

ANADARKO PETROLEUM CORP

WELD COUNTY (NAD 83)

SW SW SEC 1 T1N R68W 6th P.M. (1-1HZ TO 1-8HZ)

CARSON 1-8HZ

JOB # 2019-403-461

20 June, 2019

Survey: FINAL SURVEYS





Project: WELD COUNTY (NAD 83)
Site: SW SW SEC 1 T1N R68W 6th P.M. (1-1HZ TO 1-8HZ)
Well: CARSON 1-8HZ
Wellbore: JOB # 2019-403-461
Design: FINAL SURVEYS

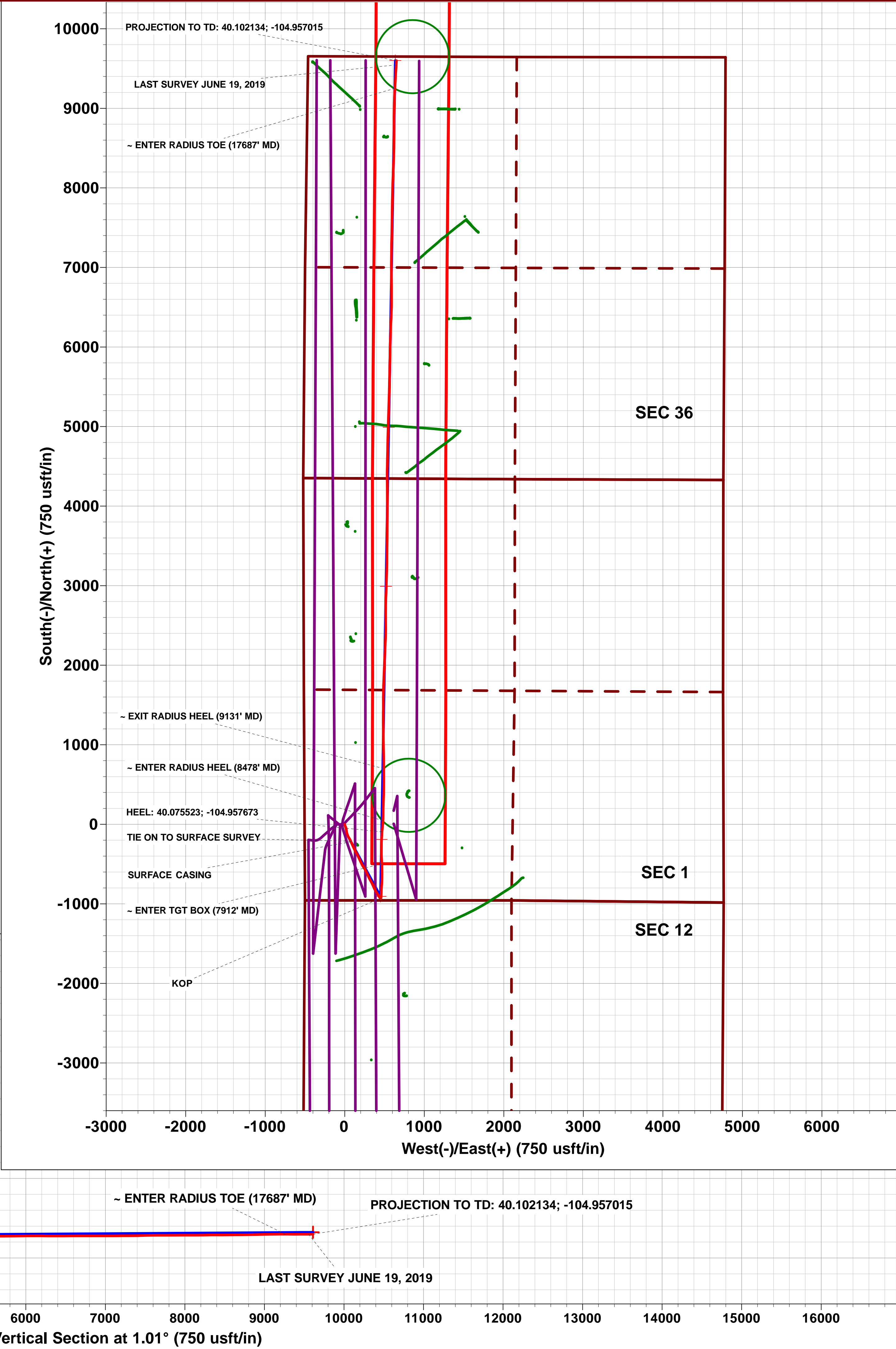
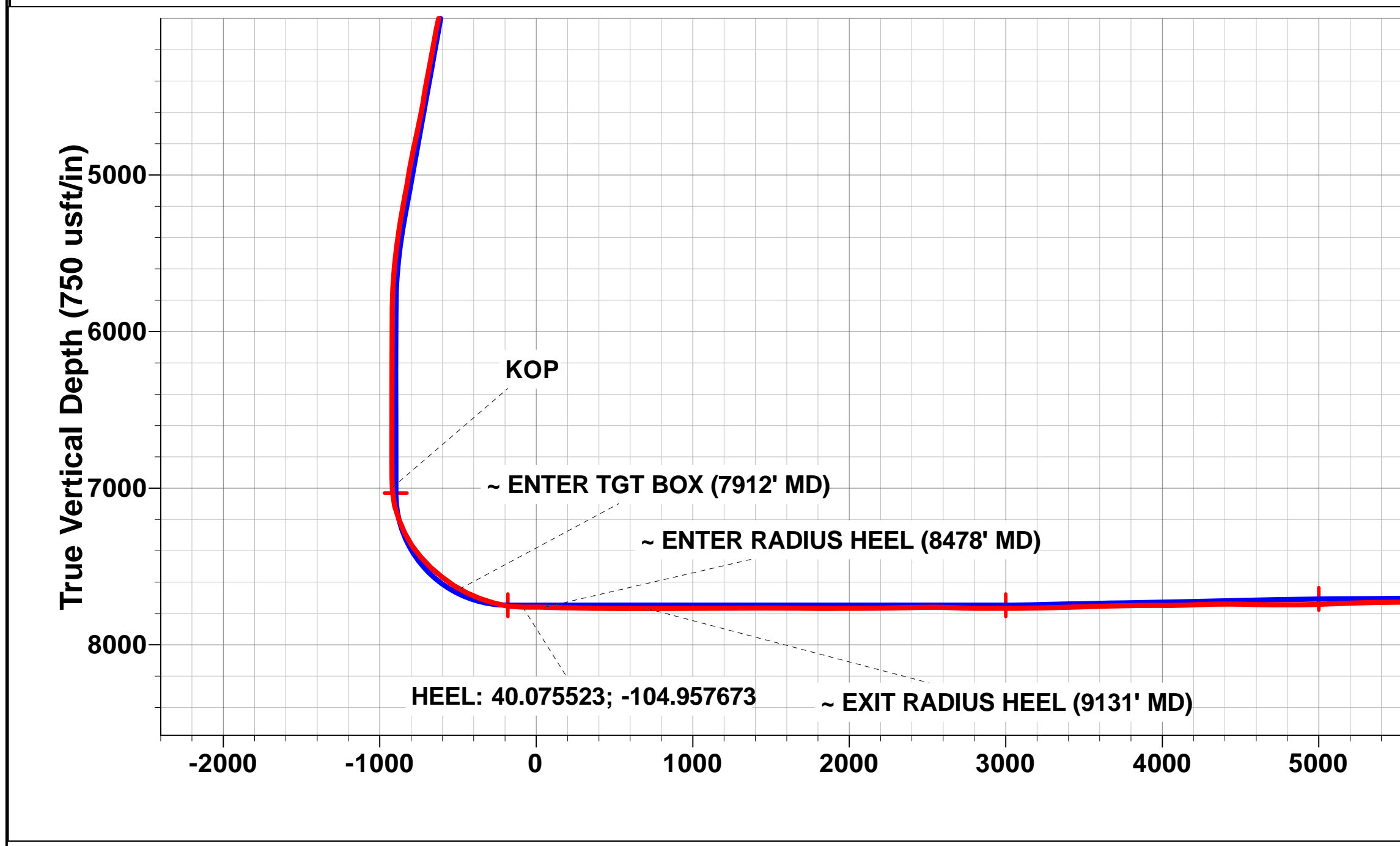
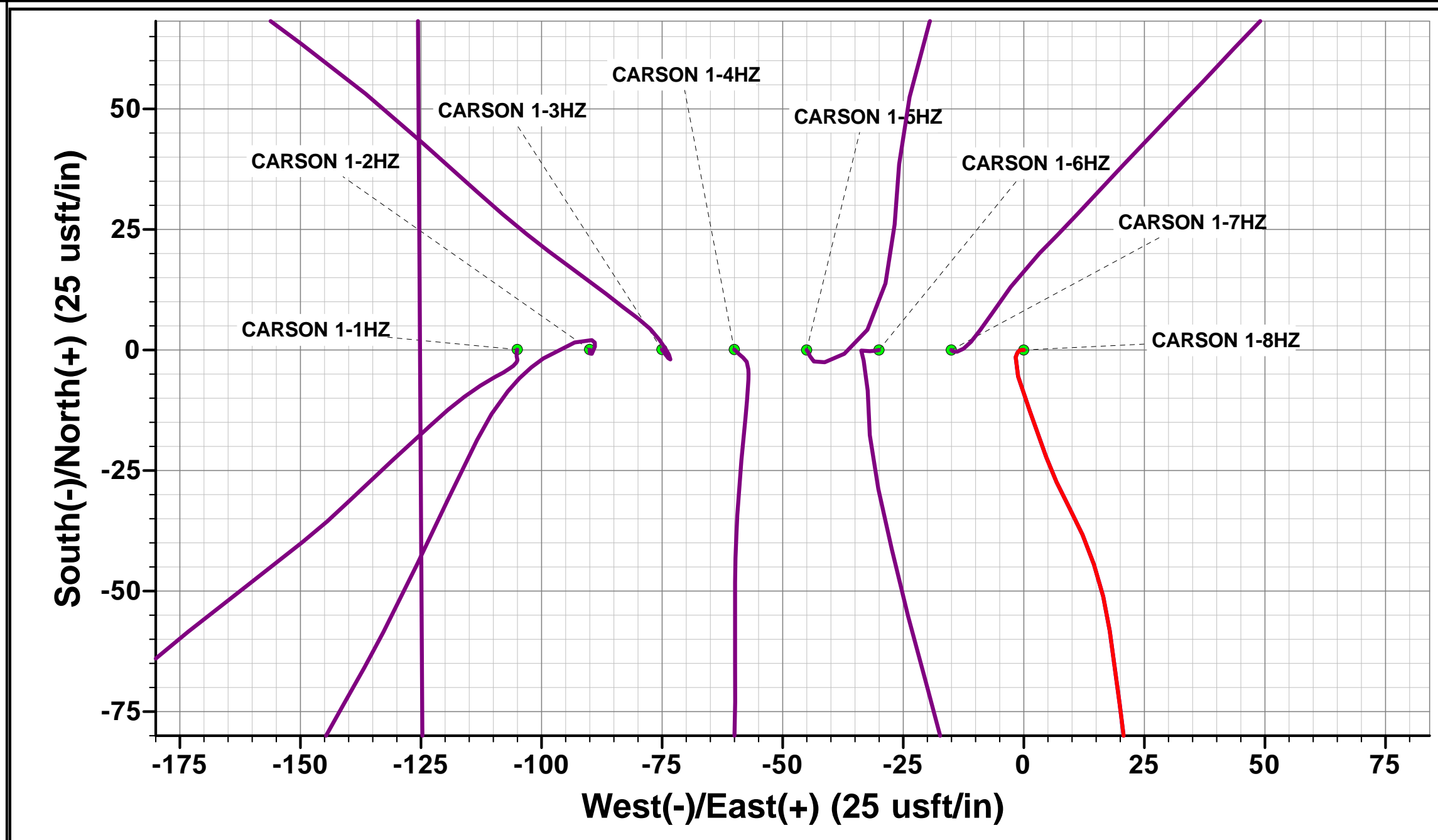
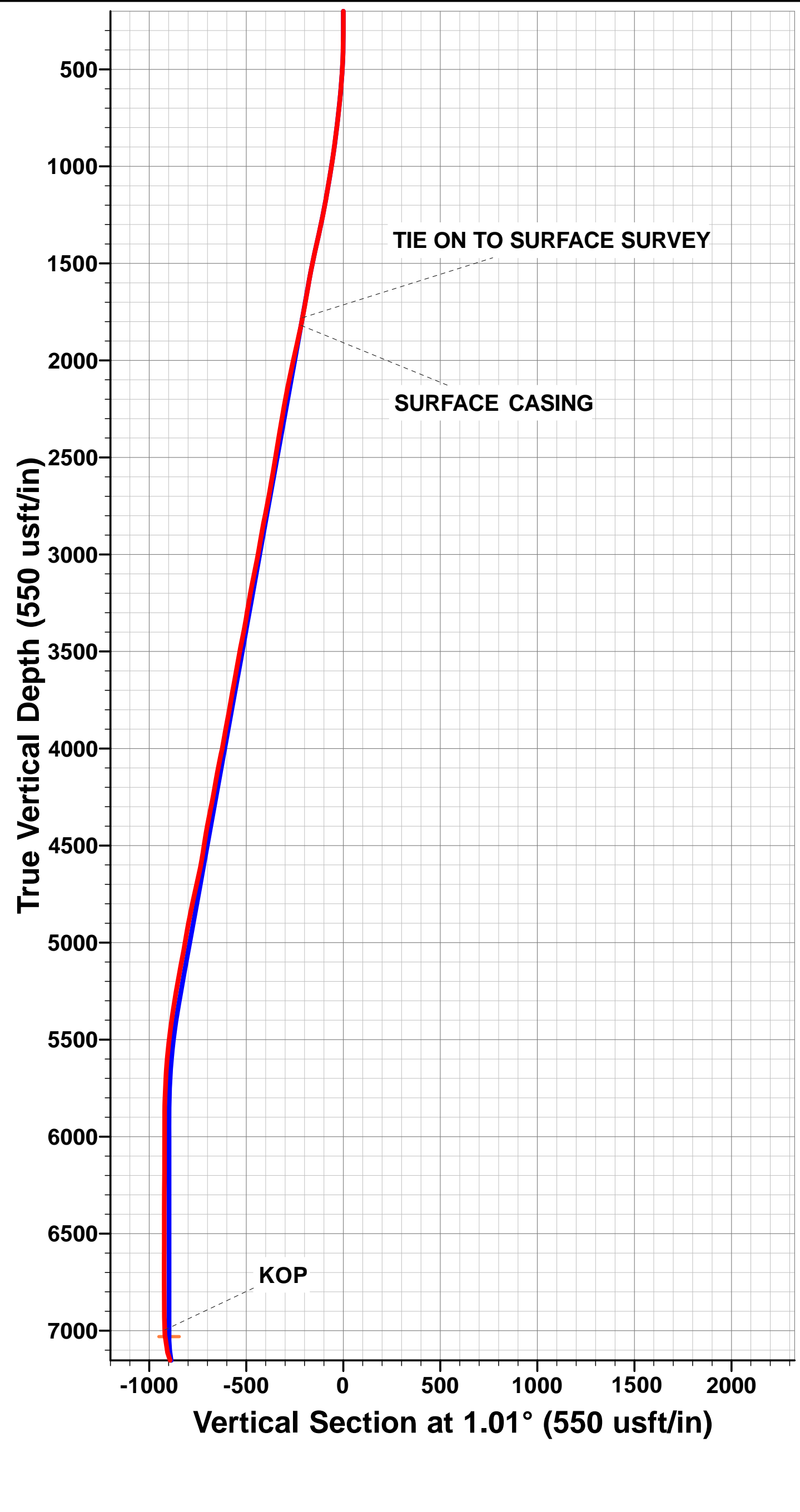
ANNOTATIONS											
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation			
1780.13	1801.00	11.69	155.79	-211.82	75.21	-210.46	229.28	TIE ON TO SURFACE SURVEY			
1819.25	1841.00	12.40	156.46	-219.45	78.58	-218.04	238.23	SURFACE CASING			
6996.24	7100.00	2.10	13.82	-928.62	454.40	-920.46	1048.74	KOP			
7644.11	7912.00	60.19	357.49	-497.79	466.18	-489.50	1480.38	~ ENTER TGT BOX (7912' MD)			
7759.56	8336.00	89.55	5.77	-94.82	468.41	-86.55	1883.14	HEEL: 40.075523; -104.957673			
7759.69	8478.00	89.31	2.91	46.67	480.31	55.13	2025.13	~ ENTER RADIUS HEEL (8478' MD)			
7768.66	9131.00	89.84	359.72	699.43	489.80	707.95	2678.02	~ EXIT RADIUS HEEL (9131' MD)			
7700.97	17687.00	89.32	3.08	9251.84	630.30	9261.51	11232.92	~ ENTER RADIUS TOE (17687' MD)			
7701.39	17981.00	90.39	3.29	9545.35	647.10	9555.27	11526.91	LAST SURVEY JUNE 19, 2019			
7701.02	18035.00	90.39	3.29	9599.26	650.19	9609.23	11580.91	PROJECTION TO TD: 40.102134; -104.957015			

AS DRILLED LOCAL COORDINATES:

SHL: 956ft FSL & 505ft FWL Sec 1
HEEL: 861.01ft FSL & 972.5ft FWL Sec 1
BHL: 50.9ft FNL & 1111.6ft FWL Sec 36

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BHL - CARSON 1-8HZ (P3)	7677.00	9600.21	635.56	40.102136	-104.957067
HEEL - CARSON 1-8HZ (P3)	7747.00	-189.91	461.92	40.075262	-104.957688
KOP - CARSON 1-8HZ (P3)	7030.80	-906.00	449.30	40.073296	-104.957733



Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Project	WELD COUNTY (NAD 83)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)	Using geodetic scale factor	

Site	SW SW SEC 1 T1N R68W 6th P.M. (1-1HZ TO 1-8HZ)				
Site Position:		Northing:	14,554,331.98 usft	Latitude:	40.075783
From:	Lat/Long	Easting:	1,651,686.27 usft	Longitude:	-104.959714
Position Uncertainty:	0.00 usft	Slot Radius:	1.10 ft	Grid Convergence:	0.03 °

Well	CARSON 1-8HZ					
Well Position	+N/-S	0.00 usft	Northing:	14,554,331.93 usft	Latitude:	40.075783
	+E/-W	0.00 usft	Easting:	1,651,791.25 usft	Longitude:	-104.959339
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,012.00 usft

Wellbore	JOB # 2019-403-461				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	23/05/2019	8.08	66.52	51,982

Design	FINAL SURVEYS				
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	1.01	

Survey Program	Date	20/06/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
126.00	18,035.00	FINAL SURVEYS (JOB # 2019-403-461)	APC_ISCWSA REV 2 MWD+	Fixed:v2:crustal field declination	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea 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	5,032.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	0.09	278.09	126.00	4,906.00	0.01	-0.10	0.01	0.07	0.07	0.00
220.00	0.18	278.09	220.00	4,812.00	0.05	-0.32	0.04	0.10	0.10	0.00
315.00	0.53	250.05	315.00	4,717.00	-0.08	-0.88	-0.10	0.40	0.37	-29.52
411.00	1.54	196.97	410.98	4,621.02	-1.47	-1.67	-1.50	1.35	1.05	-55.29
506.00	3.52	162.34	505.89	4,526.11	-5.47	-1.16	-5.49	2.54	2.08	-36.45
602.00	5.54	160.76	601.58	4,430.42	-12.65	1.26	-12.63	2.11	2.10	-1.65
697.00	6.64	160.05	696.05	4,335.95	-22.15	4.65	-22.06	1.16	1.16	-0.75
792.00	7.43	151.44	790.33	4,241.67	-32.70	9.46	-32.53	1.38	0.83	-9.06
887.00	8.17	161.20	884.46	4,147.54	-44.49	14.57	-44.23	1.59	0.78	10.27
982.00	9.01	171.48	978.40	4,053.60	-58.24	17.85	-57.91	1.84	0.88	10.82
1,077.00	9.58	173.24	1,072.15	3,959.85	-73.45	19.88	-73.08	0.67	0.60	1.85
1,173.00	10.24	172.62	1,166.72	3,865.28	-89.84	21.92	-89.44	0.70	0.69	-0.65

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,267.00	11.69	167.17	1,259.00	3,773.00	-107.41	25.10	-106.95	1.89	1.54	-5.80
1,362.00	13.71	157.86	1,351.68	3,680.32	-127.23	31.49	-126.65	3.02	2.13	-9.80
1,458.00	13.80	156.27	1,444.93	3,587.07	-148.25	40.38	-147.51	0.40	0.09	-1.66
1,553.00	12.83	149.33	1,537.38	3,494.62	-167.70	50.32	-166.78	1.97	-1.02	-7.31
1,648.00	11.21	147.31	1,630.29	3,401.71	-184.54	60.69	-183.44	1.76	-1.71	-2.13
1,743.00	11.95	153.29	1,723.36	3,308.64	-201.10	70.10	-199.83	1.48	0.78	6.29
TIE ON TO SURFACE SURVEY										
1,801.00	11.69	155.79	1,780.13	3,251.87	-211.82	75.21	-210.46	0.99	-0.45	4.31
SURFACE CASING										
1,841.00	12.40	156.46	1,819.25	3,212.75	-219.45	78.58	-218.04	1.81	1.77	1.67
1,940.00	14.16	157.83	1,915.60	3,116.40	-240.41	87.40	-238.84	1.81	1.78	1.38
2,034.00	13.50	155.56	2,006.88	3,025.12	-261.05	96.28	-259.31	0.91	-0.70	-2.41
2,128.00	12.64	155.29	2,098.44	2,933.56	-280.38	105.12	-278.49	0.92	-0.91	-0.29
2,223.00	11.67	155.08	2,191.31	2,840.69	-298.54	113.51	-296.49	1.02	-1.02	-0.22
2,317.00	10.99	155.15	2,283.48	2,748.52	-315.29	121.28	-313.11	0.72	-0.72	0.07
2,412.00	11.41	152.26	2,376.67	2,655.33	-331.83	129.46	-329.49	0.74	0.44	-3.04
2,506.00	10.22	152.88	2,469.00	2,563.00	-347.48	137.59	-345.00	1.27	-1.27	0.66
2,601.00	10.73	148.49	2,562.42	2,469.58	-362.52	146.06	-359.89	1.00	0.54	-4.62
2,695.00	11.54	149.66	2,654.65	2,377.35	-378.09	155.38	-375.30	0.89	0.86	1.24
2,787.00	13.05	154.90	2,744.54	2,287.46	-395.44	164.43	-392.48	2.04	1.64	5.70
2,882.00	11.81	154.44	2,837.31	2,194.69	-413.93	173.18	-410.81	1.31	-1.31	-0.48
2,977.00	10.53	155.38	2,930.51	2,101.49	-430.59	180.99	-427.33	1.36	-1.35	0.99
3,070.00	11.79	156.54	3,021.75	2,010.25	-447.03	188.31	-443.64	1.38	1.35	1.25
3,164.00	13.18	153.91	3,113.52	1,918.48	-465.47	196.85	-461.93	1.60	1.48	-2.80
3,257.00	11.47	153.68	3,204.37	1,827.63	-483.28	205.61	-479.58	1.84	-1.84	-0.25
3,351.00	10.38	154.59	3,296.67	1,735.33	-499.31	213.39	-495.47	1.17	-1.16	0.97
3,445.00	12.39	152.18	3,388.82	1,643.18	-515.88	221.73	-511.89	2.20	2.14	-2.56
3,538.00	13.61	146.14	3,479.44	1,552.56	-533.79	232.48	-529.61	1.96	1.31	-6.49
3,632.00	11.73	143.99	3,571.14	1,460.86	-550.70	244.27	-546.31	2.06	-2.00	-2.29
3,726.00	12.40	154.43	3,663.08	1,368.92	-567.54	254.24	-562.97	2.42	0.71	11.11
3,821.00	10.74	151.42	3,756.14	1,275.86	-584.51	262.88	-579.79	1.86	-1.75	-3.17
3,915.00	12.44	155.90	3,848.23	1,183.77	-601.45	271.20	-596.57	2.05	1.81	4.77
4,009.00	10.71	153.66	3,940.31	1,091.69	-618.52	279.21	-613.50	1.90	-1.84	-2.38
4,103.00	13.37	153.68	4,032.24	999.76	-636.09	287.91	-630.92	2.83	2.83	0.02
4,196.00	11.84	154.73	4,122.99	909.01	-654.36	296.75	-649.03	1.66	-1.65	1.13
4,289.00	10.63	154.98	4,214.21	817.79	-670.76	304.45	-665.29	1.30	-1.30	0.27
4,383.00	13.43	151.70	4,306.13	725.87	-688.23	313.30	-682.60	3.07	2.98	-3.49
4,475.00	11.88	151.77	4,395.90	636.10	-705.98	322.84	-700.18	1.68	-1.68	0.08
4,569.00	10.00	152.34	4,488.18	543.82	-721.74	331.21	-715.79	2.00	-2.00	0.61
4,667.00	11.89	149.53	4,584.40	447.60	-737.98	340.28	-731.86	2.00	1.93	-2.87
4,758.00	14.19	156.40	4,673.05	358.95	-756.28	349.50	-750.00	3.04	2.53	7.55
4,852.00	13.38	156.23	4,764.34	267.66	-776.79	358.49	-770.35	0.86	-0.86	-0.18
4,946.00	12.18	156.09	4,856.01	175.99	-795.81	366.90	-789.22	1.28	-1.28	-0.15
5,040.00	11.02	155.39	4,948.09	83.91	-813.05	374.66	-806.32	1.24	-1.23	-0.74
5,133.00	11.24	152.25	5,039.34	-7.34	-829.15	382.58	-822.28	0.69	0.24	-3.38
5,228.00	12.94	148.59	5,132.23	-100.23	-846.42	392.43	-839.37	1.96	1.79	-3.85
5,321.00	12.17	148.58	5,223.01	-191.01	-863.67	402.97	-856.44	0.83	-0.83	-0.01
5,415.00	10.63	148.71	5,315.15	-283.15	-879.54	412.64	-872.13	1.64	-1.64	0.14
5,510.00	9.06	147.17	5,408.75	-376.75	-893.31	421.25	-885.75	1.68	-1.65	-1.62
5,603.00	7.74	146.92	5,500.75	-468.75	-904.71	428.64	-897.02	1.42	-1.42	-0.27
5,698.00	6.75	147.86	5,594.99	-562.99	-914.80	435.10	-906.99	1.05	-1.04	0.99
5,791.00	4.08	136.74	5,687.57	-655.57	-921.84	440.27	-913.94	3.07	-2.87	-11.96
5,884.00	3.51	135.76	5,780.37	-748.37	-926.29	444.53	-918.31	0.62	-0.61	-1.05

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,003.00	0.28	114.66	5,899.28	-867.28	-929.02	447.33	-920.99	2.73	-2.71	-17.73
6,190.00	0.51	97.12	6,086.28	-1,054.28	-929.32	448.57	-921.26	0.14	0.12	-9.38
6,285.00	0.27	132.15	6,181.28	-1,149.28	-929.52	449.16	-921.46	0.35	-0.25	36.87
6,378.00	0.44	142.26	6,274.28	-1,242.28	-929.95	449.54	-921.88	0.19	0.18	10.87
6,473.00	0.56	117.66	6,369.27	-1,337.27	-930.45	450.18	-922.37	0.26	0.13	-25.89
6,566.00	0.58	95.18	6,462.27	-1,430.27	-930.70	451.05	-922.61	0.24	0.02	-24.17
6,661.00	0.36	115.97	6,557.27	-1,525.27	-930.88	451.79	-922.77	0.29	-0.23	21.88
6,753.00	0.32	104.91	6,649.26	-1,617.26	-931.07	452.30	-922.95	0.08	-0.04	-12.02
6,847.00	0.23	76.16	6,743.26	-1,711.26	-931.09	452.74	-922.97	0.17	-0.10	-30.59
6,941.00	0.57	53.24	6,837.26	-1,805.26	-930.77	453.30	-922.63	0.39	0.36	-24.38
7,033.00	0.59	33.09	6,929.26	-1,897.26	-930.10	453.92	-921.95	0.22	0.02	-21.90
KOP										
7,100.00	2.10	13.82	6,996.24	-1,964.24	-928.62	454.40	-920.46	2.32	2.26	-28.76
7,125.00	2.68	12.27	7,021.21	-1,989.21	-927.60	454.64	-919.44	2.32	2.31	-6.22
7,218.00	14.67	4.72	7,112.98	-2,080.98	-913.69	456.07	-905.51	12.92	12.89	-8.12
7,310.00	21.16	2.15	7,200.48	-2,168.48	-885.45	457.66	-877.25	7.10	7.05	-2.79
7,403.00	24.62	3.33	7,286.14	-2,254.14	-849.33	459.41	-841.10	3.75	3.72	1.27
7,495.00	35.14	2.59	7,365.80	-2,333.80	-803.62	461.73	-795.36	11.44	11.43	-0.80
7,588.00	40.19	4.12	7,439.40	-2,407.40	-746.92	465.10	-738.60	5.52	5.43	1.65
7,683.00	47.50	1.35	7,507.87	-2,475.87	-681.24	468.13	-672.88	7.95	7.69	-2.92
7,776.00	51.98	0.09	7,567.96	-2,535.96	-610.29	468.99	-601.93	4.93	4.82	-1.35
7,869.00	57.26	357.94	7,621.79	-2,589.79	-534.51	467.64	-526.19	5.98	5.68	-2.31
~ ENTER TGT BOX (7912' MD)										
7,912.00	60.19	357.49	7,644.11	-2,612.11	-497.79	466.18	-489.50	6.87	6.82	-1.06
7,962.00	63.60	356.99	7,667.66	-2,635.66	-453.75	464.05	-445.50	6.87	6.82	-0.99
8,056.00	70.20	358.10	7,704.52	-2,672.52	-367.41	460.37	-359.24	7.10	7.02	1.18
8,150.00	73.40	0.88	7,733.88	-2,701.88	-278.14	459.59	-270.00	4.41	3.40	2.96
8,243.00	82.60	2.14	7,753.20	-2,721.20	-187.30	462.00	-179.13	9.98	9.89	1.35
HEEL: 40.075523; -104.957673										
8,336.00	89.55	5.77	7,759.56	-2,727.56	-94.82	468.41	-86.55	8.43	7.47	3.90
8,430.00	90.43	4.81	7,759.58	-2,727.58	-1.22	477.08	7.19	1.39	0.94	-1.02
~ ENTER RADIUS HEEL (8478' MD)										
8,478.00	89.31	2.91	7,759.69	-2,727.69	46.67	480.31	55.13	4.60	-2.32	-3.97
8,523.00	88.27	1.12	7,760.64	-2,728.64	91.63	481.89	100.11	4.60	-2.32	-3.97
8,616.00	87.57	0.89	7,764.01	-2,732.01	184.55	483.52	193.05	0.79	-0.75	-0.25
8,711.00	89.79	1.88	7,766.20	-2,734.20	279.49	485.81	288.01	2.56	2.34	1.04
8,806.00	90.19	1.41	7,766.22	-2,734.22	374.45	488.54	383.01	0.65	0.42	-0.49
8,901.00	89.46	0.40	7,766.51	-2,734.51	469.44	490.04	478.00	1.31	-0.77	-1.06
8,994.00	89.31	359.95	7,767.50	-2,735.50	562.43	490.32	570.99	0.51	-0.16	-0.48
9,088.00	89.56	359.68	7,768.43	-2,736.43	656.43	490.02	664.96	0.39	0.27	-0.29
~ EXIT RADIUS HEEL (9131' MD)										
9,131.00	89.84	359.72	7,768.66	-2,736.66	699.43	489.80	707.95	0.66	0.65	0.10
9,180.00	90.16	359.77	7,768.66	-2,736.66	748.43	489.58	756.94	0.66	0.65	0.10
9,275.00	90.49	359.68	7,768.12	-2,736.12	843.42	489.12	851.91	0.36	0.35	-0.09
9,369.00	90.40	359.07	7,767.39	-2,735.39	937.41	488.10	945.87	0.66	-0.10	-0.65
9,463.00	90.42	357.96	7,766.71	-2,734.71	1,031.38	485.66	1,039.78	1.18	0.02	-1.18
9,558.00	89.88	0.04	7,766.47	-2,734.47	1,126.36	484.00	1,134.71	2.26	-0.57	2.19
9,653.00	90.25	0.41	7,766.36	-2,734.36	1,221.36	484.38	1,229.71	0.55	0.39	0.39
9,748.00	90.20	359.29	7,765.99	-2,733.99	1,316.35	484.13	1,324.68	1.18	-0.05	-1.18
9,842.00	90.28	0.81	7,765.59	-2,733.59	1,410.35	484.21	1,418.67	1.62	0.09	1.62
9,936.00	90.62	359.74	7,764.85	-2,732.85	1,504.35	484.66	1,512.65	1.19	0.36	-1.14
10,030.00	88.91	0.85	7,765.24	-2,733.24	1,598.34	485.15	1,606.64	2.17	-1.82	1.18

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,125.00	89.42	0.51	7,766.62	-2,734.62	1,693.32	486.27	1,701.63	0.65	0.54	-0.36
10,218.00	89.77	2.61	7,767.28	-2,735.28	1,786.28	488.80	1,794.62	2.29	0.38	2.26
10,312.00	90.12	2.57	7,767.37	-2,735.37	1,880.18	493.05	1,888.58	0.37	0.37	-0.04
10,405.00	90.19	2.51	7,767.12	-2,735.12	1,973.09	497.17	1,981.55	0.10	0.08	-0.06
10,499.00	90.20	2.03	7,766.80	-2,734.80	2,067.02	500.90	2,075.52	0.51	0.01	-0.51
10,591.00	90.69	2.10	7,766.08	-2,734.08	2,158.95	504.21	2,167.51	0.54	0.53	0.08
10,685.00	91.13	2.66	7,764.59	-2,732.59	2,252.86	508.11	2,261.47	0.76	0.47	0.60
10,780.00	91.05	2.54	7,762.78	-2,730.78	2,347.74	512.42	2,356.41	0.15	-0.08	-0.13
10,875.00	91.41	0.19	7,760.75	-2,728.75	2,442.69	514.69	2,451.38	2.50	0.38	-2.47
10,970.00	89.43	359.17	7,760.05	-2,728.05	2,537.68	514.15	2,546.35	2.34	-2.08	-1.07
11,065.00	87.90	359.98	7,762.26	-2,730.26	2,632.65	513.45	2,641.29	1.82	-1.61	0.85
11,158.00	88.13	359.99	7,765.48	-2,733.48	2,725.59	513.43	2,734.22	0.25	0.25	0.01
11,251.00	89.87	2.34	7,767.11	-2,735.11	2,818.55	515.32	2,827.19	3.14	1.87	2.53
11,345.00	90.13	2.25	7,767.11	-2,735.11	2,912.47	519.08	2,921.17	0.29	0.28	-0.10
11,439.00	89.79	1.93	7,767.17	-2,735.17	3,006.41	522.51	3,015.15	0.50	-0.36	-0.34
11,532.00	90.91	1.75	7,766.60	-2,734.60	3,099.36	525.50	3,108.14	1.22	1.20	-0.19
11,626.00	91.39	1.13	7,764.72	-2,732.72	3,193.31	527.86	3,202.12	0.83	0.51	-0.66
11,718.00	91.17	1.05	7,762.66	-2,730.66	3,285.27	529.61	3,294.09	0.25	-0.24	-0.09
11,811.00	91.59	0.56	7,760.42	-2,728.42	3,378.23	530.91	3,387.07	0.69	0.45	-0.53
11,904.00	91.86	359.81	7,757.62	-2,725.62	3,471.19	531.21	3,480.01	0.86	0.29	-0.81
11,998.00	91.41	1.09	7,754.94	-2,722.94	3,565.15	531.95	3,573.97	1.44	-0.48	1.36
12,090.00	91.62	0.80	7,752.51	-2,720.51	3,657.10	533.47	3,665.94	0.39	0.23	-0.32
12,183.00	91.86	0.31	7,749.68	-2,717.68	3,750.05	534.37	3,758.89	0.59	0.26	-0.53
12,276.00	89.89	0.73	7,748.26	-2,716.26	3,843.03	535.21	3,851.87	2.17	-2.12	0.45
12,371.00	89.59	359.85	7,748.70	-2,716.70	3,938.03	535.69	3,946.86	0.98	-0.32	-0.93
12,465.00	90.49	359.16	7,748.63	-2,716.63	4,032.03	534.88	4,040.83	1.21	0.96	-0.73
12,560.00	92.03	359.72	7,746.54	-2,714.54	4,127.00	533.95	4,135.77	1.72	1.62	0.59
12,653.00	92.02	359.90	7,743.26	-2,711.26	4,219.94	533.64	4,228.69	0.19	-0.01	0.19
12,746.00	91.11	359.83	7,740.72	-2,708.72	4,312.90	533.43	4,321.63	0.98	-0.98	-0.08
12,840.00	89.98	359.77	7,739.82	-2,707.82	4,406.89	533.10	4,415.61	1.20	-1.20	-0.06
12,933.00	88.67	1.35	7,740.92	-2,708.92	4,499.88	534.01	4,508.59	2.21	-1.41	1.70
13,025.00	89.17	1.39	7,742.65	-2,710.65	4,591.84	536.21	4,600.57	0.55	0.54	0.04
13,117.00	89.09	1.22	7,744.05	-2,712.05	4,683.80	538.30	4,692.56	0.20	-0.09	-0.18
13,211.00	90.36	0.48	7,744.50	-2,712.50	4,777.79	539.69	4,786.56	1.56	1.35	-0.79
13,304.00	90.13	1.45	7,744.10	-2,712.10	4,870.77	541.26	4,879.56	1.07	-0.25	1.04
13,397.00	92.10	1.95	7,742.29	-2,710.29	4,963.71	544.02	4,972.53	2.19	2.12	0.54
13,491.00	92.43	2.19	7,738.58	-2,706.58	5,057.57	547.41	5,066.44	0.43	0.35	0.26
13,584.00	91.57	2.01	7,735.33	-2,703.33	5,150.45	550.82	5,159.36	0.94	-0.92	-0.19
13,676.00	92.41	1.95	7,732.14	-2,700.14	5,242.34	553.99	5,251.29	0.92	0.91	-0.07
13,770.00	90.38	1.33	7,729.85	-2,697.85	5,336.27	556.68	5,345.25	2.26	-2.16	-0.66
13,864.00	90.71	1.18	7,728.95	-2,696.95	5,430.24	558.74	5,439.25	0.39	0.35	-0.16
13,959.00	91.51	1.19	7,727.11	-2,695.11	5,525.20	560.71	5,534.23	0.84	0.84	0.01
14,053.00	89.70	1.26	7,726.12	-2,694.12	5,619.17	562.72	5,628.22	1.93	-1.93	0.07
14,146.00	90.37	1.37	7,726.06	-2,694.06	5,712.15	564.85	5,721.22	0.73	0.72	0.12
14,239.00	90.37	1.09	7,725.46	-2,693.46	5,805.13	566.85	5,814.22	0.30	0.00	-0.30
14,332.00	91.26	1.21	7,724.14	-2,692.14	5,898.10	568.71	5,907.20	0.97	0.96	0.13
14,427.00	90.30	1.05	7,722.85	-2,690.85	5,993.07	570.59	6,002.19	1.02	-1.01	-0.17
14,521.00	90.61	1.20	7,722.10	-2,690.10	6,087.05	572.43	6,096.19	0.37	0.33	0.16
14,614.00	89.26	1.85	7,722.21	-2,690.21	6,180.01	574.91	6,189.18	1.61	-1.45	0.70
14,708.00	89.56	2.18	7,723.17	-2,691.17	6,273.95	578.21	6,283.16	0.47	0.32	0.35
14,801.00	89.92	2.55	7,723.60	-2,691.60	6,366.87	582.05	6,376.14	0.56	0.39	0.40
14,894.00	90.34	2.71	7,723.39	-2,691.39	6,459.77	586.32	6,469.10	0.48	0.45	0.17
14,987.00	90.30	0.07	7,722.87	-2,690.87	6,552.73	588.57	6,562.09	2.84	-0.04	-2.84

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,081.00	90.46	359.98	7,722.24	-2,690.24	6,646.73	588.61	6,656.07	0.20	0.17	-0.10
15,175.00	89.86	359.59	7,721.98	-2,689.98	6,740.73	588.26	6,750.05	0.76	-0.64	-0.41
15,269.00	89.88	359.37	7,722.19	-2,690.19	6,834.72	587.41	6,844.02	0.24	0.02	-0.23
15,363.00	90.52	359.05	7,721.87	-2,689.87	6,928.71	586.11	6,937.97	0.76	0.68	-0.34
15,455.00	89.53	0.21	7,721.83	-2,689.83	7,020.71	585.52	7,029.94	1.66	-1.08	1.26
15,549.00	90.82	0.77	7,721.54	-2,689.54	7,114.70	586.32	7,123.93	1.50	1.37	0.60
15,643.00	90.42	0.75	7,720.52	-2,688.52	7,208.69	587.57	7,217.93	0.43	-0.43	-0.02
15,737.00	89.92	0.50	7,720.24	-2,688.24	7,302.68	588.59	7,311.92	0.59	-0.53	-0.27
15,830.00	91.16	1.38	7,719.37	-2,687.37	7,395.66	590.12	7,404.92	1.63	1.33	0.95
15,924.00	91.99	1.38	7,716.78	-2,684.78	7,489.60	592.38	7,498.88	0.88	0.88	0.00
16,016.00	90.30	1.42	7,714.94	-2,682.94	7,581.55	594.63	7,590.85	1.84	-1.84	0.04
16,110.00	90.03	0.75	7,714.67	-2,682.67	7,675.53	596.41	7,684.85	0.77	-0.29	-0.71
16,204.00	90.10	0.40	7,714.57	-2,682.57	7,769.53	597.35	7,778.85	0.38	0.07	-0.37
16,298.00	90.81	0.20	7,713.82	-2,681.82	7,863.52	597.84	7,872.84	0.78	0.76	-0.21
16,393.00	89.94	2.50	7,713.20	-2,681.20	7,958.49	600.08	7,967.83	2.59	-0.92	2.42
16,485.00	90.23	2.33	7,713.06	-2,681.06	8,050.40	603.96	8,059.80	0.37	0.32	-0.18
16,580.00	89.98	1.62	7,712.89	-2,680.89	8,145.35	607.23	8,154.79	0.79	-0.26	-0.75
16,675.00	91.38	1.53	7,711.76	-2,679.76	8,240.30	609.84	8,249.77	1.48	1.47	-0.09
16,768.00	89.62	2.19	7,710.95	-2,678.95	8,333.25	612.86	8,342.75	2.02	-1.89	0.71
16,863.00	90.10	2.07	7,711.18	-2,679.18	8,428.18	616.39	8,437.74	0.52	0.51	-0.13
16,956.00	90.31	1.09	7,710.85	-2,678.85	8,521.14	618.96	8,530.73	1.08	0.23	-1.05
17,049.00	90.43	0.47	7,710.25	-2,678.25	8,614.13	620.22	8,623.73	0.68	0.13	-0.67
17,143.00	90.78	359.67	7,709.25	-2,677.25	8,708.13	620.34	8,717.71	0.93	0.37	-0.85
17,237.00	91.58	359.20	7,707.32	-2,675.32	8,802.10	619.41	8,811.65	0.99	0.85	-0.50
17,329.00	90.59	0.78	7,705.58	-2,673.58	8,894.08	619.40	8,903.62	2.03	-1.08	1.72
17,422.00	91.16	0.66	7,704.16	-2,672.16	8,987.06	620.56	8,996.60	0.63	0.61	-0.13
17,516.00	90.85	2.46	7,702.51	-2,670.51	9,081.01	623.12	9,090.58	1.94	-0.33	1.91
17,609.00	90.88	2.07	7,701.10	-2,669.10	9,173.92	626.80	9,183.55	0.42	0.03	-0.42
~ ENTER RADIUS TOE (17687' MD)										
17,687.00	89.32	3.08	7,700.97	-2,668.97	9,251.84	630.30	9,261.51	2.38	-2.00	1.29
17,704.00	88.98	3.30	7,701.22	-2,669.22	9,268.81	631.25	9,278.50	2.38	-2.00	1.29
17,798.00	89.86	3.05	7,702.17	-2,670.17	9,362.66	636.45	9,372.43	0.97	0.94	-0.27
17,891.00	90.37	3.50	7,701.98	-2,669.98	9,455.51	641.77	9,465.35	0.73	0.55	0.48
LAST SURVEY JUNE 19, 2019										
17,981.00	90.39	3.29	7,701.39	-2,669.39	9,545.35	647.10	9,555.27	0.23	0.02	-0.23
PROJECTION TO TD: 40.102134; -104.957015										
18,035.00	90.39	3.29	7,701.02	-2,669.02	9,599.26	650.19	9,609.23	0.00	0.00	0.00

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

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
HEEL - CARSON 1-8HZ - survey misses target center by 5.82usft at 8239.16usft MD (7752.69 TVD, -191.11 N, 461.86 E) - Point	0.00	0.00	7,747.00	-189.91	461.92	14,554,142.30	1,652,253.07	40.075262	-104.957688
TGT 1 - CARSON 1-8HZ - survey misses target center by 28.38usft at 11425.93usft MD (7767.13 TVD, 2993.35 N, 522.06 E) - Point	0.00	0.00	7,747.00	2,992.64	542.06	14,557,323.61	1,652,331.72	40.083998	-104.957402
HEEL - CARSON 1-8HZ - survey misses target center by 40.61usft at 8176.79usft MD (7740.94 TVD, -252.30 N, 460.07 E) - Point	0.00	0.00	7,759.00	-257.08	496.13	14,554,075.18	1,652,287.30	40.075077	-104.957566
TGT 2 - CARSON 1-8HZ - survey misses target center by 35.21usft at 13426.00usft MD (7741.20 TVD, 4992.67 N, 545.02 E) - Point	0.00	0.00	7,707.00	4,991.02	553.21	14,559,321.20	1,652,341.96	40.089484	-104.957362
KOP - CARSON 1-8HZ - survey misses target center by 61.16usft at 7139.19usft MD (7035.38 TVD, -926.72 N, 454.79 E) - Point	0.00	0.00	7,042.82	-978.83	485.94	14,553,353.71	1,652,277.44	40.073096	-104.957603
BHL - CARSON 1-8HZ () - survey misses target center by 28.14usft at 18031.17usft MD (7701.05 TVD, 9595.43 N, 649.97 E) - Point	0.00	0.00	7,677.00	9,596.11	635.38	14,563,924.49	1,652,421.99	40.102125	-104.957068
BHL - CARSON 1-8HZ - survey misses target center by 24.81usft at 18031.14usft MD (7701.05 TVD, 9595.41 N, 649.97 E) - Point	0.00	0.00	7,681.00	9,596.11	635.38	14,563,924.49	1,652,421.99	40.102125	-104.957068
TGT 1 - CARSON 1-8HZ - survey misses target center by 20.52usft at 11423.75usft MD (7767.12 TVD, 2991.17 N, 521.99 E) - Point	0.00	0.00	7,747.00	2,991.33	517.97	14,557,322.30	1,652,307.65	40.083994	-104.957488
TGT 2 - CARSON 1-8HZ - survey misses target center by 42.50usft at 13428.03usft MD (7741.12 TVD, 4994.70 N, 545.10 E) - Point	0.00	0.00	7,707.00	4,992.43	570.32	14,559,322.63	1,652,359.06	40.089488	-104.957301
KOP - CARSON 1-8HZ () - survey misses target center by 55.84usft at 7128.13usft MD (7024.34 TVD, -927.45 N, 454.67 E) - Point	0.00	0.00	7,030.80	-973.21	486.01	14,553,359.33	1,652,277.51	40.073112	-104.957602
HEEL - CARSON 1-8HZ - survey misses target center by 36.79usft at 8174.30usft MD (7740.34 TVD, -254.72 N, 460.02 E) - Point	0.00	0.00	7,747.00	-257.08	496.13	14,554,075.18	1,652,287.30	40.075077	-104.957566
KOP - CARSON 1-8HZ () - survey misses target center by 21.76usft at 7137.65usft MD (7033.84 TVD, -926.84 N, 454.77 E) - Point	0.00	0.00	7,030.80	-906.00	449.30	14,553,426.49	1,652,240.79	40.073296	-104.957733
BHL - CARSON 1-8HZ () - survey misses target center by 28.14usft at 18035.00usft MD (7701.02 TVD, 9599.26 N, 650.19 E) - Point	0.00	0.00	7,677.00	9,600.21	635.56	14,563,928.59	1,652,422.18	40.102136	-104.957067

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

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
HEEL - CARSON 1-8HZ - survey misses target center by 5.82usft at 8239.16usft MD (7752.69 TVD, -191.11 N, 461.86 E) - Point	0.00	0.00	7,747.00	-189.91	461.92	14,554,142.30	1,652,253.07	40.075262	-104.957688
TGT 1 - CARSON 1-8HZ - survey misses target center by 28.38usft at 11425.93usft MD (7767.13 TVD, 2993.35 N, 522.06 E) - Point	0.00	0.00	7,747.00	2,992.64	542.06	14,557,323.61	1,652,331.72	40.083998	-104.957402
HEEL - CARSON 1-8HZ - survey misses target center by 40.61usft at 8176.79usft MD (7740.94 TVD, -252.30 N, 460.07 E) - Point	0.00	0.00	7,759.00	-257.08	496.13	14,554,075.18	1,652,287.30	40.075077	-104.957566
TGT 2 - CARSON 1-8HZ - survey misses target center by 35.21usft at 13426.00usft MD (7741.20 TVD, 4992.67 N, 545.02 E) - Point	0.00	0.00	7,707.00	4,991.02	553.21	14,559,321.20	1,652,341.96	40.089484	-104.957362
KOP - CARSON 1-8HZ - survey misses target center by 61.16usft at 7139.19usft MD (7035.38 TVD, -926.72 N, 454.79 E) - Point	0.00	0.00	7,042.82	-978.83	485.94	14,553,353.71	1,652,277.44	40.073096	-104.957603
BHL - CARSON 1-8HZ - survey misses target center by 28.14usft at 18031.17usft MD (7701.05 TVD, 9595.43 N, 649.97 E) - Point	0.00	0.00	7,677.00	9,596.11	635.38	14,563,924.49	1,652,421.99	40.102125	-104.957068
BHL - CARSON 1-8HZ - survey misses target center by 24.81usft at 18031.14usft MD (7701.05 TVD, 9595.41 N, 649.97 E) - Point	0.00	0.00	7,681.00	9,596.11	635.38	14,563,924.49	1,652,421.99	40.102125	-104.957068
TGT 1 - CARSON 1-8HZ - survey misses target center by 20.52usft at 11423.75usft MD (7767.12 TVD, 2991.17 N, 521.99 E) - Point	0.00	0.00	7,747.00	2,991.33	517.97	14,557,322.30	1,652,307.65	40.083994	-104.957488
TGT 2 - CARSON 1-8HZ - survey misses target center by 42.50usft at 13428.03usft MD (7741.12 TVD, 4994.70 N, 545.10 E) - Point	0.00	0.00	7,707.00	4,992.43	570.32	14,559,322.63	1,652,359.06	40.089488	-104.957301
KOP - CARSON 1-8HZ - survey misses target center by 55.84usft at 7128.13usft MD (7024.34 TVD, -927.45 N, 454.67 E) - Point	0.00	0.00	7,030.80	-973.21	486.01	14,553,359.33	1,652,277.51	40.073112	-104.957602
HEEL - CARSON 1-8HZ - survey misses target center by 36.79usft at 8174.30usft MD (7740.34 TVD, -254.72 N, 460.02 E) - Point	0.00	0.00	7,747.00	-257.08	496.13	14,554,075.18	1,652,287.30	40.075077	-104.957566
KOP - CARSON 1-8HZ - survey misses target center by 21.76usft at 7137.65usft MD (7033.84 TVD, -926.84 N, 454.77 E) - Point	0.00	0.00	7,030.80	-906.00	449.30	14,553,426.49	1,652,240.79	40.073296	-104.957733
BHL - CARSON 1-8HZ - survey misses target center by 28.14usft at 18035.00usft MD (7701.02 TVD, 9599.26 N, 650.19 E) - Point	0.00	0.00	7,677.00	9,600.21	635.56	14,563,928.59	1,652,422.18	40.102136	-104.957067

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
1,801.00	1,780.13	-211.82	75.21	TIE ON TO SURFACE SURVEY
1,841.00	1,819.25	-219.45	78.58	SURFACE CASING
7,100.00	6,996.24	-928.62	454.40	KOP
7,912.00	7,644.11	-497.79	466.18	~ ENTER TGT BOX (7912' MD)
8,336.00	7,759.56	-94.82	468.41	HEEL: 40.075523; -104.957673
8,478.00	7,759.69	46.67	480.31	~ ENTER RADIUS HEEL (8478' MD)
9,131.00	7,768.66	699.43	489.80	~ EXIT RADIUS HEEL (9131' MD)

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well CARSON 1-8HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 5032.00usft (PD461)
Site:	SW SW SEC 1 T1N R68W 6th P.M. (1-1H)	MD Reference:	KB 20' @ 5032.00usft (PD461)
Well:	CARSON 1-8HZ	North Reference:	True
Wellbore:	JOB # 2019-403-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

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
HEEL - CARSON 1-8HZ - survey misses target center by 5.82usft at 8239.16usft MD (7752.69 TVD, -191.11 N, 461.86 E) - Point	0.00	0.00	7,747.00	-189.91	461.92	14,554,142.30	1,652,253.07	40.075262	-104.957688
TGT 1 - CARSON 1-8HZ - survey misses target center by 28.38usft at 11425.93usft MD (7767.13 TVD, 2993.35 N, 522.06 E) - Point	0.00	0.00	7,747.00	2,992.64	542.06	14,557,323.61	1,652,331.72	40.083998	-104.957402
HEEL - CARSON 1-8HZ - survey misses target center by 40.61usft at 8176.79usft MD (7740.94 TVD, -252.30 N, 460.07 E) - Point	0.00	0.00	7,759.00	-257.08	496.13	14,554,075.18	1,652,287.30	40.075077	-104.957566
TGT 2 - CARSON 1-8HZ - survey misses target center by 35.21usft at 13426.00usft MD (7741.20 TVD, 4992.67 N, 545.02 E) - Point	0.00	0.00	7,707.00	4,991.02	553.21	14,559,321.20	1,652,341.96	40.089484	-104.957362
KOP - CARSON 1-8HZ - survey misses target center by 61.16usft at 7139.19usft MD (7035.38 TVD, -926.72 N, 454.79 E) - Point	0.00	0.00	7,042.82	-978.83	485.94	14,553,353.71	1,652,277.44	40.073096	-104.957603
BHL - CARSON 1-8HZ () - survey misses target center by 28.14usft at 18031.17usft MD (7701.05 TVD, 9595.43 N, 649.97 E) - Point	0.00	0.00	7,677.00	9,596.11	635.38	14,563,924.49	1,652,421.99	40.102125	-104.957068
BHL - CARSON 1-8HZ - survey misses target center by 24.81usft at 18031.14usft MD (7701.05 TVD, 9595.41 N, 649.97 E) - Point	0.00	0.00	7,681.00	9,596.11	635.38	14,563,924.49	1,652,421.99	40.102125	-104.957068
TGT 1 - CARSON 1-8HZ - survey misses target center by 20.52usft at 11423.75usft MD (7767.12 TVD, 2991.17 N, 521.99 E) - Point	0.00	0.00	7,747.00	2,991.33	517.97	14,557,322.30	1,652,307.65	40.083994	-104.957488
TGT 2 - CARSON 1-8HZ - survey misses target center by 42.50usft at 13428.03usft MD (7741.12 TVD, 4994.70 N, 545.10 E) - Point	0.00	0.00	7,707.00	4,992.43	570.32	14,559,322.63	1,652,359.06	40.089488	-104.957301
KOP - CARSON 1-8HZ () - survey misses target center by 55.84usft at 7128.13usft MD (7024.34 TVD, -927.45 N, 454.67 E) - Point	0.00	0.00	7,030.80	-973.21	486.01	14,553,359.33	1,652,277.51	40.073112	-104.957602
HEEL - CARSON 1-8HZ - survey misses target center by 36.79usft at 8174.30usft MD (7740.34 TVD, -254.72 N, 460.02 E) - Point	0.00	0.00	7,747.00	-257.08	496.13	14,554,075.18	1,652,287.30	40.075077	-104.957566
KOP - CARSON 1-8HZ () - survey misses target center by 21.76usft at 7137.65usft MD (7033.84 TVD, -926.84 N, 454.77 E) - Point	0.00	0.00	7,030.80	-906.00	449.30	14,553,426.49	1,652,240.79	40.073296	-104.957733
BHL - CARSON 1-8HZ () - survey misses target center by 28.14usft at 18035.00usft MD (7701.02 TVD, 9599.26 N, 650.19 E) - Point	0.00	0.00	7,677.00	9,600.21	635.56	14,563,928.59	1,652,422.18	40.102136	-104.957067
	17,687.00	7,700.97	9,251.84	630.30	~ ENTER RADIUS TOE (17687' MD)				
	17,981.00	7,701.39	9,545.35	647.10	LAST SURVEY JUNE 19, 2019				
	18,035.00	7,701.02	9,599.26	650.19	PROJECTION TO TD: 40.102134; -104.957015				

Checked By: _____	Approved By: _____	Date: _____
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