

Gettysburg State Com #11H

Perfs	<u>7.5% Acid (Gal)</u>	<u>Sand (#)</u>	<u>Fluid (Gal)</u>
1	3024	359575	533778
2	3024	360093	357714
3	3024	360066	311976
4	3024	359697	326466
5	3024	360723	310548
6	1500	360009	324018
7	3024	361218	326256
8	3024	360575	354732
9	2982	360010	306390
10	3012	360254	318919
11	3024	360064	303618
12	3024	358907	314118
13	3012	359019	312762
14	3024	360237	309288
15	3012	361498	356988
16	3000	360166	316992
17	3024	360306	305214
18	3024	361533	304500
19	3012	361103	296802
20	3024	360477	298158
21	3024	360909	312816
22	3024	361938	311052
23	3024	360056	305508
24	3024	360041	300342
25	3012	361007	305118
26	3012	360110	307638
27	3024	360367	298284
28	3012	360027	300834
29	3012	360671	303984
30	3024	360040	300048
31	3024	360674	308322
32	3024	360671	314706
33	3024	361401	301056
34	3024	360804	294840
35	3012	360170	296928
36	3024	360372	300972
37	3024	360599	301392
38	5712	360322	373179
39	4872	371532	370020
Totals	120,772	14,067,241	12,496,275

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From Bottom to Top	Stage 1	Distance Between Perfs	Shots	Stage 2	Distance Between Perfs	Shots	Stage 3	Distance Between Perfs	Shots	Stage 4	Distance Between Perfs	Shots	Stage 5	Distance Between Perfs	Shots
	18,600	22	5	18,372	72	5	18,238	28	5	18,067	26	5	17,889	20	5
	18,578	23	5	18,354	8	5	18,223	24	5	18,043	23	5	17,864	21	5
	18,555	22	4	18,346	13	4	18,199	23	4	18,020	22	4	17,843	23	4
	18,533	22	4	18,333	10	4	18,176	22	4	17,998	22	4	17,820	20	4
	18,511	22	3	18,323	13	3	18,154		3	17,978	23	3	17,800	25	3
	18,489	23	3	18,310	22	3	18,137	28	3	17,953	22	3	17,775	18	3
	18,466	22	3	18,288	22	3	18,109	16	3	17,931	22	3	17,757	27	3
	18,444		3	18,266		3	18,093		3	17,909		3	17,730		3
Plug to Plug	92		30	Plug to Plug	48		30	Plug to Plug	71		30	Plug to Plug	78		30
Frac Plug	18,625	Total Shots		Frac Plug	18,381	Total Shots		Frac Plug	18,247	Total Shots		Frac Plug	18,076	Total Shots	

From Bottom to Top	Stage 6	Distance Between Perfs	Shots	Stage 7	Distance Between Perfs	Shots	Stage 8	Distance Between Perfs	Shots	Stage 9	Distance Between Perfs	Shots	Stage 10	Distance Between Perfs	Shots
	17,705	25	5	17,523	29	5	17,353	27	5	17,173	22	5	16,991	26	5
	17,686	23	5	17,507	22	5	17,325	18	5	17,151	23	5	16,972	23	5
	17,663	22	4	17,485	22	4	17,307	23	4	17,128	22	4	16,949	21	4
	17,641	22	4	17,463	23	4	17,284	22	4	17,106	22	4	16,928	23	4
	17,619	22	3	17,440	30	3	17,262	22	3	17,084	23	3	16,905	22	3
	17,597	23	3	17,410	14	3	17,240	23	3	17,061	18	3	16,883	22	3
	17,574	22	3	17,396	16	3	17,217	22	3	17,043	26	3	16,861	23	3
	17,552		3	17,380		3	17,195		3	17,017		3	16,838		3
Plug to Plug	78		30	Plug to Plug	69		30	Plug to Plug	78		30	Plug to Plug	76		30
Frac Plug	17,719	Total Shots		Frac Plug	17,532	Total Shots		Frac Plug	17,362	Total Shots		Frac Plug	17,182	Total Shots	

From Bottom to Top	Stage 11	Distance Between Perfs	Shots	Stage 12	Distance Between Perfs	Shots	Stage 13	Distance Between Perfs	Shots	Stage 14	Distance Between Perfs	Shots	Stage 15	Distance Between Perfs	Shots
	16,809	29	5	16,638	27	5	16,461	21	5	16,275	28	5	16,092	33	5
	16,794	23	5	16,611	18	5	16,437	22	5	16,259	29	5	16,080	22	5
	16,771	22	4	16,593	26	4	16,415	23	4	16,230	16	4	16,058	22	4
	16,749	22	4	16,567	19	4	16,392	22	4	16,214	22	4	16,036	23	4
	16,727	21	3	16,548	22	3	16,370	22	3	16,192	23	3	16,013	21	3
	16,706	24	3	16,526	22	3	16,348	23	3	16,169	22	3	15,992	23	3
	16,682	17	3	16,504	22	3	16,325	22	3	16,147	22	3	15,969	19	3
	16,665		3	16,482		3	16,303		3	16,125		3	15,950		3
Plug to Plug	69		30	Plug to Plug	80		30	Plug to Plug	78		30	Plug to Plug	78		30
Frac Plug	16,818	Total Shots		Frac Plug	16,647	Total Shots		Frac Plug	16,470	Total Shots		Frac Plug	16,292	Total Shots	

From Bottom to Top	Stage 16	Distance Between Perfs	Shots	Stage 17	Distance Between Perfs	Shots	Stage 18	Distance Between Perfs	Shots	Stage 19	Distance Between Perfs	Shots	Stage 20	Distance Between Perfs	Shots
	15,926	24	5	15,748	20	5	15,562	28	5	15,380	31	5	15,210	27	5
	15,899	20	5	15,723	22	5	15,545	24	5	15,367	23	5	15,184	18	5
	15,879	22	4	15,701	22	4	15,521	21	4	15,344	22	4	15,166	23	4
	15,857	22	4	15,679	21	4	15,500	22	4	15,322	22	4	15,143	22	4
	15,835	22	3	15,658	24	3	15,478	22	3	15,300	21	3	15,121	22	3
	15,813	23	3	15,634	19	3	15,456	23	3	15,279	24	3	15,099	22	3
	15,790	22	3	15,615	25	3	15,433	22	3	15,255	18	3	15,077	23	3
	15,768		3	15,590		3	15,411		3	15,237		3	15,054		3
Plug to Plug	78		30	Plug to Plug	78		30	Plug to Plug	77		30	Plug to Plug	67		30
Frac Plug	15,935	Total Shots		Frac Plug	15,757	Total Shots		Frac Plug	15,577	Total Shots		Frac Plug	15,389	Total Shots	

From Bottom to Top	Stage 21	Distance Between Perfs	Shots	Stage 22	Distance Between Perfs	Shots	Stage 23	Distance Between Perfs	Shots	Stage 24	Distance Between Perfs	Shots	Stage 25	Distance Between Perfs	Shots
	15,032	22	5	14,852	24	5	14,667	31	5	14,497	25	5	14,316	25	5
	15,010	23	5	14,831	22	5	14,653	22	5	14,479	27	5	14,296	22	5
	14,987	22	4	14,809	22	4	14,631	23	4	14,452	25	4	14,274	22	4
	14,965	22	4	14,787	23	4	14,608	22	4	14,427	19	4	14,252	23	4
	14,943	22	3	14,764	22	3	14,586	21	3	14,408	24	3	14,229	22	3
	14,921	27	3	14,742	22	3	14,565	24	3	14,384	21	3	14,207	22	3
	14,894	18	3	14,720	22	3	14,541	19	3	14,363	22	3	14,185	23	3
	14,876		3	14,698		3	14,522		3	14,341		3	14,162		3
Plug to Plug	76		30	Plug to Plug	76		30	Plug to Plug	68		30	Plug to Plug	79		30
Frac Plug	15,041	Total Shots		Frac Plug	14,863	Total Shots		Frac Plug	14,676	Total Shots		Frac Plug	14,506	Total Shots	

From Bottom to Top	Stage 26	Distance Between Perfs	Shots	Stage 27	Distance Between Perfs	Shots	Stage 28	Distance Between Perfs	Shots	Stage 29	Distance Between Perfs	Shots	Stage 30	Distance Between Perfs	Shots
	14,133	29	5	13,951	33	5	13,782	24	5	13,605	22	5	13,429	20	5
	14,118	18	5	13,939	22	5	13,739	26	5	13,583	23	5	13,404	19	5
	14,100	27	4	13,917	22	4	13,713	19	4	13,560	22	4	13,385	25	4
	14,073	24	4	13,895	23	4	13,694	23	4	13,538	22	4	13,360	17	4
	14,049	20	3	13,872	22	3	13,671	22	3	13,516	23	3	13,343	28	3
	14,029	23	3	13,850	22	3	13,649	22	3	13,493	22	3	13,315	22	3
	14,006	22	3	13,828	22	3	13,627		3	13,471	22	3	13,293	23	3
	13,984		3	13,806		3			3	13,449		3	13,270		3
Plug to Plug	78		30	Plug to Plug	65		30	Plug to Plug	97		30	Plug to Plug	76		30
Frac Plug	14,151	Total Shots		Frac Plug	13,960	Total Shots		Frac Plug	13,791	Total Shots		Frac Plug	13,614	Total Shots	

From Bottom to Top	Stage 31	Distance Between Perfs	Shots	Stage 32	Distance Between Perfs	Shots	Stage 33	Distance Between Perfs	Shots	Stage 34	Distance Between Perfs	Shots	Stage 35	Distance Between Perfs	Shots
	13,235	35	5	13,066	26	5	12,891	23	5	12,713	22	5	12,521	36	5
	13,226	23	5	13,039	14	5	12,869	22	5	12,691	23	5	12,512	22	5
	13,203	22	4	13,025	20	4	12,847	23	4	12,668	22	4	12,490	22	4
	13,181	22	4	13,005	25	4	12,824	22	4	12,646	18	4	12,468	23	4
	13,159	22	3	12,980	22	3	12,802	22	3	12,628	27	3	12,445	22	3
	13,137	23	3	12,958	22	3	12,780	23	3	12,601	25	3	12,423	22	3
	13,114	22	3	12,936	22	3	12,757	22	3	12,576	19	3	12,401	22	3
	13,092		3	12,914		3	12,735		3	12,557		3	12,379		3
	Plug to Plug	63	30	Plug to Plug	70	30	Plug to Plug	76	30	Plug to Plug	76	30	Plug to Plug	62	30
	Frac Plug	13,244	Total Shots	Frac Plug	13,075	Total Shots	Frac Plug	12,900	Total Shots	Frac Plug	12,722	Total Shots	Frac Plug	12,530	Total Shots

From Bottom to Top	Stage 36	Distance Between Perfs	Shots	Stage 37	Distance Between Perfs	Shots	Stage 38	Distance Between Perfs	Shots	Stage 39	Distance Between Perfs	Shots	Stage 40	Distance Between Perfs	Shots
	12,356	23	5	12,178	22	5	11,992	30	5	11,810	33	5		11,667	
	12,337	26	5	12,155	22	5	11,977	17	5	11,799	23	5			
	12,311	25	4	12,133	22	4	11,960	28	4	11,776	22	4			
	12,286	19	4	12,111	23	4	11,932	25	4	11,754	22	4			
	12,267	22	3	12,088	22	3	11,907	19	3	11,732	23	3			
	12,245	23	3	12,066	21	3	11,888	23	3	11,709	22	3			
	12,222	22	3	12,045	23	3	11,865	22	3	11,687	20	3			
	12,200		3	12,022		3	11,843		3	11,667		3			
	Plug to Plug	81	30	Plug to Plug	76	30	Plug to Plug	75	30	Plug to Plug	65	30	Plug to Plug	0	0
	Frac Plug	12,367	Total Shots	Frac Plug	12,187	Total Shots	Frac Plug	12,007	Total Shots	Frac Plug	11,819	Total Shots	Frac Plug		Total Shots



HOBBS OCD

JAN 10 2019

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Concho Operating

Lea County, NM (Nad 27)

Gettysburg State Com

Gettysburg State Com 11H

Gettysburg SC 11H

Design: Gettysburg SC 11H

Survey Report - Geographic

10 June, 2018



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Project	Lea County, NM (Nad 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Gettysburg State Com		
Site Position:		Northing:	478,008.40 usft
From:	Map	Easting:	766,595.40 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	32.311°N
		Longitude:	103.470°W
		Grid Convergence:	0.46 °

Well	Gettysburg State Com 11H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32.311°N
		Longitude:	103.470°W
		Ground Level:	3,412.10 ft

Wellbore	Gettysburg SC 11H		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	3/28/2018	6.83
			Dip Angle
			(°)
			Field Strength
			(nT)
			47,920.50509074

Design	Gettysburg SC 11H		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			179.49

Survey Program	Date 6/10/2018		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
100.00	10,547.00	Keeper Gyro Survey (Gettysburg SC 11H)	Keeper
10,580.00	18,742.00	DrilTech MWD (Gyro Tie In) (Gettysburg S MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting		
(ft)			(ft)			(usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	478,008.40	766,595.40	32.311°N	103.470°W
100.00	0.09	185.98	100.00	-0.08	-0.01	478,008.32	766,595.39	32.311°N	103.470°W
100'MD:Begin SDI Keeper Gyro									
125.00	0.19	146.52	125.00	-0.13	0.01	478,008.27	766,595.41	32.311°N	103.470°W
150.00	0.08	247.06	150.00	-0.17	0.02	478,008.23	766,595.42	32.311°N	103.470°W
175.00	0.26	147.72	175.00	-0.23	0.03	478,008.17	766,595.43	32.311°N	103.470°W
200.00	0.17	164.53	200.00	-0.31	0.07	478,008.09	766,595.47	32.311°N	103.470°W
225.00	0.27	139.23	225.00	-0.39	0.12	478,008.01	766,595.52	32.311°N	103.470°W
250.00	0.13	141.52	250.00	-0.46	0.18	478,007.94	766,595.58	32.311°N	103.470°W
275.00	0.13	153.08	275.00	-0.51	0.21	478,007.89	766,595.61	32.311°N	103.470°W
300.00	0.11	231.39	300.00	-0.55	0.20	478,007.85	766,595.60	32.311°N	103.470°W



Survey Report - Geographic

Company: Concho Operating
Project: Lea County, NM (Nad 27)
Site: Gettysburg State Com
Well: Gettysburg State Com 11H
Wellbore: Gettysburg SC 11H
Design: Gettysburg SC 11H

Local Co-ordinate Reference: Well Gettysburg State Com 11H
TVD Reference: GL 3412.1 + 29' @ 3441.10ft
MD Reference: GL 3412.1 + 29' @ 3441.10ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
325.00	0.06	243.79	325.00	-0.57	0.17	478,007.83	766,595.57	32.311°N	103.470°W
350.00	0.09	223.69	350.00	-0.59	0.15	478,007.81	766,595.54	32.311°N	103.470°W
375.00	0.12	226.73	375.00	-0.62	0.11	478,007.78	766,595.51	32.311°N	103.470°W
400.00	0.15	200.81	400.00	-0.67	0.08	478,007.73	766,595.48	32.311°N	103.470°W
425.00	0.07	238.74	425.00	-0.71	0.06	478,007.69	766,595.46	32.311°N	103.470°W
450.00	0.08	234.74	450.00	-0.72	0.03	478,007.68	766,595.43	32.311°N	103.470°W
475.00	0.12	244.96	475.00	-0.75	-0.01	478,007.65	766,595.39	32.311°N	103.470°W
500.00	0.16	226.03	500.00	-0.78	-0.06	478,007.62	766,595.34	32.311°N	103.470°W
525.00	0.05	262.55	525.00	-0.81	-0.09	478,007.59	766,595.31	32.311°N	103.470°W
550.00	0.11	258.24	550.00	-0.81	-0.13	478,007.59	766,595.27	32.311°N	103.470°W
575.00	0.12	295.82	575.00	-0.81	-0.17	478,007.59	766,595.22	32.311°N	103.470°W
600.00	0.10	278.45	600.00	-0.79	-0.22	478,007.61	766,595.18	32.311°N	103.470°W
625.00	0.15	283.23	625.00	-0.78	-0.27	478,007.62	766,595.13	32.311°N	103.470°W
650.00	0.08	232.95	650.00	-0.78	-0.32	478,007.62	766,595.08	32.311°N	103.470°W
675.00	0.10	233.26	675.00	-0.81	-0.35	478,007.59	766,595.05	32.311°N	103.470°W
700.00	0.15	268.65	700.00	-0.82	-0.40	478,007.58	766,595.00	32.311°N	103.470°W
725.00	0.23	291.78	725.00	-0.80	-0.48	478,007.60	766,594.92	32.311°N	103.470°W
750.00	0.40	300.47	750.00	-0.74	-0.60	478,007.66	766,594.80	32.311°N	103.470°W
775.00	0.66	309.65	775.00	-0.61	-0.79	478,007.80	766,594.61	32.311°N	103.470°W
800.00	1.09	314.20	799.99	-0.35	-1.07	478,008.05	766,594.33	32.311°N	103.470°W
825.00	1.43	316.57	824.99	0.04	-1.45	478,008.45	766,593.95	32.311°N	103.470°W
850.00	1.72	318.41	849.98	0.55	-1.92	478,008.95	766,593.48	32.311°N	103.470°W
875.00	1.83	318.42	874.97	1.13	-2.43	478,009.53	766,592.97	32.311°N	103.470°W
900.00	2.09	319.32	899.95	1.78	-2.99	478,010.18	766,592.41	32.311°N	103.470°W
925.00	2.07	319.94	924.94	2.47	-3.58	478,010.87	766,591.82	32.311°N	103.470°W
950.00	2.14	318.94	949.92	3.16	-4.18	478,011.57	766,591.22	32.311°N	103.470°W
975.00	2.17	315.47	974.90	3.85	-4.81	478,012.25	766,590.58	32.311°N	103.470°W
1,000.00	2.27	315.45	999.88	4.54	-5.49	478,012.94	766,589.90	32.311°N	103.470°W
1,025.00	2.26	310.85	1,024.86	5.22	-6.21	478,013.62	766,589.18	32.311°N	103.470°W
1,050.00	2.20	310.48	1,049.84	5.85	-6.95	478,014.25	766,588.45	32.311°N	103.470°W
1,075.00	2.26	311.45	1,074.82	6.49	-7.69	478,014.89	766,587.71	32.311°N	103.470°W
1,100.00	2.30	312.86	1,099.80	7.16	-8.42	478,015.56	766,586.97	32.311°N	103.470°W
1,125.00	2.38	320.44	1,124.78	7.90	-9.12	478,016.30	766,586.28	32.311°N	103.470°W
1,150.00	2.50	324.49	1,149.76	8.74	-9.77	478,017.14	766,585.63	32.311°N	103.470°W
1,175.00	2.63	329.67	1,174.74	9.68	-10.38	478,018.08	766,585.02	32.311°N	103.470°W
1,200.00	2.71	334.11	1,199.71	10.71	-10.92	478,019.11	766,584.47	32.311°N	103.470°W
1,225.00	2.81	339.66	1,224.68	11.82	-11.39	478,020.22	766,584.00	32.311°N	103.470°W
1,250.00	2.87	339.47	1,249.65	12.98	-11.83	478,021.38	766,583.57	32.311°N	103.470°W
1,275.00	2.84	340.57	1,274.62	14.15	-12.25	478,022.55	766,583.14	32.311°N	103.470°W
1,300.00	2.54	349.76	1,299.59	15.28	-12.56	478,023.68	766,582.84	32.311°N	103.470°W
1,325.00	2.35	356.32	1,324.57	16.33	-12.69	478,024.73	766,582.71	32.311°N	103.470°W
1,350.00	2.33	358.43	1,349.55	17.35	-12.74	478,025.75	766,582.66	32.311°N	103.470°W
1,375.00	2.32	357.84	1,374.53	18.37	-12.77	478,026.77	766,582.63	32.311°N	103.470°W
1,400.00	2.37	1.16	1,399.51	19.39	-12.78	478,027.79	766,582.62	32.311°N	103.470°W
1,425.00	2.45	2.20	1,424.48	20.44	-12.75	478,028.84	766,582.65	32.311°N	103.470°W
1,450.00	2.43	4.30	1,449.46	21.50	-12.69	478,029.90	766,582.71	32.311°N	103.470°W
1,475.00	2.45	3.40	1,474.44	22.56	-12.61	478,030.96	766,582.78	32.311°N	103.470°W
1,500.00	2.40	4.87	1,499.42	23.62	-12.54	478,032.02	766,582.86	32.311°N	103.470°W
1,525.00	2.45	4.48	1,524.39	24.67	-12.45	478,033.07	766,582.95	32.311°N	103.470°W
1,550.00	2.38	6.83	1,549.37	25.72	-12.35	478,034.12	766,583.05	32.311°N	103.470°W
1,575.00	1.95	21.24	1,574.35	26.63	-12.13	478,035.03	766,583.26	32.311°N	103.470°W
1,600.00	1.80	34.74	1,599.34	27.35	-11.75	478,035.75	766,583.64	32.311°N	103.470°W
1,625.00	1.68	43.31	1,624.33	27.94	-11.28	478,036.34	766,584.12	32.311°N	103.470°W
1,650.00	1.63	47.04	1,649.32	28.45	-10.77	478,036.85	766,584.63	32.311°N	103.470°W
1,675.00	1.74	41.54	1,674.31	28.98	-10.26	478,037.38	766,585.14	32.311°N	103.470°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
1,700.00	1.64	40.39	1,699.30	29.53	-9.77	478,037.93	766,585.62	32.311°N	103.470°W	
1,725.00	1.56	40.02	1,724.29	30.07	-9.32	478,038.47	766,586.08	32.311°N	103.470°W	
1,750.00	1.50	42.27	1,749.28	30.57	-8.88	478,038.97	766,586.51	32.311°N	103.470°W	
1,775.00	1.43	47.38	1,774.27	31.02	-8.43	478,039.42	766,586.96	32.311°N	103.470°W	
1,800.00	1.50	39.49	1,799.26	31.49	-8.00	478,039.89	766,587.40	32.311°N	103.470°W	
1,825.00	1.57	41.07	1,824.25	32.00	-7.56	478,040.40	766,587.83	32.311°N	103.470°W	
1,850.00	1.45	44.42	1,849.24	32.48	-7.12	478,040.88	766,588.28	32.311°N	103.470°W	
1,875.00	1.46	42.55	1,874.24	32.94	-6.68	478,041.34	766,588.72	32.311°N	103.470°W	
1,900.00	1.39	39.58	1,899.23	33.41	-6.27	478,041.81	766,589.13	32.311°N	103.470°W	
1,925.00	1.46	45.06	1,924.22	33.87	-5.85	478,042.27	766,589.54	32.311°N	103.470°W	
1,950.00	1.67	54.82	1,949.21	34.30	-5.33	478,042.70	766,590.07	32.311°N	103.470°W	
1,975.00	1.98	68.10	1,974.20	34.67	-4.63	478,043.07	766,590.77	32.311°N	103.470°W	
2,000.00	2.09	70.77	1,999.18	34.99	-3.80	478,043.39	766,591.60	32.311°N	103.470°W	
2,025.00	2.18	74.96	2,024.17	35.26	-2.91	478,043.66	766,592.49	32.311°N	103.470°W	
2,050.00	2.19	73.61	2,049.15	35.52	-1.99	478,043.92	766,593.40	32.311°N	103.470°W	
2,075.00	2.20	74.42	2,074.13	35.78	-1.07	478,044.18	766,594.33	32.311°N	103.470°W	
2,100.00	2.07	73.38	2,099.11	36.04	-0.18	478,044.44	766,595.22	32.311°N	103.470°W	
2,125.00	1.95	78.83	2,124.10	36.25	0.67	478,044.65	766,596.07	32.311°N	103.470°W	
2,150.00	1.29	75.15	2,149.09	36.40	1.36	478,044.81	766,596.76	32.311°N	103.470°W	
2,175.00	1.34	103.22	2,174.08	36.41	1.92	478,044.81	766,597.32	32.311°N	103.470°W	
2,200.00	1.24	109.21	2,199.07	36.25	2.46	478,044.65	766,597.86	32.311°N	103.470°W	
2,225.00	1.35	109.28	2,224.07	36.07	2.99	478,044.47	766,598.39	32.311°N	103.470°W	
2,250.00	1.33	105.82	2,249.06	35.89	3.55	478,044.29	766,598.95	32.311°N	103.470°W	
2,275.00	1.31	106.84	2,274.05	35.73	4.10	478,044.13	766,599.50	32.311°N	103.470°W	
2,300.00	1.17	103.38	2,299.05	35.59	4.62	478,043.99	766,600.02	32.311°N	103.470°W	
2,325.00	1.12	105.37	2,324.04	35.46	5.11	478,043.86	766,600.50	32.311°N	103.470°W	
2,350.00	1.28	108.09	2,349.04	35.31	5.61	478,043.71	766,601.01	32.311°N	103.470°W	
2,375.00	1.31	107.87	2,374.03	35.14	6.15	478,043.54	766,601.54	32.311°N	103.470°W	
2,400.00	1.29	109.68	2,399.02	34.96	6.68	478,043.36	766,602.08	32.311°N	103.470°W	
2,425.00	1.23	103.95	2,424.02	34.80	7.21	478,043.20	766,602.61	32.311°N	103.470°W	
2,450.00	1.21	93.95	2,449.01	34.71	7.73	478,043.11	766,603.13	32.311°N	103.470°W	
2,475.00	1.22	87.78	2,474.01	34.71	8.26	478,043.11	766,603.66	32.311°N	103.470°W	
2,500.00	1.21	94.95	2,499.00	34.69	8.79	478,043.09	766,604.19	32.311°N	103.470°W	
2,525.00	1.21	91.37	2,524.00	34.66	9.32	478,043.06	766,604.71	32.311°N	103.470°W	
2,550.00	1.17	94.48	2,548.99	34.64	9.84	478,043.04	766,605.23	32.311°N	103.470°W	
2,575.00	1.10	94.18	2,573.99	34.60	10.33	478,043.00	766,605.73	32.311°N	103.470°W	
2,600.00	0.89	95.34	2,598.98	34.56	10.76	478,042.97	766,606.16	32.311°N	103.470°W	
2,625.00	0.68	79.42	2,623.98	34.57	11.10	478,042.97	766,606.50	32.311°N	103.470°W	
2,650.00	0.39	71.34	2,648.98	34.63	11.33	478,043.03	766,606.72	32.311°N	103.470°W	
2,675.00	0.44	65.37	2,673.98	34.70	11.50	478,043.10	766,606.89	32.311°N	103.470°W	
2,700.00	0.42	65.93	2,698.98	34.77	11.67	478,043.17	766,607.06	32.311°N	103.470°W	
2,725.00	0.47	73.88	2,723.98	34.84	11.85	478,043.24	766,607.25	32.311°N	103.470°W	
2,750.00	0.47	86.41	2,748.98	34.87	12.05	478,043.27	766,607.45	32.311°N	103.470°W	
2,775.00	0.48	92.62	2,773.98	34.88	12.26	478,043.28	766,607.65	32.311°N	103.470°W	
2,800.00	0.53	92.07	2,798.97	34.87	12.48	478,043.27	766,607.87	32.311°N	103.470°W	
2,825.00	0.74	104.72	2,823.97	34.82	12.75	478,043.22	766,608.15	32.311°N	103.470°W	
2,850.00	0.85	111.26	2,848.97	34.71	13.08	478,043.11	766,608.47	32.311°N	103.470°W	
2,875.00	1.02	107.07	2,873.97	34.58	13.46	478,042.98	766,608.86	32.311°N	103.470°W	
2,900.00	1.17	112.50	2,898.96	34.42	13.91	478,042.82	766,609.31	32.311°N	103.470°W	
2,925.00	1.25	113.83	2,923.96	34.21	14.40	478,042.61	766,609.79	32.311°N	103.470°W	
2,950.00	1.31	119.56	2,948.95	33.96	14.89	478,042.36	766,610.29	32.311°N	103.470°W	
2,975.00	1.49	120.05	2,973.94	33.65	15.42	478,042.06	766,610.82	32.311°N	103.470°W	
3,000.00	1.53	120.49	2,998.93	33.32	15.99	478,041.72	766,611.39	32.311°N	103.470°W	
3,025.00	1.42	125.13	3,023.93	32.97	16.53	478,041.38	766,611.93	32.311°N	103.470°W	
3,050.00	1.49	125.31	3,048.92	32.61	17.05	478,041.01	766,612.45	32.311°N	103.470°W	



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,075.00	1.43	119.08	3,073.91	32.27	17.59	478,040.67	766,612.99	32.311°N	103.470°W
3,100.00	1.53	101.89	3,098.90	32.05	18.19	478,040.45	766,613.59	32.311°N	103.470°W
3,125.00	1.66	90.04	3,123.89	31.98	18.88	478,040.38	766,614.28	32.311°N	103.470°W
3,150.00	1.66	79.69	3,148.88	32.04	19.60	478,040.45	766,614.99	32.311°N	103.470°W
3,175.00	1.62	78.14	3,173.87	32.18	20.30	478,040.58	766,615.70	32.311°N	103.470°W
3,200.00	1.58	72.96	3,198.86	32.36	20.97	478,040.76	766,616.37	32.311°N	103.470°W
3,225.00	1.59	71.21	3,223.85	32.57	21.63	478,040.97	766,617.03	32.311°N	103.470°W
3,250.00	1.67	72.69	3,248.84	32.79	22.31	478,041.19	766,617.71	32.311°N	103.470°W
3,275.00	1.50	83.50	3,273.83	32.93	22.98	478,041.33	766,618.38	32.311°N	103.470°W
3,300.00	1.60	86.57	3,298.82	32.99	23.65	478,041.39	766,619.05	32.311°N	103.470°W
3,325.00	1.74	92.65	3,323.81	32.99	24.38	478,041.40	766,619.78	32.311°N	103.470°W
3,350.00	1.78	94.78	3,348.80	32.95	25.15	478,041.35	766,620.55	32.311°N	103.470°W
3,375.00	1.92	96.06	3,373.79	32.87	25.95	478,041.27	766,621.35	32.311°N	103.470°W
3,400.00	1.91	95.95	3,398.77	32.78	26.78	478,041.18	766,622.18	32.311°N	103.470°W
3,425.00	1.84	94.43	3,423.76	32.71	27.60	478,041.11	766,622.99	32.311°N	103.470°W
3,450.00	1.95	90.84	3,448.75	32.67	28.42	478,041.07	766,623.82	32.311°N	103.470°W
3,475.00	1.72	94.68	3,473.73	32.63	29.22	478,041.03	766,624.62	32.311°N	103.470°W
3,500.00	1.43	90.76	3,498.72	32.60	29.91	478,041.00	766,625.30	32.311°N	103.470°W
3,525.00	1.35	90.08	3,523.72	32.59	30.51	478,040.99	766,625.91	32.311°N	103.470°W
3,550.00	1.32	88.96	3,548.71	32.60	31.10	478,041.00	766,626.49	32.311°N	103.470°W
3,575.00	1.38	89.49	3,573.70	32.61	31.69	478,041.01	766,627.08	32.311°N	103.470°W
3,600.00	1.42	87.08	3,598.70	32.62	32.30	478,041.03	766,627.69	32.311°N	103.470°W
3,625.00	1.39	85.75	3,623.69	32.66	32.91	478,041.06	766,628.30	32.311°N	103.470°W
3,650.00	1.44	85.82	3,648.68	32.71	33.52	478,041.11	766,628.92	32.311°N	103.470°W
3,675.00	1.52	87.71	3,673.67	32.74	34.17	478,041.15	766,629.57	32.311°N	103.470°W
3,700.00	1.44	88.70	3,698.66	32.76	34.81	478,041.17	766,630.21	32.311°N	103.470°W
3,725.00	1.46	78.39	3,723.66	32.84	35.44	478,041.24	766,630.84	32.311°N	103.470°W
3,750.00	1.41	78.41	3,748.65	32.96	36.05	478,041.36	766,631.45	32.311°N	103.470°W
3,775.00	1.51	76.32	3,773.64	33.10	36.67	478,041.50	766,632.07	32.311°N	103.470°W
3,800.00	1.42	73.51	3,798.63	33.27	37.29	478,041.67	766,632.69	32.311°N	103.470°W
3,825.00	1.43	71.15	3,823.62	33.46	37.88	478,041.86	766,633.28	32.311°N	103.470°W
3,850.00	1.39	70.41	3,848.62	33.66	38.46	478,042.06	766,633.86	32.311°N	103.470°W
3,875.00	1.41	70.06	3,873.61	33.87	39.04	478,042.27	766,634.44	32.311°N	103.470°W
3,900.00	1.37	70.07	3,898.60	34.07	39.61	478,042.47	766,635.01	32.311°N	103.470°W
3,925.00	1.50	66.26	3,923.59	34.31	40.19	478,042.71	766,635.59	32.311°N	103.470°W
3,950.00	1.64	59.97	3,948.58	34.62	40.80	478,043.02	766,636.20	32.311°N	103.470°W
3,975.00	2.07	53.03	3,973.57	35.07	41.47	478,043.47	766,636.87	32.311°N	103.470°W
4,000.00	2.35	52.58	3,998.55	35.65	42.24	478,044.05	766,637.63	32.311°N	103.470°W
4,025.00	2.64	53.86	4,023.53	36.30	43.11	478,044.70	766,638.51	32.311°N	103.470°W
4,050.00	3.08	57.41	4,048.50	37.00	44.14	478,045.40	766,639.54	32.311°N	103.470°W
4,075.00	3.37	64.72	4,073.46	37.68	45.37	478,046.08	766,640.77	32.311°N	103.470°W
4,100.00	3.41	66.87	4,098.41	38.28	46.72	478,046.68	766,642.12	32.311°N	103.470°W
4,125.00	3.40	67.12	4,123.37	38.86	48.09	478,047.26	766,643.48	32.311°N	103.470°W
4,150.00	3.21	71.72	4,148.33	39.37	49.43	478,047.77	766,644.83	32.311°N	103.470°W
4,175.00	2.98	74.40	4,173.29	39.77	50.72	478,048.17	766,646.12	32.311°N	103.470°W
4,200.00	3.00	73.24	4,198.26	40.13	51.98	478,048.53	766,647.37	32.311°N	103.470°W
4,225.00	2.89	72.18	4,223.23	40.51	53.20	478,048.91	766,648.60	32.311°N	103.470°W
4,250.00	2.62	67.01	4,248.20	40.93	54.33	478,049.33	766,649.73	32.311°N	103.470°W
4,275.00	2.46	65.01	4,273.17	41.38	55.34	478,049.78	766,650.74	32.311°N	103.470°W
4,300.00	2.54	63.23	4,298.15	41.85	56.32	478,050.25	766,651.72	32.311°N	103.470°W
4,325.00	2.83	60.45	4,323.12	42.41	57.35	478,050.81	766,652.75	32.311°N	103.470°W
4,350.00	3.25	58.93	4,348.09	43.08	58.50	478,051.48	766,653.89	32.311°N	103.470°W
4,375.00	3.69	60.76	4,373.04	43.84	59.81	478,052.24	766,655.20	32.311°N	103.470°W
4,400.00	3.95	59.76	4,397.98	44.66	61.25	478,053.06	766,656.65	32.311°N	103.470°W
4,425.00	4.06	60.80	4,422.92	45.53	62.77	478,053.93	766,658.17	32.311°N	103.470°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,450.00	4.15	60.37	4,447.86	46.41	64.33	478,054.81	766,659.72	32.311°N	103.470°W
4,475.00	4.34	63.28	4,472.79	47.28	65.96	478,055.68	766,661.36	32.311°N	103.470°W
4,500.00	4.38	64.40	4,497.72	48.12	67.66	478,056.52	766,663.06	32.311°N	103.470°W
4,525.00	4.40	65.59	4,522.64	48.93	69.40	478,057.33	766,664.80	32.311°N	103.470°W
4,550.00	3.87	69.88	4,547.58	49.61	71.06	478,058.01	766,666.46	32.311°N	103.470°W
4,575.00	3.76	70.70	4,572.52	50.17	72.63	478,058.57	766,668.03	32.311°N	103.470°W
4,600.00	3.66	71.80	4,597.47	50.69	74.16	478,059.09	766,669.56	32.311°N	103.470°W
4,625.00	3.21	76.90	4,622.43	51.10	75.60	478,059.50	766,671.00	32.311°N	103.470°W
4,650.00	2.46	89.91	4,647.40	51.26	76.82	478,059.66	766,672.22	32.311°N	103.470°W
4,675.00	2.29	98.18	4,672.38	51.19	77.85	478,059.59	766,673.25	32.311°N	103.470°W
4,700.00	2.35	100.24	4,697.35	51.03	78.85	478,059.43	766,674.25	32.311°N	103.470°W
4,725.00	2.37	99.81	4,722.33	50.85	79.86	478,059.25	766,675.26	32.311°N	103.470°W
4,750.00	2.39	97.82	4,747.31	50.69	80.89	478,059.09	766,676.29	32.311°N	103.470°W
4,775.00	2.34	100.59	4,772.29	50.53	81.91	478,058.93	766,677.30	32.311°N	103.470°W
4,800.00	2.02	98.55	4,797.27	50.37	82.84	478,058.77	766,678.24	32.311°N	103.470°W
4,825.00	1.18	86.40	4,822.26	50.32	83.54	478,058.72	766,678.93	32.311°N	103.470°W
4,850.00	0.89	78.81	4,847.26	50.37	83.98	478,058.77	766,679.38	32.311°N	103.470°W
4,875.00	0.92	73.79	4,872.26	50.46	84.37	478,058.87	766,679.76	32.311°N	103.470°W
4,900.00	1.00	78.84	4,897.25	50.56	84.77	478,058.96	766,680.17	32.311°N	103.470°W
4,925.00	0.99	83.52	4,922.25	50.63	85.20	478,059.03	766,680.60	32.311°N	103.470°W
4,950.00	1.08	86.25	4,947.24	50.67	85.65	478,059.07	766,681.05	32.311°N	103.470°W
4,975.00	1.09	87.79	4,972.24	50.69	86.12	478,059.09	766,681.52	32.311°N	103.470°W
5,000.00	1.11	86.99	4,997.23	50.72	86.60	478,059.12	766,682.00	32.311°N	103.470°W
5,025.00	1.04	91.00	5,022.23	50.72	87.07	478,059.13	766,682.47	32.311°N	103.470°W
5,050.00	1.04	92.45	5,047.23	50.71	87.53	478,059.11	766,682.92	32.311°N	103.470°W
5,075.00	1.05	93.42	5,072.22	50.69	87.98	478,059.09	766,683.38	32.311°N	103.470°W
5,100.00	1.05	91.72	5,097.22	50.67	88.44	478,059.07	766,683.84	32.311°N	103.470°W
5,125.00	1.04	95.02	5,122.21	50.64	88.89	478,059.04	766,684.29	32.311°N	103.470°W
5,150.00	1.11	92.22	5,147.21	50.61	89.36	478,059.01	766,684.76	32.311°N	103.470°W
5,175.00	1.26	89.53	5,172.20	50.60	89.88	478,059.00	766,685.28	32.311°N	103.470°W
5,200.00	2.29	93.99	5,197.19	50.57	90.65	478,058.97	766,686.05	32.311°N	103.470°W
5,225.00	2.72	93.40	5,222.17	50.50	91.74	478,058.90	766,687.14	32.311°N	103.470°W
5,250.00	2.78	93.59	5,247.14	50.43	92.94	478,058.83	766,688.34	32.311°N	103.470°W
5,275.00	2.72	93.54	5,272.11	50.35	94.14	478,058.75	766,689.53	32.311°N	103.470°W
5,300.00	2.78	92.97	5,297.08	50.29	95.33	478,058.69	766,690.73	32.311°N	103.470°W
5,325.00	2.75	93.12	5,322.05	50.22	96.54	478,058.62	766,691.94	32.311°N	103.470°W
5,350.00	2.77	91.56	5,347.02	50.17	97.74	478,058.57	766,693.14	32.311°N	103.470°W
5,375.00	2.75	95.22	5,371.99	50.10	98.94	478,058.50	766,694.34	32.311°N	103.470°W
5,400.00	2.74	94.34	5,396.97	50.00	100.14	478,058.40	766,695.53	32.311°N	103.470°W
5,425.00	2.68	92.98	5,421.94	49.93	101.32	478,058.33	766,696.71	32.311°N	103.470°W
5,450.00	2.66	93.91	5,446.91	49.86	102.48	478,058.26	766,697.87	32.311°N	103.470°W
5,475.00	2.56	93.90	5,471.88	49.78	103.61	478,058.18	766,699.01	32.311°N	103.470°W
5,500.00	2.53	93.66	5,496.86	49.71	104.72	478,058.11	766,700.12	32.311°N	103.470°W
5,525.00	2.47	95.29	5,521.84	49.62	105.81	478,058.02	766,701.21	32.311°N	103.470°W
5,550.00	2.50	93.25	5,546.81	49.54	106.89	478,057.94	766,702.29	32.311°N	103.470°W
5,575.00	2.43	93.89	5,571.79	49.47	107.96	478,057.87	766,703.36	32.311°N	103.470°W
5,600.00	2.39	94.11	5,596.77	49.40	109.01	478,057.80	766,704.41	32.311°N	103.470°W
5,625.00	2.37	91.92	5,621.75	49.35	110.05	478,057.75	766,705.44	32.311°N	103.470°W
5,650.00	2.45	92.40	5,646.72	49.31	111.10	478,057.71	766,706.49	32.311°N	103.470°W
5,675.00	2.38	92.65	5,671.70	49.26	112.15	478,057.66	766,707.55	32.311°N	103.470°W
5,700.00	2.44	92.50	5,696.68	49.21	113.20	478,057.61	766,708.60	32.311°N	103.470°W
5,725.00	2.38	94.06	5,721.66	49.15	114.25	478,057.55	766,709.65	32.311°N	103.470°W
5,750.00	2.52	88.48	5,746.63	49.13	115.32	478,057.53	766,710.71	32.311°N	103.470°W
5,775.00	3.06	83.72	5,771.60	49.22	116.53	478,057.62	766,711.93	32.311°N	103.470°W
5,800.00	3.14	83.14	5,796.57	49.37	117.87	478,057.77	766,713.27	32.311°N	103.470°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,825.00	3.11	82.17	5,821.53	49.55	119.22	478,057.95	766,714.62	32.311°N	103.470°W
5,850.00	3.13	81.39	5,846.49	49.74	120.57	478,058.14	766,715.97	32.311°N	103.470°W
5,875.00	3.05	79.73	5,871.46	49.96	121.90	478,058.36	766,717.30	32.311°N	103.470°W
5,900.00	2.96	79.01	5,896.42	50.20	123.19	478,058.60	766,718.59	32.311°N	103.470°W
5,925.00	2.86	78.78	5,921.39	50.45	124.43	478,058.85	766,719.83	32.311°N	103.470°W
5,950.00	2.84	78.87	5,946.36	50.69	125.65	478,059.09	766,721.05	32.311°N	103.470°W
5,975.00	2.77	76.91	5,971.33	50.94	126.85	478,059.35	766,722.25	32.311°N	103.470°W
6,000.00	2.69	77.54	5,996.30	51.21	128.01	478,059.61	766,723.41	32.311°N	103.470°W
6,025.00	2.74	76.59	6,021.27	51.47	129.16	478,059.87	766,724.56	32.311°N	103.470°W
6,050.00	2.67	75.50	6,046.25	51.76	130.31	478,060.16	766,725.71	32.311°N	103.470°W
6,075.00	2.63	76.09	6,071.22	52.04	131.43	478,060.44	766,726.83	32.311°N	103.470°W
6,100.00	2.48	74.82	6,096.19	52.32	132.51	478,060.72	766,727.91	32.311°N	103.470°W
6,125.00	2.47	75.36	6,121.17	52.60	133.55	478,061.00	766,728.95	32.311°N	103.470°W
6,150.00	2.46	75.48	6,146.15	52.87	134.59	478,061.27	766,729.99	32.311°N	103.470°W
6,175.00	2.51	74.45	6,171.12	53.15	135.64	478,061.55	766,731.04	32.311°N	103.470°W
6,200.00	2.42	75.05	6,196.10	53.43	136.68	478,061.83	766,732.07	32.311°N	103.470°W
6,225.00	2.44	73.52	6,221.08	53.72	137.70	478,062.12	766,733.09	32.311°N	103.470°W
6,250.00	2.53	73.06	6,246.06	54.03	138.74	478,062.43	766,734.13	32.311°N	103.470°W
6,275.00	2.53	74.22	6,271.03	54.34	139.79	478,062.74	766,735.19	32.311°N	103.470°W
6,300.00	2.38	73.11	6,296.01	54.64	140.82	478,063.04	766,736.22	32.311°N	103.470°W
6,325.00	2.42	72.05	6,320.99	54.96	141.82	478,063.36	766,737.22	32.311°N	103.470°W
6,350.00	2.33	72.50	6,345.96	55.27	142.81	478,063.67	766,738.20	32.311°N	103.470°W
6,375.00	2.37	73.40	6,370.94	55.57	143.79	478,063.97	766,739.18	32.311°N	103.470°W
6,400.00	2.46	72.17	6,395.92	55.89	144.79	478,064.29	766,740.19	32.311°N	103.470°W
6,425.00	2.38	73.41	6,420.90	56.20	145.80	478,064.60	766,741.20	32.311°N	103.470°W
6,450.00	2.33	72.60	6,445.88	56.50	146.78	478,064.90	766,742.18	32.311°N	103.470°W
6,475.00	2.33	75.56	6,470.86	56.78	147.76	478,065.18	766,743.16	32.311°N	103.470°W
6,500.00	2.35	74.14	6,495.84	57.04	148.75	478,065.44	766,744.14	32.311°N	103.470°W
6,525.00	2.30	70.29	6,520.82	57.35	149.71	478,065.75	766,745.11	32.311°N	103.470°W
6,550.00	2.31	70.23	6,545.80	57.69	150.66	478,066.09	766,746.05	32.311°N	103.470°W
6,575.00	2.30	73.19	6,570.78	58.01	151.61	478,066.41	766,747.01	32.311°N	103.470°W
6,600.00	2.28	74.00	6,595.76	58.29	152.57	478,066.69	766,747.97	32.311°N	103.470°W
6,625.00	2.28	73.80	6,620.74	58.57	153.53	478,066.97	766,748.92	32.311°N	103.470°W
6,650.00	2.20	71.59	6,645.72	58.86	154.46	478,067.26	766,749.86	32.311°N	103.470°W
6,675.00	2.12	74.21	6,670.70	59.13	155.36	478,067.53	766,750.76	32.311°N	103.470°W
6,700.00	2.13	73.99	6,695.68	59.39	156.25	478,067.79	766,751.65	32.311°N	103.470°W
6,725.00	2.17	76.65	6,720.66	59.63	157.16	478,068.03	766,752.55	32.311°N	103.470°W
6,750.00	2.15	74.40	6,745.65	59.86	158.07	478,068.26	766,753.47	32.311°N	103.470°W
6,775.00	2.15	76.44	6,770.63	60.10	158.98	478,068.50	766,754.37	32.311°N	103.470°W
6,800.00	2.21	75.88	6,795.61	60.32	159.90	478,068.72	766,755.30	32.311°N	103.470°W
6,825.00	2.80	81.72	6,820.59	60.53	160.97	478,068.93	766,756.37	32.311°N	103.470°W
6,850.00	3.03	85.62	6,845.55	60.67	162.24	478,069.07	766,757.63	32.311°N	103.470°W
6,875.00	3.04	82.23	6,870.52	60.81	163.55	478,069.21	766,758.95	32.311°N	103.470°W
6,900.00	3.04	84.32	6,895.48	60.96	164.87	478,069.36	766,760.26	32.311°N	103.470°W
6,925.00	3.08	85.38	6,920.45	61.08	166.20	478,069.48	766,761.59	32.311°N	103.470°W
6,950.00	3.12	84.27	6,945.41	61.21	167.54	478,069.61	766,762.94	32.311°N	103.470°W
6,975.00	3.19	86.76	6,970.37	61.31	168.91	478,069.71	766,764.31	32.311°N	103.470°W
7,000.00	3.12	85.54	6,995.34	61.40	170.29	478,069.81	766,765.68	32.311°N	103.470°W
7,025.00	3.14	85.99	7,020.30	61.51	171.65	478,069.91	766,767.05	32.311°N	103.470°W
7,050.00	3.11	87.62	7,045.26	61.58	173.01	478,069.98	766,768.41	32.311°N	103.470°W
7,075.00	3.06	86.56	7,070.23	61.65	174.35	478,070.05	766,769.75	32.311°N	103.470°W
7,100.00	3.16	87.94	7,095.19	61.71	175.71	478,070.11	766,771.10	32.311°N	103.470°W
7,125.00	2.98	87.91	7,120.15	61.76	177.05	478,070.16	766,772.44	32.311°N	103.470°W
7,150.00	3.01	87.61	7,145.12	61.81	178.35	478,070.21	766,773.75	32.311°N	103.470°W
7,175.00	2.89	87.87	7,170.09	61.86	179.64	478,070.27	766,775.03	32.311°N	103.470°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,200.00	2.73	87.66	7,195.06	61.91	180.86	478,070.31	766,776.26	32.311°N	103.470°W
7,225.00	2.55	85.79	7,220.03	61.98	182.01	478,070.38	766,777.41	32.311°N	103.470°W
7,250.00	2.34	80.64	7,245.01	62.10	183.07	478,070.50	766,778.47	32.311°N	103.470°W
7,275.00	2.27	80.73	7,269.99	62.26	184.06	478,070.66	766,779.46	32.311°N	103.470°W
7,300.00	2.27	78.67	7,294.97	62.44	185.04	478,070.84	766,780.43	32.311°N	103.470°W
7,325.00	2.23	78.58	7,319.95	62.63	186.00	478,071.04	766,781.39	32.311°N	103.470°W
7,350.00	2.20	77.85	7,344.93	62.83	186.94	478,071.23	766,782.34	32.311°N	103.470°W
7,375.00	2.24	77.72	7,369.91	63.04	187.89	478,071.44	766,783.29	32.311°N	103.470°W
7,400.00	2.36	81.52	7,394.89	63.22	188.88	478,071.62	766,784.27	32.311°N	103.470°W
7,425.00	2.48	77.87	7,419.87	63.41	189.91	478,071.81	766,785.31	32.311°N	103.470°W
7,450.00	2.57	80.15	7,444.84	63.62	191.00	478,072.02	766,786.39	32.311°N	103.470°W
7,475.00	3.05	79.37	7,469.81	63.83	192.20	478,072.23	766,787.60	32.311°N	103.470°W
7,500.00	3.84	85.89	7,494.77	64.02	193.69	478,072.42	766,789.09	32.311°N	103.470°W
7,525.00	3.90	84.98	7,519.71	64.15	195.37	478,072.55	766,790.77	32.311°N	103.470°W
7,550.00	3.92	84.03	7,544.65	64.31	197.07	478,072.72	766,792.47	32.311°N	103.470°W
7,575.00	3.99	84.14	7,569.59	64.49	198.78	478,072.89	766,794.18	32.311°N	103.470°W
7,600.00	3.90	83.98	7,594.53	64.67	200.49	478,073.07	766,795.89	32.311°N	103.470°W
7,625.00	3.80	85.30	7,619.48	64.83	202.17	478,073.23	766,797.56	32.311°N	103.470°W
7,650.00	3.73	84.80	7,644.42	64.97	203.80	478,073.37	766,799.20	32.311°N	103.470°W
7,675.00	3.63	85.11	7,669.37	65.11	205.40	478,073.51	766,800.80	32.311°N	103.470°W
7,700.00	3.55	85.41	7,694.32	65.24	206.96	478,073.64	766,802.36	32.311°N	103.470°W
7,725.00	3.47	84.72	7,719.28	65.37	208.48	478,073.77	766,803.88	32.311°N	103.470°W
7,750.00	3.25	83.94	7,744.23	65.52	209.94	478,073.92	766,805.34	32.311°N	103.470°W
7,775.00	3.10	84.22	7,769.19	65.66	211.32	478,074.06	766,806.72	32.311°N	103.470°W
7,800.00	2.92	84.34	7,794.16	65.79	212.63	478,074.19	766,808.02	32.311°N	103.470°W
7,825.00	2.78	82.01	7,819.13	65.94	213.86	478,074.34	766,809.26	32.311°N	103.470°W
7,850.00	2.66	82.58	7,844.10	66.10	215.04	478,074.50	766,810.43	32.311°N	103.470°W
7,875.00	2.55	82.53	7,869.07	66.24	216.16	478,074.64	766,811.56	32.311°N	103.470°W
7,900.00	2.49	82.75	7,894.05	66.38	217.25	478,074.78	766,812.65	32.311°N	103.470°W
7,925.00	2.45	82.83	7,919.03	66.52	218.32	478,074.92	766,813.72	32.311°N	103.470°W
7,950.00	2.40	82.69	7,944.00	66.65	219.37	478,075.05	766,814.77	32.311°N	103.470°W
7,975.00	2.28	81.81	7,968.98	66.79	220.38	478,075.19	766,815.78	32.311°N	103.470°W
8,000.00	2.31	82.72	7,993.96	66.92	221.37	478,075.32	766,816.77	32.311°N	103.470°W
8,025.00	2.33	83.24	8,018.94	67.05	222.38	478,075.45	766,817.78	32.311°N	103.470°W
8,050.00	2.49	78.48	8,043.92	67.22	223.42	478,075.62	766,818.81	32.311°N	103.470°W
8,075.00	2.54	77.61	8,068.90	67.44	224.49	478,075.84	766,819.89	32.311°N	103.470°W
8,100.00	2.57	78.55	8,093.87	67.67	225.58	478,076.07	766,820.98	32.311°N	103.470°W
8,125.00	2.57	79.27	8,118.85	67.89	226.68	478,076.29	766,822.08	32.311°N	103.470°W
8,150.00	2.58	78.57	8,143.82	68.11	227.78	478,076.51	766,823.18	32.311°N	103.470°W
8,175.00	2.55	78.01	8,168.80	68.33	228.88	478,076.73	766,824.27	32.311°N	103.470°W
8,200.00	2.64	77.75	8,193.77	68.57	229.98	478,076.97	766,825.38	32.311°N	103.470°W
8,225.00	2.80	77.79	8,218.74	68.82	231.14	478,077.22	766,826.54	32.311°N	103.470°W
8,250.00	3.35	77.07	8,243.71	69.11	232.45	478,077.51	766,827.85	32.311°N	103.470°W
8,275.00	3.45	76.29	8,268.66	69.46	233.89	478,077.86	766,829.29	32.311°N	103.470°W
8,300.00	3.51	76.80	8,293.62	69.81	235.37	478,078.21	766,830.77	32.311°N	103.470°W
8,325.00	3.47	76.81	8,318.57	70.16	236.85	478,078.56	766,832.25	32.311°N	103.470°W
8,350.00	3.47	76.48	8,343.52	70.51	238.32	478,078.91	766,833.72	32.311°N	103.470°W
8,375.00	3.38	75.88	8,368.48	70.86	239.77	478,079.26	766,835.17	32.311°N	103.470°W
8,400.00	3.13	75.01	8,393.44	71.22	241.15	478,079.62	766,836.55	32.311°N	103.470°W
8,425.00	3.06	73.03	8,418.40	71.59	242.45	478,079.99	766,837.84	32.311°N	103.470°W
8,450.00	2.98	72.26	8,443.37	71.98	243.70	478,080.38	766,839.10	32.311°N	103.470°W
8,475.00	2.81	72.81	8,468.34	72.36	244.91	478,080.76	766,840.30	32.311°N	103.470°W
8,500.00	2.75	71.16	8,493.31	72.74	246.06	478,081.14	766,841.46	32.311°N	103.470°W
8,525.00	2.67	71.91	8,518.28	73.11	247.18	478,081.51	766,842.58	32.311°N	103.470°W
8,550.00	2.56	70.06	8,543.25	73.48	248.26	478,081.88	766,843.66	32.311°N	103.470°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,575.00	2.47	68.81	8,568.23	73.87	249.29	478,082.27	766,844.68	32.311°N	103.470°W
8,600.00	2.44	69.18	8,593.21	74.25	250.29	478,082.65	766,845.68	32.311°N	103.470°W
8,625.00	2.41	68.84	8,618.18	74.63	251.27	478,083.03	766,846.67	32.311°N	103.470°W
8,650.00	2.32	69.37	8,643.16	75.00	252.24	478,083.40	766,847.63	32.311°N	103.470°W
8,675.00	2.22	65.81	8,668.14	75.37	253.15	478,083.78	766,848.55	32.311°N	103.470°W
8,700.00	2.21	64.31	8,693.12	75.78	254.03	478,084.18	766,849.43	32.311°N	103.470°W
8,725.00	2.23	64.59	8,718.11	76.20	254.90	478,084.60	766,850.30	32.311°N	103.470°W
8,750.00	2.13	61.77	8,743.09	76.63	255.75	478,085.03	766,851.15	32.311°N	103.470°W
8,775.00	2.08	62.32	8,768.07	77.06	256.56	478,085.46	766,851.96	32.311°N	103.470°W
8,800.00	1.90	60.16	8,793.06	77.48	257.32	478,085.88	766,852.72	32.311°N	103.470°W
8,825.00	1.98	59.66	8,818.04	77.90	258.06	478,086.30	766,853.45	32.311°N	103.470°W
8,850.00	2.11	57.80	8,843.03	78.36	258.82	478,086.76	766,854.22	32.311°N	103.470°W
8,875.00	2.13	59.05	8,868.01	78.85	259.61	478,087.25	766,855.00	32.311°N	103.470°W
8,900.00	2.10	60.59	8,892.99	79.31	260.40	478,087.71	766,855.80	32.311°N	103.470°W
8,925.00	2.13	63.24	8,917.97	79.75	261.22	478,088.15	766,856.61	32.311°N	103.470°W
8,950.00	2.21	64.91	8,942.96	80.16	262.07	478,088.56	766,857.47	32.311°N	103.470°W
8,975.00	2.05	65.22	8,967.94	80.55	262.91	478,088.95	766,858.31	32.311°N	103.470°W
9,000.00	2.04	64.69	8,992.92	80.93	263.72	478,089.33	766,859.12	32.311°N	103.470°W
9,025.00	2.26	63.76	9,017.91	81.34	264.56	478,089.74	766,859.96	32.311°N	103.470°W
9,050.00	2.89	65.81	9,042.88	81.81	265.58	478,090.21	766,860.98	32.311°N	103.470°W
9,075.00	3.16	65.45	9,067.85	82.36	266.78	478,090.76	766,862.18	32.311°N	103.470°W
9,100.00	3.34	64.82	9,092.80	82.95	268.07	478,091.35	766,863.47	32.311°N	103.470°W
9,125.00	3.32	63.59	9,117.76	83.59	269.38	478,091.99	766,864.77	32.311°N	103.470°W
9,150.00	3.34	63.57	9,142.72	84.23	270.68	478,092.63	766,866.07	32.311°N	103.470°W
9,175.00	3.37	57.08	9,167.68	84.96	271.95	478,093.36	766,867.34	32.311°N	103.470°W
9,200.00	3.27	55.42	9,192.64	85.76	273.15	478,094.16	766,868.55	32.311°N	103.470°W
9,225.00	3.14	54.29	9,217.60	86.56	274.29	478,094.96	766,869.69	32.311°N	103.470°W
9,250.00	2.92	51.48	9,242.56	87.36	275.35	478,095.76	766,870.74	32.311°N	103.470°W
9,275.00	2.72	49.25	9,267.53	88.14	276.29	478,096.54	766,871.69	32.311°N	103.470°W
9,300.00	2.52	42.18	9,292.51	88.94	277.11	478,097.34	766,872.51	32.311°N	103.470°W
9,325.00	2.44	41.28	9,317.48	89.75	277.83	478,098.15	766,873.23	32.311°N	103.470°W
9,350.00	2.39	43.80	9,342.46	90.52	278.54	478,098.92	766,873.94	32.311°N	103.470°W
9,375.00	2.50	48.62	9,367.44	91.26	279.31	478,099.66	766,874.71	32.311°N	103.470°W
9,400.00	2.61	53.05	9,392.41	91.96	280.18	478,100.36	766,875.58	32.311°N	103.470°W
9,425.00	2.72	54.17	9,417.39	92.65	281.11	478,101.05	766,876.51	32.311°N	103.470°W
9,450.00	2.76	55.85	9,442.36	93.34	282.09	478,101.74	766,877.49	32.311°N	103.469°W
9,475.00	2.78	56.01	9,467.33	94.01	283.09	478,102.41	766,878.49	32.311°N	103.469°W
9,500.00	2.59	55.58	9,492.30	94.67	284.06	478,103.07	766,879.46	32.311°N	103.469°W
9,525.00	2.73	54.01	9,517.27	95.34	285.01	478,103.74	766,880.41	32.311°N	103.469°W
9,550.00	2.63	54.56	9,542.25	96.02	285.96	478,104.42	766,881.36	32.311°N	103.469°W
9,575.00	2.54	55.57	9,567.22	96.67	286.88	478,105.07	766,882.28	32.311°N	103.469°W
9,600.00	2.44	58.50	9,592.20	97.26	287.79	478,105.66	766,883.19	32.311°N	103.469°W
9,625.00	2.34	57.96	9,617.17	97.81	288.68	478,106.21	766,884.08	32.311°N	103.469°W
9,650.00	2.61	68.93	9,642.15	98.28	289.64	478,106.68	766,885.04	32.311°N	103.469°W
9,675.00	2.90	78.25	9,667.12	98.62	290.80	478,107.02	766,886.19	32.311°N	103.469°W
9,700.00	2.89	77.08	9,692.09	98.89	292.03	478,107.29	766,887.43	32.311°N	103.469°W
9,725.00	3.06	79.06	9,717.06	99.15	293.30	478,107.55	766,888.69	32.311°N	103.469°W
9,750.00	2.94	80.41	9,742.02	99.39	294.59	478,107.79	766,889.98	32.311°N	103.469°W
9,775.00	2.85	80.35	9,766.99	99.60	295.83	478,108.00	766,891.23	32.311°N	103.469°W
9,800.00	2.80	80.04	9,791.96	99.81	297.04	478,108.21	766,892.44	32.311°N	103.469°W
9,825.00	2.81	77.09	9,816.93	100.05	298.24	478,108.45	766,893.64	32.311°N	103.469°W
9,850.00	2.83	80.72	9,841.90	100.29	299.45	478,108.69	766,894.85	32.311°N	103.469°W
9,875.00	2.90	78.79	9,866.87	100.51	300.68	478,108.91	766,896.08	32.311°N	103.469°W
9,900.00	2.94	79.66	9,891.84	100.75	301.93	478,109.15	766,897.33	32.311°N	103.469°W
9,925.00	2.96	79.01	9,916.80	100.99	303.19	478,109.39	766,898.59	32.311°N	103.469°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,950.00	2.77	74.13	9,941.77	101.27	304.41	478,109.67	766,899.81	32.311°N	103.469°W
9,975.00	2.63	69.17	9,966.74	101.64	305.53	478,110.04	766,900.92	32.311°N	103.469°W
10,000.00	2.62	66.62	9,991.72	102.07	306.59	478,110.47	766,901.98	32.311°N	103.469°W
10,025.00	2.62	64.67	10,016.69	102.54	307.63	478,110.95	766,903.02	32.311°N	103.469°W
10,050.00	2.54	64.43	10,041.67	103.03	308.64	478,111.43	766,904.04	32.311°N	103.469°W
10,075.00	2.66	61.44	10,066.64	103.54	309.65	478,111.95	766,905.05	32.311°N	103.469°W
10,100.00	2.47	56.32	10,091.62	104.12	310.61	478,112.52	766,906.01	32.311°N	103.469°W
10,125.00	2.46	51.35	10,116.59	104.75	311.48	478,113.16	766,906.87	32.311°N	103.469°W
10,150.00	2.40	46.98	10,141.57	105.45	312.28	478,113.85	766,907.68	32.311°N	103.469°W
10,175.00	2.29	44.22	10,166.55	106.16	313.01	478,114.56	766,908.41	32.311°N	103.469°W
10,200.00	2.38	50.09	10,191.53	106.85	313.76	478,115.25	766,909.15	32.311°N	103.469°W
10,225.00	2.58	57.73	10,216.51	107.49	314.63	478,115.89	766,910.03	32.311°N	103.469°W
10,250.00	2.85	61.59	10,241.48	108.08	315.65	478,116.48	766,911.05	32.311°N	103.469°W
10,275.00	2.89	64.35	10,266.45	108.65	316.77	478,117.05	766,912.16	32.312°N	103.469°W
10,300.00	2.78	67.70	10,291.42	109.15	317.90	478,117.55	766,913.29	32.312°N	103.469°W
10,325.00	2.85	78.31	10,316.39	109.51	319.07	478,117.91	766,914.46	32.312°N	103.469°W
10,350.00	2.85	84.82	10,341.35	109.69	320.29	478,118.09	766,915.69	32.312°N	103.469°W
10,375.00	3.02	89.91	10,366.32	109.75	321.57	478,118.15	766,916.97	32.312°N	103.469°W
10,400.00	2.78	81.81	10,391.29	109.84	322.83	478,118.24	766,918.23	32.312°N	103.469°W
10,425.00	2.69	83.00	10,416.26	109.99	324.01	478,118.39	766,919.41	32.312°N	103.469°W
10,450.00	2.77	82.29	10,441.23	110.15	325.19	478,118.55	766,920.59	32.312°N	103.469°W
10,475.00	2.69	80.58	10,466.20	110.32	326.37	478,118.72	766,921.77	32.312°N	103.469°W
10,500.00	2.72	78.97	10,491.18	110.53	327.53	478,118.93	766,922.93	32.312°N	103.469°W
10,525.00	3.06	85.00	10,516.15	110.71	328.78	478,119.11	766,924.18	32.312°N	103.469°W
10,547.00	2.56	83.44	10,538.12	110.81	329.85	478,119.21	766,925.25	32.312°N	103.469°W
10547°MD: Final Gyro Depth - 10547°MD: Tie into Keeper Gyro									
10,580.00	2.32	93.23	10,571.09	110.86	331.25	478,119.26	766,926.65	32.312°N	103.469°W
10580°MD: Begin DriTech MWD									
10,613.00	1.99	105.35	10,604.07	110.67	332.47	478,119.07	766,927.87	32.312°N	103.469°W
10,660.00	4.61	140.51	10,650.99	109.00	334.46	478,117.40	766,929.86	32.312°N	103.469°W
10,708.00	8.70	145.38	10,698.65	104.52	337.75	478,112.92	766,933.15	32.311°N	103.469°W
10,749.00	12.39	143.61	10,738.96	98.42	342.12	478,106.82	766,937.52	32.311°N	103.469°W
10,796.00	16.90	145.25	10,784.42	88.75	349.01	478,097.15	766,944.41	32.311°N	103.469°W
10,843.00	20.76	148.04	10,828.89	76.06	357.32	478,084.46	766,952.71	32.311°N	103.469°W
10,891.00	24.21	150.79	10,873.24	60.25	366.63	478,068.65	766,962.02	32.311°N	103.469°W
10,938.00	27.56	151.14	10,915.52	42.31	376.58	478,050.71	766,971.98	32.311°N	103.469°W
10,986.00	30.70	152.60	10,957.44	21.70	387.58	478,030.10	766,982.98	32.311°N	103.469°W
11,033.00	34.25	156.20	10,997.09	-1.06	398.45	478,007.34	766,993.84	32.311°N	103.469°W
11,080.00	37.94	158.06	11,035.06	-26.58	409.19	477,981.82	767,004.58	32.311°N	103.469°W
11,127.00	41.06	157.21	11,071.32	-54.22	420.57	477,954.18	767,015.96	32.311°N	103.469°W
11,175.00	44.94	156.02	11,106.42	-84.25	433.57	477,924.15	767,028.96	32.311°N	103.469°W
11,222.00	49.34	155.69	11,138.39	-115.68	447.66	477,892.72	767,043.06	32.311°N	103.469°W
11,235.00	50.31	155.59	11,146.77	-124.73	451.76	477,883.67	767,047.15	32.311°N	103.469°W
11235°MD: Hardline Crossing FNL									
11,270.00	52.94	155.34	11,168.50	-149.69	463.15	477,858.71	767,058.55	32.311°N	103.469°W
11,317.00	56.57	156.57	11,195.62	-184.74	478.78	477,823.66	767,074.18	32.311°N	103.469°W
11,355.00	59.54	157.08	11,215.72	-214.38	491.47	477,794.02	767,086.86	32.311°N	103.469°W
11,455.00	64.24	158.02	11,262.82	-295.88	525.12	477,712.52	767,120.52	32.310°N	103.469°W
11,503.00	64.57	157.36	11,283.56	-335.93	541.56	477,672.47	767,136.95	32.310°N	103.469°W
11,550.00	66.07	157.24	11,303.18	-375.33	558.04	477,633.07	767,153.43	32.310°N	103.469°W
11,597.00	67.39	156.96	11,321.75	-415.10	574.84	477,593.30	767,170.24	32.310°N	103.469°W
11,644.00	69.33	157.26	11,339.08	-455.35	591.83	477,553.06	767,187.23	32.310°N	103.469°W
11,691.00	71.86	157.44	11,354.70	-496.25	608.90	477,512.15	767,204.30	32.310°N	103.468°W
11,738.00	74.39	157.22	11,368.34	-537.75	626.23	477,470.65	767,221.63	32.310°N	103.468°W
11,785.00	77.01	157.17	11,379.95	-579.73	643.89	477,428.67	767,239.28	32.310°N	103.468°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,832.00	80.01	157.76	11,389.31	-622.27	661.53	477,386.13	767,256.93	32.309°N	103.468°W
11,879.00	81.64	158.38	11,396.80	-665.31	678.86	477,343.09	767,274.26	32.309°N	103.468°W
11,926.00	83.23	159.60	11,402.99	-708.80	695.56	477,299.60	767,290.96	32.309°N	103.468°W
11,973.00	84.76	164.11	11,407.91	-753.20	710.11	477,255.20	767,305.51	32.309°N	103.468°W
12,020.00	86.74	168.27	11,411.39	-798.71	721.30	477,209.69	767,316.69	32.309°N	103.468°W
12,068.00	87.12	172.60	11,413.97	-845.96	729.26	477,162.44	767,324.65	32.309°N	103.468°W
12,115.00	89.51	176.36	11,415.35	-892.71	733.78	477,115.69	767,329.17	32.309°N	103.468°W
12,162.00	89.03	176.06	11,415.95	-939.61	736.88	477,068.80	767,332.28	32.309°N	103.468°W
12,209.00	89.90	177.11	11,416.39	-986.52	739.68	477,021.88	767,335.08	32.308°N	103.468°W
12,257.00	90.55	177.71	11,416.20	-1,034.47	741.85	476,973.93	767,337.25	32.308°N	103.468°W
12,351.00	90.64	177.51	11,415.22	-1,128.38	745.77	476,880.02	767,341.17	32.308°N	103.468°W
12,445.00	90.78	177.20	11,414.06	-1,222.27	750.11	476,786.13	767,345.50	32.308°N	103.468°W
12,539.00	89.75	177.83	11,413.62	-1,316.18	754.18	476,692.22	767,349.58	32.308°N	103.468°W
12,633.00	88.97	179.02	11,414.67	-1,410.14	756.77	476,598.26	767,352.16	32.307°N	103.468°W
12,727.00	84.94	179.39	11,419.66	-1,503.98	758.07	476,504.43	767,353.47	32.307°N	103.468°W
12,822.00	84.64	181.27	11,428.29	-1,598.58	757.53	476,409.82	767,352.92	32.307°N	103.468°W
12,916.00	85.02	180.86	11,436.76	-1,692.18	755.79	476,316.22	767,351.18	32.307°N	103.468°W
13,011.00	86.51	180.55	11,443.78	-1,786.91	754.62	476,221.49	767,350.02	32.306°N	103.468°W
13,105.00	90.27	184.11	11,446.42	-1,880.76	750.80	476,127.64	767,346.19	32.306°N	103.468°W
13,199.00	91.58	182.87	11,444.90	-1,974.57	745.08	476,033.83	767,340.47	32.306°N	103.468°W
13,293.00	90.33	181.64	11,443.33	-2,068.48	741.38	475,939.92	767,336.78	32.306°N	103.468°W
13,387.00	88.50	181.67	11,444.29	-2,162.44	738.66	475,845.97	767,334.06	32.305°N	103.468°W
13,481.00	88.33	181.18	11,446.89	-2,256.37	736.33	475,752.03	767,331.72	32.305°N	103.468°W
13,575.00	86.25	177.62	11,451.34	-2,350.24	737.31	475,658.16	767,332.70	32.305°N	103.468°W
13,669.00	90.05	179.95	11,454.37	-2,444.15	739.30	475,564.26	767,334.69	32.304°N	103.468°W
13,763.00	90.76	180.13	11,453.71	-2,538.14	739.23	475,470.26	767,334.63	32.304°N	103.468°W
13,857.00	88.36	177.78	11,454.43	-2,632.11	740.95	475,376.29	767,336.34	32.304°N	103.468°W
13,952.00	91.87	179.27	11,454.24	-2,727.06	743.39	475,281.34	767,338.79	32.304°N	103.468°W
14,046.00	90.38	179.48	11,452.40	-2,821.04	744.42	475,187.37	767,339.81	32.303°N	103.468°W
14,140.00	89.65	179.82	11,452.37	-2,915.03	744.99	475,093.37	767,340.39	32.303°N	103.468°W
14,234.00	88.63	178.56	11,453.78	-3,009.01	746.32	474,999.40	767,341.71	32.303°N	103.468°W
14,328.00	91.39	179.65	11,453.77	-3,102.99	747.79	474,905.42	767,343.18	32.303°N	103.468°W
14,423.00	90.01	179.15	11,452.61	-3,197.97	748.78	474,810.43	767,344.18	32.302°N	103.468°W
14,517.00	88.21	177.22	11,454.07	-3,291.91	751.76	474,716.50	767,347.15	32.302°N	103.468°W
14,611.00	90.93	180.47	11,454.77	-3,385.86	753.65	474,622.54	767,349.05	32.302°N	103.468°W
14,705.00	89.19	180.32	11,454.67	-3,479.86	753.00	474,528.55	767,348.40	32.302°N	103.468°W
14,799.00	89.26	180.65	11,455.94	-3,573.85	752.21	474,434.56	767,347.60	32.301°N	103.468°W
14,894.00	89.98	182.00	11,456.57	-3,668.82	750.01	474,339.59	767,345.41	32.301°N	103.468°W
14,988.00	91.18	181.44	11,455.62	-3,762.77	747.19	474,245.64	767,342.59	32.301°N	103.468°W
15,083.00	89.97	180.65	11,454.67	-3,857.74	745.46	474,150.67	767,340.85	32.301°N	103.468°W
15,178.00	91.33	177.92	11,453.59	-3,952.72	746.64	474,055.69	767,342.04	32.300°N	103.468°W
15,272.00	90.15	177.26	11,452.38	-4,046.63	750.60	473,961.78	767,345.99	32.300°N	103.468°W
15,367.00	89.99	181.25	11,452.26	-4,141.60	751.83	473,866.81	767,347.23	32.300°N	103.468°W
15,463.00	88.73	181.94	11,453.33	-4,237.55	749.16	473,770.86	767,344.55	32.300°N	103.468°W
15,559.00	87.12	181.68	11,456.81	-4,333.44	746.13	473,674.97	767,341.52	32.299°N	103.468°W
15,653.00	88.01	181.70	11,460.80	-4,427.31	743.36	473,581.10	767,338.75	32.299°N	103.468°W
15,747.00	90.88	181.50	11,461.71	-4,521.26	740.73	473,487.15	767,336.13	32.299°N	103.468°W
15,841.00	91.32	181.86	11,459.91	-4,615.20	737.98	473,393.21	767,333.37	32.299°N	103.468°W
15,930.00	91.24	181.55	11,457.92	-4,704.14	735.33	473,304.27	767,330.73	32.298°N	103.468°W
16,024.00	88.35	180.48	11,458.26	-4,798.11	733.67	473,210.30	767,329.06	32.298°N	103.468°W
16,118.00	88.07	179.45	11,461.19	-4,892.07	733.72	473,116.34	767,329.12	32.298°N	103.468°W
16,212.00	87.73	178.57	11,464.64	-4,985.99	735.35	473,022.42	767,330.74	32.297°N	103.468°W
16,307.00	87.84	179.00	11,468.31	-5,080.90	737.36	472,927.51	767,332.76	32.297°N	103.468°W
16,401.00	88.31	179.27	11,471.47	-5,174.83	738.78	472,833.58	767,334.17	32.297°N	103.468°W
16,495.00	87.79	179.07	11,474.67	-5,268.77	740.14	472,739.64	767,335.53	32.297°N	103.468°W



Survey Report - Geographic

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 11H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.1 + 29' @ 3441.10ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.1 + 29' @ 3441.10ft
Well:	Gettysburg State Com 11H	North Reference:	Grid
Wellbore:	Gettysburg SC 11H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 11H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,589.00	91.65	180.01	11,475.12	-5,362.74	740.89	472,645.67	767,336.29	32.296°N	103.468°W
16,684.00	90.87	179.69	11,473.04	-5,457.72	741.14	472,550.69	767,336.54	32.296°N	103.468°W
16,778.00	92.59	179.02	11,470.20	-5,551.67	742.20	472,456.74	767,337.60	32.296°N	103.468°W
16,872.00	93.17	178.38	11,465.48	-5,645.52	744.33	472,362.89	767,339.72	32.296°N	103.468°W
16,966.00	92.02	178.46	11,461.22	-5,739.39	746.92	472,269.02	767,342.31	32.295°N	103.468°W
17,061.00	92.02	179.42	11,457.87	-5,834.31	748.67	472,174.10	767,344.07	32.295°N	103.468°W
17,155.00	87.19	178.28	11,458.52	-5,928.26	750.56	472,080.15	767,345.96	32.295°N	103.468°W
17,249.00	89.52	178.34	11,461.22	-6,022.18	753.33	471,986.24	767,348.73	32.295°N	103.468°W
17,343.00	89.45	176.88	11,462.06	-6,116.09	757.25	471,892.32	767,352.65	32.294°N	103.468°W
17,438.00	91.72	177.28	11,461.09	-6,210.95	762.09	471,797.46	767,357.49	32.294°N	103.468°W
17,532.00	92.24	177.71	11,457.84	-6,304.81	766.20	471,703.61	767,361.59	32.294°N	103.468°W
17,626.00	91.81	178.76	11,454.52	-6,398.70	769.09	471,609.71	767,364.48	32.294°N	103.468°W
17,720.00	92.95	178.90	11,450.62	-6,492.60	771.01	471,515.81	767,366.40	32.293°N	103.468°W
17,821.00	91.22	179.84	11,446.94	-6,593.52	772.12	471,414.89	767,367.51	32.293°N	103.468°W
17,915.00	90.79	180.05	11,445.30	-6,687.51	772.21	471,320.91	767,367.60	32.293°N	103.468°W
18,010.00	90.22	180.07	11,444.46	-6,782.50	772.11	471,225.91	767,367.50	32.293°N	103.468°W
18,104.00	89.94	180.47	11,444.33	-6,876.50	771.66	471,131.91	767,367.06	32.292°N	103.468°W
18,198.00	90.26	179.76	11,444.16	-6,970.50	771.48	471,037.91	767,366.87	32.292°N	103.468°W
18,292.00	90.20	178.37	11,443.79	-7,064.49	773.01	470,943.93	767,368.40	32.292°N	103.468°W
18,386.00	91.06	178.12	11,442.75	-7,158.44	775.89	470,849.98	767,371.28	32.292°N	103.468°W
18,481.00	92.00	178.54	11,440.22	-7,253.36	778.66	470,755.06	767,374.05	32.291°N	103.468°W
18,575.00	92.42	179.59	11,436.59	-7,347.28	780.19	470,661.14	767,375.58	32.291°N	103.468°W
18,611.75	91.85	179.61	11,435.22	-7,384.00	780.44	470,624.42	767,375.84	32.291°N	103.468°W
18612'MD: Hardline Crossing FSL									
18,669.00	90.96	179.64	11,433.82	-7,441.23	780.82	470,567.19	767,376.22	32.291°N	103.468°W
18,685.00	90.87	179.48	11,433.56	-7,457.23	780.94	470,551.19	767,376.34	32.291°N	103.468°W
18685'MD: Final MWD Survey Depth									
18,742.00	90.87	179.48	11,432.70	-7,514.22	781.46	470,494.20	767,376.86	32.291°N	103.468°W
18742'MD: Projection to Bottom Hole									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	-0.08	-0.01	100'MD: Begin SDI Keeper Gyro
10,547.00	10,538.12	110.81	329.85	10547'MD: Final Gyro Depth
10,547.00	10,538.12	110.81	329.85	10547'MD: Tie into Keeper Gyro
10,580.00	10,571.09	110.86	331.25	10580'MD: Begin DriTech MWD
11,235.00	11,146.77	-124.73	451.76	11235'MD: Hardline Crossing FNL
18,611.75	11,435.22	-7,384.00	780.44	18612'MD: Hardline Crossing FSL
18,685.00	11,433.56	-7,457.23	780.94	18685'MD: Final MWD Survey Depth
18,742.00	11,432.70	-7,514.22	781.46	18742'MD: Projection to Bottom Hole

Checked By: _____	Approved By: _____	Date: _____
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