

CRESTONE PEAK RESOURCES

WELD COUNTY

SEC 10-T1N-R65W

WARNER 2D-10H-E165

OWB

Design: FINAL SURVEY

Standard Survey Report

23 March, 2022

Project: WELD COUNTY
Site: SEC 10-T1N-R65W
Well: WARNER 2D-10H-E165
Wellbore: OWB
Design: FINAL SURVEY

PROJECT DETAILS: WELD COUNTY
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 7.70°
Magnetic Field
Strength: 51730.7snT
Dip Angle: 66.38°
Date: 1/4/2022
Model: IGRF2020

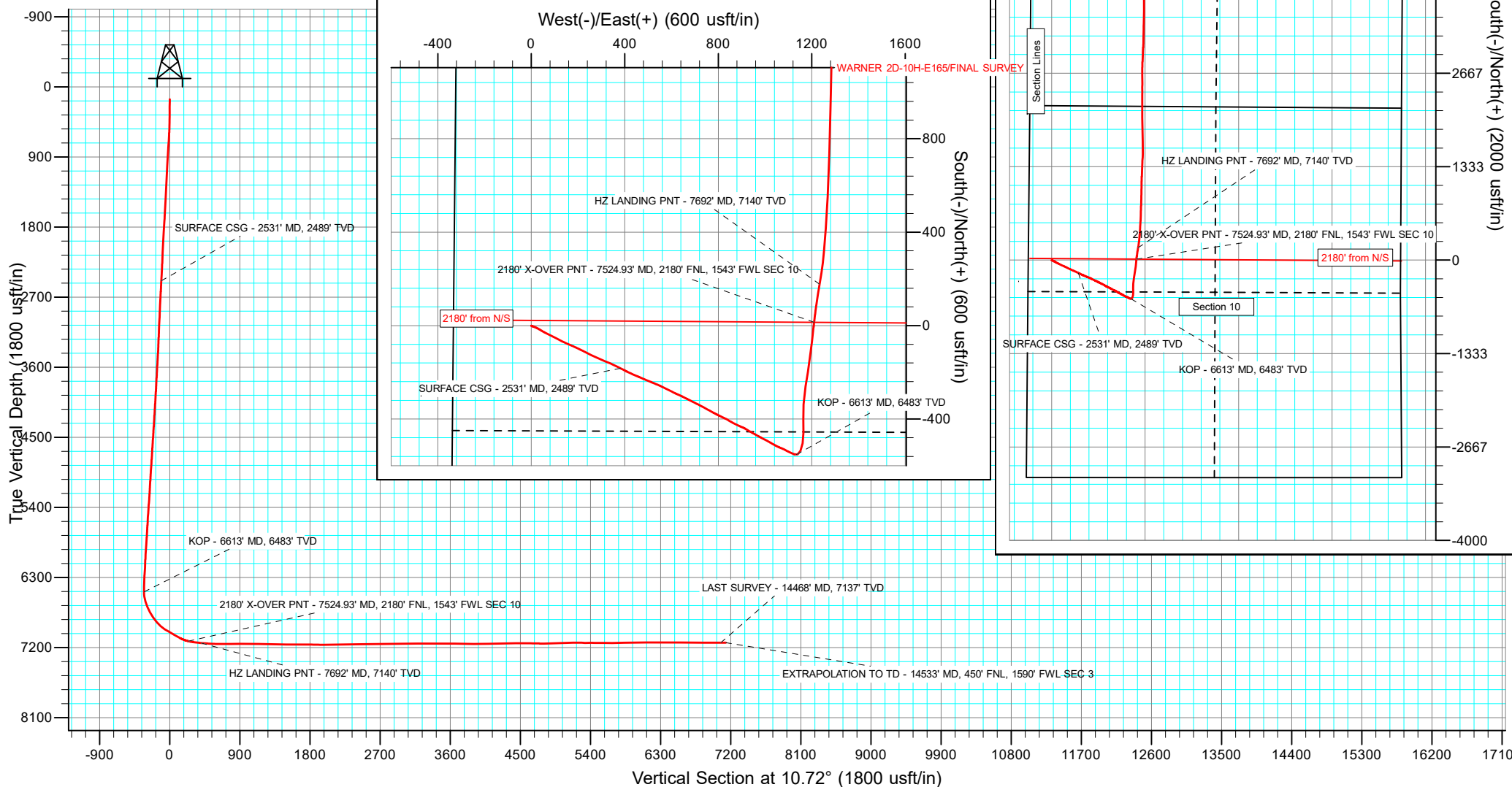
WELL DETAILS: WARNER 2D-10H-E165

		4971.00						Slot			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude						
0.00	0.00	1268463.02	3235563.61	40.067252°N	104.658320°W						

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
2531.00	10.70	116.48	2489.12	-182.91	381.51	-108.76	423.43	SURFACE CSG - 2531' MD, 2489' TVD
6613.00	8.97	87.52	6483.43	-552.05	1134.20	-331.45	1263.42	KOP - 6613' MD, 6483' TVD
7524.93	76.27	6.55	7116.77	13.89	1209.92	238.70	1845.24	2180' X-OVER PNT - 7524.93' MD, 2180' FNL, 1543' FWL SEC 10
7692.00	85.24	9.86	7140.11	177.43	1233.51	403.77	2010.22	HZ LANDING PNT - 7692' MD, 7140' TVD
14468.00	90.63	1.83	7137.01	6947.17	1325.37	7072.45	8784.86	LAST SURVEY - 14468' MD, 7137' TVD
14533.00	90.63	1.83	7136.30	7012.13	1327.44	7136.67	8849.86	EXTRAPOLATION TO TD - 14533' MD, 450' FNL, 1590' FWL SEC 3

SHL:
2203' FNL, 333' FWL
Sec 10-T1N-R65W
2180' SETBACK X-OVER:
2180' FNL, 1543' FWL
Sec 10-T1N-R65W
BHL:
450' FNL, 1590' FWL
Sec 3-T1N-R65W



Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well WARNER 2D-10H-E165
Project:	WELD COUNTY	TVD Reference:	KB 25' @ 4996.00usft
Site:	SEC 10-T1N-R65W	MD Reference:	KB 25' @ 4996.00usft
Well:	WARNER 2D-10H-E165	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Project	WELD COUNTY		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		SEC 10-T1N-R65W			
Site Position:		Northing:	1,270,664.21 usft	Latitude:	40.073303°N
From:	Lat/Long	Easting:	3,235,231.23 usft	Longitude:	104.659433°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.54 °

Well		WARNER 2D-10H-E165				
Well Position	+N/-S	0.00 usft	Northing:	1,268,463.02 usft	Latitude:	40.067252°N
	+E/-W	0.00 usft	Easting:	3,235,563.61 usft	Longitude:	104.658320°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,971.00 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/4/2022	7.70	66.38	51,730.67447585

Design	FINAL SURVEY				
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	10.72	

Survey Program	Date	3/23/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
250.00	2,498.00	SURFACE (OWB)	MWD OWSG	OWSG MWD - Standard	
2,633.00	14,533.00	FINAL SURVEY (OWB)	MWD OWSG	OWSG MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
159.00	0.23	223.05	159.00	-0.22	-0.20	-0.25	0.00	0.00	0.00	
250.00	1.06	123.55	249.99	-0.82	0.38	-0.73	1.23	0.91	-109.34	
342.00	3.43	110.19	341.92	-2.24	3.67	-1.52	2.62	2.58	-14.52	
432.00	5.98	110.90	431.61	-4.84	10.58	-2.79	2.83	2.83	0.79	
518.00	7.56	113.36	517.01	-8.68	19.96	-4.82	1.87	1.84	2.86	
610.00	8.79	120.21	608.07	-14.62	31.59	-8.49	1.70	1.34	7.45	
700.00	10.55	121.09	696.79	-22.33	44.59	-13.65	1.96	1.96	0.98	
789.00	12.05	117.05	784.06	-30.77	59.84	-19.10	1.90	1.69	-4.54	
874.00	12.40	116.70	867.13	-38.90	75.89	-24.11	0.42	0.41	-0.41	
963.00	11.61	116.00	954.19	-47.12	92.48	-29.10	0.90	-0.89	-0.79	

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Project:	WELD COUNTY	TVD Reference:	KB 25' @ 4996.00usft
Site:	SEC 10-T1N-R65W	MD Reference:	KB 25' @ 4996.00usft
Well:	WARNER 2D-10H-E165	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,053.00	11.17	118.10	1,042.42	-55.20	108.31	-34.09	0.67	-0.49	2.33
1,140.00	11.08	116.87	1,127.78	-62.95	123.20	-38.93	0.29	-0.10	-1.41
1,226.00	10.90	115.82	1,212.20	-70.22	137.89	-43.35	0.31	-0.21	-1.22
1,314.00	10.73	113.71	1,298.64	-77.14	152.88	-47.36	0.49	-0.19	-2.40
1,399.00	10.46	113.36	1,382.19	-83.38	167.21	-50.83	0.33	-0.32	-0.41
1,486.00	11.43	114.06	1,467.61	-90.03	182.33	-54.54	1.13	1.11	0.80
1,573.00	12.05	115.64	1,552.79	-97.47	198.39	-58.87	0.80	0.71	1.82
1,659.00	13.01	116.35	1,636.74	-105.65	215.16	-63.79	1.13	1.12	0.83
1,744.00	13.45	117.05	1,719.48	-114.40	232.54	-69.15	0.55	0.52	0.82
1,831.00	13.54	116.35	1,804.08	-123.52	250.67	-74.74	0.21	0.10	-0.80
1,916.00	12.57	114.41	1,886.88	-131.76	268.01	-79.61	1.25	-1.14	-2.28
2,002.00	12.31	114.41	1,970.86	-139.41	284.88	-83.99	0.30	-0.30	0.00
2,086.00	12.13	113.18	2,052.96	-146.59	301.15	-88.01	0.38	-0.21	-1.46
2,173.00	11.61	112.66	2,138.10	-153.56	317.63	-91.80	0.61	-0.60	-0.60
2,259.00	11.52	112.30	2,222.35	-160.15	333.56	-95.31	0.13	-0.10	-0.42
2,346.00	11.26	114.94	2,307.64	-167.03	349.30	-99.14	0.67	-0.30	3.03
2,431.00	11.34	116.87	2,390.99	-174.30	364.28	-103.51	0.45	0.09	2.27
2,498.00	11.08	116.35	2,456.72	-180.14	375.93	-107.07	0.42	-0.39	-0.78
2,531.00	10.70	116.48	2,489.12	-182.91	381.51	-108.76	1.14	-1.14	0.40
SURFACE CSG - 2531' MD, 2489' TVD									
2,633.00	9.54	116.95	2,589.53	-190.97	397.52	-113.69	1.14	-1.14	0.46
2,728.00	12.59	116.11	2,682.75	-199.09	413.84	-118.64	3.21	3.21	-0.88
2,823.00	11.71	114.04	2,775.63	-207.58	431.95	-123.61	1.03	-0.93	-2.18
2,918.00	10.61	112.23	2,868.83	-214.81	448.85	-127.58	1.22	-1.16	-1.91
3,013.00	12.64	114.08	2,961.88	-222.37	466.43	-131.73	2.17	2.14	1.95
3,133.00	11.62	112.54	3,079.19	-232.36	489.58	-137.24	0.89	-0.85	-1.28
3,227.00	10.56	112.10	3,171.44	-239.22	506.31	-140.88	1.13	-1.13	-0.47
3,323.00	12.33	112.67	3,265.53	-246.49	523.92	-144.73	1.85	1.84	0.59
3,417.00	11.18	111.79	3,357.55	-253.74	541.64	-148.56	1.24	-1.22	-0.94
3,512.00	12.73	117.08	3,450.49	-261.92	559.51	-153.28	2.00	1.63	5.57
3,606.00	11.31	115.62	3,542.43	-270.62	577.05	-158.57	1.54	-1.51	-1.55
3,701.00	12.15	116.64	3,635.44	-279.13	594.38	-163.70	0.91	0.88	1.07
3,796.00	12.77	116.20	3,728.21	-288.25	612.74	-169.25	0.66	0.65	-0.46
3,891.00	10.96	113.29	3,821.17	-296.46	630.46	-174.02	2.01	-1.91	-3.06
3,985.00	12.68	116.51	3,913.18	-304.60	647.90	-178.77	1.96	1.83	3.43
4,080.00	11.18	116.77	4,006.12	-313.40	665.45	-184.15	1.58	-1.58	0.27
4,175.00	12.99	117.12	4,099.01	-322.42	683.18	-189.72	1.91	1.91	0.37
4,269.00	12.55	116.51	4,190.69	-331.79	701.72	-195.48	0.49	-0.47	-0.65
4,364.00	11.14	116.68	4,283.66	-340.52	719.16	-200.81	1.48	-1.48	0.18
4,458.00	12.86	118.49	4,375.61	-349.59	736.47	-206.50	1.87	1.83	1.93
4,553.00	11.53	118.45	4,468.46	-359.15	754.11	-212.62	1.40	-1.40	-0.04
4,648.00	12.51	119.19	4,561.38	-368.69	771.44	-218.77	1.04	1.03	0.78
4,743.00	10.96	117.03	4,654.39	-377.82	788.47	-224.57	1.70	-1.63	-2.27

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well WARNER 2D-10H-E165
Project:	WELD COUNTY	TVD Reference:	KB 25' @ 4996.00usft
Site:	SEC 10-T1N-R65W	MD Reference:	KB 25' @ 4996.00usft
Well:	WARNER 2D-10H-E165	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,839.00	13.79	116.59	4,748.15	-387.09	806.83	-230.26	2.95	2.95	-0.46	
4,933.00	12.73	114.35	4,839.64	-396.37	826.29	-235.76	1.25	-1.13	-2.38	
5,028.00	12.68	121.84	4,932.32	-406.19	844.68	-241.99	1.73	-0.05	7.88	
5,123.00	11.36	116.77	5,025.24	-415.90	861.89	-248.33	1.78	-1.39	-5.34	
5,218.00	13.61	116.81	5,117.99	-425.16	880.22	-254.02	2.37	2.37	0.04	
5,314.00	12.24	111.22	5,211.56	-433.94	899.79	-259.00	1.93	-1.43	-5.82	
5,409.00	13.57	121.84	5,304.17	-443.47	918.65	-264.85	2.86	1.40	11.18	
5,504.00	12.81	119.33	5,396.66	-454.50	937.30	-272.23	1.00	-0.80	-2.64	
5,599.00	11.40	119.19	5,489.55	-464.24	954.68	-278.57	1.48	-1.48	-0.15	
5,694.00	9.99	118.53	5,582.90	-472.76	970.12	-284.06	1.49	-1.48	-0.69	
5,789.00	12.06	118.14	5,676.14	-481.37	986.11	-289.55	2.18	2.18	-0.41	
5,884.00	10.87	116.81	5,769.24	-490.10	1,002.86	-295.01	1.28	-1.25	-1.40	
5,979.00	12.59	120.12	5,862.25	-499.33	1,019.81	-300.93	1.94	1.81	3.48	
6,073.00	11.75	119.24	5,954.14	-509.15	1,037.02	-307.37	0.92	-0.89	-0.94	
6,168.00	10.16	116.15	6,047.41	-517.57	1,052.99	-312.68	1.78	-1.67	-3.25	
6,263.00	11.93	111.48	6,140.65	-524.86	1,069.65	-316.74	2.09	1.86	-4.92	
6,358.00	12.86	118.53	6,233.44	-533.50	1,088.07	-321.81	1.87	0.98	7.42	
6,453.00	11.45	114.96	6,326.30	-542.53	1,105.91	-327.36	1.68	-1.48	-3.76	
6,548.00	11.36	111.44	6,419.43	-549.93	1,123.17	-331.42	0.74	-0.09	-3.71	
6,613.00	8.97	87.52	6,483.43	-552.05	1,134.20	-331.45	7.38	-3.67	-36.80	
KOP - 6613' MD, 6483' TVD										
6,644.00	8.57	72.70	6,514.07	-551.26	1,138.82	-329.82	7.38	-1.30	-47.81	
6,739.00	16.88	24.58	6,606.88	-536.55	1,151.37	-313.03	13.48	8.75	-50.65	
6,834.00	25.50	9.25	6,695.44	-503.74	1,160.41	-279.11	10.72	9.07	-16.14	
6,929.00	32.04	1.26	6,778.70	-458.30	1,164.26	-233.74	7.97	6.88	-8.41	
7,025.00	37.69	358.04	6,857.45	-403.46	1,163.82	-179.95	6.19	5.89	-3.35	
7,120.00	50.64	3.11	6,925.47	-337.46	1,164.82	-114.91	14.12	13.63	5.34	
7,215.00	59.13	9.55	6,980.10	-260.39	1,173.60	-37.55	10.51	8.94	6.78	
7,311.00	59.97	8.01	7,028.76	-178.60	1,186.23	45.15	1.64	0.87	-1.60	
7,406.00	61.69	7.25	7,075.06	-96.39	1,197.24	127.98	1.94	1.81	-0.80	
7,501.00	74.19	6.06	7,110.67	-9.11	1,207.38	215.63	13.21	13.16	-1.25	
7,524.93	76.27	6.55	7,116.77	13.89	1,209.92	238.70	8.92	8.70	2.04	
2180' X-OVER PNT - 7524.93' MD, 2180' FNL, 1543' FWL SEC 10										
7,597.00	82.55	7.97	7,130.01	84.13	1,218.87	309.37	8.92	8.71	1.97	
7,692.00	85.24	9.86	7,140.11	177.43	1,233.51	403.77	3.45	2.83	1.99	
HZ LANDING PNT - 7692' MD, 7140' TVD										
7,786.00	85.46	6.94	7,147.73	270.11	1,247.20	497.38	3.10	0.23	-3.11	
7,881.00	88.73	3.90	7,152.55	364.54	1,256.16	591.83	4.70	3.44	-3.20	
7,977.00	89.93	3.50	7,153.67	460.33	1,262.35	687.10	1.32	1.25	-0.42	
8,072.00	91.12	3.24	7,152.80	555.16	1,267.93	781.31	1.28	1.25	-0.27	
8,168.00	89.79	1.87	7,152.04	651.06	1,272.21	876.33	1.99	-1.39	-1.43	
8,262.00	91.12	1.70	7,151.29	745.01	1,275.14	969.19	1.43	1.41	-0.18	
8,357.00	89.17	1.52	7,151.05	839.96	1,277.81	1,062.98	2.06	-2.05	-0.19	
8,452.00	88.60	1.39	7,152.90	934.91	1,280.22	1,156.72	0.62	-0.60	-0.14	

Survey Report

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Site:	SEC 10-T1N-R65W	MD Reference:	KB 25' @ 4996.00usft
Well:	WARNER 2D-10H-E165	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,547.00	88.42	1.08	7,155.37	1,029.86	1,282.27	1,250.39	0.38	-0.19	-0.33	
8,642.00	88.47	0.99	7,157.95	1,124.81	1,283.98	1,344.01	0.11	0.05	-0.09	
8,737.00	90.90	2.89	7,158.47	1,219.74	1,287.20	1,437.88	3.25	2.56	2.00	
8,832.00	88.78	2.01	7,158.73	1,314.65	1,291.26	1,531.89	2.42	-2.23	-0.93	
8,927.00	89.62	2.62	7,160.06	1,409.56	1,295.10	1,625.85	1.09	0.88	0.64	
9,022.00	90.50	3.46	7,159.96	1,504.43	1,300.14	1,720.00	1.28	0.93	0.88	
9,117.00	88.78	358.04	7,160.56	1,599.38	1,301.38	1,813.53	5.99	-1.81	-5.71	
9,212.00	88.56	358.00	7,162.76	1,694.29	1,298.10	1,906.18	0.24	-0.23	-0.04	
9,308.00	90.10	359.85	7,163.88	1,790.26	1,296.30	2,000.14	2.51	1.60	1.93	
9,403.00	90.72	359.45	7,163.21	1,885.26	1,295.72	2,093.37	0.78	0.65	-0.42	
9,498.00	90.77	359.45	7,161.97	1,980.25	1,294.80	2,186.53	0.05	0.05	0.00	
9,593.00	91.56	358.57	7,160.04	2,075.21	1,293.16	2,279.53	1.24	0.83	-0.93	
9,688.00	90.94	0.38	7,157.97	2,170.18	1,292.29	2,372.68	2.01	-0.65	1.91	
9,782.00	91.96	359.85	7,155.59	2,264.15	1,292.48	2,465.04	1.22	1.09	-0.56	
9,876.00	89.66	0.51	7,154.26	2,358.13	1,292.78	2,557.44	2.55	-2.45	0.70	
9,971.00	90.10	0.60	7,154.46	2,453.13	1,293.70	2,650.95	0.47	0.46	0.09	
10,066.00	90.77	0.11	7,153.74	2,548.12	1,294.29	2,744.40	0.87	0.71	-0.52	
10,161.00	91.25	359.54	7,152.06	2,643.10	1,294.00	2,837.67	0.78	0.51	-0.60	
10,256.00	91.43	0.33	7,149.84	2,738.08	1,293.89	2,930.96	0.85	0.19	0.83	
10,352.00	90.46	2.53	7,148.26	2,834.03	1,296.28	3,025.68	2.50	-1.01	2.29	
10,447.00	90.59	2.40	7,147.39	2,928.94	1,300.37	3,119.70	0.19	0.14	-0.14	
10,542.00	91.69	3.46	7,145.50	3,023.79	1,305.22	3,213.80	1.61	1.16	1.12	
10,637.00	88.86	1.39	7,145.04	3,118.69	1,309.24	3,307.79	3.69	-2.98	-2.18	
10,732.00	89.04	1.39	7,146.78	3,213.65	1,311.55	3,401.52	0.19	0.19	0.00	
10,827.00	89.26	0.95	7,148.19	3,308.61	1,313.49	3,495.19	0.52	0.23	-0.46	
10,922.00	89.44	0.73	7,149.27	3,403.60	1,314.88	3,588.77	0.30	0.19	-0.23	
11,018.00	89.88	0.73	7,149.84	3,499.59	1,316.10	3,683.32	0.46	0.46	0.00	
11,113.00	89.53	0.51	7,150.33	3,594.58	1,317.13	3,776.84	0.44	-0.37	-0.23	
11,208.00	88.20	0.11	7,152.21	3,689.56	1,317.64	3,870.26	1.46	-1.40	-0.42	
11,302.00	90.28	0.95	7,153.46	3,783.54	1,318.51	3,962.76	2.39	2.21	0.89	
11,398.00	91.21	0.82	7,152.21	3,879.52	1,320.00	4,057.34	0.98	0.97	-0.14	
11,493.00	91.60	0.51	7,149.88	3,974.49	1,321.10	4,150.86	0.52	0.41	-0.33	
11,587.00	92.49	0.02	7,146.52	4,068.42	1,321.53	4,243.24	1.08	0.95	-0.52	
11,682.00	89.93	359.76	7,144.52	4,163.39	1,321.35	4,336.51	2.71	-2.69	-0.27	
11,777.00	90.28	2.18	7,144.34	4,258.37	1,322.96	4,430.14	2.57	0.37	2.55	
11,872.00	89.79	1.34	7,144.29	4,353.33	1,325.88	4,523.97	1.02	-0.52	-0.88	
11,968.00	89.66	0.15	7,144.75	4,449.32	1,327.13	4,618.52	1.25	-0.14	-1.24	
12,063.00	88.60	358.44	7,146.19	4,544.29	1,325.96	4,711.62	2.12	-1.12	-1.80	
12,157.00	90.59	358.74	7,146.85	4,638.26	1,323.64	4,803.52	2.14	2.12	0.32	
12,252.00	91.56	358.52	7,145.07	4,733.21	1,321.37	4,896.39	1.05	1.02	-0.23	
12,347.00	92.40	357.86	7,141.79	4,828.11	1,318.37	4,989.07	1.12	0.88	-0.69	
12,442.00	91.30	357.64	7,138.72	4,922.98	1,314.65	5,081.60	1.18	-1.16	-0.23	
12,537.00	90.77	358.79	7,137.01	5,017.92	1,311.69	5,174.33	1.33	-0.56	1.21	

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well WARNER 2D-10H-E165
Project:	WELD COUNTY	TVD Reference:	KB 25' @ 4996.00usft
Site:	SEC 10-T1N-R65W	MD Reference:	KB 25' @ 4996.00usft
Well:	WARNER 2D-10H-E165	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
12,632.00	88.95	358.08	7,137.24	5,112.88	1,309.09	5,267.15	2.06	-1.92	-0.75	
12,727.00	89.79	359.10	7,138.28	5,207.84	1,306.76	5,360.02	1.39	0.88	1.07	
12,822.00	90.63	0.86	7,137.93	5,302.84	1,306.72	5,453.35	2.05	0.88	1.85	
12,917.00	89.26	0.90	7,138.03	5,397.82	1,308.18	5,546.95	1.44	-1.44	0.04	
13,012.00	88.20	0.51	7,140.13	5,492.79	1,309.35	5,640.48	1.19	-1.12	-0.41	
13,107.00	90.59	356.94	7,141.13	5,587.74	1,307.24	5,733.38	4.52	2.52	-3.76	
13,202.00	91.52	357.03	7,139.38	5,682.59	1,302.24	5,825.65	0.98	0.98	0.09	
13,296.00	91.91	356.54	7,136.57	5,776.40	1,296.97	5,916.84	0.67	0.41	-0.52	
13,391.00	90.72	357.07	7,134.39	5,871.23	1,291.68	6,009.02	1.37	-1.25	0.56	
13,486.00	89.84	358.08	7,133.93	5,966.14	1,287.66	6,101.53	1.41	-0.93	1.06	
13,582.00	90.37	0.33	7,133.75	6,062.12	1,286.33	6,195.59	2.41	0.55	2.34	
13,676.00	89.53	1.92	7,133.83	6,156.10	1,288.17	6,288.28	1.91	-0.89	1.69	
13,771.00	90.81	1.87	7,133.55	6,251.05	1,291.31	6,382.15	1.35	1.35	-0.05	
13,867.00	88.69	2.84	7,133.97	6,346.96	1,295.26	6,477.12	2.43	-2.21	1.01	
13,962.00	89.44	3.11	7,135.52	6,441.82	1,300.19	6,571.24	0.84	0.79	0.28	
14,056.00	89.40	2.80	7,136.47	6,535.69	1,305.03	6,664.37	0.33	-0.04	-0.33	
14,152.00	90.37	2.45	7,136.66	6,631.58	1,309.43	6,759.41	1.07	1.01	-0.36	
14,246.00	89.57	3.50	7,136.71	6,725.45	1,314.31	6,852.56	1.40	-0.85	1.12	
14,341.00	89.66	3.15	7,137.35	6,820.29	1,319.82	6,946.76	0.38	0.09	-0.37	
14,437.00	90.41	2.18	7,137.29	6,916.19	1,324.28	7,041.81	1.28	0.78	-1.01	
14,468.00	90.63	1.83	7,137.01	6,947.17	1,325.37	7,072.46	1.33	0.71	-1.13	
LAST SURVEY - 14468' MD, 7137' TVD										
14,533.00	90.63	1.83	7,136.30	7,012.13	1,327.44	7,136.67	0.00	0.00	0.00	
EXTRAPOLATION TO TD - 14533' MD, 450' FNL, 1590' FWL SEC 3										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
WARDER 2D-E165-LP	0.00	0.00	7,152.00	13.88	1,267.33	1,268,488.93	3,236,830.70	40.067290°N	104.653792°W
- actual wellpath misses target center by 65.79usft at 7538.54usft MD (7119.86 TVD, 27.06 N, 1211.46 E)									
- Point									
WARDER 2D-E165-PBH	0.00	0.00	7,160.00	7,021.75	1,337.77	1,275,496.88	3,236,834.62	40.086527°N	104.653539°W
- actual wellpath misses target center by 27.58usft at 14533.00usft MD (7136.30 TVD, 7012.13 N, 1327.44 E)									
- Point									

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well WARNER 2D-10H-E165
Project:	WELD COUNTY	TVD Reference:	KB 25' @ 4996.00usft
Site:	SEC 10-T1N-R65W	MD Reference:	KB 25' @ 4996.00usft
Well:	WARNER 2D-10H-E165	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,531.00	2,489.12	-182.91	381.51	SURFACE CSG - 2531' MD, 2489' TVD
6,613.00	6,483.43	-552.05	1,134.20	KOP - 6613' MD, 6483' TVD
7,524.93	7,116.77	13.89	1,209.92	2180' X-OVER PNT - 7524.93' MD, 2180' FNL, 1543' FWL SEC 10
7,692.00	7,140.11	177.43	1,233.51	HZ LANDING PNT - 7692' MD, 7140' TVD
14,468.00	7,137.01	6,947.17	1,325.37	LAST SURVEY - 14468' MD, 7137' TVD
14,533.00	7,136.30	7,012.13	1,327.44	EXTRAPOLATION TO TD - 14533' MD, 450' FNL, 1590' FWL SEC 3

Checked By: _____ Approved By: _____ Date: _____