

Trail Gulch Unit 1090 30-H2

	MD	TVD	Inclination	Azimuth	DX	DY
Surface	0	0	0	0	0	0
	101.26721	101.25717	1.40464	43.77307	0.8587	0.89629
	200.01247	199.97983	1.03738	43.77307	2.31437	2.41568
	300.16052	300.0968	1.78493	43.77307	4.02058	4.19656
	401.80499	401.7052	1.25138	43.77307	5.88355	6.14109
	503.47589	503.33652	1.92389	43.77307	7.83227	8.1751
	601.21149	601.03186	1.34731	43.77307	9.76214	10.18945
	701.9328	701.70978	1.99491	43.77307	11.79414	12.31039
	804.54364	804.27509	1.40347	43.77307	13.89904	14.50743
	902.09052	901.77747	2.03873	43.77307	15.92585	16.62295
	1005.07098	1004.71002	1.43894	43.77307	18.0876	18.87933
	1100.46008	1100.05396	2.06767	43.77307	20.10665	20.98676
	1200.10095	1199.64709	1.46266	43.77307	22.22995	23.203
	1304.00366	1303.49951	2.08849	43.77307	24.45713	25.52766
	1404.8335	1404.27991	1.48036	43.77307	26.62921	27.79482
	1501.80054	1501.19897	2.10306	43.77307	28.7266	29.98402
	1601.98975	1601.33838	1.49282	43.77307	30.90122	32.25382
	1705.40771	1704.70471	2.11412	43.77307	33.15281	34.60398
	1803.74207	1802.9895	1.50225	43.77307	35.29933	36.84445
	1904.83813	1904.03467	2.12215	43.77307	37.51103	39.15296
	2008.70142	2007.84521	1.50937	43.77307	39.78773	41.52931
	2106.34448	2105.43872	2.12818	43.77307	41.93163	43.76706
	2206.32104	2205.36426	1.51446	43.77307	44.12984	46.06149
	2308.63501	2307.62573	2.13266	43.77307	46.38221	48.41244
	2403.6792	2402.62134	1.51819	43.77307	48.47668	50.5986
	2500.66138	2499.55371	2.13576	43.77307	50.61567	52.83122
	2609.5835	2608.41992	1.521	43.77307	53.01985	55.34064
	2700.45142	2699.24121	2.13803	43.77307	55.02678	57.4354
	2803.26538	2802.00195	1.5228	43.77307	57.29866	59.80673
	2908.02905	2906.71191	2.13959	43.77307	59.61462	62.22407
	3003.98608	3002.61938	1.52398	43.77307	61.73658	64.4389
	3101.5271	3100.11011	2.14044	43.77307	63.89406	66.69082
	3200.6543	3199.18604	1.52459	43.77307	66.08698	68.97974
	3301.36963	3299.84937	2.14081	43.77307	68.31527	71.30557
	3403.67578	3402.10254	1.52474	43.77307	70.57885	73.66822
	3507.57422	3505.94751	2.14075	43.77307	72.87762	76.06762
	3601.26758	3599.59229	1.5245	43.77307	74.95046	78.23119
	3708.18042	3706.44995	2.14034	43.77307	77.31551	80.69976
	3804.5564	3802.77637	1.52392	43.77307	79.44712	82.92468
	3902.19727	3900.3667	2.13965	43.77307	81.60631	85.17838
	4001.10449	3999.22314	1.52309	43.77307	83.79301	87.46079
Williamsfork	4101.27979	4099.34668	2.13869	43.77307	86.00716	89.77186
	4202.72461	4200.73926	1.52201	43.77307	88.24871	92.11153
	4305.43994	4303.40186	2.13749	43.77307	90.51761	94.47974
	4409.42822	4407.33643	1.5207	43.77307	92.81378	96.87642
	4501.46289	4499.32422	2.13616	43.77307	94.84527	98.99683

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	MD	TVD	Inclination	Azimuth	DX	DY
	4607.84131	4605.64746	1.51927	43.77307	97.19245	101.44675
	4701.96973	4699.72754	2.13464	43.77307	99.26847	103.61365
	4810.74316	4808.4458	1.51766	43.77307	101.66645	106.11659
	4906.97021	4904.62305	2.13295	43.77307	103.78684	108.32979
	5004.17773	5001.78076	1.516	43.77307	105.92787	110.56454
	5102.36719	5099.92041	2.13122	43.77307	108.08951	112.82079
	5201.53955	5199.04199	1.51421	43.77307	110.27171	115.09851
	5301.6958	5299.14697	2.12936	43.77307	112.47443	117.39766
Cameo	5402.83691	5400.23633	1.51229	43.77307	114.69765	119.71818
	5504.96387	5502.31152	2.12738	43.77307	116.94131	122.06006
	5608.07813	5605.37354	1.51024	43.77307	119.20539	124.42324
	5712.18018	5709.42236	2.12528	43.77307	121.48984	126.80768
Rollins	5802.19775	5799.39453	1.50824	43.77307	123.46413	128.86839
	5908.13721	5905.28027	2.12323	43.77307	125.78631	131.29222
	6015.06787	6012.15674	1.50598	43.77307	128.12876	133.7372
	6107.51172	6104.5542	2.12109	43.77307	130.15267	135.8497
	6200.68555	6197.68066	1.50397	43.77307	132.19142	137.97769
	6310.31104	6307.25049	2.11886	43.77307	134.58867	140.47988
	6405.06689	6401.95898	1.5017	43.77307	136.65948	142.64133
Cozzette	6500.55469	6497.39893	2.11673	43.77307	138.74504	144.81818
Corcoran	6612.88232	6609.66992	1.49936	43.77307	141.19683	147.37728
	6709.95703	6706.6958	2.11435	43.77307	143.31429	149.58743
	6807.76514	6804.45508	1.49712	43.77307	145.44643	151.8129
	6906.30762	6902.94824	2.11209	43.77307	147.59323	154.05367
	7005.58496	7002.17529	1.49483	43.77307	149.75466	156.30971
	7105.59717	7102.13818	2.10976	43.77307	151.9307	158.581
	7206.3457	7202.83643	1.49248	43.77307	154.12133	160.86752
Mancos	7307.83105	7304.271	2.10738	43.77307	156.32652	163.16923
	7410.05371	7406.44287	1.49007	43.77307	158.54625	165.48612
	7513.01416	7509.35254	2.10495	43.77307	160.78049	167.81816
	7616.71387	7613	1.48761	43.77307	163.02921	170.16532
	7703.69434	7699.93799	2.10267	43.77307	164.9142	172.13282
	7808.74951	7804.94092	1.48531	43.77307	167.18943	174.50764
	7914.54492	7910.68408	2.10014	43.77307	169.47908	176.89751
	8003.27441	7999.36963	1.48297	43.77307	171.39812	178.90055
	8110.42871	8106.47119	2.09778	43.77307	173.71414	181.31794
	8200.29199	8196.29004	1.48059	43.77307	175.65513	183.34389
	8308.80762	8304.75293	2.09538	43.77307	177.99744	185.78873
	8399.80566	8395.70605	1.47817	43.77307	179.9603	187.83751
	8509.68555	8505.53125	2.09294	43.77307	182.32883	190.30971
	8601.82031	8597.62207	1.47572	43.77307	184.3135	192.38125
	8713.06543	8708.8125	2.09047	43.77307	186.70816	194.88073
	8806.33984	8802.04102	1.47323	43.77307	188.71457	196.97497
	8900.13184	8895.78809	2.08819	43.77307	190.73084	199.07949
	9013.36816	9008.96777	1.47071	43.77307	193.16336	201.61849
	9108.30176	9103.85645	2.08565	43.77307	195.20127	203.74561

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	MD	TVD	Inclination	Azimuth	DX	DY
	9203.75586	9199.2627	1.46839	43.77307	197.249	205.88297
	9299.72852	9295.19043	2.08332	43.77307	199.30654	208.03057
	9331.52441	9326.94922	3.35457	37.43863	200.27191	209.18656
	9362.90918	9358.25977	4.52081	33.94194	201.52078	210.94184
	9393.78613	9389.01367	5.65092	31.67626	202.99854	213.24515
	9425.0498	9420.0957	6.72524	29.6756	204.71319	216.14568
	9456.65137	9451.44238	7.81094	28.05215	206.63926	219.64866
	9487.54199	9482.00781	8.82234	26.48004	208.6827	223.62159
	9518.65918	9512.71191	9.85823	25.11765	210.87747	228.16952
	9549.95801	9543.50098	10.8661	23.69407	213.20042	233.29719
	9581.39551	9574.31934	11.90918	22.41969	215.62839	239.00934
	9612.92773	9605.1123	12.93672	21.06988	218.13822	245.3107
	9644.51074	9635.82617	14.00997	19.83912	220.70673	252.20602
	9675.08496	9665.42188	15.04503	18.56979	223.22647	259.4489
	9706.64648	9695.81934	16.17024	17.36621	225.84285	267.52679
	9738.13672	9725.97559	17.30614	16.08153	228.44919	276.2127
	9769.5166	9755.83496	18.50881	14.89292	231.02233	285.51136
	9800.74902	9785.34277	19.73615	13.62874	233.53911	295.4275
KOP	9831.79785	9814.44531	21.04271	12.45155	235.97636	305.96587
	9862.62891	9843.08789	22.38922	11.20499	238.31093	317.13119
	9894.19238	9872.11328	23.87531	10.00126	240.58854	329.31933
	9925.45996	9900.53027	25.42527	8.73223	242.70659	342.18579
	9956.40137	9928.27832	27.08848	7.54052	244.63958	355.73578
	9987.94238	9956.12988	28.89139	6.2542	246.41221	370.43062
	10019.08887	9983.13867	30.83644	5.03755	247.93302	385.86363
	10050.74902	10010.01758	32.95712	3.73709	249.207	402.54242
	10081.96289	10035.86133	35.25439	2.49993	250.15346	420.01711
	10112.72754	10060.59863	37.69551	1.22447	250.74182	438.29395
	10143.93457	10084.83008	40.41449	0	250.94122	457.95283
	10175.56445	10108.36816	43.40006	358.63098	250.68155	479.07429
	10206.75488	10130.41504	46.62595	357.41776	249.91462	501.11669
	10237.55566	10150.88574	50.05795	356.08749	248.60417	524.08744
	10268.88184	10170.19238	53.83239	354.86722	246.65279	548.67147
	10300.80566	10188.0957	57.92881	353.50974	243.96981	574.95731
	10331.76953	10203.55859	62.13824	352.32013	240.65615	601.56974
	10362.75879	10216.98535	66.49918	351.04147	236.61084	629.19503
	10393.93457	10228.28223	71.00042	349.88815	231.79448	657.84124
	10425.48145	10237.35645	75.55676	348.65359	226.16771	687.51643
	10456.71973	10243.96484	80.01498	347.57117	219.87769	717.38488
	10487.79395	10248.20605	84.29213	346.44202	212.95668	747.3719
Landing	10518.82227	10250.19043	88.37367	345.45953	205.44082	777.40389
	10628.73047	10253.30957	88.37292	345.45889	177.85754	883.74815
	10728.64648	10256.14746	88.37224	345.45831	152.78082	980.42445
	10828.5625	10258.98633	88.37156	345.45776	127.70314	1077.10047
	10928.47852	10261.82617	88.3709	345.45718	102.62453	1173.77621
	11028.39453	10264.66797	88.37023	345.45663	77.54498	1270.45167

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MD	TVD	Inclination	Azimuth	DX	DY
11128.31055	10267.50977	88.36958	345.45609	52.46451	1367.12687
11228.22559	10270.35352	88.36894	345.45554	27.38313	1463.80179
11328.1416	10273.19727	88.3683	345.45502	2.30085	1560.47644
11428.05762	10276.04297	88.36768	345.4545	-22.78233	1657.15083
11527.97363	10278.88965	88.36706	345.45395	-47.86638	1753.82496
11627.88965	10281.73828	88.36644	345.45346	-72.95129	1850.49884
11727.80566	10284.58691	88.36584	345.45294	-98.03707	1947.17246
11827.72168	10287.43652	88.36523	345.45242	-123.1237	2043.84583
11927.6377	10290.28711	88.36465	345.45193	-148.21116	2140.51895
12027.55371	10293.13965	88.36406	345.45145	-173.29944	2237.19182
12127.46973	10295.99219	88.36348	345.45096	-198.38855	2333.86445
12227.38574	10298.84668	88.36292	345.45047	-223.47846	2430.53685
12327.30176	10301.70117	88.36235	345.45001	-248.56916	2527.20901
12427.21777	10304.55762	88.36179	345.44955	-273.66065	2623.88094
12527.13379	10307.41406	88.36125	345.4491	-298.75292	2720.55264
12627.0498	10310.27246	88.36071	345.44864	-323.84594	2817.22411
12726.96582	10313.13086	88.36018	345.44818	-348.93972	2913.89536
12826.88184	10315.99023	88.35966	345.44775	-374.03424	3010.56639
12926.79785	10318.85059	88.35914	345.4473	-399.1295	3107.2372
13026.71387	10321.71289	88.35863	345.44687	-424.22547	3203.9078
13126.62988	10324.5752	88.35813	345.44647	-449.32216	3300.57818
13226.5459	10327.43848	88.35764	345.44604	-474.41955	3397.24837
13326.46094	10330.30176	88.35715	345.44565	-499.51762	3493.91834
13426.37695	10333.16699	88.35667	345.44522	-524.61638	3590.58812
13526.29297	10336.0332	88.3562	345.44482	-549.7158	3687.25769
13626.20898	10338.89941	88.35573	345.44443	-574.81588	3783.92708
13726.125	10341.7666	88.35528	345.44406	-599.91661	3880.59627
13826.04102	10344.63477	88.35483	345.44366	-625.01798	3977.26527
13925.95703	10347.50391	88.35439	345.4433	-650.11997	4073.93408
14025.87305	10350.37402	88.35395	345.44293	-675.22258	4170.60272
14125.78906	10353.24414	88.35352	345.4426	-700.3258	4267.27117
14225.70508	10356.11523	88.3531	345.44223	-725.42961	4363.93945
14325.62109	10358.9873	88.35269	345.44189	-750.53401	4460.60756
14425.53711	10361.86035	88.35229	345.44156	-775.63898	4557.27549
14525.45313	10364.7334	88.35189	345.44122	-800.74451	4653.94326
14625.36914	10367.60742	88.3515	345.44089	-825.8506	4750.61086
14725.28516	10370.48242	88.35112	345.44055	-850.95722	4847.27831
14825.20117	10373.35742	88.35075	345.44025	-876.06439	4943.94559
14925.11719	10376.2334	88.35038	345.43994	-901.17207	5040.61272
15025.0332	10379.11035	88.35001	345.43964	-926.28026	5137.2797
15124.94922	10381.9873	88.34967	345.43933	-951.38895	5233.94653
15224.86523	10384.86523	88.34932	345.43906	-976.49814	5330.61322
15324.78125	10387.74316	88.34898	345.43878	-1001.6078	5427.27977
15424.69629	10390.62305	88.34866	345.43848	-1026.71793	5523.94617
15524.6123	10393.50195	88.34834	345.43823	-1051.82852	5620.61244
15624.52832	10396.38184	88.34801	345.43796	-1076.93956	5717.27858

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MD	TVD	Inclination	Azimuth	DX	DY
15724.44434	10399.2627	88.34771	345.43768	-1102.05104	5813.94459
15824.36035	10402.14453	88.34741	345.43744	-1127.16294	5910.61047
15924.27637	10405.02637	88.34712	345.43719	-1152.27526	6007.27623
16024.19238	10407.9082	88.34683	345.43695	-1177.38798	6103.94186
16124.1084	10410.79102	88.34656	345.43674	-1202.5011	6200.60738
16224.02441	10413.67383	88.34628	345.43649	-1227.6146	6297.27279
16323.94043	10416.55762	88.34602	345.43628	-1252.72848	6393.93809
16423.85742	10419.44238	88.34577	345.43607	-1277.84272	6490.60328
16523.77344	10422.32617	88.34552	345.43585	-1302.95732	6587.26836
16623.6875	10425.21191	88.34528	345.43564	-1328.07225	6683.93334
16723.60352	10428.09668	88.34505	345.43546	-1353.18752	6780.59823
16823.51953	10430.98242	88.34483	345.43527	-1378.30312	6877.26301
16923.43555	10433.86914	88.34461	345.43509	-1403.41902	6973.92771
17023.35156	10436.75586	88.3444	345.43491	-1428.53522	7070.59232
17123.26758	10439.64258	88.3442	345.43475	-1453.65171	7167.25684
17223.18359	10442.5293	88.344	345.43457	-1478.76849	7263.92128
17323.09961	10445.41699	88.34381	345.43442	-1503.88553	7360.58564
17423.01563	10448.30566	88.34364	345.43427	-1529.00283	7457.24992
17522.93164	10451.19336	88.34346	345.43411	-1554.12037	7553.91413
17622.84766	10454.08203	88.34329	345.43399	-1579.23816	7650.57827
17722.76367	10456.9707	88.34314	345.43384	-1604.35617	7747.24234
17822.67969	10459.85938	88.34299	345.43372	-1629.4744	7843.90635
17922.5957	10462.74902	88.34285	345.43359	-1654.59283	7940.5703
18022.51172	10465.63867	88.34271	345.4335	-1679.71146	8037.23418
18122.42773	10468.52832	88.34258	345.43338	-1704.83028	8133.89802
18222.34375	10471.41895	88.34246	345.43329	-1729.94927	8230.5618
18322.25977	10474.30859	88.34235	345.4332	-1755.06842	8327.22554
18422.17578	10477.19922	88.34225	345.43311	-1780.18772	8423.88922
18522.0918	10480.08984	88.34215	345.43301	-1805.30717	8520.55287
18622.00781	10482.98047	88.34206	345.43295	-1830.42675	8617.21648
18721.92383	10485.87109	88.34197	345.43286	-1855.54646	8713.88005
18821.83984	10488.7627	88.3419	345.4328	-1880.66627	8810.54359
18921.75586	10491.65332	88.34183	345.43274	-1905.78618	8907.2071
19021.67188	10494.54492	88.34177	345.43271	-1930.90619	9003.87058
19121.58789	10497.43652	88.34172	345.43265	-1956.02627	9100.53403
19221.50391	10500.32715	88.34167	345.43262	-1981.14642	9197.19747
19321.41992	10503.21875	88.34164	345.43259	-2006.26664	9293.86089
19421.33594	10506.11035	88.34161	345.43256	-2031.3869	9390.5243
19521.25195	10509.00195	88.34158	345.43253	-2056.50719	9487.18769
19621.16797	10511.89355	88.34156	345.43253	-2081.62752	9583.85108
19721.08398	10514.78613	88.34156	345.43253	-2106.74786	9680.51446
19821	10517.67773	88.34155	345.43253	-2131.8682	9777.17784
19920.91602	10520.56934	88.34157	345.43253	-2156.98855	9873.84122
20020.83203	10523.46094	88.34158	345.43253	-2182.10887	9970.50461
20120.74805	10526.35254	88.3416	345.43256	-2207.22917	10067.168
20220.66406	10529.24414	88.34163	345.43259	-2232.34944	10163.83141

Trail Gulch Unit 1090 30-H2

MD	TVD	Inclination	Azimuth	DX	DY
20320.58008	10532.13574	88.34167	345.43262	-2257.46966	10260.49483
20420.49609	10535.02734	88.34171	345.43265	-2282.58982	10357.15826
20520.41211	10537.91797	88.34177	345.43271	-2307.70991	10453.82172
20620.32813	10540.80957	88.34182	345.43274	-2332.82993	10550.4852
20720.24414	10543.70117	88.34189	345.4328	-2357.94985	10647.1487
20820.16016	10546.5918	88.34196	345.43286	-2383.06968	10743.81223
20920.07617	10549.48242	88.34205	345.43292	-2408.1894	10840.4758
21019.99219	10552.37402	88.34213	345.43301	-2433.309	10937.1394
21119.9082	10555.26367	88.34223	345.43307	-2458.42846	11033.80304
21219.82422	10558.1543	88.34233	345.43317	-2483.54779	11130.46673
21319.74023	10561.04492	88.34245	345.43326	-2508.66696	11227.13045
21419.65625	10563.93457	88.34257	345.43338	-2533.78597	11323.79423
21519.57227	10566.82422	88.3427	345.43347	-2558.90481	11420.45806
21619.48828	10569.71387	88.34283	345.43359	-2584.02347	11517.12194
21719.40234	10572.60352	88.34297	345.43372	-2609.14193	11613.78588
21819.31836	10575.49316	88.34312	345.43384	-2634.26018	11710.44988
21919.23438	10578.38184	88.34328	345.43396	-2659.37823	11807.11394
22019.15039	10581.27051	88.34344	345.43411	-2684.49604	11903.77807
22109.07617	10583.86914	88.34359	345.43423	-2707.10187	11990.77585
22208.99219	10586.75781	88.34377	345.43439	-2732.21923	12087.44011
22308.9082	10589.64551	88.34396	345.43454	-2757.33634	12184.10445
22408.82422	10592.53223	88.34415	345.43469	-2782.45317	12280.76887
22508.74023	10595.41992	88.34435	345.43488	-2807.56973	12377.43337
22608.65625	10598.30664	88.34456	345.43506	-2832.686	12474.09796
22708.57227	10601.19238	88.34477	345.43524	-2857.80197	12570.76264
22808.48828	10604.07813	88.34499	345.43542	-2882.91764	12667.4274
22908.4043	10606.96387	88.34523	345.43561	-2908.03299	12764.09227
23008.32031	10609.84863	88.34547	345.43582	-2933.148	12860.75723
23108.23633	10612.7334	88.34571	345.436	-2958.26268	12957.42228
23208.15039	10615.61816	88.34596	345.43622	-2983.377	13054.08745
23308.06641	10618.50195	88.34623	345.43643	-3008.49097	13150.75272
23407.98242	10621.38477	88.34649	345.43668	-3033.60456	13247.4181
23507.89844	10624.26758	88.34677	345.43689	-3058.71777	13344.08359
23607.81445	10627.15039	88.34705	345.43713	-3083.83059	13440.7492
23707.73047	10630.03223	88.34734	345.43738	-3108.943	13537.41493
23807.64648	10632.91309	88.34764	345.43762	-3134.055	13634.08079
23907.5625	10635.79395	88.34795	345.4379	-3159.16657	13730.74677
24007.47852	10638.6748	88.34826	345.43814	-3184.27772	13827.41287
24107.39453	10641.55469	88.34858	345.43842	-3209.38841	13924.07911
24207.31055	10644.43359	88.34891	345.43869	-3234.49865	14020.74548
24307.22656	10647.31152	88.34924	345.439	-3259.60842	14117.412
24407.14258	10650.19043	88.34959	345.43927	-3284.71772	14214.07865

TD

Directional Drilling Plan

Trail Gulch 2H & Pilot



GUNNISON ENERGY LLC

Lat/ Long (NAD83) - N/S (UTM 13 N NAD 27)												
Relative Point	Latitude	Longitude	Lat D.M.S.	Long D.M.S.	Northing	Easting	MD (ft)	TVD (ft)	Inclination (deg)	Azimuth (deg)	N/S (ft)	E/W (ft)
Surface	39.15720	-107.47750	39° 09' 25.9056"	-107° 28' 38.9856"	14228766.30	938247.34	0	0	0	0	0.00	0.00
Kick Off Point (KOP)	39.15798	-107.46820	39° 09' 29.1771"	-107° 28' 35.8518"	14229090.48	938503.19	9831.798	9814.45	21.04271	12.45155	305.97	235.98
Landing Point (LPT)	39.15974	-107.46721	39° 09' 33.8258"	-107° 28' 36.4025"	14229531.88	938480.17	10518.82	10250.19	88.37367	345.45953	777.40	205.44
Bottom Hole Location Horz	39.19630	-107.48087	39° 11' 45.6127"	-107° 29' 25.3695"	14242998.59	934982.49	24407.14	10650.19	88.34959	345.43927	14214.08	-3284.72
Bottom Hole Location Pilot	39.15798	-107.46820	39° 09' 29.1771"	-107° 28' 35.8518"	14229090.48	938503.19	11017.35	11000.00	21.04271	12.45155	305.97	235.98

