



Crestone Peak Resources

Sec 19 T2N-R68W

Regnier Farms Pad

REGNIER FARMS 1E-19H-B268

Wellbore #1

Design #1 22Mar18 kjs

Anticollision Summary Report

06 April, 2018

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 1E-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4989.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4989.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 1E-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Reference	Design #1 22Mar18 kjs		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	4/5/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	22,816.21	Design #1 22Mar18 kjs (Wellbore #1)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Existing Wells (Regnier Farms)						
A C N O 2 - KAUFFMAN - No Surveys	16,069.86	4,907.00	2,968.93	2,857.57	26.659	CC
A C N O 2 - KAUFFMAN - No Surveys	16,100.00	4,907.00	2,969.09	2,857.41	26.588	ES
A C N O 2 - KAUFFMAN - No Surveys	16,500.00	4,907.00	2,999.93	2,885.16	26.138	SF
ANDERSON TRUST C UNIT 2 - CPR - Gyro	18,861.59	7,347.55	2,953.41	2,722.42	12.786	CC
ANDERSON TRUST C UNIT 2 - CPR - Gyro	18,900.00	7,347.10	2,953.66	2,721.94	12.746	ES
ANDERSON TRUST C UNIT 2 - CPR - Gyro	19,300.00	7,342.55	2,985.77	2,748.46	12.582	SF
ANSELM 1 - PETERSON - No Surveys	21,276.19	4,970.00	2,919.57	2,742.84	16.520	CC
ANSELM 1 - PETERSON - No Surveys	21,300.00	4,970.00	2,919.67	2,742.57	16.486	ES
ANSELM 1 - PETERSON - No Surveys	21,700.00	4,970.00	2,950.17	2,768.44	16.233	SF
ARMSTEAD GAS UNIT 4-31 - EXTRACTION - Gyro	22,308.70	7,365.19	1,739.56	1,447.74	5.961	CC, ES
ARMSTEAD GAS UNIT 4-31 - EXTRACTION - Gyro	22,400.00	7,364.06	1,741.95	1,448.26	5.931	SF
ARMSTEAD GU 5-31 - NOBLE ENERGY - No Surveys	19,320.80	7,344.00	1,731.17	1,504.56	7.640	CC, ES
ARMSTEAD GU 5-31 - NOBLE ENERGY - No Surveys	19,400.00	7,344.00	1,732.98	1,505.49	7.618	SF
BALLANTINE 3-30 - KMG - Gyro	13,485.59	7,365.25	2,044.52	1,906.82	14.847	CC
BALLANTINE 3-30 - KMG - Gyro	13,500.00	7,365.20	2,044.57	1,906.65	14.824	ES
BALLANTINE 3-30 - KMG - Gyro	13,700.00	7,364.42	2,055.74	1,915.33	14.641	SF
BECKY 1 - KAUFFMAN - No Surveys	22,817.05	5,010.00	3,133.06	2,950.19	17.132	CC, ES, SF
BROWN C UNIT 2 - CPR - Gyro	22,817.05	7,515.50	2,731.56	2,466.29	10.297	CC, ES, SF
BRYANT 10-30 - KMG - MWD	16,012.39	7,631.69	411.43	228.23	2.246	CC, ES, SF
BRYANT 16-30 - KMG - MWD	17,229.32	7,437.98	925.77	721.91	4.541	CC, ES
BRYANT 16-30 - KMG - MWD	17,300.00	7,438.18	928.47	723.60	4.532	SF
BRYANT 20-30 - KMG - MWD	16,594.69	7,471.90	268.25	70.82	1.359	Level 3, CC
BRYANT 20-30 - KMG - MWD	16,600.00	7,471.88	268.30	70.68	1.358	Level 3, ES, SF
BRYANT 23-30 - KMG - MWD	16,761.50	7,528.98	904.10	704.04	4.519	CC, ES, SF
BRYANT 24-30 - KMG - MWD	15,218.29	7,456.31	376.15	203.67	2.181	CC, ES, SF
BRYANT 33-29 - KMG - MWD	16,539.15	7,645.48	1,668.60	1,469.94	8.399	CC, ES
BRYANT 33-29 - KMG - MWD	16,600.00	7,645.08	1,669.71	1,470.31	8.374	SF
BRYANT 34-30 - KMG - No Surveys	17,540.39	4,906.00	2,474.01	2,380.18	26.367	CC, ES
BRYANT 34-30 - KMG - No Surveys	17,800.00	4,906.00	2,487.59	2,392.06	26.038	SF
BRYANT 36-30 - KMG - No Surveys	18,003.46	7,528.30	1,079.20	860.49	4.934	CC, ES
BRYANT 36-30 - KMG - No Surveys	18,100.00	7,527.37	1,083.50	863.91	4.934	SF
BRYANT 8-30 - KMG - MWD	14,532.61	7,633.28	742.25	574.84	4.434	CC, ES
BRYANT 8-30 - KMG - MWD	14,600.00	7,633.65	745.31	576.30	4.410	SF
BRYANT FEDERAL 37-30 - KMG - MWD	17,903.00	7,361.47	372.12	157.29	1.732	CC, ES, SF
BULTHAUP 1-6 - KMG - Gyro	22,817.05	7,427.18	1,522.90	1,326.31	7.747	CC, ES, SF
BULTHAUP 17-6 - KMG - MWD	22,817.05	7,490.30	1,749.21	1,677.06	24.246	CC, ES, SF
BULTHAUP 21-6 - KMG - MWD	22,817.05	7,498.85	2,055.10	1,880.46	11.767	CC, ES, SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 1E-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4989.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4989.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 1E-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells (Regnier Farms)						
BULTHAUP 27-6 - KMG - MWD	22,817.05	7,514.60	534.52	410.51	4.310	CC, ES, SF
CARLA PETERSON 1 - KAUFFMAN - No Surveys	22,817.05	5,010.00	2,682.31	2,552.21	20.619	CC, ES, SF
CHAMPLIN 86 `N` 1 - KMG - Gyro	17,101.02	7,393.28	2,387.15	2,186.83	11.916	CC, ES
CHAMPLIN 86 `N` 1 - KMG - Gyro	17,400.00	7,379.77	2,405.76	2,200.82	11.739	SF
CINQUE 1 - FOUNDATION ENERGY - No oSurveys	19,997.52	4,907.00	2,446.56	2,336.23	22.175	CC
CINQUE 1 - FOUNDATION ENERGY - No oSurveys	20,000.00	4,907.00	2,446.56	2,336.21	22.170	ES
CINQUE 3 - FOUNDATION ENERGY - No oSurveys	20,300.00	4,907.00	2,466.26	2,353.68	21.907	SF
CINQUE 2 - FOUNDATION ENERGY - No Surveys	18,660.54	4,911.00	2,445.99	2,345.74	24.398	CC, ES
CINQUE 2 - FOUNDATION ENERGY - No Surveys	18,900.00	4,911.00	2,457.69	2,355.86	24.135	SF
CINQUE 3 - FOUNDATION ENERGY - No Surveys	20,007.22	4,905.00	2,939.84	2,781.72	18.592	CC, ES
CINQUE 3 - FOUNDATION ENERGY - No Surveys	20,400.00	4,905.00	2,972.45	2,809.95	18.292	SF
CINQUE 4 - FOUNDATION ENERGY - No Surveys	18,658.28	4,975.00	2,901.53	2,756.22	19.967	CC
CINQUE 4 - FOUNDATION ENERGY - No Surveys	18,700.00	4,975.00	2,901.83	2,756.09	19.911	ES
CINQUE 4 - FOUNDATION ENERGY - No Surveys	19,000.00	4,975.00	2,921.59	2,773.57	19.739	SF
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,286.74	4,973.00	2,424.17	2,298.61	19.306	CC
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,300.00	4,973.00	2,424.21	2,298.50	19.284	ES
CINQUE 6-31 - FOUNDATION ENERGY - No Surveys	21,600.00	4,973.00	2,444.33	2,316.19	19.075	SF
CINQUE 7-31 - EXTRACTION - No surveys	19,614.55	7,345.00	165.91	-65.84	0.716	Level 2, CC, ES, SF
CINQUE 8-31 - EXTRACTION - No Surveys	22,544.13	7,358.00	449.36	165.75	1.584	CC, ES, SF
CINQUE 9-31 - EXTRACTION - Gyro	21,573.17	7,354.20	273.59	-5.06	0.982	Level 3, CC, ES, SF
FILE FED 3I-32H-K268 - CPR - MWD	10,463.50	19,132.00	1,670.29	1,408.83	6.388	CC
FILE FED 3I-32H-K268 - CPR - MWD	10,500.00	19,132.00	1,670.69	1,408.21	6.365	ES
FILE FED 3I-32H-K268 - CPR - MWD	22,000.00	7,713.99	1,738.23	1,449.34	6.017	SF
FILE FED 3J-32H-K268 - CPR - MWD	10,500.00	18,840.75	1,770.27	1,507.68	6.741	ES
FILE FED 3J-32H-K268 - CPR - MWD	11,939.73	17,382.27	1,768.69	1,508.02	6.785	CC
FILE FED 3J-32H-K268 - CPR - MWD	21,700.00	7,804.69	1,852.48	1,569.65	6.550	SF
FILE FED 3K-32H-K268 - CPR - MWD	11,600.00	17,393.71	1,950.52	1,690.28	7.495	ES
FILE FED 3K-32H-K268 - CPR - MWD	12,284.36	16,702.11	1,950.23	1,690.62	7.512	CC
FILE FED 3K-32H-K268 - CPR - MWD	13,100.00	15,987.00	1,959.36	1,697.55	7.484	SF
FILE FED 3L-32H-K268 - CPR - MWD	10,450.88	18,515.00	2,370.73	2,109.23	9.066	CC
FILE FED 3L-32H-K268 - CPR - MWD	10,500.00	18,515.00	2,371.24	2,108.70	9.032	ES
FILE FED 3L-32H-K268 - CPR - MWD	10,600.00	18,481.70	2,375.18	2,111.45	9.006	SF
FILE FED 3M-32H-K268 - CPR - MWD	10,933.53	18,563.38	2,568.83	2,306.34	9.787	CC, ES
FILE FED 3M-32H-K268 - CPR - MWD	22,400.00	7,315.53	2,688.08	2,394.64	9.160	SF
FILE FED 3N-32H-K268 - CPR - MWD	10,849.31	18,452.00	2,627.23	2,364.41	9.996	CC, ES
FILE FED 3N-32H-K268 - CPR - MWD	22,200.00	7,396.00	2,780.24	2,490.83	9.607	SF
GLADYS-SAWDEY 1 - KMG - Gyro	14,126.51	7,394.85	2,508.06	2,359.19	16.847	CC, ES
GLADYS-SAWDEY 1 - KMG - Gyro	14,500.00	7,381.00	2,535.69	2,382.71	16.575	SF
HANKINS 1 - KAUFFMAN - No Surveys	12,137.72	4,920.00	2,625.37	2,568.25	45.961	CC, ES
HANKINS 1 - KAUFFMAN - No Surveys	12,900.00	4,920.00	2,733.80	2,670.14	42.944	SF
HSR-BRYANT 9-30A - KMG - Gyro	16,043.70	7,342.79	958.41	776.57	5.270	CC, ES
HSR-BRYANT 9-30A - KMG - Gyro	16,100.00	7,341.74	960.06	777.13	5.248	SF
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,367.57	5,085.00	2,514.07	2,358.61	16.172	CC
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,400.00	5,085.00	2,514.28	2,358.59	16.149	ES
JACK HEIN UNIT 1 - HS RESOURCES - No Surveys	21,500.00	5,085.00	2,517.55	2,361.28	16.110	SF
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,275.18	4,930.00	2,559.73	2,493.03	38.376	CC
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,300.00	4,930.00	2,559.85	2,492.88	38.227	ES
JOHN LAMAR 1 - KAUFFMAN - No Surveys	13,873.07	4,930.00	2,628.83	2,557.02	36.607	SF
JOHNSON 32-30 - KAUFFMAN - No Surveys	14,839.85	4,895.00	2,482.52	2,412.98	35.699	CC, ES
JOHNSON 32-30 - KAUFFMAN - No Surveys	15,300.00	4,895.00	2,524.81	2,452.36	34.849	SF
JOHNSON 7-30A - KMG - Gyro	14,797.43	7,363.22	462.90	302.73	2.890	CC
JOHNSON 7-30A - KMG - Gyro	14,800.00	7,363.19	462.91	302.73	2.890	ES, SF
KENYON 34-19 - CPR - MWD	12,106.23	7,543.04	460.81	344.62	3.966	CC, ES, SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4989.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4989.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 1E-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells (Regnier Farms)						
KENYON 4-8-19 - CPR - MWD	12,608.47	7,674.86	852.32	723.42	6.612	CC, ES
KENYON 4-8-19 - CPR - MWD	12,700.00	7,674.46	857.23	726.47	6.556	SF
KENYON 8-4-19 - CPR - MWD	10,066.91	7,794.21	1,377.48	1,283.72	14.691	CC, ES
KENYON 8-4-19 - CPR - MWD	10,200.00	7,796.01	1,383.89	1,288.96	14.578	SF
KENYON 8-6-19 - CPR - MWD	11,345.93	7,493.55	1,411.94	1,309.12	13.732	CC, ES
KENYON 8-6-19 - CPR - MWD	11,600.00	7,511.00	1,434.70	1,328.58	13.519	SF
KENYON 8-8-19 - CPR - MWD	12,564.99	7,568.06	1,431.61	1,304.51	11.263	CC
KENYON 8-8-19 - CPR - MWD	12,600.00	7,567.98	1,432.04	1,304.09	11.192	ES
KENYON 8-8-19 - CPR - MWD	12,800.00	7,567.54	1,450.77	1,319.10	11.018	SF
KOCH 41-6 - KAUFFMAN - No Surveys	22,817.05	5,037.00	2,760.97	2,617.76	19.279	CC, ES, SF
NELSON 1-A - TEXAS TEA - No Surveys	19,650.42	5,011.00	3,303.58	3,124.93	18.492	CC
NELSON 1-A - TEXAS TEA - No Surveys	19,700.00	5,011.00	3,303.95	3,124.55	18.417	ES
NELSON 1-A - TEXAS TEA - No Surveys	20,200.00	5,011.00	3,337.02	3,152.53	18.087	SF
NELSON 2 - TEXAS TEA - No Surveys	21,648.73	4,918.00	3,330.04	3,128.69	16.539	CC
NELSON 2 - TEXAS TEA - No Surveys	21,700.00	4,918.00	3,330.43	3,128.57	16.498	ES
NELSON 2 - TEXAS TEA - No Surveys	21,900.00	4,918.00	3,339.51	3,136.04	16.413	SF
NELSON 5 - TEXAS TEA - No Surveys	22,356.25	5,035.00	3,224.43	3,011.27	15.127	CC
NELSON 5 - TEXAS TEA - No Surveys	22,400.00	5,035.00	3,224.72	3,011.13	15.097	ES
NELSON 5 - TEXAS TEA - No Surveys	22,600.00	5,035.00	3,233.63	3,018.46	15.029	SF
NELSON-E UNIT 1 - CPR - Gyro	22,155.41	7,389.74	2,613.23	2,324.05	9.037	CC
NELSON-E UNIT 1 - CPR - Gyro	22,200.00	7,389.39	2,613.61	2,323.88	9.021	ES
NELSON-E UNIT 1 - CPR - Gyro	22,300.00	7,388.60	2,617.23	2,326.52	9.003	SF
NOAA FEDERAL 11-32 - CPR - Gyro	18,590.94	7,265.53	2,206.46	1,980.52	9.766	CC
NOAA FEDERAL 11-32 - CPR - Gyro	18,600.00	7,265.64	2,206.48	1,980.36	9.758	ES
NOAA FEDERAL 11-32 - CPR - Gyro	18,800.00	7,268.09	2,216.34	1,987.03	9.666	SF
RASMUSSEN 19-11 - CPR - Gyro	10,689.53	7,416.95	1,728.48	1,637.63	19.024	CC
RASMUSSEN 19-11 - CPR - Gyro	10,700.00	7,416.66	1,728.52	1,637.51	18.994	ES
RASMUSSEN 19-11 - CPR - Gyro	11,000.00	7,408.52	1,756.13	1,661.76	18.611	SF
RASMUSSEN 19-14 - CPR - Gyro	12,274.20	7,452.32	1,699.24	1,581.93	14.485	CC
RASMUSSEN 19-14 - CPR - Gyro	12,300.00	7,452.51	1,699.43	1,581.75	14.441	ES
RASMUSSEN 19-14 - CPR - Gyro	12,500.00	7,453.97	1,714.17	1,594.28	14.297	SF
RASMUSSEN 4-6-19 - CPR - MWD	11,261.23	7,634.91	1,329.89	1,226.46	12.857	CC
RASMUSSEN 4-6-19 - CPR - MWD	11,300.00	7,634.39	1,330.46	1,226.34	12.778	ES
RASMUSSEN 4-6-19 - CPR - MWD	11,500.00	7,631.68	1,351.15	1,244.26	12.641	SF
RASMUSSEN FEDERAL 35-29 - KMG - MWD	17,790.89	7,395.61	2,913.68	2,699.49	13.603	CC
RASMUSSEN FEDERAL 35-29 - KMG - MWD	17,800.00	7,395.68	2,913.69	2,699.34	13.593	ES
RASMUSSEN FEDERAL 35-29 - KMG - MWD	18,200.00	7,398.78	2,942.26	2,722.35	13.380	SF
RAY NELSON 0-4-32 - CPR - MWD	20,474.15	7,439.13	1,697.65	1,436.22	6.494	CC
RAY NELSON 0-4-32 - CPR - MWD	20,500.00	7,439.01	1,697.84	1,436.21	6.489	ES, SF
RAY NELSON 12-32 - CPR - Gyro	19,743.18	7,309.36	2,253.98	2,007.73	9.153	CC
RAY NELSON 12-32 - CPR - Gyro	19,800.00	7,309.54	2,254.69	2,007.37	9.116	ES
RAY NELSON 12-32 - CPR - Gyro	20,000.00	7,310.14	2,265.76	2,015.72	9.062	SF
RAY NELSON 13-32 - CPR - MWD	21,223.86	7,546.00	2,101.97	1,822.00	7.508	CC, ES
RAY NELSON 13-32 - CPR - MWD	21,300.00	7,545.02	2,103.35	1,822.44	7.488	SF
RAY NELSON 14-32 - CPR - MWD	22,817.05	7,444.41	2,029.68	1,726.88	6.703	CC, ES, SF
RAY NELSON 24-32 - CPR - MWD	22,817.05	7,602.72	3,382.54	3,080.34	11.193	CC, ES, SF
RAY NELSON 2-4-32 - CPR - MWD	20,628.27	7,435.13	3,030.90	2,765.88	11.437	CC
RAY NELSON 2-4-32 - CPR - MWD	20,700.00	7,433.91	3,031.75	2,765.69	11.395	ES
RAY NELSON 2-4-32 - CPR - MWD	20,900.00	7,430.51	3,043.05	2,774.79	11.344	SF
REGNIER 4-4-19 - CPR - MWD	9,985.13	7,433.71	1,058.06	977.12	13.072	CC
REGNIER 4-4-19 - CPR - MWD	10,000.00	7,433.67	1,058.16	977.11	13.055	ES
REGNIER 4-4-19 - CPR - MWD	10,100.00	7,433.42	1,064.28	982.67	13.042	SF
REGNIER FARMS 31-19 - CPR - Gyro	0.00	14.20	785.60			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 1E-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4989.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4989.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 1E-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells (Regnier Farms)						
REGNIER FARMS 31-19 - CPR - Gyro	8,300.00	7,395.71	885.43	828.61	15.585	SF
REGNIER FARMS 32-19 - CPR - Gyro	9,230.23	7,382.16	567.46	499.16	8.308	CC, ES, SF
REGNIER FARMS 33-19 - CPR - Gyro	10,549.55	7,392.25	653.22	564.79	7.387	CC, ES
REGNIER FARMS 33-19 - CPR - Gyro	10,600.00	7,392.09	655.16	566.35	7.377	SF
REGNIER FARMS 42-19 - CPR - Gyro	9,200.48	7,378.27	719.30	651.39	10.592	CC, ES
REGNIER FARMS 42-19 - CPR - Gyro	9,300.00	7,378.11	726.16	656.72	10.458	SF
REGNIER FARMS 43-19 - CPR - MWD	10,686.05	7,624.33	864.91	771.65	9.274	CC
REGNIER FARMS 43-19 - CPR - MWD	10,700.00	7,624.29	865.03	770.88	9.188	ES
REGNIER FARMS 43-19 - CPR - MWD	11,100.00	7,623.08	958.87	836.26	7.821	SF
REGNIER FARMS B 2 - CPR - Gyro	11,645.77	7,404.35	370.32	263.80	3.477	CC, ES, SF
REGNIER FARMS-B UNIT 1 - CPR - Gyro	8,270.39	7,377.01	393.47	336.73	6.934	CC, ES
REGNIER FARMS-B UNIT 1 - CPR - Gyro	8,300.00	7,377.14	394.58	337.45	6.906	SF
ROSS 21-19 - CPR - Gyro	0.00	0.00	1,432.41			
ROSS 21-19 - CPR - Gyro	400.00	389.67	1,433.74	1,431.33	596.059	ES
ROSS 21-19 - CPR - Gyro	8,500.00	7,413.20	1,896.38	1,838.09	32.537	SF
ROSS 22-19 - CPR - Gyro	9,410.73	7,374.64	1,924.69	1,853.82	27.156	CC, ES
ROSS 22-19 - CPR - Gyro	9,900.00	7,375.31	1,985.91	1,909.73	26.069	SF
ROSS 2-4-19 - CPR - MWD	10,020.58	7,553.83	2,332.02	2,249.09	28.120	CC, ES
ROSS 2-4-19 - CPR - MWD	10,600.00	7,538.75	2,402.88	2,313.97	27.027	SF
ROSS 4-2-19 - CPR - MWD	8,779.27	7,717.89	1,200.96	1,133.95	17.922	CC
ROSS 4-2-19 - CPR - MWD	8,800.00	7,717.45	1,201.14	1,133.75	17.822	ES
ROSS 4-2-19 - CPR - MWD	9,100.00	7,710.78	1,243.04	1,170.15	17.055	SF
SAWDEY 21-30 - KMG - MWD	14,089.05	7,558.57	1,041.60	891.62	6.945	CC
SAWDEY 21-30 - KMG - MWD	14,100.00	7,558.49	1,041.65	891.55	6.939	ES, SF
SAWDEY 22-30 - KMG - MWD	15,348.89	7,531.84	2,387.07	2,211.04	13.560	CC
SAWDEY 22-30 - KMG - MWD	15,400.00	7,530.06	2,387.62	2,210.83	13.506	ES
SAWDEY 22-30 - KMG - MWD	15,600.00	7,523.22	2,400.23	2,221.18	13.405	SF
SAWDEY 31-30 - KMG - MWD	14,155.38	7,591.84	3,617.38	3,465.90	23.881	CC
SAWDEY 31-30 - KMG - MWD	14,200.00	7,591.29	3,617.65	3,465.51	23.778	ES
SAWDEY 31-30 - KMG - MWD	14,900.00	7,582.49	3,693.21	3,532.64	23.000	SF
SAWDEY 32-30 - KMG - MWD	15,596.99	7,663.07	3,568.90	3,384.02	19.304	CC
SAWDEY 32-30 - KMG - MWD	15,700.00	7,664.47	3,570.39	3,383.57	19.112	ES
SAWDEY 32-30 - KMG - MWD	16,300.00	7,672.31	3,637.47	3,442.01	18.609	SF
SAWDEY 5-30 - KMG - MWD	14,950.79	7,505.87	3,167.85	3,000.97	18.982	CC
SAWDEY 5-30 - KMG - MWD	15,000.00	7,503.86	3,168.23	3,000.52	18.891	ES
SAWDEY 5-30 - KMG - MWD	15,500.00	7,483.43	3,215.03	3,040.79	18.452	SF
SAWDEY 6-30 - KMG - MWD	14,789.69	7,475.72	1,627.71	1,465.70	10.047	CC
SAWDEY 6-30 - KMG - MWD	14,800.00	7,475.69	1,627.75	1,465.61	10.039	ES
SAWDEY 6-30 - KMG - MWD	14,900.00	7,475.45	1,631.45	1,468.42	10.007	SF
SAWDEY UNIT 2 - KMG - Gyro	13,733.83	7,401.54	133.21	-8.87	0.938	Level 3, CC, ES, SF
SHAW 12-29A - KMG - Gyro	14,597.35	7,353.08	2,307.81	2,151.04	14.721	CC
SHAW 12-29A - KMG - Gyro	14,600.00	7,353.04	2,307.81	2,150.99	14.716	ES
SHAW 12-29A - KMG - Gyro	15,000.00	7,346.93	2,342.66	2,179.86	14.390	SF
TEGELER 11-30 - KMG - Gyro	16,035.34	7,375.31	1,660.87	1,479.12	9.138	CC, ES
TEGELER 11-30 - KMG - Gyro	16,100.00	7,375.64	1,662.13	1,479.60	9.106	SF
WILLIAMS 13-20 - KMG - MWD	11,980.14	7,683.63	2,150.84	2,027.98	17.506	CC
WILLIAMS 13-20 - KMG - MWD	12,000.00	7,683.35	2,150.93	2,027.58	17.438	ES
WILLIAMS 13-20 - KMG - MWD	12,500.00	7,676.40	2,212.76	2,079.70	16.630	SF
WILLIAMS 18-16 - CPR - Gyro	6,694.60	6,613.16	918.47	871.46	19.537	CC
WILLIAMS 18-16 - CPR - Gyro	6,700.00	6,618.60	918.49	871.44	19.522	ES
WILLIAMS 18-16 - CPR - Gyro	6,800.00	6,719.36	925.40	877.67	19.387	SF
WILLIAMS 24-18 - CPR - Gyro	0.00	0.00	1,612.72			
WILLIAMS 24-18 - CPR - Gyro	7,150.00	7,120.19	1,953.42	1,903.18	38.887	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 1E-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4989.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4989.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 1E-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Existing Wells (Regnier Farms)						
WILLIAMS 34-18 - CPR - MWD	6,651.91	6,732.18	560.61	508.61	10.781	CC, ES
WILLIAMS 34-18 - CPR - MWD	6,700.00	6,780.47	561.66	509.34	10.735	SF
WILLIAMS 35-20 - KMG - MWD	12,570.41	7,484.92	2,819.84	2,694.33	22.468	CC
WILLIAMS 35-20 - KMG - MWD	12,600.00	7,484.96	2,819.99	2,693.90	22.365	ES
WILLIAMS 35-20 - KMG - MWD	13,300.00	7,485.92	2,912.69	2,776.03	21.313	SF
WILLIAMS 4-29 - KMG - MWD	13,300.25	7,431.80	2,167.54	2,032.10	16.003	CC, ES
WILLIAMS 4-29 - KMG - MWD	13,700.00	7,428.46	2,204.09	2,062.59	15.576	SF
WOOLLEY-BECKY 2E-7H-E168 - CPR - MWD	22,817.05	14,800.00	2,434.43	2,065.43	6.597	CC, ES, SF
WOOLLEY-BECKY 2F-7H-E168 - CPR - MWD	22,817.05	14,555.00	2,071.12	1,719.54	5.891	CC, ES, SF
WOOLLEY-BECKY 2G-7H-E168 - CPR - MWD	22,817.05	15,260.00	1,820.11	1,480.35	5.357	CC, ES, SF
WOOLLEY-BECKY 2H-7H-E168 - CPR - MWD	22,817.05	15,075.00	1,500.87	1,194.45	4.898	CC, ES, SF
Regnier Farms Pad						
REGNIER FARMS 1A-19H-B268 - Wellbore #1 - Design	200.00	200.00	40.00	39.01	40.283	CC, ES
REGNIER FARMS 1A-19H-B268 - Wellbore #1 - Design	20,000.00	19,877.42	783.29	334.51	1.745	SF
REGNIER FARMS 1B-19H-B268 - Wellbore #1 - Design	203.53	203.53	30.00	28.98	29.461	CC
REGNIER FARMS 1B-19H-B268 - Wellbore #1 - Design	300.00	299.58	30.35	28.64	17.776	ES
REGNIER FARMS 1B-19H-B268 - Wellbore #1 - Design	20,104.89	20,210.51	661.65	214.37	1.479	Level 3, SF
REGNIER FARMS 1C-19H-B268 - Wellbore #1 - Design	300.00	300.00	20.00	18.29	11.696	CC
REGNIER FARMS 1C-19H-B268 - Wellbore #1 - Design	20,000.00	19,975.64	445.89	-5.25	0.988	Level 3, ES, SF
REGNIER FARMS 1D-19H-B268 - Wellbore #1 - Design	385.88	385.88	10.00	7.67	4.299	CC
REGNIER FARMS 1D-19H-B268 - Wellbore #1 - Design	20,000.00	19,893.61	177.40	-229.67	0.436	Level 1, SF
REGNIER FARMS 1D-19H-B268 - Wellbore #1 - Design	20,500.00	20,392.88	201.23	-232.35	0.464	Level 1, ES
REGNIER FARMS 1F-19H-B268 - Wellbore #1 - Design	300.00	299.00	10.00	8.29	5.861	CC
REGNIER FARMS 1F-19H-B268 - Wellbore #1 - Design	22,817.05	22,996.52	315.40	-192.23	0.621	Level 1, ES, SF
REGNIER FARMS 1G-19H-B268 - Wellbore #1 - Design	200.00	199.00	20.00	19.01	20.215	CC
REGNIER FARMS 1G-19H-B268 - Wellbore #1 - Design	22,817.05	22,756.35	394.09	-147.83	0.727	Level 2, ES, SF
REGNIER FARMS 1H-19H-B268 - Wellbore #1 - Design	204.69	203.69	30.00	28.98	29.325	CC
REGNIER FARMS 1H-19H-B268 - Wellbore #1 - Design	300.00	298.52	30.39	28.69	17.845	ES
REGNIER FARMS 1H-19H-B268 - Wellbore #1 - Design	22,817.05	22,891.17	700.12	148.94	1.270	Level 3, SF
REGNIER FARMS 1I-19H-B268 - Wellbore #1 - Design #	200.00	199.00	40.00	39.01	40.430	CC, ES
REGNIER FARMS 1I-19H-B268 - Wellbore #1 - Design #	22,817.05	22,843.98	1,018.62	468.15	1.850	SF
REGNIER FARMS 1J-19H-B268 - Wellbore #1 - Design	200.00	199.00	50.00	49.01	50.536	CC, ES
REGNIER FARMS 1J-19H-B268 - Wellbore #1 - Design	22,817.05	23,097.91	1,153.11	605.55	2.106	SF
REGNIER FARMS 1K-19H-B268 - Wellbore #1 - Design	200.00	199.00	60.00	59.01	60.644	CC, ES
REGNIER FARMS 1K-19H-B268 - Wellbore #1 - Design	22,817.05	23,024.03	1,450.16	898.99	2.631	SF

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well REGNIER FARMS 1E-19H-B268
Project:	Sec 19 T2N-R68W	TVD Reference:	WELL @ 4989.00usft (Original Well Elev)
Reference Site:	Regnier Farms Pad	MD Reference:	WELL @ 4989.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	REGNIER FARMS 1E-19H-B268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Single User Db
Reference Design:	Design #1 22Mar18 kjs	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4989.00usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: REGNIER FARMS 1E-19H-B268
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.30°

