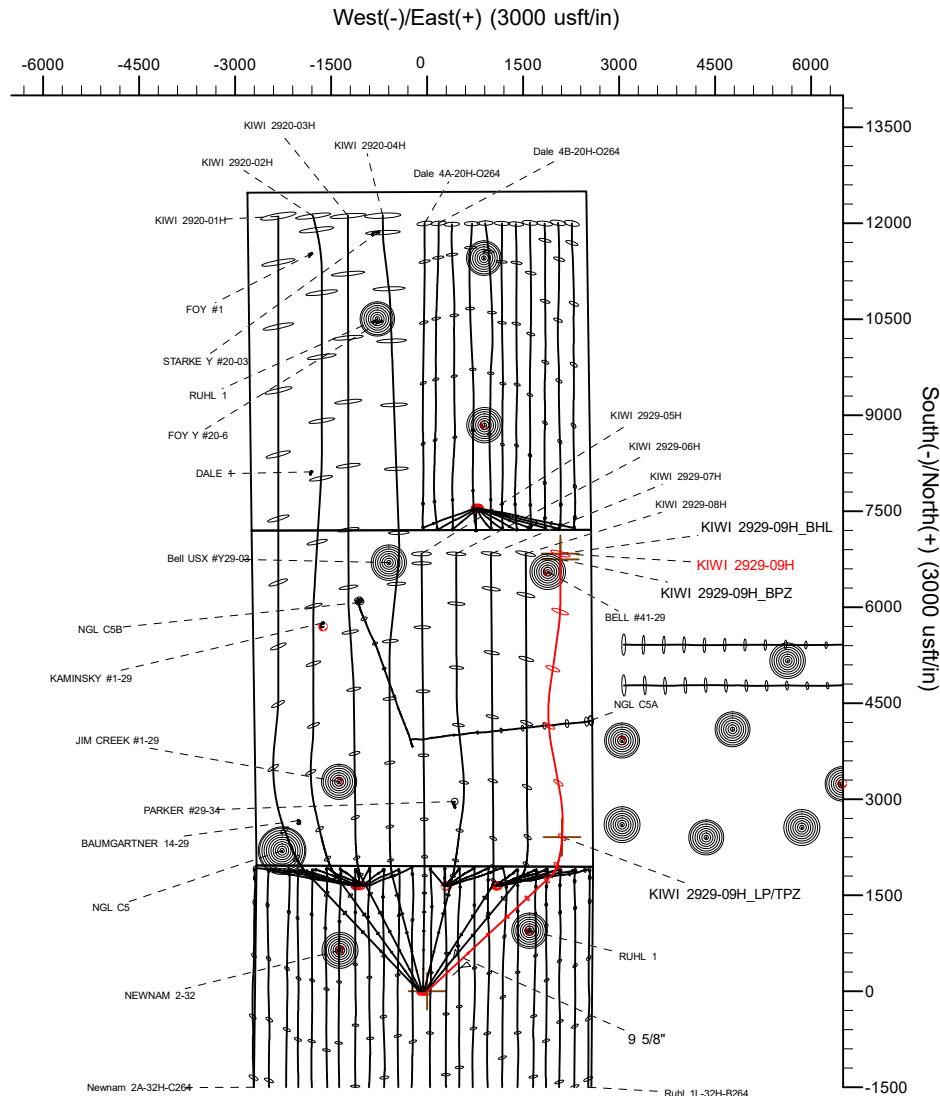
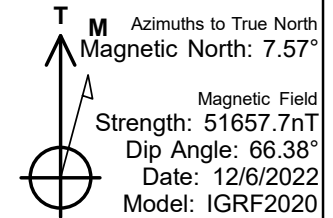
WELL DETAILS: KIWI 2929-09H

GL = 4971'

RKB = 20' @ 4991.00usft (RIG)

Plan: Design #2 (KIWI 2929-09H/Wellbore #1)

Date: 12/16/2022



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KIWI 2929-09H
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 2929-09H	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 2929-09H				
Well Position	+N/-S	0.00 usft	Northing:	1,279,507.54 usft	Latitude:	40.096933
	+E/-W	0.00 usft	Easting:	3,258,853.14 usft	Longitude:	-104.574700
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	51,657.74886615

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	359.66	

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	12,405.84	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 2929-09H	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	
201.50	0.00	0.00	201.50	0.00	0.00	0.00	0.00	0.00	0.00	
1,441.50	24.80	47.07	1,403.14	179.95	193.44	2.00	2.00	0.00	47.07	
7,139.56	24.80	47.07	6,575.71	1,807.83	1,943.41	0.00	0.00	0.00	0.00	
7,945.90	90.00	2.64	7,000.00	2,408.25	2,108.49	9.00	8.09	-5.51	-47.20	
8,045.90	90.00	2.64	7,000.00	2,508.15	2,113.09	0.00	0.00	0.00	0.00	
8,707.90	90.00	349.40	7,000.00	3,167.08	2,067.25	2.00	0.00	-2.00	-90.00	
9,380.00	90.00	349.40	7,000.00	3,827.71	1,943.61	0.00	0.00	0.00	0.00	
10,317.50	90.00	8.15	7,000.00	4,760.82	1,923.66	2.00	0.00	2.00	90.00	
11,217.50	90.00	8.15	7,000.00	5,651.73	2,051.25	0.00	0.00	0.00	0.00	
11,617.33	90.00	0.15	7,000.00	6,050.19	2,080.17	2.00	0.00	-2.00	-90.00	
12,405.84	90.00	0.15	7,000.00	6,838.69	2,082.28	0.00	0.00	0.00	0.00	KIWI 2929-09H_BHL

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Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2929-09H	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
201.50	0.00	0.00	201.50	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 201.50ft									
300.00	1.97	47.07	299.98	1.15	1.24	1.15	2.00	2.00	0.00
400.00	3.97	47.07	399.84	4.68	5.03	4.65	2.00	2.00	0.00
500.00	5.97	47.07	499.46	10.58	11.38	10.51	2.00	2.00	0.00
600.00	7.97	47.07	598.72	18.85	20.26	18.73	2.00	2.00	0.00
700.00	9.97	47.07	697.49	29.47	31.68	29.28	2.00	2.00	0.00
800.00	11.97	47.07	795.66	42.43	45.61	42.16	2.00	2.00	0.00
900.00	13.97	47.07	893.10	57.71	62.04	57.34	2.00	2.00	0.00
1,000.00	15.97	47.07	989.70	75.31	80.95	74.82	2.00	2.00	0.00
1,100.00	17.97	47.07	1,085.34	95.18	102.32	94.58	2.00	2.00	0.00
1,200.00	19.97	47.07	1,179.91	117.32	126.12	116.57	2.00	2.00	0.00
1,300.00	21.97	47.07	1,273.28	141.70	152.33	140.79	2.00	2.00	0.00
1,400.00	23.97	47.07	1,365.34	168.28	180.90	167.20	2.00	2.00	0.00
1,441.50	24.80	47.07	1,403.14	179.95	193.44	178.80	2.00	2.00	0.00
Hold Tangent @ 1441.50ft									
1,500.00	24.80	47.07	1,456.25	196.66	211.41	195.40	0.00	0.00	0.00
1,600.00	24.80	47.07	1,547.02	225.23	242.12	223.79	0.00	0.00	0.00
1,700.00	24.80	47.07	1,637.80	253.80	272.83	252.17	0.00	0.00	0.00
1,800.00	24.80	47.07	1,728.58	282.37	303.54	280.56	0.00	0.00	0.00
1,900.00	24.80	47.07	1,819.36	310.94	334.26	308.95	0.00	0.00	0.00
2,000.00	24.80	47.07	1,910.14	339.50	364.97	337.33	0.00	0.00	0.00
2,100.00	24.80	47.07	2,000.91	368.07	395.68	365.72	0.00	0.00	0.00
2,200.00	24.80	47.07	2,091.69	396.64	426.39	394.11	0.00	0.00	0.00
2,300.00	24.80	47.07	2,182.47	425.21	457.10	422.49	0.00	0.00	0.00
2,400.00	24.80	47.07	2,273.25	453.78	487.81	450.88	0.00	0.00	0.00
2,500.00	24.80	47.07	2,364.02	482.35	518.53	479.26	0.00	0.00	0.00
2,600.00	24.80	47.07	2,454.80	510.92	549.24	507.65	0.00	0.00	0.00
2,634.37	24.80	47.07	2,486.00	520.74	559.79	517.41	0.00	0.00	0.00
9 5/8"									
2,700.00	24.80	47.07	2,545.58	539.49	579.95	536.04	0.00	0.00	0.00
2,800.00	24.80	47.07	2,636.36	568.06	610.66	564.42	0.00	0.00	0.00
2,900.00	24.80	47.07	2,727.14	596.63	641.37	592.81	0.00	0.00	0.00
3,000.00	24.80	47.07	2,817.91	625.20	672.08	621.20	0.00	0.00	0.00
3,100.00	24.80	47.07	2,908.69	653.76	702.80	649.58	0.00	0.00	0.00
3,200.00	24.80	47.07	2,999.47	682.33	733.51	677.97	0.00	0.00	0.00
3,300.00	24.80	47.07	3,090.25	710.90	764.22	706.36	0.00	0.00	0.00
3,400.00	24.80	47.07	3,181.02	739.47	794.93	734.74	0.00	0.00	0.00
3,500.00	24.80	47.07	3,271.80	768.04	825.64	763.13	0.00	0.00	0.00
3,600.00	24.80	47.07	3,362.58	796.61	856.35	791.51	0.00	0.00	0.00
3,700.00	24.80	47.07	3,453.36	825.18	887.07	819.90	0.00	0.00	0.00
3,800.00	24.80	47.07	3,544.13	853.75	917.78	848.29	0.00	0.00	0.00
3,900.00	24.80	47.07	3,634.91	882.32	948.49	876.67	0.00	0.00	0.00
4,000.00	24.80	47.07	3,725.69	910.89	979.20	905.06	0.00	0.00	0.00
4,100.00	24.80	47.07	3,816.47	939.46	1,009.91	933.45	0.00	0.00	0.00
4,200.00	24.80	47.07	3,907.25	968.02	1,040.62	961.83	0.00	0.00	0.00
4,300.00	24.80	47.07	3,998.02	996.59	1,071.34	990.22	0.00	0.00	0.00
4,400.00	24.80	47.07	4,088.80	1,025.16	1,102.05	1,018.60	0.00	0.00	0.00
4,500.00	24.80	47.07	4,179.58	1,053.73	1,132.76	1,046.99	0.00	0.00	0.00
4,600.00	24.80	47.07	4,270.36	1,082.30	1,163.47	1,075.38	0.00	0.00	0.00
4,700.00	24.80	47.07	4,361.13	1,110.87	1,194.18	1,103.76	0.00	0.00	0.00

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2929-09H	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	24.80	47.07	4,451.91	1,139.44	1,224.90	1,132.15	0.00	0.00	0.00
4,900.00	24.80	47.07	4,542.69	1,168.01	1,255.61	1,160.54	0.00	0.00	0.00
5,000.00	24.80	47.07	4,633.47	1,196.58	1,286.32	1,188.92	0.00	0.00	0.00
5,100.00	24.80	47.07	4,724.25	1,225.15	1,317.03	1,217.31	0.00	0.00	0.00
5,200.00	24.80	47.07	4,815.02	1,253.71	1,347.74	1,245.70	0.00	0.00	0.00
5,300.00	24.80	47.07	4,905.80	1,282.28	1,378.45	1,274.08	0.00	0.00	0.00
5,400.00	24.80	47.07	4,996.58	1,310.85	1,409.17	1,302.47	0.00	0.00	0.00
5,500.00	24.80	47.07	5,087.36	1,339.42	1,439.88	1,330.85	0.00	0.00	0.00
5,600.00	24.80	47.07	5,178.13	1,367.99	1,470.59	1,359.24	0.00	0.00	0.00
5,700.00	24.80	47.07	5,268.91	1,396.56	1,501.30	1,387.63	0.00	0.00	0.00
5,800.00	24.80	47.07	5,359.69	1,425.13	1,532.01	1,416.01	0.00	0.00	0.00
5,900.00	24.80	47.07	5,450.47	1,453.70	1,562.72	1,444.40	0.00	0.00	0.00
6,000.00	24.80	47.07	5,541.25	1,482.27	1,593.44	1,472.79	0.00	0.00	0.00
6,100.00	24.80	47.07	5,632.02	1,510.84	1,624.15	1,501.17	0.00	0.00	0.00
6,200.00	24.80	47.07	5,722.80	1,539.41	1,654.86	1,529.56	0.00	0.00	0.00
6,300.00	24.80	47.07	5,813.58	1,567.97	1,685.57	1,557.94	0.00	0.00	0.00
6,400.00	24.80	47.07	5,904.36	1,596.54	1,716.28	1,586.33	0.00	0.00	0.00
6,500.00	24.80	47.07	5,995.13	1,625.11	1,746.99	1,614.72	0.00	0.00	0.00
6,600.00	24.80	47.07	6,085.91	1,653.68	1,777.71	1,643.10	0.00	0.00	0.00
6,700.00	24.80	47.07	6,176.69	1,682.25	1,808.42	1,671.49	0.00	0.00	0.00
6,800.00	24.80	47.07	6,267.47	1,710.82	1,839.13	1,699.88	0.00	0.00	0.00
6,900.00	24.80	47.07	6,358.25	1,739.39	1,869.84	1,728.26	0.00	0.00	0.00
7,000.00	24.80	47.07	6,449.02	1,767.96	1,900.55	1,756.65	0.00	0.00	0.00
7,100.00	24.80	47.07	6,539.80	1,796.53	1,931.26	1,785.04	0.00	0.00	0.00
7,139.56	24.80	47.07	6,575.71	1,807.83	1,943.41	1,796.26	0.00	0.00	0.00
KOP @ 7139.56ft :: DLS = 9°/100'									
7,150.00	25.45	45.47	6,585.16	1,810.89	1,946.62	1,799.31	9.00	6.20	-15.37
7,200.00	28.76	38.76	6,629.68	1,827.81	1,961.81	1,816.14	9.00	6.62	-13.42
7,250.00	32.33	33.37	6,672.74	1,848.37	1,976.70	1,836.61	9.00	7.15	-10.77
7,300.00	36.10	28.98	6,714.09	1,872.43	1,991.20	1,860.58	9.00	7.53	-8.79
7,350.00	39.99	25.32	6,753.46	1,899.86	2,005.21	1,887.92	9.00	7.79	-7.31
7,400.00	43.99	22.22	6,790.62	1,930.47	2,018.66	1,918.45	9.00	7.99	-6.20
7,450.00	48.05	19.54	6,825.34	1,964.08	2,031.45	1,951.99	9.00	8.13	-5.36
7,500.00	52.18	17.18	6,857.40	2,000.49	2,043.51	1,988.33	9.00	8.24	-4.71
7,550.00	56.34	15.08	6,886.60	2,039.47	2,054.76	2,027.24	9.00	8.33	-4.21
7,600.00	60.53	13.17	6,912.77	2,080.77	2,065.14	2,068.48	9.00	8.39	-3.82
7,650.00	64.76	11.41	6,935.74	2,124.15	2,074.58	2,111.81	9.00	8.44	-3.51
7,700.00	69.00	9.77	6,955.37	2,169.34	2,083.02	2,156.94	9.00	8.48	-3.28
7,750.00	73.25	8.23	6,971.55	2,216.06	2,090.41	2,203.62	9.00	8.51	-3.10
7,800.00	77.52	6.75	6,984.16	2,264.02	2,096.71	2,251.54	9.00	8.53	-2.96
7,850.00	81.79	5.31	6,993.14	2,312.92	2,101.87	2,300.41	9.00	8.55	-2.86
7,900.00	86.07	3.91	6,998.43	2,362.47	2,105.87	2,349.93	9.00	8.56	-2.80
7,945.90	90.00	2.64	7,000.00	2,408.25	2,108.49	2,395.70	9.00	8.56	-2.77
End Build/TPZ @ 7945.90ft									
8,000.00	90.00	2.64	7,000.00	2,462.30	2,110.98	2,449.73	0.00	0.00	0.00
8,045.90	90.00	2.64	7,000.00	2,508.15	2,113.09	2,495.57	0.00	0.00	0.00
Begin Turn for AC @ 8045.90ft									
8,100.00	90.00	1.56	7,000.00	2,562.21	2,115.07	2,549.62	2.00	0.00	-2.00
8,200.00	90.00	359.56	7,000.00	2,662.20	2,116.05	2,649.60	2.00	0.00	-2.00
8,300.00	90.00	357.56	7,000.00	2,762.16	2,113.53	2,749.57	2.00	0.00	-2.00
8,400.00	90.00	355.56	7,000.00	2,861.98	2,107.53	2,849.42	2.00	0.00	-2.00
8,500.00	90.00	353.56	7,000.00	2,961.52	2,098.04	2,949.02	2.00	0.00	-2.00
8,600.00	90.00	351.56	7,000.00	3,060.68	2,085.09	3,048.25	2.00	0.00	-2.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well KIWI 2929-09H
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 2929-09H	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)
8,707.90	90.00	349.40	7,000.00	3,167.08	2,067.25	3,154.76	2.00	0.00	-2.00
End Turn @ 8707.90ft									
8,800.00	90.00	349.40	7,000.00	3,257.61	2,050.30	3,245.39	0.00	0.00	0.00
8,900.00	90.00	349.40	7,000.00	3,355.91	2,031.91	3,343.79	0.00	0.00	0.00
9,000.00	90.00	349.40	7,000.00	3,454.20	2,013.51	3,442.19	0.00	0.00	0.00
9,100.00	90.00	349.40	7,000.00	3,552.49	1,995.12	3,540.59	0.00	0.00	0.00
9,200.00	90.00	349.40	7,000.00	3,650.79	1,976.72	3,638.99	0.00	0.00	0.00
9,300.00	90.00	349.40	7,000.00	3,749.08	1,958.33	3,737.39	0.00	0.00	0.00
9,380.00	90.00	349.40	7,000.00	3,827.71	1,943.61	3,816.11	0.00	0.00	0.00
Begin Turn for 3-D Spacing @ 9380.00ft									
9,400.00	90.00	349.80	7,000.00	3,847.39	1,940.00	3,835.81	2.00	0.00	2.00
9,500.00	90.00	351.80	7,000.00	3,946.09	1,924.01	3,934.61	2.00	0.00	2.00
9,600.00	90.00	353.80	7,000.00	4,045.30	1,911.48	4,033.89	2.00	0.00	2.00
9,700.00	90.00	355.80	7,000.00	4,144.88	1,902.42	4,133.52	2.00	0.00	2.00
9,800.00	90.00	357.80	7,000.00	4,244.72	1,896.84	4,233.39	2.00	0.00	2.00
9,900.00	90.00	359.80	7,000.00	4,344.70	1,894.74	4,333.38	2.00	0.00	2.00
10,000.00	90.00	1.80	7,000.00	4,444.68	1,896.14	4,433.35	2.00	0.00	2.00
10,100.00	90.00	3.80	7,000.00	4,544.56	1,901.02	4,533.20	2.00	0.00	2.00
10,200.00	90.00	5.80	7,000.00	4,644.20	1,909.39	4,632.79	2.00	0.00	2.00
10,300.00	90.00	7.80	7,000.00	4,743.49	1,921.23	4,732.01	2.00	0.00	2.00
10,317.50	90.00	8.15	7,000.00	4,760.82	1,923.66	4,749.32	2.00	0.00	2.00
End Turn @ 10317.50ft									
10,400.00	90.00	8.15	7,000.00	4,842.49	1,935.35	4,830.92	0.00	0.00	0.00
10,500.00	90.00	8.15	7,000.00	4,941.48	1,949.53	4,929.82	0.00	0.00	0.00
10,600.00	90.00	8.15	7,000.00	5,040.47	1,963.71	5,028.73	0.00	0.00	0.00
10,700.00	90.00	8.15	7,000.00	5,139.46	1,977.88	5,127.63	0.00	0.00	0.00
10,800.00	90.00	8.15	7,000.00	5,238.45	1,992.06	5,226.54	0.00	0.00	0.00
10,900.00	90.00	8.15	7,000.00	5,337.44	2,006.24	5,325.44	0.00	0.00	0.00
11,000.00	90.00	8.15	7,000.00	5,436.43	2,020.41	5,424.35	0.00	0.00	0.00
11,100.00	90.00	8.15	7,000.00	5,535.42	2,034.59	5,523.25	0.00	0.00	0.00
11,200.00	90.00	8.15	7,000.00	5,634.41	2,048.77	5,622.15	0.00	0.00	0.00
11,217.50	90.00	8.15	7,000.00	5,651.73	2,051.25	5,639.46	0.00	0.00	0.00
Begin Turn to BHL @ 11217.50ft									
11,300.00	90.00	6.50	7,000.00	5,733.56	2,061.77	5,721.22	2.00	0.00	-2.00
11,400.00	90.00	4.50	7,000.00	5,833.09	2,071.35	5,820.70	2.00	0.00	-2.00
11,500.00	90.00	2.50	7,000.00	5,932.90	2,077.45	5,920.47	2.00	0.00	-2.00
11,600.00	90.00	0.50	7,000.00	6,032.86	2,080.07	6,020.41	2.00	0.00	-2.00
11,617.33	90.00	0.15	7,000.00	6,050.19	2,080.17	6,037.74	2.00	0.00	-2.00
End Turn @ 11617.33ft									
11,700.00	90.00	0.15	7,000.00	6,132.86	2,080.39	6,120.41	0.00	0.00	0.00
11,800.00	90.00	0.15	7,000.00	6,232.86	2,080.66	6,220.40	0.00	0.00	0.00
11,900.00	90.00	0.15	7,000.00	6,332.86	2,080.93	6,320.40	0.00	0.00	0.00
12,000.00	90.00	0.15	7,000.00	6,432.86	2,081.20	6,420.40	0.00	0.00	0.00
12,100.00	90.00	0.15	7,000.00	6,532.86	2,081.46	6,520.39	0.00	0.00	0.00
12,200.00	90.00	0.15	7,000.00	6,632.86	2,081.73	6,620.39	0.00	0.00	0.00
12,300.00	90.00	0.15	7,000.00	6,732.86	2,082.00	6,720.39	0.00	0.00	0.00
12,315.84	90.00	0.15	7,000.00	6,748.70	2,082.04	6,736.22	0.00	0.00	0.00
BPZ @ 12315.84ft									
12,405.84	90.00	0.15	7,000.00	6,838.69	2,082.28	6,826.22	0.00	0.00	0.00
TD Well @ 12405.84ft									

Planning Report

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 4991.00usft (RIG)
Site:	2N-64W-32 KIWI 2920 PAD	North Reference:	True
Well:	KIWI 2929-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
2,634.37	2,486.00	9 5/8"	9-5/8	13-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
201.50	201.50	0.00	0.00	Begin Nudge @ 201.50ft	
1,441.50	1,403.14	179.95	193.44	Hold Tangent @ 1441.50ft	
7,139.56	6,575.71	1,807.83	1,943.41	KOP @ 7139.56ft :: DLS = 9°/100'	
7,945.90	7,000.00	2,408.25	2,108.49	End Build/TPZ @ 7945.90ft	
8,045.90	7,000.00	2,508.15	2,113.09	Begin Turn for AC @ 8045.90ft	
8,707.90	7,000.00	3,167.08	2,067.25	End Turn @ 8707.90ft	
9,380.00	7,000.00	3,827.71	1,943.61	Begin Turn for 3-D Spacing @ 9380.00ft	
10,317.50	7,000.00	4,760.82	1,923.66	End Turn @ 10317.50ft	
11,217.50	7,000.00	5,651.73	2,051.25	Begin Turn to BHL @ 11217.50ft	
11,617.33	7,000.00	6,050.19	2,080.17	End Turn @ 11617.33ft	
12,315.84	7,000.00	6,748.70	2,082.04	BPZ @ 12315.84ft	
12,405.84	7,000.00	6,838.69	2,082.28	TD Well @ 12405.84ft	