

Gettysburg State Com #12H

HOBBS OCD

JAN 10 2019

RECEIVED

<u>Perfs</u>	<u>7.5% Acid (Gal)</u>	<u>Sand (#)</u>	<u>Fluid (Gal)</u>
1	4032	359241	364434
2	3024	360123	323610
3	3024	359182	329448
4	3024	359884	314118
5	3024	361635	310842
6	3024	360035	324492
7	3024	360573	310968
8	3024	360772	321510
9	3024	360742	371112
10	3024	360174	305592
11	3024	360012	304542
12	3024	358164	318108
13	3024	360020	362418
14	3024	360332	304710
15	3024	359840	316848
16	3024	360145	303786
17	3024	360031	401604
18	3024	360629	328356
19	4536	360911	315168
20	4536	360440	312690
21	3024	361613	359814
22	3024	361564	302820
23	3024	360037	358848
24	3024	360968	310002
25	3024	196161	310044
26	3024	360013	300510
27	3024	360065	299334
28	3024	361363	301140
29	3024	360615	308280
30	3024	359963	313494
31	3024	359977	300426
32	3024	360976	301224
33	3024	360027	300636
34	3024	360024	297318
35	3024	360279	300552
36	3024	360912	302358
37	3024	360077	301644
38	4872	360056	303870
39	4872	360759	306012
Totals	125,664	13,888,334	12,422,682

From Bottom to Top	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots			
	18,554	10	5	18,445	32	5	18,265	28	5	18,092	31	5	17,912	21	5
	18,544	10	5	18,428	25	5	18,248	23	5	18,068	23	5	17,888	26	5
	18,534	10	4	18,403	20	4	18,225	20	4	18,045	22	4	17,862	19	4
	18,524	10	4	18,383	23	4	18,205	25	4	18,023	23	4	17,843	24	4
	18,514	10	3	18,360	22	3	18,180		3	18,000	22	3	17,819	21	3
	18,504	9	3	18,338	23	3	18,154	19	3	17,978	23	3	17,798	23	3
	18,495	18	3	18,315	22	3	18,135	12	3	17,955	22	3	17,775	22	3
	18,477		3	18,293		3	18,123		3	17,933		3	17,753		3
	Plug to Plug	39	30	Plug to Plug	78	30	Plug to Plug	69	30	Plug to Plug	78	30	Plug to Plug	78	30
Frac Plug	18,563	Total Shots	Frac Plug	18,461	Total Shots	Frac Plug	18,274	Total Shots	Frac Plug	18,101	Total Shots	Frac Plug	17,921	Total Shots	

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	17,722	31	5	17,550	29	5	17,372	21	5	17,177	36	5	17,006	27	5
	17,708	23	5	17,527	22	5	17,348	21	5	17,160	15	5	16,989	24	5
	17,685	20	4	17,505	22	4	17,327	24	4	17,145	22	4	16,965	17	4
	17,665	25	4	17,483	23	4	17,303	19	4	17,123	23	4	16,948	28	4
	17,640	27	3	17,460	22	3	17,284	26	3	17,100	22	3	16,920	25	3
	17,613	18	3	17,438	23	3	17,258	25	3	17,078	23	3	16,895	20	3
	17,595	16	3	17,415	22	3	17,233	20	3	17,055	22	3	16,875	22	3
	17,579		3	17,393		3	17,213		3	17,033		3	16,853		3
	Plug to Plug	66	30	Plug to Plug	78	30	Plug to Plug	78	30	Plug to Plug	63	30	Plug to Plug	67	30
Frac Plug	17,731	Total Shots	Frac Plug	17,561	Total Shots	Frac Plug	17,381	Total Shots	Frac Plug	17,186	Total Shots	Frac Plug	17,015	Total Shots	

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	
		16,830	23	5	16,652	21	5	16,459	34	5	16,289	24	5	16,110	23	5
		16,808	23	5	16,628	18	5	16,448	23	5	16,271	26	5	16,088	23	5
		16,785	22	4	16,610	27	4	16,425	22	4	16,245	26	4	16,065	22	4
		16,763	23	4	16,583	26	4	16,403	23	4	16,219	19	4	16,043	23	4
		16,740	22	3	16,557	19	3	16,380	22	3	16,200	23	3	16,020	22	3
		16,718	23	3	16,538	24	3	16,358	23	3	16,177	22	3	15,998	23	3
		16,695	22	3	16,514	21	3	16,335	22	3	16,155	22	3	15,975	22	3
		16,673		3	16,493		3	16,313		3	16,133		3	15,953		3
		Plug to Plug	76	30	Plug to Plug	78	30	Plug to Plug	65	30	Plug to Plug	79	30	Plug to Plug	76	30
	Frac Plug	16,839	Total Shots	Frac Plug	16,661	Total Shots	Frac Plug	16,468	Total Shots	Frac Plug	16,298	Total Shots	Frac Plug	16,119	Total Shots	

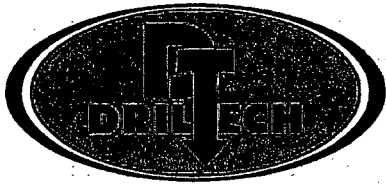
From Bottom to Top	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots	Distance Between Perfs	Shots			
	15,932	21	5	15,744	29	5	15,568	22	5	15,348	65	5	15,199	34	5
	15,908	28	5	15,728	23	5	15,548	23	5	15,335	13	5	15,188	23	5
	15,880	17	4	15,705	20	4	15,525	22	4	15,322	13	4	15,165	22	4
	15,863	23	4	15,685	25	4	15,503	23	4	15,309	13	4	15,143	23	4
	15,840	22	3	15,660	26	3	15,480	22	3	15,286	18	3	15,120	22	3
	15,818	23	3	15,634	19	3	15,458	23	3	15,278	23	3	15,098	23	3
	15,795	22	3	15,615	25	3	15,435	22	3	15,255	22	3	15,075	19	3
	15,773		3	15,590		3	15,413		3	15,233		3	15,056		3
	Plug to Plug	78	30	Plug to Plug	68	30	Plug to Plug	74	30	Plug to Plug	48	30	Plug to Plug	65	30
Frac Plug	15,941	Total Shots	Frac Plug	15,753	Total Shots	Frac Plug	15,577	Total Shots	Frac Plug	15,357	Total Shots	Frac Plug	15,208	Total Shots	

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	15,030	26	5	14,850	23	5	14664	29	5	14,490	28	5	14,310	23	5
	15,004	19	5	14,828	23	5	14648	23	5	14,465	20	5	14,288	19	5
	14,985	22	4	14,805	22	4	14625	22	4	14,445	22	4	14,269	26	4
	14,963	23	4	14,783	18	4	14603	23	4	14,423	23	4	14,243	26	4
	14,940	22	3	14,765	27	3	14580	21	3	14,400	22	3	14,217	19	3
	14,918	23	3	14,738	23	3	14559	24	3	14,378	23	3	14,198	23	3
	14,895	22	3	14,715	22	3	14535	17	3	14,355	22	3	14,175	22	3
	14,873		3	14,693		3	14518		3	14,333		3	14,153		3
	Plug to Plug	76	30	Plug to Plug	76	30	Plug to Plug	70	30	Plug to Plug	76	30	Plug to Plug	76	30
Frac Plug	15,039	Total Shots	Frac Plug	14,859	Total Shots	Frac Plug	14,673	Total Shots	Frac Plug	14,499	Total Shots	Frac Plug	14,319	Total Shots	

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	14,121	32	5	13,949	24	5	13,770	23	5	13,575	38	5	13,408	25	5
	14,108	23	5	13,932	27	5	13,748	23	5	13,568	26	5	13,391	26	5
	14,085	22	4	13,905	25	4	13,725	22	4	13,542	19	4	13,365	15	4
	14,063	23	4	13,880	20	4	13,703	20	4	13,523	23	4	13,350	30	4
	14,040	22	3	13,860	22	3	13,683	25	3	13,500	22	3	13,320	22	3
	14,018	23	3	13,838	23	3	13,658	27	3	13,478	23	3	13,298	23	3
	13,995	22	3	13,815	22	3	13,631	18	3	13,455	22	3	13,275	22	3
	13,973		3	13,793		3	13,613		3	13,433		3	13,253		3
	Plug to Plug	67	30	Plug to Plug	78	30	Plug to Plug	76	30	Plug to Plug	61	30	Plug to Plug	67	30
	Frac Plug	14,130	Total Shots	Frac Plug	13,958	Total Shots	Frac Plug	13,779	Total Shots	Frac Plug	13,584	Total Shots	Frac Plug	13,417	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	Stage 35	Distance Between Perfs	Shots
	13,230	23	5	13,045	28	5	12,867	23	5	12,690	23	5	12,512	21	5
	13,208	23	5	13,028	25	5	12,848	23	5	12,668	23	5	12,488	23	5
	13,185	22	4	13,003	20	4	12,825	19	4	12,645	22	4	12,465	22	4
	13,163	23	4	12,983	23	4	12,806	26	4	12,623	22	4	12,443	23	4
	13,140	22	3	12,960	22	3	12,780	22	3	12,601	23	3	12,420	22	3
	13,118	21	3	12,938	23	3	12,758	23	3	12,578	20	3	12,398	23	3
	13,097	24	3	12,915	25	3	12,735	22	3	12,558	25	3	12,375	22	3
	13,073		3	12,890		3	12,713		3	12,533		3	12,353		3
	Plug to Plug	76	30	Plug to Plug	78	30	Plug to Plug	70	30	Plug to Plug	76	30	Plug to Plug	78	30
Frac Plug		13,239	Total Shots	Frac Plug	13,061	Total Shots	Frac Plug	12,876	Total Shots	Frac Plug	12,699	Total Shots	Frac Plug	12,521	Total Shots

From Bottom to Top		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	Stage 40	Distance Between Perfs	Shots
	12,330	23	5	12,150	22	5	11,962	31	5	11,781	32	5		11,633	5
	12,308	23	5	12,128	23	5	11,948	27	5	11,768	23	5			5
	12,285	20	4	12,105	22	4	11,921	18	4	11,745	22	4			4
	12,265	25	4	12,083	23	4	11,903	24	4	11,723	23	4			4
	12,240	25	3	12,060	22	3	11,879	21	3	11,700	22	3			3
	12,215	20	3	12,038	23	3	11,858	23	3	11,678	23	3			3
	12,195	23	3	12,015	22	3	11,835	22	3	11,655	22	3			3
	12,172		3	11,993		3	11,813		3	11,633		3			3
	Plug to Plug	74	30	Plug to Plug	76	30	Plug to Plug	75	30	Plug to Plug	67	30	Plug to Plug	0	30
Frac Plug		12,339	Total Shots	Frac Plug	12,159	Total Shots	Frac Plug	11,978	Total Shots	Frac Plug	11,790	Total Shots	Frac Plug		Total Shots



Concho Operating

**Lea County, NM (Nad 27)
Gettysburg State Com
Gettysburg State Com 12H**

Gettysburg SC 12H

Design: Gettysburg SC 12H

Standard Survey Report

22 May, 2018

HOBBS

JAN 10 2019

REC



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	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	Latitude:	32.311°N
From:	Map	Easting:	766,595.40 usft	Longitude:	103.470°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.46 °

Well	Gettysburg State Com 12H					
Well Position	+N/-S	0.00 ft	Northing:	478,008.10 usfi	Latitude:	32.311°N
	+E/-W	0.00 ft	Easting:	766,565.50 usfi	Longitude:	103.471°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,412.40 ft

Wellbore	Gettysburg SC 12H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/3/2018	6.82	60.15	47,910.32251670

Design	Gettysburg SC 12H			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	184.82

Survey Program	Date 5/22/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	10,531.00	Keeper Gyro (Gettysburg SC 12H)	Keeper	Keeper Standard Rate Gyro
10,574.00	18,830.00	DriTech MWD (Curve & Lateral) (Gettysburg SC 12H)	MWD	MWD - Standard

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.11	75.17	100.00	0.02	0.09	-0.03	0.11	0.11	0.00
100'MD: Begin Keeper Gyro									
125.00	0.20	72.92	125.00	0.04	0.16	-0.06	0.36	0.36	-9.00
150.00	0.12	101.70	150.00	0.05	0.23	-0.07	0.44	-0.32	115.12
175.00	0.31	99.64	175.00	0.03	0.32	-0.06	0.76	0.76	-8.24
200.00	0.20	95.97	200.00	0.02	0.43	-0.05	0.44	-0.44	-14.68
225.00	0.30	98.59	225.00	0.00	0.54	-0.05	0.40	0.40	10.48
250.00	0.29	106.69	250.00	-0.02	0.66	-0.03	0.17	-0.04	32.40
275.00	0.32	109.23	275.00	-0.06	0.79	0.00	0.13	0.12	10.16



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
300.00	0.17	93.56	300.00	-0.09	0.89	0.02	0.65	-0.60	-62.68
325.00	0.21	120.71	325.00	-0.12	0.97	0.03	0.39	0.16	108.60
350.00	0.35	108.38	350.00	-0.16	1.08	0.07	0.61	0.56	-49.32
375.00	0.42	110.32	375.00	-0.22	1.24	0.11	0.28	0.28	7.76
400.00	0.27	87.91	400.00	-0.25	1.38	0.13	0.80	-0.60	-89.64
425.00	0.27	105.55	425.00	-0.26	1.50	0.14	0.33	0.00	70.56
450.00	0.32	91.40	450.00	-0.28	1.62	0.14	0.35	0.20	-56.60
475.00	0.35	98.97	475.00	-0.29	1.77	0.14	0.21	0.12	30.28
500.00	0.34	121.91	500.00	-0.34	1.91	0.18	0.55	-0.04	91.76
525.00	0.41	108.00	524.99	-0.41	2.06	0.24	0.46	0.28	-55.64
550.00	0.40	124.91	549.99	-0.49	2.21	0.30	0.48	-0.04	67.64
575.00	0.34	130.88	574.99	-0.59	2.34	0.39	0.28	-0.24	23.88
600.00	0.36	154.21	599.99	-0.71	2.43	0.50	0.57	0.08	93.32
625.00	0.36	188.10	624.99	-0.86	2.45	0.65	0.84	0.00	135.56
650.00	0.42	207.43	649.99	-1.01	2.40	0.81	0.57	0.24	77.32
675.00	0.52	223.37	674.99	-1.18	2.28	0.98	0.65	0.40	63.76
700.00	0.38	238.08	699.99	-1.30	2.13	1.12	0.72	-0.56	58.84
725.00	0.59	246.46	724.99	-1.40	1.94	1.23	0.88	0.84	33.52
750.00	0.80	284.09	749.99	-1.41	1.66	1.26	1.96	0.84	150.52
775.00	1.21	291.33	774.98	-1.27	1.24	1.16	1.71	1.64	28.96
800.00	1.57	302.26	799.98	-0.99	0.71	0.93	1.78	1.44	43.72
825.00	2.04	309.23	824.96	-0.53	0.07	0.52	2.07	1.88	27.88
850.00	2.36	312.76	849.95	0.10	-0.65	-0.05	1.39	1.28	14.12
875.00	2.37	314.12	874.92	0.81	-1.40	-0.69	0.23	0.04	5.44
900.00	2.60	310.84	899.90	1.54	-2.20	-1.35	1.08	0.92	-13.12
925.00	2.80	313.30	924.87	2.33	-3.07	-2.07	0.92	0.80	9.84
950.00	2.78	310.85	949.84	3.15	-3.98	-2.80	0.48	-0.08	-9.80
975.00	3.01	313.82	974.81	4.00	-4.91	-3.57	1.10	0.92	11.88
1,000.00	2.78	310.99	999.78	4.85	-5.84	-4.34	1.08	-0.92	-11.32
1,025.00	2.75	310.79	1,024.75	5.64	-6.75	-5.05	0.13	-0.12	-0.80
1,050.00	2.85	311.04	1,049.72	6.44	-7.68	-5.77	0.40	0.40	1.00
1,075.00	2.79	309.78	1,074.69	7.24	-8.61	-6.49	0.35	-0.24	-5.04
1,100.00	2.70	307.39	1,099.66	7.99	-9.55	-7.15	0.58	-0.36	-9.56
1,125.00	2.79	306.86	1,124.63	8.71	-10.50	-7.79	0.37	0.36	-2.12
1,150.00	2.82	304.22	1,149.60	9.42	-11.50	-8.42	0.53	0.12	-10.56
1,175.00	2.97	301.46	1,174.57	10.10	-12.56	-9.01	0.82	0.60	-11.04
1,200.00	3.06	300.82	1,199.54	10.78	-13.68	-9.59	0.38	0.36	-2.56
1,225.00	3.03	298.45	1,224.50	11.44	-14.84	-10.15	0.52	-0.12	-9.48
1,250.00	3.19	299.20	1,249.46	12.09	-16.03	-10.70	0.66	0.64	3.00
1,275.00	2.97	291.95	1,274.43	12.67	-17.23	-11.18	1.79	-0.88	-29.00
1,300.00	2.88	284.50	1,299.40	13.07	-18.44	-11.48	1.56	-0.36	-29.80
1,325.00	2.93	281.12	1,324.36	13.35	-19.68	-11.65	0.71	0.20	-13.52
1,350.00	2.74	279.90	1,349.33	13.58	-20.89	-11.78	0.80	-0.76	-4.88



Survey Report

Company: Concho Operating
Project: Lea County, NM (Nad 27)
Site: Gettysburg State Com
Well: Gettysburg State Com 12H
Wellbore: Gettysburg SC 12H
Design: Gettysburg SC 12H

Local Co-ordinate Reference: Well Gettysburg State Com 12H
TVD Reference: GL 3412.4' + 29' RKB @ 3441.40ft
MD Reference: GL 3412.4' + 29' RKB @ 3441.40ft
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)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,375.00	2.90	278.63	1,374.30	13.78	-22.11	-11.87	0.69	0.64	-5.08
1,400.00	2.98	278.34	1,399.27	13.97	-23.37	-11.95	0.33	0.32	-1.16
1,425.00	2.79	278.88	1,424.24	14.16	-24.62	-12.04	0.77	-0.76	2.16
1,450.00	2.97	277.96	1,449.21	14.34	-25.86	-12.12	0.74	0.72	-3.68
1,475.00	3.12	279.42	1,474.17	14.54	-27.17	-12.21	0.68	0.60	5.84
1,500.00	2.99	279.52	1,499.14	14.76	-28.49	-12.31	0.52	-0.52	0.40
1,525.00	3.01	281.47	1,524.10	15.00	-29.77	-12.44	0.42	0.08	7.80
1,550.00	2.90	282.69	1,549.07	15.27	-31.03	-12.61	0.51	-0.44	4.88
1,575.00	2.91	283.01	1,574.04	15.55	-32.27	-12.78	0.08	0.04	1.28
1,600.00	2.84	285.09	1,599.00	15.85	-33.49	-12.98	0.50	-0.28	8.32
1,625.00	2.62	284.81	1,623.98	16.16	-34.64	-13.19	0.88	-0.88	-1.12
1,650.00	2.10	288.01	1,648.96	16.45	-35.62	-13.40	2.14	-2.08	12.80
1,675.00	1.78	284.50	1,673.94	16.69	-36.44	-13.57	1.36	-1.28	-14.04
1,700.00	1.41	293.71	1,698.93	16.91	-37.09	-13.73	1.80	-1.48	36.84
1,725.00	1.28	294.15	1,723.92	17.15	-37.63	-13.92	0.52	-0.52	1.76
1,750.00	1.06	301.02	1,748.92	17.38	-38.08	-14.12	1.04	-0.88	27.48
1,775.00	0.88	300.50	1,773.92	17.60	-38.45	-14.30	0.72	-0.72	-2.08
1,800.00	0.95	303.37	1,798.91	17.81	-38.79	-14.49	0.33	0.28	11.48
1,825.00	1.10	302.16	1,823.91	18.05	-39.16	-14.69	0.61	0.60	-4.84
1,850.00	1.05	309.53	1,848.90	18.32	-39.54	-14.93	0.59	-0.20	29.48
1,875.00	1.01	307.31	1,873.90	18.60	-39.89	-15.18	0.23	-0.16	-8.88
1,900.00	1.07	305.19	1,898.90	18.87	-40.26	-15.42	0.29	0.24	-8.48
1,925.00	0.93	310.80	1,923.89	19.14	-40.60	-15.66	0.68	-0.56	22.44
1,950.00	0.78	308.67	1,948.89	19.38	-40.89	-15.87	0.61	-0.60	-8.52
1,975.00	0.99	303.29	1,973.89	19.60	-41.20	-16.07	0.90	0.84	-21.52
2,000.00	1.01	303.62	1,998.88	19.84	-41.57	-16.28	0.08	0.08	1.32
2,025.00	0.78	303.74	2,023.88	20.06	-41.89	-16.47	0.92	-0.92	0.48
2,050.00	0.89	303.73	2,048.88	20.26	-42.20	-16.64	0.44	0.44	-0.04
2,075.00	0.72	306.32	2,073.87	20.46	-42.48	-16.82	0.70	-0.68	10.36
2,100.00	0.78	299.79	2,098.87	20.64	-42.76	-16.97	0.42	0.24	-26.12
2,125.00	0.57	309.22	2,123.87	20.80	-43.00	-17.11	0.95	-0.84	37.72
2,150.00	0.68	297.87	2,148.87	20.95	-43.23	-17.24	0.66	0.44	-45.40
2,175.00	0.50	295.67	2,173.87	21.07	-43.46	-17.34	0.73	-0.72	-8.80
2,200.00	0.49	289.63	2,198.87	21.15	-43.66	-17.41	0.21	-0.04	-24.16
2,225.00	0.52	295.90	2,223.87	21.23	-43.86	-17.47	0.25	0.12	25.08
2,250.00	0.58	292.73	2,248.86	21.33	-44.08	-17.55	0.27	0.24	-12.68
2,275.00	0.52	273.36	2,273.86	21.39	-44.31	-17.59	0.78	-0.24	-77.48
2,300.00	0.38	266.10	2,298.86	21.39	-44.51	-17.57	0.60	-0.56	-29.04
2,325.00	0.24	276.44	2,323.86	21.39	-44.64	-17.56	0.60	-0.56	41.36
2,350.00	0.20	251.88	2,348.86	21.38	-44.73	-17.55	0.41	-0.16	-98.24
2,375.00	0.26	228.27	2,373.86	21.33	-44.82	-17.49	0.44	0.24	-94.44
2,400.00	0.35	232.05	2,398.86	21.25	-44.92	-17.40	0.37	0.36	15.12
2,425.00	0.24	213.48	2,423.86	21.16	-45.01	-17.30	0.58	-0.44	-74.28



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,450.00	0.26	193.90	2,448.86	21.06	-45.05	-17.20	0.35	0.08	-78.32	
2,475.00	0.30	166.02	2,473.86	20.94	-45.05	-17.08	0.56	0.16	-111.52	
2,500.00	0.42	179.81	2,498.86	20.78	-45.03	-16.93	0.59	0.48	55.16	
2,525.00	0.37	163.67	2,523.86	20.61	-45.01	-16.76	0.49	-0.20	-64.56	
2,550.00	0.33	168.49	2,548.86	20.47	-44.97	-16.61	0.20	-0.16	19.28	
2,575.00	0.48	167.09	2,573.86	20.29	-44.94	-16.45	0.60	0.60	-5.60	
2,600.00	0.49	183.88	2,598.86	20.08	-44.92	-16.24	0.57	0.04	67.16	
2,625.00	0.55	217.17	2,623.86	19.88	-45.00	-16.03	1.21	0.24	133.16	
2,650.00	0.74	223.14	2,648.85	19.67	-45.18	-15.80	0.81	0.76	23.88	
2,675.00	0.57	225.28	2,673.85	19.46	-45.38	-15.58	0.69	-0.68	8.56	
2,700.00	0.59	223.11	2,698.85	19.28	-45.56	-15.39	0.12	0.08	-8.68	
2,725.00	0.63	219.18	2,723.85	19.08	-45.73	-15.17	0.23	0.16	-15.72	
2,750.00	0.70	209.17	2,748.85	18.84	-45.89	-14.92	0.54	0.28	-40.04	
2,775.00	0.79	201.21	2,773.85	18.55	-46.03	-14.61	0.55	0.36	-31.84	
2,800.00	0.67	199.50	2,798.84	18.25	-46.14	-14.31	0.49	-0.48	-6.84	
2,825.00	0.71	196.03	2,823.84	17.96	-46.23	-14.01	0.23	0.16	-13.88	
2,850.00	0.90	181.51	2,848.84	17.62	-46.28	-13.67	1.11	0.76	-58.08	
2,875.00	1.03	188.87	2,873.84	17.20	-46.32	-13.25	0.72	0.52	29.44	
2,900.00	0.94	185.04	2,898.83	16.77	-46.37	-12.82	0.45	-0.36	-15.32	
2,925.00	1.02	187.90	2,923.83	16.35	-46.42	-12.39	0.37	0.32	11.44	
2,950.00	1.05	184.13	2,948.83	15.90	-46.47	-11.94	0.30	0.12	-15.08	
2,975.00	1.03	189.84	2,973.82	15.45	-46.52	-11.49	0.42	-0.08	22.84	
3,000.00	0.87	222.53	2,998.82	15.09	-46.69	-11.11	2.23	-0.64	130.76	
3,025.00	1.03	240.03	3,023.81	14.84	-47.01	-10.83	1.32	0.64	70.00	
3,050.00	1.07	247.85	3,048.81	14.64	-47.42	-10.60	0.59	0.16	31.28	
3,075.00	1.03	250.03	3,073.81	14.47	-47.85	-10.40	0.23	-0.16	8.72	
3,100.00	0.67	273.22	3,098.80	14.40	-48.21	-10.30	1.96	-1.44	92.76	
3,125.00	0.78	266.27	3,123.80	14.40	-48.52	-10.27	0.56	0.44	-27.80	
3,150.00	0.58	272.76	3,148.80	14.39	-48.82	-10.24	0.86	-0.80	25.96	
3,175.00	0.29	285.23	3,173.80	14.42	-49.01	-10.25	1.21	-1.16	49.88	
3,200.00	0.25	76.02	3,198.80	14.45	-49.02	-10.28	2.09	-0.16	603.16	
3,225.00	0.72	78.88	3,223.80	14.49	-48.81	-10.34	1.88	1.88	11.44	
3,250.00	0.81	80.78	3,248.80	14.55	-48.48	-10.42	0.37	0.36	7.60	
3,275.00	1.21	78.36	3,273.79	14.63	-48.05	-10.54	1.61	1.60	-9.68	
3,300.00	1.47	79.28	3,298.79	14.74	-47.47	-10.70	1.04	1.04	3.68	
3,325.00	1.94	75.07	3,323.77	14.91	-46.75	-10.93	1.94	1.88	-16.84	
3,350.00	2.11	67.92	3,348.76	15.19	-45.91	-11.28	1.22	0.68	-28.60	
3,375.00	2.35	57.47	3,373.74	15.64	-45.06	-11.80	1.88	0.96	-41.80	
3,400.00	2.83	42.72	3,398.71	16.37	-44.20	-12.60	3.27	1.92	-59.00	
3,425.00	2.95	43.25	3,423.68	17.29	-43.35	-13.59	0.49	0.48	2.12	
3,450.00	3.13	38.10	3,448.65	18.30	-42.48	-14.67	1.31	0.72	-20.60	
3,475.00	3.29	31.35	3,473.61	19.45	-41.69	-15.88	1.64	0.64	-27.00	
3,500.00	3.49	28.30	3,498.56	20.73	-40.96	-17.22	1.08	0.80	-12.20	
3,525.00	3.49	28.27	3,523.52	22.07	-40.23	-18.61	0.01	0.00	-0.12	



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,550.00	3.50	25.49	3,548.47	23.43	-39.55	-20.03	0.68	0.04	-11.12
3,575.00	3.23	12.02	3,573.43	24.81	-39.07	-21.44	3.33	-1.08	-53.88
3,600.00	3.17	10.22	3,598.39	26.18	-38.80	-22.83	0.47	-0.24	-7.20
3,625.00	3.10	6.91	3,623.35	27.53	-38.60	-24.19	0.78	-0.28	-13.24
3,650.00	3.07	1.30	3,648.32	28.87	-38.50	-25.53	1.21	-0.12	-22.44
3,675.00	3.26	345.10	3,673.28	30.23	-38.67	-26.87	3.64	0.76	-64.80
3,700.00	3.42	340.63	3,698.24	31.62	-39.10	-28.22	1.22	0.64	-17.88
3,725.00	3.48	338.99	3,723.19	33.03	-39.62	-29.58	0.46	0.24	-6.56
3,750.00	3.41	333.24	3,748.15	34.40	-40.22	-30.90	1.41	-0.28	-23.00
3,775.00	3.64	316.10	3,773.10	35.64	-41.11	-32.06	4.30	0.92	-68.56
3,800.00	3.69	314.57	3,798.05	36.77	-42.23	-33.09	0.44	0.20	-6.12
3,825.00	3.75	307.48	3,823.00	37.83	-43.45	-34.05	1.85	0.24	-28.36
3,850.00	3.90	300.33	3,847.94	38.76	-44.84	-34.86	2.00	0.60	-28.60
3,875.00	4.10	287.06	3,872.88	39.45	-46.43	-35.41	3.78	0.80	-53.08
3,900.00	4.24	286.78	3,897.81	39.98	-48.16	-35.79	0.57	0.56	-1.12
3,925.00	3.95	286.09	3,922.75	40.49	-49.88	-36.15	1.18	-1.16	-2.76
3,950.00	2.92	284.03	3,947.70	40.88	-51.32	-36.42	4.15	-4.12	-8.24
3,975.00	2.40	280.14	3,972.68	41.13	-52.45	-36.57	2.20	-2.08	-15.56
4,000.00	2.12	281.17	3,997.66	41.31	-53.42	-36.67	1.13	-1.12	4.12
4,025.00	2.09	282.07	4,022.64	41.49	-54.32	-36.78	0.18	-0.12	3.60
4,050.00	1.93	284.50	4,047.63	41.69	-55.18	-36.91	0.72	-0.64	9.72
4,075.00	1.67	295.82	4,072.61	41.96	-55.91	-37.11	1.76	-1.04	45.28
4,100.00	1.34	310.20	4,097.60	42.31	-56.46	-37.41	2.00	-1.32	57.52
4,125.00	1.52	325.30	4,122.60	42.77	-56.88	-37.84	1.66	0.72	60.40
4,150.00	1.63	347.01	4,147.59	43.39	-57.14	-38.43	2.41	0.44	86.84
4,175.00	1.74	346.12	4,172.58	44.10	-57.32	-39.13	0.45	0.44	-3.56
4,200.00	1.78	349.23	4,197.57	44.85	-57.48	-39.86	0.41	0.16	12.44
4,225.00	1.93	350.80	4,222.55	45.65	-57.62	-40.65	0.63	0.60	6.28
4,250.00	1.88	346.76	4,247.54	46.46	-57.78	-41.44	0.57	-0.20	-16.16
4,275.00	1.96	348.67	4,272.52	47.28	-57.96	-42.24	0.41	0.32	7.64
4,300.00	1.97	349.25	4,297.51	48.12	-58.12	-43.07	0.09	0.04	2.32
4,325.00	1.89	343.05	4,322.50	48.94	-58.32	-43.87	0.89	-0.32	-24.80
4,350.00	1.99	338.69	4,347.48	49.74	-58.60	-44.64	0.71	0.40	-17.44
4,375.00	2.04	341.76	4,372.47	50.56	-58.90	-45.44	0.48	0.20	12.28
4,400.00	1.84	341.35	4,397.45	51.37	-59.16	-46.21	0.80	-0.80	-1.64
4,425.00	1.91	344.78	4,422.44	52.15	-59.40	-46.97	0.53	0.28	13.72
4,450.00	1.84	343.06	4,447.42	52.94	-59.63	-47.74	0.36	-0.28	-6.88
4,475.00	1.80	350.95	4,472.41	53.71	-59.81	-48.49	1.01	-0.16	31.56
4,500.00	1.60	351.23	4,497.40	54.44	-59.92	-49.21	0.80	-0.80	1.12
4,525.00	1.58	357.07	4,522.39	55.13	-59.99	-49.89	0.65	-0.08	23.36
4,550.00	1.63	350.97	4,547.38	55.82	-60.07	-50.58	0.71	0.20	-24.40
4,575.00	1.64	351.29	4,572.37	56.53	-60.18	-51.27	0.05	0.04	1.28
4,600.00	1.62	351.74	4,597.36	57.23	-60.28	-51.97	0.09	-0.08	1.80



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,625.00	1.80	326.45	4,622.35	57.91	-60.55	-52.62	3.08	0.72	-101.16
4,650.00	1.86	315.27	4,647.34	58.53	-61.05	-53.19	1.45	0.24	-44.72
4,675.00	1.89	314.43	4,672.32	59.10	-61.63	-53.71	0.16	0.12	-3.36
4,700.00	2.04	306.29	4,697.31	59.65	-62.28	-54.21	1.27	0.60	-32.56
4,725.00	2.45	283.94	4,722.29	60.05	-63.16	-54.53	3.83	1.64	-89.40
4,750.00	2.65	278.57	4,747.27	60.26	-64.25	-54.65	1.25	0.80	-21.48
4,775.00	2.74	275.15	4,772.24	60.40	-65.42	-54.69	0.74	0.36	-13.68
4,800.00	2.71	275.82	4,797.21	60.51	-66.60	-54.70	0.18	-0.12	2.68
4,825.00	2.70	274.85	4,822.18	60.62	-67.78	-54.71	0.19	-0.04	-3.88
4,850.00	2.44	271.71	4,847.16	60.69	-68.90	-54.69	1.18	-1.04	-12.56
4,875.00	2.27	270.89	4,872.14	60.71	-69.92	-54.62	0.69	-0.68	-3.28
4,900.00	2.20	270.35	4,897.12	60.72	-70.90	-54.55	0.29	-0.28	-2.16
4,925.00	2.19	268.70	4,922.10	60.72	-71.85	-54.46	0.26	-0.04	-6.60
4,950.00	1.84	264.59	4,947.08	60.67	-72.73	-54.34	1.51	-1.40	-16.44
4,975.00	1.69	269.44	4,972.07	60.63	-73.50	-54.24	0.85	-0.60	19.40
5,000.00	1.60	264.77	4,997.06	60.59	-74.22	-54.14	0.65	-0.36	-18.68
5,025.00	1.63	257.99	5,022.05	60.48	-74.91	-53.98	0.77	0.12	-27.12
5,050.00	1.78	259.95	5,047.04	60.34	-75.64	-53.77	0.64	0.60	7.84
5,075.00	1.66	260.31	5,072.03	60.21	-76.38	-53.58	0.48	-0.48	1.44
5,100.00	1.47	254.75	5,097.02	60.07	-77.05	-53.38	0.97	-0.76	-22.24
5,125.00	1.50	258.90	5,122.01	59.92	-77.68	-53.18	0.45	0.12	16.60
5,150.00	1.49	255.32	5,147.00	59.78	-78.31	-52.98	0.38	-0.04	-14.32
5,175.00	1.52	256.53	5,171.99	59.62	-78.95	-52.77	0.17	0.12	4.84
5,200.00	1.68	261.91	5,196.98	59.49	-79.64	-52.59	0.88	0.64	21.52
5,225.00	1.45	255.64	5,221.98	59.36	-80.30	-52.40	1.15	-0.92	-25.08
5,250.00	1.55	257.10	5,246.97	59.20	-80.94	-52.19	0.43	0.40	5.84
5,275.00	1.49	256.92	5,271.96	59.05	-81.59	-51.99	0.24	-0.24	-0.72
5,300.00	1.39	253.82	5,296.95	58.90	-82.19	-51.78	0.51	-0.40	-12.40
5,325.00	1.49	257.41	5,321.94	58.74	-82.80	-51.58	0.54	0.40	14.36
5,350.00	1.51	254.02	5,346.93	58.58	-83.44	-51.36	0.36	0.08	-13.56
5,375.00	1.43	256.58	5,371.93	58.42	-84.06	-51.15	0.41	-0.32	10.24
5,400.00	1.52	254.41	5,396.92	58.26	-84.68	-50.93	0.42	0.36	-8.68
5,425.00	1.52	256.54	5,421.91	58.09	-85.32	-50.71	0.23	0.00	8.52
5,450.00	1.32	256.12	5,446.90	57.94	-85.92	-50.52	0.80	-0.80	-1.68
5,475.00	1.63	255.77	5,471.89	57.79	-86.55	-50.31	1.24	1.24	-1.40
5,500.00	1.59	258.04	5,496.88	57.63	-87.23	-50.09	0.30	-0.16	9.08
5,525.00	1.73	258.73	5,521.87	57.48	-87.94	-49.89	0.57	0.56	2.76
5,550.00	1.79	255.56	5,546.86	57.31	-88.69	-49.66	0.46	0.24	-12.68
5,575.00	1.94	260.63	5,571.85	57.14	-89.48	-49.42	0.89	0.60	20.28
5,600.00	1.83	257.94	5,596.83	56.99	-90.29	-49.20	0.56	-0.44	-10.76
5,625.00	1.80	260.19	5,621.82	56.84	-91.07	-48.99	0.31	-0.12	9.00
5,650.00	1.87	261.75	5,646.81	56.72	-91.86	-48.80	0.34	0.28	6.24
5,675.00	1.92	261.00	5,671.79	56.59	-92.68	-48.60	0.22	0.20	-3.00



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,700.00	1.80	260.84	5,696.78	56.46	-93.48	-48.41	0.48	-0.48	-0.64
5,725.00	1.51	260.18	5,721.77	56.35	-94.19	-48.23	1.16	-1.16	-2.64
5,750.00	1.66	260.38	5,746.76	56.23	-94.87	-48.06	0.60	0.60	0.80
5,775.00	1.61	260.56	5,771.75	56.11	-95.58	-47.88	0.20	-0.20	0.72
5,800.00	1.67	263.97	5,796.74	56.01	-96.29	-47.73	0.46	0.24	13.64
5,825.00	1.71	263.69	5,821.73	55.94	-97.02	-47.59	0.16	0.16	-1.12
5,850.00	2.23	262.95	5,846.71	55.83	-97.87	-47.41	2.08	2.08	-2.96
5,875.00	2.78	268.51	5,871.69	55.76	-98.96	-47.25	2.40	2.20	22.24
5,900.00	2.98	268.01	5,896.66	55.72	-100.22	-47.10	0.81	0.80	-2.00
5,925.00	2.89	268.01	5,921.63	55.68	-101.50	-46.95	0.36	-0.36	0.00
5,950.00	2.82	267.44	5,946.60	55.63	-102.74	-46.80	0.30	-0.28	-2.28
5,975.00	2.89	269.99	5,971.56	55.60	-103.98	-46.67	0.58	0.28	10.20
6,000.00	3.00	269.35	5,996.53	55.59	-105.27	-46.55	0.46	0.44	-2.56
6,025.00	2.86	270.08	6,021.50	55.59	-106.55	-46.44	0.58	-0.56	2.92
6,050.00	2.85	270.80	6,046.47	55.59	-107.79	-46.34	0.15	-0.04	2.88
6,075.00	2.84	270.02	6,071.44	55.60	-109.03	-46.25	0.16	-0.04	-3.12
6,100.00	2.96	270.23	6,096.40	55.61	-110.30	-46.14	0.48	0.48	0.84
6,125.00	2.89	269.58	6,121.37	55.60	-111.57	-46.03	0.31	-0.28	-2.60
6,150.00	2.84	271.52	6,146.34	55.62	-112.82	-45.94	0.44	-0.20	7.76
6,175.00	2.90	270.23	6,171.31	55.64	-114.07	-45.85	0.35	0.24	-5.16
6,200.00	2.98	268.84	6,196.28	55.62	-115.36	-45.74	0.43	0.32	-5.56
6,225.00	2.95	270.50	6,221.24	55.62	-116.65	-45.62	0.36	-0.12	6.64
6,250.00	2.93	269.65	6,246.21	55.62	-117.93	-45.51	0.19	-0.08	-3.40
6,275.00	2.92	268.96	6,271.18	55.60	-119.21	-45.39	0.15	-0.04	-2.76
6,300.00	2.89	269.09	6,296.15	55.58	-120.47	-45.26	0.12	-0.12	0.52
6,325.00	2.93	271.47	6,321.11	55.59	-121.74	-45.16	0.51	0.16	9.52
6,350.00	2.98	270.44	6,346.08	55.61	-123.03	-45.08	0.29	0.20	-4.12
6,375.00	2.94	268.73	6,371.05	55.60	-124.32	-44.96	0.39	-0.16	-6.84
6,400.00	2.84	269.63	6,396.02	55.58	-125.58	-44.83	0.44	-0.40	3.60
6,425.00	2.75	270.38	6,420.99	55.58	-126.80	-44.73	0.39	-0.36	3.00
6,450.00	2.63	268.34	6,445.96	55.57	-127.97	-44.62	0.61	-0.48	-8.16
6,475.00	2.69	269.96	6,470.93	55.55	-129.13	-44.51	0.38	0.24	6.48
6,500.00	2.62	268.08	6,495.90	55.53	-130.29	-44.39	0.45	-0.28	-7.52
6,525.00	2.66	270.02	6,520.88	55.51	-131.44	-44.27	0.39	0.16	7.76
6,550.00	2.77	271.27	6,545.85	55.53	-132.63	-44.19	0.50	0.44	5.00
6,575.00	2.70	270.91	6,570.82	55.55	-133.82	-44.11	0.29	-0.28	-1.44
6,600.00	2.65	270.94	6,595.79	55.57	-134.99	-44.03	0.20	-0.20	0.12
6,625.00	2.64	273.14	6,620.77	55.61	-136.14	-43.97	0.41	-0.04	8.80
6,650.00	2.62	272.67	6,645.74	55.67	-137.28	-43.94	0.12	-0.08	-1.88
6,675.00	2.50	271.66	6,670.72	55.71	-138.40	-43.88	0.51	-0.48	-4.04
6,700.00	2.48	271.70	6,695.69	55.74	-139.49	-43.83	0.08	-0.08	0.16
6,725.00	2.32	270.60	6,720.67	55.76	-140.53	-43.76	0.67	-0.64	-4.40
6,750.00	2.23	273.23	6,745.65	55.80	-141.52	-43.71	0.55	-0.36	10.52
6,775.00	2.31	271.59	6,770.63	55.84	-142.51	-43.67	0.41	0.32	-6.56



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,800.00	2.39	271.46	6,795.61	55.87	-143.54	-43.61	0.32	0.32	-0.52
6,825.00	2.27	269.27	6,820.59	55.87	-144.55	-43.53	0.60	-0.48	-8.76
6,850.00	2.32	268.32	6,845.57	55.85	-145.56	-43.42	0.25	0.20	-3.80
6,875.00	2.34	269.95	6,870.55	55.84	-146.57	-43.32	0.28	0.08	6.52
6,900.00	2.32	266.42	6,895.53	55.80	-147.59	-43.21	0.58	-0.08	-14.12
6,925.00	2.14	266.86	6,920.51	55.75	-148.56	-43.07	0.72	-0.72	1.76
6,950.00	2.19	269.17	6,945.49	55.71	-149.50	-42.96	0.40	0.20	9.24
6,975.00	2.12	268.83	6,970.47	55.70	-150.44	-42.86	0.28	-0.28	-1.36
7,000.00	2.01	267.63	6,995.46	55.67	-151.34	-42.76	0.47	-0.44	-4.80
7,025.00	2.22	271.07	7,020.44	55.66	-152.26	-42.67	0.98	0.84	13.76
7,050.00	2.25	270.33	7,045.42	55.67	-153.24	-42.60	0.17	0.12	-2.96
7,075.00	2.13	272.38	7,070.40	55.70	-154.19	-42.54	0.57	-0.48	8.20
7,100.00	2.25	283.05	7,095.38	55.83	-155.14	-42.59	1.70	0.48	42.68
7,125.00	2.49	289.25	7,120.36	56.12	-156.13	-42.80	1.40	0.96	24.80
7,150.00	2.54	289.81	7,145.34	56.48	-157.16	-43.08	0.22	0.20	2.24
7,175.00	2.43	289.43	7,170.32	56.85	-158.18	-43.35	0.44	-0.44	-1.52
7,200.00	2.39	290.38	7,195.29	57.20	-159.17	-43.63	0.23	-0.16	3.80
7,225.00	2.25	289.13	7,220.27	57.55	-160.12	-43.89	0.60	-0.56	-5.00
7,250.00	1.75	288.08	7,245.26	57.83	-160.95	-44.10	2.01	-2.00	-4.20
7,275.00	2.02	289.99	7,270.24	58.09	-161.73	-44.30	1.11	1.08	7.64
7,300.00	2.05	293.18	7,295.23	58.42	-162.55	-44.56	0.47	0.12	12.76
7,325.00	2.10	288.78	7,320.21	58.74	-163.40	-44.81	0.67	0.20	-17.60
7,350.00	2.18	287.86	7,345.19	59.04	-164.28	-45.03	0.35	0.32	-3.68
7,375.00	2.58	288.32	7,370.17	59.36	-165.27	-45.26	1.60	1.60	1.84
7,400.00	2.80	289.06	7,395.15	59.74	-166.38	-45.55	0.89	0.88	2.96
7,425.00	2.91	291.27	7,420.11	60.17	-167.55	-45.88	0.62	0.44	8.84
7,450.00	2.81	287.69	7,445.08	60.58	-168.72	-46.19	0.82	-0.40	-14.32
7,475.00	2.68	287.77	7,470.05	60.95	-169.86	-46.46	0.52	-0.52	0.32
7,500.00	2.89	286.89	7,495.03	61.31	-171.02	-46.72	0.86	0.84	-3.52
7,525.00	2.71	287.46	7,520.00	61.67	-172.19	-46.98	0.73	-0.72	2.28
7,550.00	2.64	288.61	7,544.97	62.03	-173.30	-47.25	0.35	-0.28	4.60
7,575.00	2.51	292.68	7,569.94	62.43	-174.35	-47.55	0.90	-0.52	16.28
7,600.00	2.61	286.64	7,594.92	62.80	-175.40	-47.84	1.15	0.40	-24.16
7,625.00	2.72	287.28	7,619.89	63.14	-176.51	-48.08	0.46	0.44	2.56
7,650.00	2.85	288.19	7,644.86	63.51	-177.67	-48.36	0.55	0.52	3.64
7,675.00	3.24	290.08	7,669.83	63.95	-178.92	-48.68	1.61	1.56	7.56
7,700.00	3.33	288.06	7,694.78	64.41	-180.28	-49.04	0.59	0.36	-8.08
7,725.00	3.31	289.20	7,719.74	64.88	-181.65	-49.38	0.28	-0.08	4.56
7,750.00	3.41	289.62	7,744.70	65.36	-183.03	-49.75	0.41	0.40	1.68
7,775.00	3.18	289.99	7,769.66	65.85	-184.38	-50.12	0.92	-0.92	1.48
7,800.00	2.96	290.55	7,794.62	66.31	-185.64	-50.48	0.89	-0.88	2.24
7,825.00	2.87	289.99	7,819.59	66.75	-186.83	-50.82	0.38	-0.36	-2.24
7,850.00	3.01	292.18	7,844.56	67.22	-188.03	-51.18	0.72	0.56	8.76



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,875.00	2.85	290.24	7,869.52	67.68	-189.22	-51.54	0.75	-0.64	-7.76
7,900.00	2.69	289.99	7,894.50	68.09	-190.35	-51.86	0.64	-0.64	-1.00
7,925.00	2.57	291.51	7,919.47	68.50	-191.43	-52.17	0.56	-0.48	6.08
7,950.00	2.55	291.02	7,944.44	68.90	-192.47	-52.49	0.12	-0.08	-1.96
7,975.00	2.52	289.99	7,969.42	69.29	-193.50	-52.79	0.22	-0.12	-4.12
8,000.00	2.56	288.01	7,994.40	69.65	-194.55	-53.06	0.39	0.16	-7.92
8,025.00	2.57	291.14	8,019.37	70.03	-195.60	-53.34	0.56	0.04	12.52
8,050.00	2.92	287.38	8,044.34	70.42	-196.73	-53.64	1.57	1.40	-15.04
8,075.00	2.86	282.66	8,069.31	70.75	-197.95	-53.86	0.98	-0.24	-18.88
8,100.00	2.86	284.17	8,094.28	71.04	-199.16	-54.05	0.30	0.00	6.04
8,125.00	2.80	281.69	8,119.25	71.31	-200.37	-54.22	0.55	-0.24	-9.92
8,150.00	2.61	283.53	8,144.22	71.57	-201.52	-54.38	0.84	-0.76	7.36
8,175.00	2.49	283.79	8,169.20	71.83	-202.60	-54.55	0.48	-0.48	1.04
8,200.00	2.43	285.50	8,194.17	72.10	-203.64	-54.74	0.38	-0.24	6.84
8,225.00	2.39	285.21	8,219.15	72.38	-204.65	-54.93	0.17	-0.16	-1.16
8,250.00	2.46	285.03	8,244.13	72.66	-205.67	-55.12	0.28	0.28	-0.72
8,275.00	2.36	284.17	8,269.11	72.92	-206.69	-55.30	0.43	-0.40	-3.44
8,300.00	2.37	282.78	8,294.08	73.16	-207.69	-55.45	0.23	0.04	-5.56
8,325.00	2.71	281.89	8,319.06	73.40	-208.77	-55.60	1.37	1.36	-3.56
8,350.00	3.17	279.76	8,344.03	73.64	-210.03	-55.73	1.89	1.84	-8.52
8,375.00	3.07	278.11	8,368.99	73.85	-211.38	-55.83	0.54	-0.40	-6.60
8,400.00	3.03	278.10	8,393.95	74.04	-212.69	-55.90	0.16	-0.16	-0.04
8,425.00	3.06	278.23	8,418.92	74.23	-214.01	-55.98	0.12	0.12	0.52
8,450.00	3.00	279.98	8,443.88	74.43	-215.31	-56.08	0.44	-0.24	7.00
8,475.00	2.82	277.13	8,468.85	74.62	-216.57	-56.16	0.92	-0.72	-11.40
8,500.00	2.66	276.24	8,493.82	74.76	-217.76	-56.20	0.66	-0.64	-3.56
8,525.00	2.77	277.26	8,518.80	74.90	-218.93	-56.24	0.48	0.44	4.08
8,550.00	2.58	275.75	8,543.77	75.04	-220.09	-56.28	0.81	-0.76	-6.04
8,575.00	2.74	278.44	8,568.74	75.18	-221.24	-56.32	0.81	0.64	10.76
8,600.00	2.82	275.95	8,593.71	75.33	-222.44	-56.37	0.58	0.32	-9.96
8,625.00	2.69	276.60	8,618.68	75.46	-223.64	-56.40	0.53	-0.52	2.60
8,650.00	2.82	272.88	8,643.65	75.56	-224.84	-56.40	0.88	0.52	-14.88
8,675.00	2.83	274.92	8,668.62	75.64	-226.06	-56.38	0.40	0.04	8.16
8,700.00	2.83	276.51	8,693.59	75.77	-227.29	-56.40	0.31	0.00	6.36
8,725.00	2.77	276.22	8,718.56	75.90	-228.51	-56.43	0.25	-0.24	-1.16
8,750.00	2.63	277.19	8,743.54	76.04	-229.68	-56.47	0.59	-0.56	3.88
8,775.00	2.45	278.81	8,768.51	76.19	-230.77	-56.53	0.78	-0.72	6.48
8,800.00	2.40	282.51	8,793.49	76.39	-231.81	-56.64	0.66	-0.20	14.80
8,825.00	2.35	284.06	8,818.47	76.63	-232.82	-56.79	0.33	-0.20	6.20
8,850.00	2.05	288.84	8,843.45	76.90	-233.74	-56.98	1.41	-1.20	19.12
8,875.00	2.36	285.86	8,868.43	77.18	-234.66	-57.19	1.32	1.24	-11.92
8,900.00	2.11	286.59	8,893.41	77.45	-235.60	-57.38	1.01	-1.00	2.92
8,925.00	2.33	286.96	8,918.39	77.73	-236.52	-57.58	0.88	0.88	1.48



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,950.00	2.36	288.22	8,943.37	78.04	-237.50	-57.81	0.24	0.12	5.04
8,975.00	2.17	292.61	8,968.35	78.38	-238.42	-58.07	1.03	-0.76	17.56
9,000.00	2.08	295.89	8,993.33	78.76	-239.27	-58.38	0.61	-0.36	13.12
9,025.00	2.16	299.52	9,018.32	79.19	-240.09	-58.74	0.63	0.32	14.52
9,050.00	2.29	301.27	9,043.30	79.69	-240.92	-59.16	0.59	0.52	7.00
9,075.00	2.52	297.33	9,068.28	80.20	-241.84	-59.59	1.13	0.92	-15.76
9,100.00	2.80	293.99	9,093.25	80.70	-242.88	-60.00	1.28	1.12	-13.36
9,125.00	2.80	294.53	9,118.22	81.20	-244.00	-60.41	0.11	0.00	2.16
9,150.00	2.65	294.76	9,143.19	81.70	-245.08	-60.81	0.60	-0.60	0.92
9,175.00	2.21	293.06	9,168.17	82.13	-246.05	-61.16	1.78	-1.76	-6.80
9,200.00	1.96	297.63	9,193.15	82.51	-246.87	-61.48	1.20	-1.00	18.28
9,225.00	2.10	293.34	9,218.14	82.89	-247.67	-61.79	0.83	0.56	-17.16
9,250.00	2.08	292.02	9,243.12	83.24	-248.51	-62.07	0.21	-0.08	-5.28
9,275.00	2.62	284.93	9,268.10	83.56	-249.48	-62.30	2.45	2.16	-28.36
9,300.00	2.74	281.81	9,293.07	83.83	-250.62	-62.48	0.76	0.48	-12.48
9,325.00	2.88	284.48	9,318.04	84.11	-251.81	-62.65	0.77	0.56	10.68
9,350.00	2.65	284.14	9,343.01	84.41	-252.98	-62.85	0.92	-0.92	-1.36
9,375.00	2.32	291.17	9,367.99	84.73	-254.01	-63.09	1.79	-1.32	28.12
9,400.00	2.35	291.88	9,392.97	85.11	-254.96	-63.38	0.17	0.12	2.84
9,425.00	1.95	291.64	9,417.95	85.45	-255.83	-63.66	1.60	-1.60	-0.96
9,450.00	2.21	289.39	9,442.93	85.77	-256.68	-63.90	1.09	1.04	-9.00
9,475.00	2.65	286.04	9,467.91	86.09	-257.69	-64.13	1.85	1.76	-13.40
9,500.00	2.89	284.62	9,492.88	86.41	-258.86	-64.35	1.00	0.96	-5.68
9,525.00	2.74	282.49	9,517.85	86.70	-260.05	-64.54	0.73	-0.60	-8.52
9,550.00	2.51	284.00	9,542.83	86.96	-261.16	-64.71	0.96	-0.92	6.04
9,575.00	2.31	281.93	9,567.80	87.20	-262.19	-64.86	0.87	-0.80	-8.28
9,600.00	2.45	285.72	9,592.78	87.45	-263.20	-65.02	0.84	0.56	15.16
9,625.00	2.59	285.14	9,617.76	87.74	-264.26	-65.22	0.57	0.56	-2.32
9,650.00	2.88	276.62	9,642.73	87.96	-265.43	-65.34	1.99	1.16	-34.08
9,675.00	3.37	275.83	9,667.69	88.10	-266.78	-65.38	1.97	1.96	-3.16
9,700.00	3.48	278.54	9,692.65	88.29	-268.26	-65.44	0.78	0.44	10.84
9,725.00	3.49	276.60	9,717.60	88.49	-269.77	-65.51	0.47	0.04	-7.76
9,750.00	3.37	276.75	9,742.56	88.67	-271.25	-65.56	0.48	-0.48	0.60
9,775.00	3.46	276.71	9,767.51	88.84	-272.73	-65.61	0.36	0.36	-0.16
9,800.00	3.19	277.48	9,792.47	89.02	-274.17	-65.67	1.09	-1.08	3.08
9,825.00	3.15	277.73	9,817.43	89.20	-275.54	-65.73	0.17	-0.16	1.00
9,850.00	3.14	279.53	9,842.39	89.41	-276.90	-65.83	0.40	-0.04	7.20
9,875.00	2.97	283.66	9,867.36	89.67	-278.20	-65.98	1.11	-0.68	16.52
9,900.00	2.66	286.74	9,892.33	89.99	-279.39	-66.20	1.38	-1.24	12.32
9,925.00	2.74	288.42	9,917.30	90.35	-280.51	-66.46	0.45	0.32	6.72
9,950.00	2.81	289.51	9,942.27	90.74	-281.65	-66.76	0.35	0.28	4.36
9,975.00	2.64	291.36	9,967.24	91.16	-282.77	-67.08	0.77	-0.68	7.40
10,000.00	2.61	294.87	9,992.22	91.61	-283.82	-67.44	0.65	-0.12	14.04
10,025.00	2.55	296.18	10,017.19	92.09	-284.84	-67.83	0.34	-0.24	5.24



Survey Report

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Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey

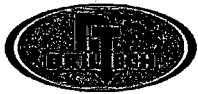
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,050.00	2.71	297.09	10,042.17	92.61	-285.86	-68.26	0.66	0.64	3.64
10,075.00	2.75	297.11	10,067.14	93.15	-286.92	-68.71	0.16	0.16	0.08
10,100.00	2.77	297.69	10,092.11	93.70	-287.99	-69.17	0.14	0.08	2.32
10,125.00	3.12	291.42	10,117.08	94.23	-289.16	-69.60	1.90	1.40	-25.08
10,150.00	3.37	286.07	10,142.04	94.68	-290.50	-69.94	1.57	1.00	-21.40
10,175.00	3.38	286.35	10,166.99	95.09	-291.91	-70.23	0.08	0.04	1.12
10,200.00	3.62	287.98	10,191.95	95.55	-293.37	-70.56	1.04	0.96	6.52
10,225.00	3.56	288.50	10,216.90	96.04	-294.86	-70.92	0.27	-0.24	2.08
10,250.00	3.50	289.42	10,241.85	96.54	-296.31	-71.30	0.33	-0.24	3.68
10,275.00	3.36	291.75	10,266.80	97.06	-297.71	-71.70	0.79	-0.56	9.32
10,300.00	3.29	292.70	10,291.76	97.61	-299.05	-72.14	0.36	-0.28	3.80
10,325.00	3.23	291.70	10,316.72	98.15	-300.37	-72.56	0.33	-0.24	-4.00
10,350.00	3.24	292.73	10,341.68	98.68	-301.68	-72.98	0.24	0.04	4.12
10,375.00	3.29	288.94	10,366.64	99.19	-303.01	-73.37	0.89	0.20	-15.16
10,400.00	3.45	283.76	10,391.60	99.60	-304.41	-73.67	1.38	0.64	-20.72
10,425.00	3.62	274.90	10,416.55	99.84	-305.93	-73.78	2.29	0.68	-35.44
10,450.00	3.85	272.18	10,441.50	99.94	-307.56	-73.75	1.16	0.92	-10.88
10,475.00	3.79	270.73	10,466.44	99.99	-309.22	-73.65	0.45	-0.24	-5.80
10,500.00	3.69	269.53	10,491.39	99.99	-310.85	-73.52	0.51	-0.40	-4.80
10,525.00	3.67	271.70	10,516.34	100.01	-312.46	-73.40	0.56	-0.08	8.68
10,531.00	3.55	270.72	10,522.33	100.01	-312.83	-73.38	2.25	-2.00	-16.33
10531'MD: Final Keeper Gyro Reading - 10531'MD: Tie into Keeper Gyro									
10,574.00	3.04	271.52	10,565.25	100.06	-315.31	-73.21	1.19	-1.19	1.86
10574'DM: Begin DriftTech MWD									
10,606.00	2.95	270.34	10,597.21	100.09	-316.98	-73.10	0.34	-0.28	-3.69
10,701.00	2.80	272.06	10,692.09	100.19	-321.74	-72.80	0.18	-0.16	1.81
10,796.00	6.52	220.03	10,786.79	96.14	-327.53	-68.28	5.56	3.92	-54.77
10,843.00	11.23	209.49	10,833.22	90.11	-331.50	-61.93	10.56	10.02	-22.43
10,890.00	15.44	204.36	10,878.95	80.42	-336.34	-51.87	9.30	8.96	-10.91
10,937.00	19.55	204.34	10,923.76	67.55	-342.16	-38.56	8.74	8.74	-0.04
10,985.00	22.71	201.24	10,968.53	51.59	-348.83	-22.10	6.98	6.58	-6.46
11,032.00	25.86	199.63	11,011.40	33.55	-355.54	-3.55	6.43	6.28	-3.43
11,079.00	29.07	200.47	11,053.13	13.26	-362.95	17.29	7.30	7.26	1.79
11,126.00	32.21	200.20	11,093.57	-9.20	-371.27	40.36	6.69	6.68	-0.57
11,174.00	35.90	200.96	11,133.33	-34.36	-380.73	66.23	7.74	7.69	1.58
11,221.00	37.84	201.74	11,170.93	-60.62	-391.00	93.26	4.25	4.13	1.66
11,269.00	41.13	202.33	11,207.97	-88.90	-402.45	122.41	6.90	6.85	1.23
11,316.00	43.86	204.52	11,242.62	-118.02	-415.09	152.48	6.61	5.81	4.66
11,342.40	45.89	204.13	11,261.33	-135.00	-422.76	170.04	7.77	7.70	-1.46
11342'MD: 330' FNL Hardline Crossing									
11,363.00	47.48	203.85	11,275.46	-148.69	-428.85	184.20	7.77	7.70	-1.38
11,410.00	51.82	201.83	11,305.88	-181.70	-442.73	218.26	9.80	9.23	-4.30
11,458.00	56.05	200.96	11,334.14	-217.82	-456.88	255.44	8.93	8.81	-1.81
11,508.00	60.27	201.58	11,360.51	-257.39	-472.29	296.16	8.51	8.44	1.24



Survey Report

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Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,596.00	66.99	198.84	11,399.58	-331.35	-499.45	372.14	8.13	7.64	-3.11
11,643.00	71.44	198.01	11,416.25	-373.03	-513.33	414.84	9.61	9.47	-1.77
11,690.00	76.10	197.41	11,429.39	-416.00	-527.05	458.82	9.99	9.91	-1.28
11,737.00	80.26	196.73	11,439.01	-459.97	-540.55	503.76	8.96	8.85	-1.45
11,784.00	83.79	196.30	11,445.53	-504.59	-553.78	549.34	7.57	7.51	-0.91
11,831.00	86.57	196.24	11,449.48	-549.54	-566.90	595.23	5.92	5.91	-0.13
11,878.00	88.94	196.35	11,451.32	-594.62	-580.08	641.26	5.05	5.04	0.23
11,925.00	90.77	196.32	11,451.44	-639.72	-593.30	687.31	3.89	3.89	-0.06
11,972.00	87.84	194.52	11,452.01	-685.02	-605.79	733.49	7.32	-6.23	-3.83
12,067.00	87.11	194.55	11,456.19	-776.88	-629.61	827.04	0.77	-0.77	0.03
12,161.00	91.55	193.91	11,457.29	-867.97	-652.71	919.75	4.77	4.72	-0.68
12,256.00	91.97	192.87	11,454.38	-960.34	-674.70	1,013.64	1.18	0.44	-1.09
12,350.00	91.01	189.13	11,451.93	-1,052.57	-692.62	1,107.04	4.11	-1.02	-3.98
12,444.00	92.48	187.65	11,449.07	-1,145.51	-706.33	1,200.81	2.22	1.56	-1.57
12,538.00	90.20	182.04	11,446.87	-1,239.11	-714.26	1,294.74	6.44	-2.43	-5.97
12,633.00	88.99	177.90	11,447.54	-1,334.08	-714.21	1,389.38	4.54	-1.27	-4.36
12,727.00	89.31	177.49	11,448.93	-1,428.00	-710.43	1,482.64	0.55	0.34	-0.44
12,821.00	88.30	175.77	11,450.90	-1,521.81	-704.91	1,575.66	2.12	-1.07	-1.83
12,915.00	93.06	177.29	11,449.78	-1,615.60	-699.22	1,668.64	5.32	5.06	1.62
13,010.00	92.93	177.79	11,444.82	-1,710.38	-695.15	1,762.75	0.54	-0.14	0.53
13,104.00	91.27	178.57	11,441.37	-1,804.27	-692.17	1,856.05	1.95	-1.77	0.83
13,198.00	89.09	178.79	11,441.08	-1,898.24	-690.00	1,949.50	2.33	-2.32	0.23
13,293.00	86.81	178.59	11,444.47	-1,993.15	-687.83	2,043.89	2.41	-2.40	-0.21
13,386.00	85.20	179.66	11,450.95	-2,085.90	-686.41	2,136.20	2.08	-1.73	1.15
13,480.00	84.87	179.67	11,459.09	-2,179.55	-685.87	2,229.47	0.35	-0.35	0.01
13,574.00	89.69	180.56	11,463.55	-2,273.42	-686.06	2,323.02	5.21	5.13	0.95
13,669.00	87.20	180.12	11,466.13	-2,368.37	-686.62	2,417.69	2.66	-2.62	-0.46
13,762.00	87.29	179.24	11,470.60	-2,461.26	-686.10	2,510.21	0.95	0.10	-0.95
13,857.00	91.52	179.44	11,471.58	-2,556.23	-685.01	2,604.75	4.46	4.45	0.21
13,951.00	92.20	179.14	11,468.53	-2,650.17	-683.84	2,698.26	0.79	0.72	-0.32
14,045.00	89.11	178.34	11,467.46	-2,744.13	-681.78	2,791.71	3.40	-3.29	-0.85
14,139.00	89.23	177.63	11,468.82	-2,838.06	-678.47	2,885.03	0.77	0.13	-0.76
14,233.00	90.85	177.89	11,468.75	-2,931.99	-674.80	2,978.32	1.75	1.72	0.28
14,327.00	89.26	178.50	11,468.66	-3,025.94	-671.84	3,071.69	1.81	-1.69	0.65
14,422.00	88.08	178.47	11,470.87	-3,120.88	-669.33	3,166.08	1.24	-1.24	-0.03
14,516.00	88.15	177.86	11,473.96	-3,214.78	-666.32	3,259.39	0.65	0.07	-0.65
14,610.00	88.08	177.66	11,477.05	-3,308.65	-662.65	3,352.63	0.23	-0.07	-0.21
14,704.00	88.00	177.40	11,480.27	-3,402.51	-658.60	3,445.82	0.29	-0.09	-0.28
14,798.00	92.98	181.48	11,479.46	-3,496.45	-657.68	3,539.35	6.85	5.30	4.34
14,893.00	89.66	181.38	11,477.28	-3,591.39	-660.05	3,634.15	3.50	-3.49	-0.11
14,987.00	87.33	179.72	11,479.74	-3,685.34	-660.95	3,727.84	3.04	-2.48	-1.77
15,082.00	87.58	178.76	11,483.96	-3,780.24	-659.69	3,822.30	1.04	0.26	-1.01
15,177.00	86.82	178.51	11,488.60	-3,875.09	-657.43	3,916.63	0.84	-0.80	-0.26

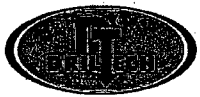


Survey Report

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15,272.00	87.43	177.38	11,493.37	-3,969.91	-654.03	4,010.83	1.35	0.64	-1.19
15,366.00	87.67	176.47	11,497.39	-4,063.69	-648.99	4,103.85	1.00	0.26	-0.97
15,462.00	87.93	177.32	11,501.07	-4,159.48	-643.79	4,198.86	0.93	0.27	0.89
15,558.00	88.68	178.63	11,503.91	-4,255.37	-640.40	4,294.13	1.57	0.78	1.36
15,652.00	87.43	179.45	11,507.10	-4,349.30	-638.83	4,387.60	1.59	-1.33	0.87
15,746.00	88.82	179.44	11,510.18	-4,443.25	-637.92	4,481.13	1.48	1.48	-0.01
15,840.00	87.47	180.91	11,513.22	-4,537.19	-638.21	4,574.77	2.12	-1.44	1.56
15,934.00	88.04	180.44	11,516.90	-4,631.11	-639.31	4,668.45	0.79	0.61	-0.50
16,029.00	88.30	180.16	11,519.94	-4,726.06	-639.81	4,763.11	0.40	0.27	-0.29
16,123.00	87.98	180.35	11,522.99	-4,820.01	-640.23	4,856.76	0.40	-0.34	0.20
16,217.00	89.50	181.13	11,525.05	-4,913.98	-641.44	4,950.50	1.82	1.62	0.83
16,311.00	87.42	179.30	11,527.58	-5,007.93	-641.80	5,044.15	2.95	-2.21	-1.95
16,406.00	87.16	179.74	11,532.07	-5,102.82	-641.00	5,138.64	0.54	-0.27	0.46
16,500.00	86.81	180.32	11,537.02	-5,196.69	-641.05	5,232.18	0.72	-0.37	0.62
16,594.00	88.32	179.80	11,541.01	-5,290.60	-641.15	5,325.77	1.70	1.61	-0.55
16,689.00	88.24	179.52	11,543.86	-5,385.56	-640.58	5,420.34	0.31	-0.08	-0.29
16,783.00	89.57	178.53	11,545.66	-5,479.53	-638.98	5,513.84	1.76	1.41	-1.05
16,877.00	89.40	179.73	11,546.50	-5,573.51	-637.56	5,607.37	1.29	-0.18	1.28
16,971.00	87.31	181.83	11,549.20	-5,667.45	-638.84	5,701.09	3.15	-2.22	2.23
17,066.00	87.00	184.00	11,553.92	-5,762.21	-643.66	5,795.91	2.30	-0.33	2.28
17,160.00	87.47	182.81	11,558.45	-5,855.93	-649.24	5,889.77	1.36	0.50	-1.27
17,254.00	88.46	181.11	11,561.79	-5,949.81	-652.45	5,983.59	2.09	1.05	-1.81
17,348.00	87.27	180.67	11,565.29	-6,043.73	-653.91	6,077.30	1.35	-1.27	-0.47
17,442.00	89.03	180.22	11,568.33	-6,137.68	-654.64	6,170.98	1.93	1.87	-0.48
17,537.00	89.12	179.04	11,569.86	-6,232.66	-654.02	6,265.57	1.25	0.09	-1.24
17,631.00	91.00	178.04	11,569.76	-6,326.62	-651.63	6,359.00	2.27	2.00	-1.06
17,725.00	91.17	178.13	11,567.98	-6,420.55	-648.49	6,452.34	0.20	0.18	0.10
17,820.00	90.51	177.58	11,566.59	-6,515.48	-644.93	6,546.63	0.90	-0.69	-0.58
17,914.00	91.21	177.57	11,565.18	-6,609.38	-640.96	6,639.86	0.74	0.74	-0.01
18,008.00	90.69	176.76	11,563.62	-6,703.25	-636.31	6,733.01	1.02	-0.55	-0.86
18,102.00	89.66	176.72	11,563.33	-6,797.10	-630.96	6,826.08	1.10	-1.10	-0.04
18,197.00	87.51	177.83	11,565.68	-6,891.96	-626.45	6,920.22	2.55	-2.26	1.17
18,291.00	87.55	177.70	11,569.73	-6,985.80	-622.78	7,013.42	0.14	0.04	-0.14
18,385.00	86.78	177.98	11,574.38	-7,079.61	-619.25	7,106.61	0.87	-0.82	0.30
18,479.00	86.93	178.42	11,579.54	-7,173.43	-616.30	7,199.84	0.49	0.16	0.47
18,573.00	88.65	179.16	11,583.16	-7,267.33	-614.31	7,293.25	1.99	1.83	0.79
18,667.00	87.45	179.86	11,586.36	-7,361.27	-613.51	7,386.79	1.48	-1.28	0.74
18,703.36	87.58	179.70	11,587.93	-7,397.60	-613.37	7,422.97	0.57	0.37	-0.43
18703'MD: 330' FSL Hardline Crossing									
18,764.00	87.81	179.44	11,590.37	-7,458.19	-612.92	7,483.31	0.57	0.37	-0.43
18764'MD: Final MWD Survey Depth									
18,830.00	87.81	179.44	11,592.89	-7,524.13	-612.27	7,548.97	0.00	0.00	0.00
18830'MD: Projection to Total Depth									



Survey Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Gettysburg State Com 12H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Site:	Gettysburg State Com	MD Reference:	GL 3412.4' + 29' RKB @ 3441.40ft
Well:	Gettysburg State Com 12H	North Reference:	Grid
Wellbore:	Gettysburg SC 12H	Survey Calculation Method:	Minimum Curvature
Design:	Gettysburg SC 12H	Database:	EDM 5000.14 Single User Db

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	0.02	0.09	100'MD: Begin Keeper Gyro
10,531.00	10,522.33	100.01	-312.83	10531'MD: Final Keeper Gyro Reading
10,531.00	10,522.33	100.01	-312.83	10531'MD: Tie into Keeper Gyro
10,574.00	10,565.25	100.06	-315.31	10574'DM: Begin DrillTech MWD
11,342.40	11,261.33	-135.00	-422.76	11342'MD: 330' FNL Hardline Crossing
18,703.36	11,587.93	-7,397.60	-613.37	18703'MD: 330' FSL Hardline Crossing
18,764.00	11,590.37	-7,458.19	-612.92	18764'MD: Final MWD Survey Depth
18,830.00	11,592.89	-7,524.13	-612.27	18830'MD: Projection to Total Depth

Checked By: _____ Approved By: _____ Date: _____