

CRESTONE PEAK RESOURCES

ARAPAHOE COUNTY

SEC 2-T4S-R65W

PROPERTY RESERVE 4-65 3-4 3BH

OWB

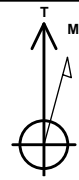
Design: FINAL SURVEY

Standard Survey Report

21 February, 2023

Project: ARAPAHOE COUNTY
 Site: SEC 2-T4S-R65W
 Well: PROPERTY RESERVE 4-65 3-4 3BH
 Wellbore: OWB
 Design: FINAL SURVEY

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



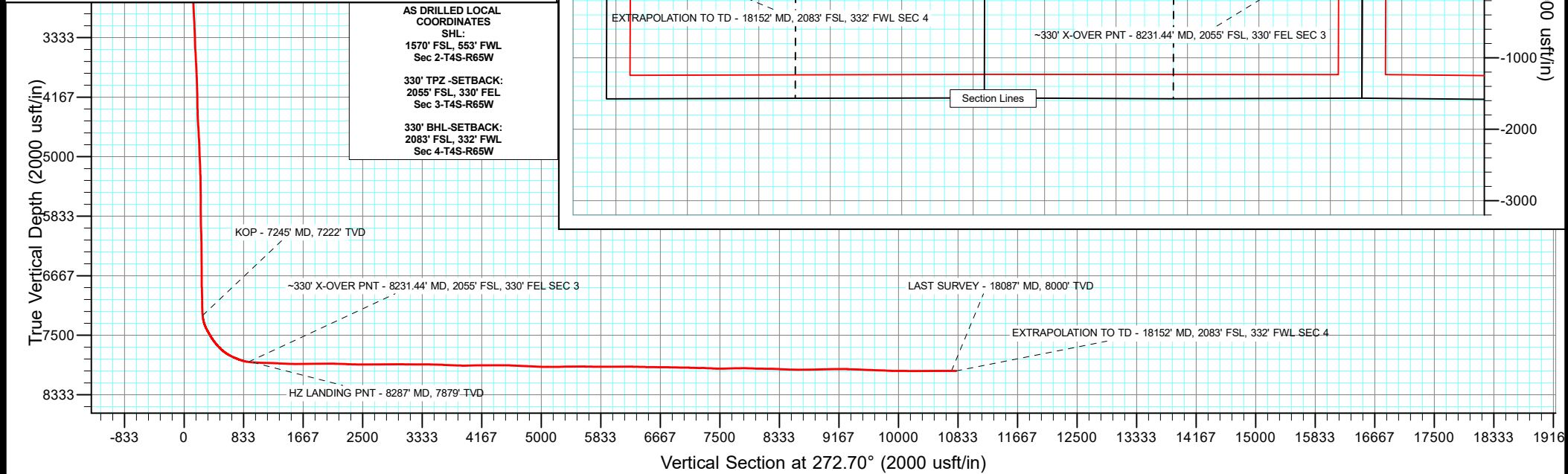
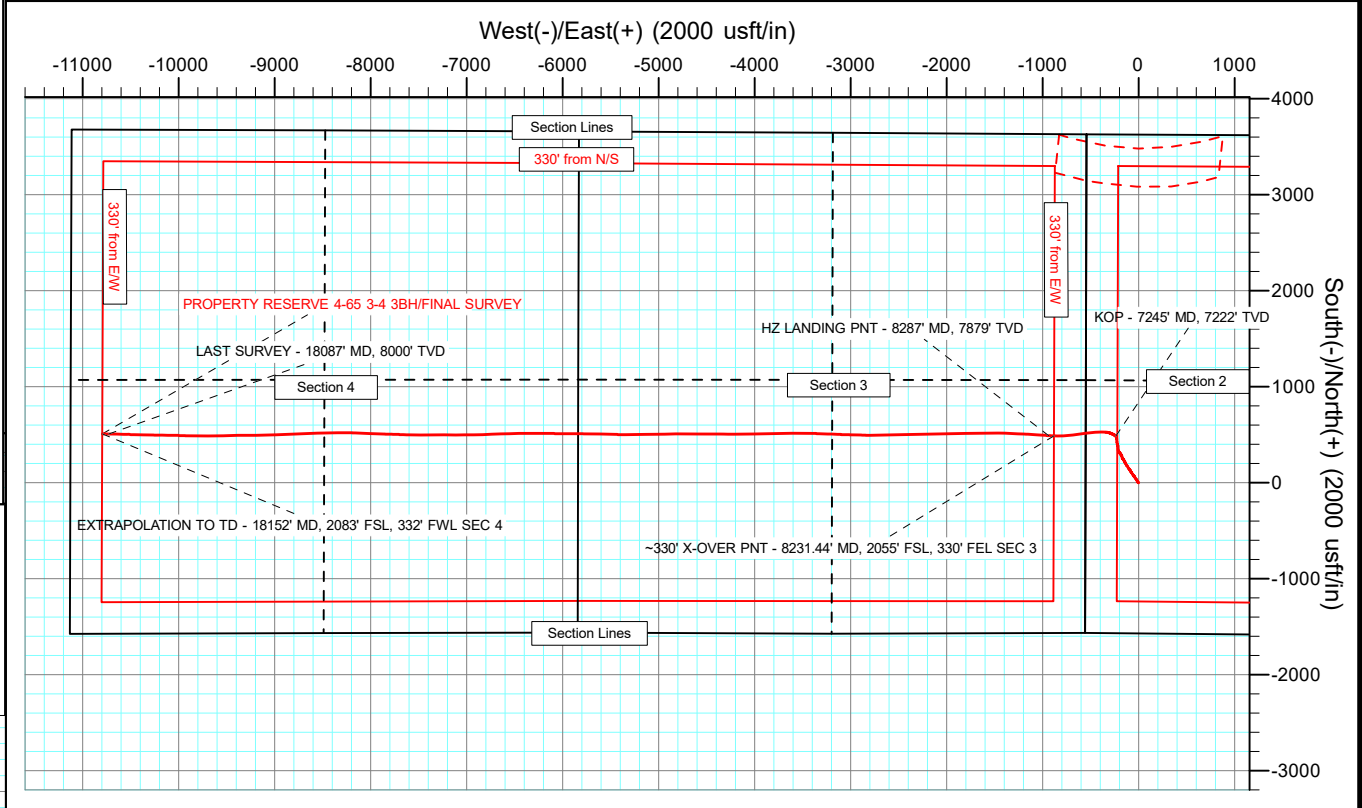
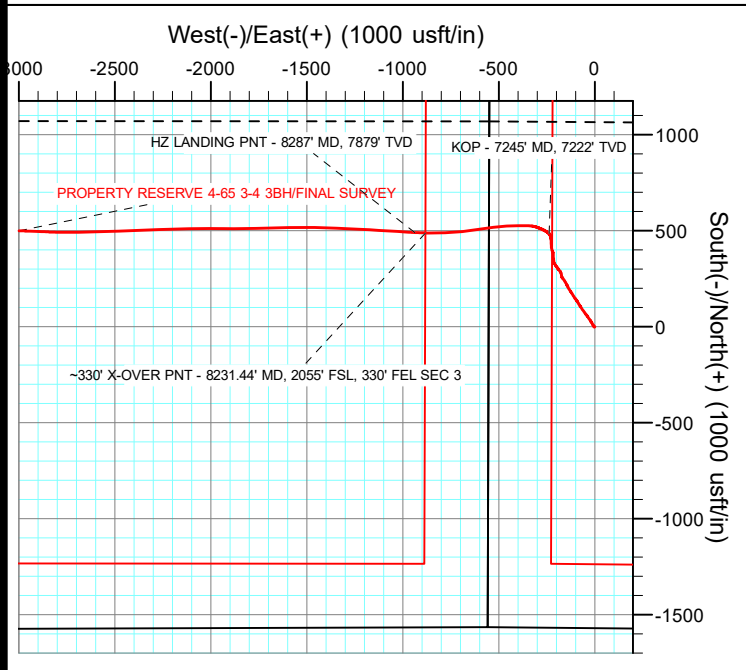
Azimuths to True North
 Magnetic North: 7.62°
 Magnetic Field
 Strength: 51504.3nT
 Dip Angle: 66.10°
 Date: 6/9/2022
 Model: IGRF2020

WELL DETAILS: PROPERTY RESERVE 4-65 3-4 3BH

+N/-S	+E/-W	Northing	Easting	5632.01 Latitude	Longitude	Slot
0.00	0.00	1691901.16	3242233.19	39.729920°N	104.638752°W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
7245.00	7.84	317.06	7222.04	485.04	-237.35	259.90	557.77	KOP - 7245' MD, 7222' TVD
8231.44	82.42	271.00	7873.24	488.99	-881.18	903.20	1213.33	~330' X-OVER PNT - 8231.44' MD, 2055' FSL, 330' FEL SEC 3
8287.00	85.91	272.95	7878.89	490.90	-936.41	958.45	1268.63	HZ LANDING PNT - 8287' MD, 7879' TVD
18087.00	90.28	270.52	7999.54	507.56	-10729.86	10741.86	11065.40	LAST SURVEY - 18087' MD, 8000' TVD
18152.00	90.28	270.52	7999.22	508.15	-10794.86	10806.81	11130.40	EXTRAPOLATION TO TD - 18152' MD, 2083' FSL, 332' FWL SEC 4



AS DRILLED LOCAL COORDINATES
 SHL:
 1570' FSL, 553' FWL
 Sec 2-T4S-R65W
 330' TPZ -SETBACK:
 2055' FSL, 330' FEL
 Sec 3-T4S-R65W
 330' BHL-SETBACK:
 2083' FSL, 332' FWL
 Sec 4-T4S-R65W

Survey Report

Company: CRESTONE PEAK RESOURCES	Local Co-ordinate Reference: Well PROPERTY RESERVE 4-65 3-4 3BH
Project: ARAPAHOE COUNTY	TVD Reference: KB 25' @ 5657.01usft
Site: SEC 2-T4S-R65W	MD Reference: KB 25' @ 5657.01usft
Well: PROPERTY RESERVE 4-65 3-4 3BH	North Reference: True
Wellbore: OWB	Survey Calculation Method: Minimum Curvature
Design: FINAL SURVEY	Database: EDT_32Bit_ODBC

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

Site SEC 2-T4S-R65W					
Site Position:	Northing:	1,695,525.07 usft	Latitude:	39.739883°N	
From: Lat/Long	Easting:	3,241,656.33 usft	Longitude:	104.640681°W	
Position Uncertainty: 0.00 usft	Slot Radius: 13.200 in		Grid Convergence:	0.54 °	

Well PROPERTY RESERVE 4-65 3-4 3BH					
Well Position	+N/-S	0.00 usft	Northing:	1,691,901.16 usft	Latitude: 39.729920°N
	+E/-W	0.00 usft	Easting:	3,242,233.19 usft	Longitude: 104.638752°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level: 5,632.01 usft

Wellbore OWB					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/9/2022	7.62	66.10	51,504.28171348

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	272.70	

Survey Program		Date 2/21/2023
From (usft)	To (usft)	Survey (Wellbore)
183.00	3,283.00	SURFACE SURVEY (OWB)
3,393.00	18,152.00	FINAL SURVEY (OWB)
		Tool Name
		MWD OWSG
		MWD OWSG
		Description
		OWSG MWD - Standard
		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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
183.00	0.90	218.10	182.99	-1.13	-0.89	0.83	0.49	0.49	0.00	
275.00	0.70	277.60	274.98	-1.63	-1.89	1.81	0.88	-0.22	64.67	
349.00	1.50	322.90	348.97	-0.79	-2.92	2.88	1.52	1.08	61.22	
437.00	2.50	328.00	436.92	1.75	-4.63	4.71	1.15	1.14	5.80	
527.00	3.80	329.20	526.78	5.98	-7.20	7.47	1.45	1.44	1.33	
614.00	5.00	332.00	613.52	11.80	-10.46	11.00	1.40	1.38	3.22	
701.00	5.40	330.10	700.16	18.70	-14.28	15.14	0.50	0.46	-2.18	
788.00	6.10	326.90	786.73	26.12	-18.84	20.05	0.88	0.80	-3.68	
875.00	4.80	327.50	873.33	33.06	-23.32	24.85	1.50	-1.49	0.69	

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROPERTY RESERVE 4-65 3-4 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5657.01usft
Site:	SEC 2-T4S-R65W	MD Reference:	KB 25' @ 5657.01usft
Well:	PROPERTY RESERVE 4-65 3-4 3BH	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)
963.00	5.00	324.90	961.01	39.31	-27.51	29.32	0.34	0.23	-2.95
1,050.00	5.40	324.50	1,047.65	45.74	-32.06	34.18	0.46	0.46	-0.46
1,138.00	5.40	325.90	1,135.26	52.54	-36.79	39.22	0.15	0.00	1.59
1,227.00	4.00	323.90	1,223.96	58.52	-40.97	43.67	1.58	-1.57	-2.25
1,314.00	4.10	318.90	1,310.74	63.31	-44.80	47.73	0.42	0.11	-5.75
1,404.00	4.70	326.90	1,400.48	68.83	-48.93	52.11	0.95	0.67	8.89
1,494.00	5.00	325.00	1,490.15	75.13	-53.19	56.67	0.38	0.33	-2.11
1,581.00	5.10	321.70	1,576.82	81.27	-57.76	61.52	0.35	0.11	-3.79
1,668.00	5.40	325.80	1,663.45	87.69	-62.46	66.51	0.55	0.34	4.71
1,757.00	5.40	326.00	1,752.06	94.62	-67.16	71.53	0.02	0.00	0.22
1,844.00	5.50	326.60	1,838.66	101.50	-71.74	76.43	0.13	0.11	0.69
1,932.00	4.60	323.70	1,926.32	107.86	-76.15	81.14	1.06	-1.02	-3.30
2,019.00	4.70	327.10	2,013.04	113.67	-80.15	85.41	0.34	0.11	3.91
2,106.00	4.50	331.60	2,099.76	119.66	-83.71	89.25	0.47	-0.23	5.17
2,193.00	4.80	329.80	2,186.47	125.81	-87.17	92.99	0.38	0.34	-2.07
2,280.00	5.40	330.80	2,273.12	132.53	-90.99	97.13	0.70	0.69	1.15
2,367.00	4.50	321.20	2,359.80	138.76	-95.13	101.55	1.40	-1.03	-11.03
2,454.00	5.00	318.40	2,446.50	144.26	-99.79	106.46	0.63	0.57	-3.22
2,541.00	5.20	328.00	2,533.16	150.44	-104.39	111.35	1.01	0.23	11.03
2,629.00	5.40	327.90	2,620.78	157.33	-108.71	115.98	0.23	0.23	-0.11
2,716.00	5.70	328.20	2,707.37	164.47	-113.16	120.77	0.35	0.34	0.34
2,803.00	5.80	330.10	2,793.94	171.95	-117.63	125.58	0.25	0.11	2.18
2,890.00	5.60	322.60	2,880.51	179.13	-122.40	130.68	0.89	-0.23	-8.62
2,977.00	4.60	325.80	2,967.16	185.39	-126.93	135.51	1.19	-1.15	3.68
3,064.00	4.50	327.70	3,053.89	191.16	-130.72	139.56	0.21	-0.11	2.18
3,151.00	4.40	329.00	3,140.63	196.91	-134.26	143.37	0.16	-0.11	1.49
3,238.00	4.00	332.00	3,227.39	202.45	-137.41	146.77	0.52	-0.46	3.45
3,283.00	4.00	335.20	3,272.28	205.26	-138.80	148.30	0.50	0.00	7.11
3,393.00	3.59	331.82	3,382.04	211.78	-142.04	151.84	0.42	-0.37	-3.07
3,488.00	6.33	332.51	3,476.68	219.04	-145.86	156.00	2.88	2.88	0.73
3,582.00	5.91	330.10	3,570.14	227.84	-150.66	161.21	0.52	-0.45	-2.56
3,676.00	5.26	329.41	3,663.69	235.74	-155.27	166.18	0.70	-0.69	-0.73
3,866.00	4.07	325.17	3,853.06	248.77	-163.55	175.07	0.65	-0.63	-2.23
3,961.00	3.40	320.20	3,947.86	253.71	-167.28	179.03	0.78	-0.71	-5.23
4,056.00	2.61	319.14	4,042.73	257.51	-170.50	182.42	0.83	-0.83	-1.12
4,150.00	5.25	351.54	4,136.51	263.38	-172.53	184.73	3.57	2.81	34.47
4,245.00	4.35	349.87	4,231.17	271.23	-173.81	186.37	0.96	-0.95	-1.76
4,339.00	3.47	348.82	4,324.96	277.53	-174.98	187.84	0.94	-0.94	-1.12
4,434.00	2.89	332.01	4,419.81	282.46	-176.67	189.75	1.15	-0.61	-17.69
4,529.00	6.13	323.13	4,514.50	288.64	-180.83	194.21	3.48	3.41	-9.35
4,623.00	5.66	325.20	4,608.01	296.46	-186.49	200.22	0.55	-0.50	2.20
4,718.00	4.55	321.01	4,702.63	303.23	-191.54	205.58	1.23	-1.17	-4.41
4,812.00	3.85	320.55	4,796.38	308.57	-195.89	210.18	0.75	-0.74	-0.49

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROPERTY RESERVE 4-65 3-4 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5657.01usft
Site:	SEC 2-T4S-R65W	MD Reference:	KB 25' @ 5657.01usft
Well:	PROPERTY RESERVE 4-65 3-4 3BH	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)	
4,907.00	3.14	320.24	4,891.20	313.03	-199.58	214.08	0.75	-0.75	-0.33	
5,002.00	4.51	331.71	4,985.99	318.32	-203.01	217.76	1.64	1.44	12.07	
5,097.00	3.99	324.63	5,080.73	324.30	-206.70	221.72	0.78	-0.55	-7.45	
5,192.00	3.79	327.37	5,175.51	329.64	-210.30	225.57	0.29	-0.21	2.88	
5,286.00	5.48	351.82	5,269.21	336.70	-212.62	228.21	2.73	1.80	26.01	
5,381.00	5.19	353.50	5,363.79	345.46	-213.75	229.76	0.35	-0.31	1.77	
5,476.00	4.80	355.22	5,458.43	353.69	-214.57	230.96	0.44	-0.41	1.81	
5,571.00	5.02	353.60	5,553.08	361.78	-215.36	232.13	0.27	0.23	-1.71	
5,665.00	4.39	1.17	5,646.77	369.47	-215.74	232.88	0.94	-0.67	8.05	
5,759.00	3.77	0.47	5,740.53	376.16	-215.65	233.09	0.66	-0.66	-0.74	
5,854.00	2.71	352.47	5,835.38	381.51	-215.91	233.61	1.21	-1.12	-8.42	
5,949.00	4.22	339.80	5,930.20	387.01	-217.42	235.37	1.77	1.59	-13.34	
6,044.00	3.85	333.42	6,024.97	393.15	-220.05	238.29	0.61	-0.39	-6.72	
6,139.00	2.81	336.65	6,119.80	398.14	-222.40	240.87	1.11	-1.09	3.40	
6,233.00	4.87	351.43	6,213.59	404.20	-223.91	242.67	2.41	2.19	15.72	
6,328.00	4.06	351.53	6,308.30	411.51	-225.00	244.11	0.85	-0.85	0.11	
6,422.00	3.14	355.98	6,402.11	417.37	-225.67	245.05	1.02	-0.98	4.73	
6,517.00	5.94	357.27	6,496.81	424.88	-226.09	245.82	2.95	2.95	1.36	
6,611.00	5.46	1.81	6,590.34	434.21	-226.18	246.35	0.70	-0.51	4.83	
6,706.00	4.71	355.21	6,684.97	442.61	-226.36	246.93	1.00	-0.79	-6.95	
6,801.00	3.77	0.97	6,779.71	449.62	-226.64	247.53	1.09	-0.99	6.06	
6,896.00	5.92	346.41	6,874.37	457.51	-227.74	249.00	2.59	2.26	-15.33	
6,991.00	4.51	345.97	6,968.97	465.89	-229.79	251.45	1.48	-1.48	-0.46	
7,086.00	3.31	354.21	7,063.75	472.24	-230.98	252.93	1.39	-1.26	8.67	
7,180.00	5.42	335.76	7,157.48	478.99	-233.07	255.34	2.67	2.24	-19.63	
7,245.00	7.84	317.06	7,222.04	485.04	-237.35	259.90	4.94	3.72	-28.77	
KOP - 7245' MD, 7222' TVD										
7,275.00	9.12	312.00	7,251.72	488.13	-240.51	263.20	4.94	4.27	-16.87	
7,370.00	21.36	298.38	7,343.23	501.44	-261.41	284.70	13.34	12.88	-14.34	
7,464.00	29.62	289.98	7,428.03	517.55	-298.38	322.39	9.57	8.79	-8.94	
7,559.00	30.90	271.29	7,510.27	526.14	-344.94	369.30	9.97	1.35	-19.67	
7,653.00	36.98	269.62	7,588.22	526.50	-397.39	421.71	6.54	6.47	-1.78	
7,748.00	43.12	266.70	7,660.91	524.44	-458.44	482.60	6.76	6.46	-3.07	
7,843.00	51.68	263.20	7,725.16	518.14	-528.00	551.78	9.41	9.01	-3.68	
7,938.00	61.83	260.96	7,777.18	507.12	-606.57	629.75	10.86	10.68	-2.36	
8,032.00	67.38	262.83	7,817.48	495.19	-690.61	713.13	6.17	5.90	1.99	
8,127.00	72.01	269.11	7,850.47	489.00	-779.41	801.54	7.88	4.87	6.61	
8,222.00	81.83	270.67	7,871.94	488.85	-871.83	893.85	10.46	10.34	1.64	
8,231.44	82.42	271.00	7,873.24	488.99	-881.18	903.20	7.18	6.26	3.54	
~330' X-OVER PNT - 8231.44' MD, 2055' FSL, 330' FEL SEC 3										
8,287.00	85.91	272.95	7,878.89	490.90	-936.41	958.45	7.18	6.27	3.51	
HZ LANDING PNT - 8287' MD, 7879' TVD										
8,317.00	87.79	274.00	7,880.53	492.72	-966.30	988.40	7.18	6.28	3.48	
8,412.00	87.89	273.35	7,884.12	498.80	-1,061.04	1,083.32	0.69	0.11	-0.68	

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROPERTY RESERVE 4-65 3-4 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5657.01usft
Site:	SEC 2-T4S-R65W	MD Reference:	KB 25' @ 5657.01usft
Well:	PROPERTY RESERVE 4-65 3-4 3BH	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)	
8,506.00	87.59	273.27	7,887.82	504.22	-1,154.81	1,177.24	0.33	-0.32	-0.09	
8,601.00	87.66	272.85	7,891.76	509.29	-1,249.59	1,272.16	0.45	0.07	-0.44	
8,696.00	87.50	272.09	7,895.77	513.38	-1,344.42	1,367.07	0.82	-0.17	-0.80	
8,790.00	87.35	271.78	7,899.99	516.55	-1,438.27	1,460.97	0.37	-0.16	-0.33	
8,885.00	90.15	269.76	7,902.07	517.83	-1,533.23	1,555.88	3.63	2.95	-2.13	
8,980.00	90.20	268.20	7,901.78	516.14	-1,628.21	1,650.68	1.64	0.05	-1.64	
9,074.00	91.48	268.44	7,900.40	513.38	-1,722.15	1,744.39	1.39	1.36	0.26	
9,169.00	89.55	269.53	7,899.54	511.70	-1,817.13	1,839.18	2.33	-2.03	1.15	
9,264.00	90.45	270.37	7,899.54	511.61	-1,912.13	1,934.07	1.30	0.95	0.88	
9,359.00	91.42	269.90	7,897.99	511.84	-2,007.11	2,028.96	1.13	1.02	-0.49	
9,453.00	88.07	268.82	7,898.41	510.79	-2,101.09	2,122.79	3.74	-3.56	-1.15	
9,548.00	87.93	268.78	7,901.73	508.80	-2,196.01	2,217.51	0.15	-0.15	-0.04	
9,643.00	88.04	267.86	7,905.07	506.02	-2,290.91	2,312.17	0.97	0.12	-0.97	
9,737.00	88.46	268.00	7,907.94	502.62	-2,384.81	2,405.80	0.47	0.45	0.15	
9,832.00	89.82	267.57	7,909.36	498.95	-2,479.72	2,500.44	1.50	1.43	-0.45	
9,926.00	90.17	267.34	7,909.37	494.78	-2,573.63	2,594.05	0.45	0.37	-0.24	
10,021.00	91.19	270.35	7,908.24	492.86	-2,668.59	2,688.82	3.35	1.07	3.17	
10,116.00	91.42	269.52	7,906.08	492.76	-2,763.57	2,783.68	0.91	0.24	-0.87	
10,210.00	90.12	272.81	7,904.82	494.67	-2,857.52	2,877.62	3.76	-1.38	3.50	
10,305.00	90.63	271.78	7,904.20	498.47	-2,952.44	2,972.62	1.21	0.54	-1.08	
10,400.00	87.68	270.88	7,905.60	500.68	-3,047.40	3,067.57	3.25	-3.11	-0.95	
10,494.00	89.59	272.92	7,907.84	503.79	-3,141.31	3,161.52	2.97	2.03	2.17	
10,589.00	90.21	272.03	7,908.00	507.89	-3,236.22	3,256.52	1.14	0.65	-0.94	
10,684.00	90.78	271.97	7,907.18	511.21	-3,331.16	3,351.51	0.60	0.60	-0.06	
10,779.00	88.12	270.48	7,908.09	513.24	-3,426.12	3,446.46	3.21	-2.80	-1.57	
10,873.00	88.01	270.22	7,911.27	513.81	-3,520.06	3,540.33	0.30	-0.12	-0.28	
10,968.00	87.75	270.05	7,914.78	514.04	-3,615.00	3,635.17	0.33	-0.27	-0.18	
11,062.00	87.67	269.33	7,918.54	513.53	-3,708.92	3,728.97	0.77	-0.09	-0.77	
11,157.00	87.67	269.02	7,922.40	512.16	-3,803.83	3,823.71	0.33	0.00	-0.33	
11,252.00	90.04	268.38	7,924.30	510.01	-3,898.78	3,918.45	2.58	2.49	-0.67	
11,346.00	90.52	268.54	7,923.84	507.48	-3,992.75	4,012.19	0.54	0.51	0.17	
11,441.00	91.03	267.97	7,922.55	504.59	-4,087.69	4,106.90	0.81	0.54	-0.60	
11,536.00	90.65	271.29	7,921.16	503.98	-4,182.67	4,201.74	3.52	-0.40	3.49	
11,630.00	91.05	270.64	7,919.77	505.56	-4,276.64	4,295.69	0.81	0.43	-0.69	
11,725.00	89.03	270.93	7,919.70	506.86	-4,371.63	4,390.63	2.15	-2.13	0.31	
11,819.00	89.78	269.13	7,920.68	506.91	-4,465.62	4,484.52	2.07	0.80	-1.91	
11,914.00	87.75	271.09	7,922.72	507.09	-4,560.59	4,579.39	2.97	-2.14	2.06	
12,009.00	87.53	270.35	7,926.64	508.28	-4,655.50	4,674.25	0.81	-0.23	-0.78	
12,103.00	87.37	269.38	7,930.82	508.06	-4,749.41	4,768.04	1.04	-0.17	-1.03	
12,198.00	86.84	268.81	7,935.62	506.56	-4,844.27	4,862.73	0.82	-0.56	-0.60	
12,292.00	87.22	269.44	7,940.49	505.13	-4,938.13	4,956.42	0.78	0.40	0.67	
12,387.00	90.70	270.95	7,942.21	505.45	-5,033.10	5,051.30	3.99	3.66	1.59	
12,481.00	88.82	267.34	7,942.60	504.05	-5,127.07	5,145.10	4.33	-2.00	-3.84	

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROPERTY RESERVE 4-65 3-4 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5657.01usft
Site:	SEC 2-T4S-R65W	MD Reference:	KB 25' @ 5657.01usft
Well:	PROPERTY RESERVE 4-65 3-4 3BH	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)	
12,576.00	91.51	269.57	7,942.33	501.49	-5,222.02	5,239.82	3.68	2.83	2.35	
12,670.00	91.89	269.23	7,939.54	500.51	-5,315.97	5,333.63	0.54	0.40	-0.36	
12,764.00	89.62	271.93	7,938.30	501.46	-5,409.94	5,427.54	3.75	-2.41	2.87	
12,859.00	90.85	271.54	7,937.91	504.34	-5,504.90	5,522.52	1.36	1.29	-0.41	
12,954.00	88.87	271.49	7,938.15	506.85	-5,599.86	5,617.50	2.08	-2.08	-0.05	
13,048.00	88.89	271.01	7,939.98	508.90	-5,693.82	5,711.45	0.51	0.02	-0.51	
13,143.00	89.63	270.33	7,941.21	510.01	-5,788.80	5,806.38	1.06	0.78	-0.72	
13,238.00	89.99	270.13	7,941.53	510.39	-5,883.80	5,901.29	0.43	0.38	-0.21	
13,333.00	90.13	270.56	7,941.43	510.96	-5,978.80	5,996.21	0.48	0.15	0.45	
13,427.00	90.28	270.54	7,941.09	511.86	-6,072.80	6,090.15	0.16	0.16	-0.02	
13,522.00	91.37	271.02	7,939.72	513.16	-6,167.78	6,185.08	1.25	1.15	0.51	
13,617.00	88.28	269.78	7,940.01	513.82	-6,262.76	6,279.99	3.50	-3.25	-1.31	
13,712.00	88.97	270.20	7,942.29	513.80	-6,357.73	6,374.86	0.85	0.73	0.44	
13,807.00	88.66	268.49	7,944.26	512.72	-6,452.70	6,469.67	1.83	-0.33	-1.80	
13,901.00	89.74	269.87	7,945.57	511.37	-6,546.68	6,563.48	1.86	1.15	1.47	
13,996.00	89.11	268.41	7,946.52	509.95	-6,641.66	6,658.29	1.67	-0.66	-1.54	
14,091.00	89.62	266.53	7,947.57	505.75	-6,736.56	6,752.89	2.05	0.54	-1.98	
14,185.00	88.05	268.74	7,949.49	501.88	-6,830.45	6,846.49	2.88	-1.67	2.35	
14,280.00	88.73	268.76	7,952.16	499.80	-6,925.39	6,941.23	0.72	0.72	0.02	
14,374.00	89.65	269.04	7,953.48	498.00	-7,019.36	7,035.01	1.02	0.98	0.30	
14,468.00	88.11	270.47	7,955.32	497.60	-7,113.34	7,128.87	2.24	-1.64	1.52	
14,563.00	88.18	270.31	7,958.40	498.24	-7,208.28	7,223.74	0.18	0.07	-0.17	
14,657.00	88.14	269.99	7,961.42	498.49	-7,302.23	7,317.60	0.34	-0.04	-0.34	
14,752.00	87.69	268.98	7,964.87	497.64	-7,397.17	7,412.38	1.16	-0.47	-1.06	
14,847.00	90.30	270.71	7,966.54	497.38	-7,492.14	7,507.24	3.30	2.75	1.82	
14,941.00	91.28	271.08	7,965.24	498.85	-7,586.12	7,601.18	1.11	1.04	0.39	
15,036.00	90.56	272.02	7,963.72	501.42	-7,681.07	7,696.15	1.25	-0.76	0.99	
15,131.00	91.36	271.15	7,962.12	504.05	-7,776.02	7,791.12	1.24	0.84	-0.92	
15,226.00	88.33	272.15	7,962.38	506.78	-7,870.97	7,886.09	3.36	-3.19	1.05	
15,320.00	88.41	272.10	7,965.06	510.26	-7,964.86	7,980.05	0.10	0.09	-0.05	
15,415.00	88.88	272.07	7,967.30	513.72	-8,059.77	8,075.01	0.50	0.49	-0.03	
15,510.00	89.62	273.29	7,968.55	518.16	-8,154.66	8,170.00	1.50	0.78	1.28	
15,604.00	87.64	270.58	7,970.79	521.33	-8,248.57	8,263.96	3.57	-2.11	-2.88	
15,699.00	87.14	269.25	7,975.12	521.19	-8,343.46	8,358.74	1.49	-0.53	-1.40	
15,794.00	87.87	267.99	7,979.26	518.91	-8,438.34	8,453.41	1.53	0.77	-1.33	
15,889.00	88.71	268.65	7,982.09	516.12	-8,533.26	8,548.09	1.12	0.88	0.69	
15,983.00	90.18	267.79	7,983.00	513.21	-8,627.21	8,641.80	1.81	1.56	-0.91	
16,077.00	91.05	267.49	7,981.99	509.33	-8,721.12	8,735.42	0.98	0.93	-0.32	
16,172.00	92.40	267.28	7,979.13	505.00	-8,815.98	8,829.97	1.44	1.42	-0.22	
16,267.00	90.81	269.18	7,976.47	502.07	-8,910.89	8,924.64	2.61	-1.67	2.00	
16,361.00	90.65	266.68	7,975.27	498.68	-9,004.81	9,018.30	2.66	-0.17	-2.66	
16,455.00	90.00	268.94	7,974.74	495.08	-9,098.73	9,111.95	2.50	-0.69	2.40	
16,550.00	91.18	269.73	7,973.76	493.98	-9,193.72	9,206.78	1.49	1.24	0.83	

Survey Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well PROPERTY RESERVE 4-65 3-4 3BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5657.01usft
Site:	SEC 2-T4S-R65W	MD Reference:	KB 25' @ 5657.01usft
Well:	PROPERTY RESERVE 4-65 3-4 3BH	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)	
16,645.00	87.96	269.91	7,974.47	493.68	-9,288.70	9,301.64	3.39	-3.39	0.19	
16,739.00	87.47	268.63	7,978.22	492.49	-9,382.62	9,395.40	1.46	-0.52	-1.36	
16,834.00	87.62	268.91	7,982.29	490.45	-9,477.51	9,490.09	0.33	0.16	0.29	
16,928.00	88.56	268.49	7,985.42	488.32	-9,571.43	9,583.81	1.10	1.00	-0.45	
17,023.00	87.80	269.21	7,988.44	486.41	-9,666.36	9,678.54	1.10	-0.80	0.76	
17,118.00	87.84	271.58	7,992.06	487.07	-9,761.29	9,773.39	2.49	0.04	2.49	
17,213.00	86.89	270.47	7,996.42	488.76	-9,856.17	9,868.25	1.54	-1.00	-1.17	
17,307.00	89.77	271.71	7,999.16	490.55	-9,950.10	9,962.16	3.34	3.06	1.32	
17,402.00	89.80	271.24	7,999.52	493.00	-10,045.07	10,057.14	0.50	0.03	-0.49	
17,497.00	89.15	270.00	8,000.39	494.03	-10,140.05	10,152.07	1.47	-0.68	-1.31	
17,591.00	89.69	271.64	8,001.34	495.37	-10,234.04	10,246.01	1.84	0.57	1.74	
17,686.00	90.58	271.43	8,001.12	497.92	-10,329.00	10,340.99	0.96	0.94	-0.22	
17,780.00	91.20	271.10	7,999.66	499.99	-10,422.97	10,434.95	0.75	0.66	-0.35	
17,875.00	89.44	271.68	7,999.13	502.29	-10,517.93	10,529.92	1.95	-1.85	0.61	
17,969.00	89.88	271.46	7,999.68	504.87	-10,611.90	10,623.90	0.52	0.47	-0.23	
18,064.00	90.18	271.34	7,999.63	507.19	-10,706.87	10,718.87	0.34	0.32	-0.13	
18,087.00	90.28	270.52	7,999.54	507.56	-10,729.86	10,741.86	3.59	0.43	-3.57	
LAST SURVEY - 18087' MD, 8000' TVD										
18,152.00	90.28	270.52	7,999.23	508.15	-10,794.86	10,806.81	0.00	0.00	0.00	
EXTRAPOLATION TO TD - 18152' MD, 2083' FSL, 332' FWL SEC 4										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
LP-PROPERTY RESER	0.00	0.00	7,880.00	504.17	-881.18	1,692,396.95	3,241,347.27	39.731304°N	104.641885°W	
- actual wellpath misses target center by 16.58usft at 8232.65usft MD (7873.40 TVD, 489.01 N, -882.38 E)										
- Point										
PBHL-PROPERTY RES	0.00	0.00	7,960.00	495.15	-10,796.66	1,692,293.93	3,231,432.36	39.731273°N	104.677139°W	
- actual wellpath misses target center by 41.36usft at 18152.00usft MD (7999.22 TVD, 508.15 N, -10794.86 E)										
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
7,245.00	7,222.04	485.04	-237.35	KOP - 7245' MD, 7222' TVD	
8,231.44	7,873.24	488.99	-881.18	~330' X-OVER PNT - 8231.44' MD, 2055' FSL, 330' FEL SEC 3	
8,287.00	7,878.89	490.90	-936.41	HZ LANDING PNT - 8287' MD, 7879' TVD	
18,087.00	7,999.54	507.56	-10,729.86	LAST SURVEY - 18087' MD, 8000' TVD	
18,152.00	7,999.23	508.15	-10,794.86	EXTRAPOLATION TO TD - 18152' MD, 2083' FSL, 332' FWL SEC 4	

Checked By: _____ Approved By: _____ Date: _____