

Results of Directional Survey

API number:	30-025-40916		
OGRID:		Operator:	COG OPERATING LLC
		Property:	GETTYSBURG STATE COM # 3H

surface	ULSTR:	B	16	T	23S	R	34E
				160	FNL	2040	FEL

BH Loc	ULSTR:	G	21	T	23S	R	34E
17613	MD	10484.8	TVD	2308	FNL	1892	FEL
				7588	FNL		

Top Perf/OH	ULSTR:	B	16	T	23S	R	34E
10427	MD	10283.4	TVD	410	FNL	1959	FEL

Bot Perf/OH	ULSTR:	G	21	T	23S	R	34E
17355	MD	10480.8	TVD	2051	FNL	1906	FEL
				7331	FNL		

	MD	N/S	E/W	VD
	10396	-220.23	81.73	10273.89
TOP PERFS/OH	10427	-249.72	81.14	10283.39
	10427	-249.72	81.14	10283.39
	17265	-7080.89	127.18	10479.47
BOT PERFS/OH	17355	-7170.66	133.54	10480.81
	17360	-7175.65	133.89	10480.88

NEXT TO LAST	17569	-7384.28	145.75	10484.10
LAST READING	17613	-7428.20	148.36	10484.79
TD	17613	-7428.20	148.36	10484.79

Surface Location	160	FN	2040	FE
Projected BHL	7588	FN	1892	FE
Location of				
Top Perfs/OH	410	FN	1959	FE
Bottom Perfs/OH	7331	FN	1906	FE

SUMMARY of Subsurface Locations

Surface Location	B-16-23S-34E	160	FN	2040	FE	Vert. Depth
Top Perfs/OH	B-16-23S-34E	410	FN	1959	FE	10283.39
Bottom Perfs/OH	G-21-23S-34E	7331	FN	1906	FE	10480.81
Projected TD	G-21-23S-34E	7588	FN	1892	FE	10484.79

APR 07 2014



A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

HOBBS OCD

MAR 19 2014

RECEIVED

January 23, 2014

COG Operating LLC (Concho)
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701

Attn: Kanicia Castillo

Re: **Gettysburg State Com No 003H**

Please find enclosed a copy of the survey from 0' to 9,684' ran on the above referenced well.

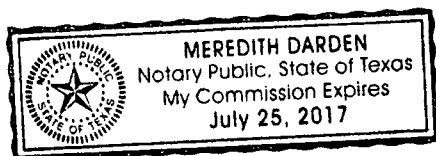
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 23rd day of January, A.D., 2014, by Keith Havelka.



Meredith Darden
Notary Public, State of Texas



Company: COG Operating-Concho
Lease/Well: Gettysburg State Com/No 003H
Location: Sec 16 T23S R34E
Rig Name: Precision 77
State/County: New Mexico/Lea
Latitude: 32.31, Longitude: -103.47
GRID North is 0.46 Degrees East of True North
VS-Azi: 0.00 Degrees



HOBBS OCD

Depth Reference : RKB = 30 Feet

MAR 19 2014

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ... com #3h gyro survey-de_01.ut

Minimum Curvature Method

Report Date/Time: 1/23/2014 / 08:21

RECEIVED

Vaughn Energy Services

West Texas

Surveyor: Chris Bankson

432-563-5444

Gettysburg State Com No 003H / API 30-025-40916

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.23	309.96	100.00	0.13	-0.15	0.13	0.20	309.96	0.23
200.00	0.19	56.34	200.00	0.35	-0.17	0.35	0.39	334.38	0.34
300.00	0.16	159.75	300.00	0.32	0.02	0.32	0.32	3.29	0.27
400.00	0.22	204.71	400.00	0.01	-0.02	0.01	0.02	307.07	0.16
500.00	0.72	248.68	500.00	-0.39	-0.68	-0.39	0.79	240.11	0.58
600.00	1.35	276.78	599.98	-0.48	-2.44	-0.48	2.49	258.77	0.79
700.00	1.88	281.03	699.94	-0.03	-5.21	-0.03	5.21	269.64	0.54
800.00	2.52	295.44	799.87	1.23	-8.81	1.23	8.89	277.93	0.85
900.00	3.32	301.30	899.73	3.68	-13.27	3.68	13.77	285.49	0.85
1000.00	3.88	301.72	999.54	6.96	-18.62	6.96	19.88	290.50	0.56
1100.00	4.19	302.33	1099.29	10.70	-24.59	10.70	26.82	293.51	0.31
1200.00	3.71	300.10	1199.05	14.27	-30.48	14.27	33.66	295.09	0.51
1300.00	3.46	302.86	1298.86	17.53	-35.81	17.53	39.88	296.09	0.30
1400.00	3.36	302.41	1398.68	20.74	-40.82	20.74	45.79	296.94	0.11
1500.00	2.77	299.27	1498.53	23.49	-45.40	23.49	51.12	297.36	0.61
1600.00	1.81	295.10	1598.45	25.34	-48.94	25.34	55.11	297.38	0.97
1700.00	1.25	274.81	1698.42	26.10	-51.45	26.10	57.70	296.90	0.77
1800.00	1.12	241.28	1798.40	25.72	-53.40	25.72	59.28	295.72	0.70

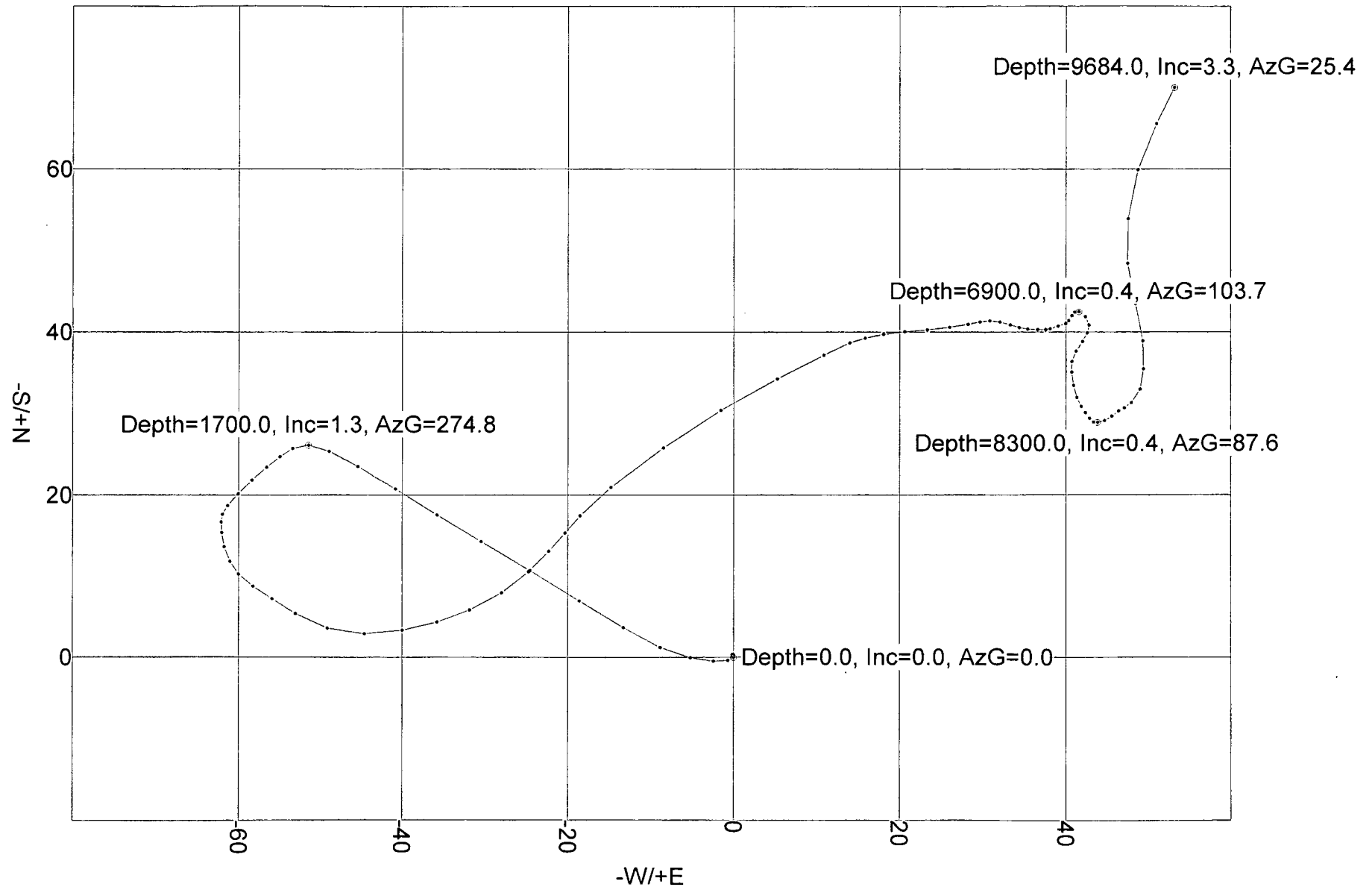
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.04	231.92	1898.38	24.69	-54.98	24.69	60.27	294.19	0.20
2000.00	1.36	231.00	1998.36	23.39	-56.61	23.39	61.25	292.45	0.32
2100.00	1.37	225.59	2098.33	21.80	-58.39	21.80	62.33	290.48	0.13
2200.00	1.37	225.32	2198.30	20.13	-60.09	20.13	63.37	288.52	0.01
2300.00	0.85	217.01	2298.28	18.70	-61.38	18.70	64.17	286.94	0.54
2400.00	0.57	200.70	2398.28	17.65	-62.01	17.65	64.47	285.89	0.35
2500.00	0.60	178.53	2498.27	16.66	-62.17	16.66	64.36	285.00	0.23
2600.00	0.86	175.70	2598.26	15.39	-62.10	15.39	63.98	283.92	0.26
2700.00	1.18	165.61	2698.25	13.65	-61.78	13.65	63.27	282.45	0.37
2800.00	1.05	151.03	2798.23	11.84	-61.08	11.84	62.22	280.97	0.31
2900.00	1.09	141.15	2898.21	10.30	-60.04	10.30	60.92	279.73	0.19
3000.00	1.63	122.83	2998.18	8.78	-58.25	8.78	58.90	278.57	0.69
3100.00	1.56	124.66	3098.14	7.23	-55.93	7.23	56.39	277.37	0.08
3200.00	2.35	121.22	3198.08	5.39	-53.05	5.39	53.32	275.81	0.80
3300.00	2.62	108.46	3297.99	3.61	-49.13	3.61	49.26	274.20	0.61
3400.00	2.71	89.18	3397.88	2.92	-44.60	2.92	44.69	273.74	0.90
3500.00	2.63	79.78	3497.78	3.36	-39.98	3.36	40.12	274.80	0.44
3600.00	2.29	72.63	3597.68	4.36	-35.81	4.36	36.08	276.95	0.46
3700.00	2.53	66.09	3697.60	5.85	-31.89	5.85	32.42	280.40	0.36
3800.00	2.54	56.23	3797.50	7.98	-28.03	7.98	29.14	285.89	0.44
3900.00	2.23	46.27	3897.41	10.56	-24.78	10.56	26.93	293.08	0.52
4000.00	1.84	41.68	3997.35	13.10	-22.31	13.10	25.87	300.43	0.43
4100.00	1.57	41.18	4097.30	15.32	-20.34	15.32	25.47	306.99	0.27
4200.00	1.61	40.32	4197.27	17.42	-18.53	17.42	25.44	313.23	0.05
4300.00	4.29	49.62	4297.13	20.91	-14.78	20.91	25.61	324.75	2.71
4400.00	4.88	55.13	4396.81	25.77	-8.44	25.77	27.12	341.87	0.74
4500.00	4.62	57.44	4496.46	30.37	-1.55	30.37	30.41	357.07	0.32
4600.00	4.36	63.05	4596.15	34.26	5.23	34.26	34.66	8.68	0.51
4700.00	2.90	62.49	4695.95	37.15	10.87	37.15	38.71	16.30	1.46
4800.00	1.06	68.30	4795.89	38.66	13.97	38.66	41.11	19.87	1.85
4900.00	1.19	76.58	4895.87	39.25	15.84	39.25	42.32	21.98	0.21
5000.00	1.41	78.94	4995.84	39.72	18.06	39.72	43.64	24.45	0.23
5100.00	1.57	86.42	5095.81	40.05	20.63	40.05	45.05	27.26	0.25
5200.00	1.55	84.12	5195.77	40.27	23.34	40.27	46.55	30.10	0.06
5300.00	1.55	82.61	5295.74	40.58	26.03	40.58	48.21	32.68	0.04
5400.00	1.00	76.78	5395.71	40.96	28.22	40.96	49.74	34.57	0.57
5500.00	0.70	81.64	5495.70	41.24	29.68	41.24	50.81	35.73	0.31
5600.00	0.66	86.81	5595.69	41.37	30.86	41.37	51.61	36.72	0.07
5700.00	0.76	104.73	5695.68	41.23	32.07	41.23	52.23	37.88	0.24

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.73	108.63	5795.68	40.86	33.31	40.86	52.72	39.19	0.06
5900.00	0.55	102.58	5895.67	40.55	34.38	40.55	53.16	40.29	0.19
6000.00	0.63	98.44	5995.66	40.37	35.39	40.37	53.68	41.24	0.09
6100.00	0.74	90.56	6095.66	40.28	36.58	40.28	54.41	42.24	0.15
6200.00	0.36	86.48	6195.65	40.29	37.54	40.29	55.07	42.98	0.38
6300.00	0.26	69.52	6295.65	40.39	38.07	40.39	55.51	43.30	0.14
6400.00	0.91	71.72	6395.65	40.72	39.04	40.72	56.41	43.79	0.65
6500.00	0.20	68.62	6495.64	41.03	39.95	41.03	57.27	44.24	0.71
6600.00	0.42	35.87	6595.64	41.39	40.33	41.39	57.79	44.26	0.27
6700.00	0.41	28.00	6695.64	42.00	40.71	42.00	58.50	44.11	0.06
6800.00	0.25	53.36	6795.63	42.45	41.05	42.45	59.05	44.04	0.21
6900.00	0.40	103.75	6895.63	42.49	41.57	42.49	59.44	44.37	0.31
7000.00	0.79	141.57	6995.63	41.87	42.34	41.87	59.55	45.32	0.53
7100.00	0.55	177.43	7095.62	40.85	42.79	40.85	59.16	46.33	0.47
7200.00	0.62	205.21	7195.62	39.88	42.58	39.88	58.34	46.88	0.29
7300.00	0.76	212.56	7295.61	38.83	41.99	38.83	57.19	47.24	0.17
7400.00	0.88	213.19	7395.60	37.62	41.21	37.62	55.80	47.61	0.12
7500.00	0.70	187.22	7495.59	36.37	40.71	36.37	54.59	48.22	0.40
7600.00	0.81	174.43	7595.58	35.06	40.71	35.06	53.72	49.26	0.20
7700.00	1.07	170.36	7695.57	33.44	40.93	33.44	52.85	50.75	0.26
7800.00	0.73	159.49	7795.55	31.93	41.31	31.93	52.21	52.30	0.38
7900.00	0.64	147.15	7895.55	30.86	41.83	30.86	51.99	53.58	0.17
8000.00	0.44	145.40	7995.54	30.08	42.35	30.08	51.95	54.62	0.20
8100.00	0.54	143.78	8095.54	29.39	42.85	29.39	51.96	55.56	0.10
8200.00	0.25	108.47	8195.54	28.94	43.33	28.94	52.11	56.26	0.36
8300.00	0.35	87.64	8295.54	28.88	43.84	28.88	52.50	56.63	0.15
8400.00	0.64	67.91	8395.53	29.10	44.67	29.10	53.31	56.91	0.33
8500.00	0.54	47.05	8495.53	29.63	45.53	29.63	54.32	56.94	0.24
8600.00	0.68	55.82	8595.52	30.28	46.36	30.28	55.37	56.85	0.17
8700.00	0.25	71.90	8695.52	30.68	47.05	30.68	56.17	56.89	0.44
8800.00	1.00	49.77	8795.51	31.31	47.92	31.31	57.25	56.84	0.77
8900.00	1.32	19.62	8895.49	32.96	48.98	32.96	59.04	56.06	0.68
9000.00	1.62	0.94	8995.46	35.46	49.39	35.46	60.80	54.32	0.56
9100.00	2.34	357.04	9095.40	38.91	49.31	38.91	62.81	51.72	0.74
9200.00	3.02	343.20	9195.29	43.48	48.44	43.48	65.09	48.09	0.94
9300.00	2.80	354.83	9295.16	48.44	47.45	48.44	67.81	44.41	0.63
9400.00	3.53	5.44	9395.01	53.93	47.53	53.93	71.88	41.39	0.94
9500.00	3.53	17.32	9494.82	59.94	48.74	59.94	77.25	39.11	0.73
9600.00	3.46	26.48	9594.64	65.58	51.00	65.58	83.08	37.87	0.56

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9684.00	3.32	25.39	9678.49	70.05	53.17	70.05	87.95	37.20	0.18



Vaughn Energy Services
West Texas
Surveyor: Chris Bankson
432-563-5444
Gettysburg State Com No 003H / API 30-025-40916



VES Survey Date: 12/30/2013



Customer Name: Concho Oil & Gas
Well Name: Gettysburg State Com
API Number: 30-025-40916
County / Parish: Lea County, NM

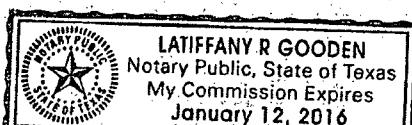
M.W.D. Operator: J. Burleson
Directional Driller: S. Brandt
Total Magnetic Correction: 6.78
Job #: NM-344

Vertical Section: 179.04

Tie in Survey(s) Provided By:

VES

	Meas. Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS
Tie - In										
0	9684.00	3.32	25.39	9678.49	-69.15	70.05	53.17	87.95	37.20	0.18
1	9734.00	2.80	39.10	9728.42	-71.38	72.31	54.56	90.58	37.04	1.79
2	9765.00	2.40	61.40	9759.39	-72.26	73.20	55.61	91.93	37.22	3.48
3	9797.00	2.50	97.50	9791.36	-72.47	73.43	56.89	92.89	37.76	4.75
4	9828.00	4.10	131.60	9822.31	-71.62	72.61	58.39	93.17	38.80	7.96
5	9860.00	6.90	150.90	9854.16	-69.15	70.17	60.18	92.44	40.62	10.37
6	9891.00	10.20	160.60	9884.82	-64.90	65.95	62.00	90.52	43.23	11.58
7	9923.00	13.20	166.00	9916.15	-58.66	59.73	63.82	87.41	46.90	9.97
8	9955.00	16.00	168.90	9947.11	-50.75	51.86	65.56	83.59	51.65	9.04
9	9986.00	19.20	170.10	9976.66	-41.51	42.64	67.25	79.63	57.62	10.39
10	10018.00	22.20	171.10	10006.59	-30.32	31.48	69.10	75.93	65.50	9.44
11	10049.00	25.40	171.80	10034.95	-17.92	19.11	70.95	73.48	74.92	10.36
12	10081.00	28.40	173.10	10063.48	-3.54	4.76	72.84	73.00	86.26	9.55
13	10113.00	30.90	174.50	10091.29	12.22	-10.97	74.55	75.35	98.37	8.11
14	10144.00	33.90	175.40	10117.46	28.79	-27.52	76.00	80.83	109.90	9.80
15	10176.00	38.60	176.20	10143.26	47.67	-46.38	77.38	90.22	120.94	14.76
16	10207.00	42.80	176.60	10166.76	67.86	-66.55	78.65	103.03	130.24	13.57
17	10238.00	46.90	177.10	10188.73	89.71	-88.38	79.84	119.11	137.90	13.27
18	10270.00	50.60	178.20	10209.83	113.75	-112.41	80.82	138.45	144.28	11.85
19	10301.00	54.30	178.50	10228.72	138.32	-136.98	81.53	159.40	149.24	11.96
20	10332.00	58.60	179.40	10245.85	164.15	-162.80	82.00	182.29	153.27	14.08
21	10364.00	64.10	180.30	10261.18	192.22	-190.87	82.07	207.77	156.73	17.36
22	10396.00	69.10	181.00	10273.89	221.57	-220.23	81.73	234.91	159.64	15.75
23	10427.00	75.20	181.30	10283.39	251.04	-249.72	81.14	262.57	162.00	19.70
24	10463.00	80.50	182.20	10290.96	286.18	-284.88	80.06	295.92	164.30	14.92
25	10494.00	83.70	181.90	10295.22	316.84	-315.56	78.96	325.29	165.95	10.37
26	10525.00	87.00	180.80	10297.73	347.71	-346.45	78.23	355.17	167.28	11.22
27	10557.00	90.70	180.50	10298.38	379.69	-378.43	77.87	386.36	168.37	11.60
28	10651.00	90.70	180.30	10297.23	473.65	-472.42	77.21	478.69	170.72	0.21
29	10745.00	87.70	179.60	10298.54	567.62	-566.40	77.30	571.65	172.23	3.28
30	10840.00	87.70	179.90	10302.35	662.54	-661.33	77.71	665.88	173.30	0.32
31	10934.00	87.70	179.60	10306.12	756.45	-755.25	78.12	759.28	174.09	0.32
32	11029.00	87.40	179.70	10310.19	851.36	-850.16	78.70	853.80	174.71	0.33
33	11124.00	89.20	180.30	10313.00	946.30	-945.11	78.70	948.39	175.24	2.00
34	11218.00	89.30	180.10	10314.23	1040.27	-1039.11	78.37	1042.06	175.69	0.24
35	11312.00	89.30	180.10	10315.38	1134.25	-1133.10	78.21	1135.79	176.05	0.00
36	11406.00	89.30	179.90	10316.53	1228.23	-1227.09	78.21	1229.58	176.35	0.21
37	11500.00	89.50	179.90	10317.51	1322.21	-1321.09	78.37	1323.41	176.60	0.21
38	11594.00	89.70	179.70	10318.17	1416.20	-1415.08	78.70	1417.27	176.82	0.30
39	11688.00	90.00	179.90	10318.42	1510.19	-1509.08	79.03	1511.15	177.00	0.38
40	11783.00	87.30	179.40	10320.66	1605.15	-1604.05	79.61	1606.02	177.16	2.89
41	11877.00	87.40	179.70	10325.00	1699.05	-1697.94	80.35	1699.84	177.29	0.34
42	11972.00	87.30	179.00	10329.39	1793.95	-1792.83	81.42	1794.68	177.40	0.74
43	12065.00	87.70	178.50	10333.45	1886.86	-1885.72	83.45	1887.57	177.47	0.69
44	12160.00	89.70	178.90	10335.61	1981.82	-1980.67	85.60	1982.52	177.53	2.15
45	12254.00	90.20	178.50	10335.69	2075.82	-2074.64	87.74	2076.50	177.58	0.68



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46	12349.00	90.90	178.00	10334.78	2170.81	-2169.59	90.64	2171.49	177.61	0.91
47	12443.00	91.80	177.60	10332.56	2264.76	-2263.50	94.24	2265.46	177.62	1.05
48	12538.00	88.80	178.70	10332.06	2359.73	-2358.43	97.31	2360.44	177.64	3.36
49	12632.00	89.10	178.00	10333.79	2453.71	-2452.38	100.02	2454.42	177.66	0.81
50	12726.00	88.90	179.00	10335.43	2547.69	-2546.33	102.48	2548.39	177.70	1.08
51	12820.00	88.90	178.30	10337.23	2641.67	-2640.29	104.69	2642.36	177.73	0.74
52	12915.00	89.20	178.50	10338.81	2736.65	-2735.24	107.34	2737.34	177.75	0.38
53	13009.00	89.30	179.20	10340.04	2830.64	-2829.21	109.23	2831.32	177.79	0.75
54	13103.00	87.90	178.50	10342.33	2924.61	-2923.16	111.12	2925.27	177.82	1.67
55	13197.00	87.80	178.20	10345.86	3018.54	-3017.05	113.82	3019.20	177.84	0.34
56	13291.00	87.00	177.50	10350.12	3112.42	-3110.89	117.34	3113.10	177.84	1.13
57	13386.00	89.50	177.10	10353.03	3207.32	-3205.73	121.82	3208.05	177.82	2.67
58	13480.00	88.70	176.90	10354.50	3301.25	-3299.59	126.73	3302.02	177.80	0.88
59	13575.00	87.60	178.50	10357.57	3396.17	-3394.46	130.55	3396.97	177.80	2.04
60	13669.00	87.00	178.70	10362.00	3490.06	-3488.33	132.84	3490.86	177.82	0.67
61	13764.00	87.60	178.90	10366.47	3584.96	-3583.20	134.83	3585.74	177.85	0.67
62	13859.00	86.70	179.90	10371.20	3679.84	-3678.08	135.82	3680.58	177.89	1.42
63	13953.00	87.40	180.10	10376.03	3773.70	-3771.95	135.82	3774.40	177.94	0.77
64	14048.00	88.20	179.60	10379.68	3868.62	-3866.88	136.07	3869.27	177.98	0.99
65	14143.00	87.90	181.00	10382.91	3963.54	-3961.82	135.57	3964.14	178.04	1.51
66	14237.00	87.80	181.00	10386.44	4057.42	-4055.74	133.93	4057.95	178.11	0.11
67	14332.00	88.30	181.00	10389.67	4152.30	-4150.67	132.28	4152.78	178.17	0.53
68	14426.00	87.80	181.20	10392.87	4246.19	-4244.60	130.47	4246.60	178.24	0.57
69	14521.00	88.50	181.30	10395.94	4341.07	-4339.53	128.40	4341.43	178.31	0.74
70	14615.00	87.50	181.90	10399.22	4434.92	-4433.43	125.78	4435.21	178.37	1.24
71	14710.00	88.00	181.70	10402.95	4529.73	-4528.31	122.80	4529.97	178.45	0.57
72	14804.00	88.70	181.50	10405.65	4623.60	-4622.23	120.17	4623.80	178.51	0.77
73	14899.00	87.80	182.20	10408.56	4718.44	-4717.14	117.11	4718.59	178.58	1.20
74	14994.00	88.50	182.20	10411.62	4813.24	-4812.02	113.46	4813.36	178.65	0.74
75	15088.00	87.10	182.20	10415.23	4907.03	-4905.88	109.86	4907.11	178.72	1.49
76	15183.00	87.80	181.70	10419.46	5001.81	-5000.73	106.63	5001.86	178.78	0.91
77	15277.00	88.40	181.20	10422.57	5095.68	-5094.64	104.25	5095.71	178.83	0.83
78	15372.00	87.90	181.50	10425.64	5190.55	-5189.57	102.01	5190.57	178.87	0.61
79	15466.00	88.50	181.20	10428.59	5284.43	-5283.50	99.80	5284.44	178.92	0.71
80	15562.00	88.10	181.30	10431.44	5380.31	-5379.43	97.71	5380.32	178.96	0.43
81	15656.00	88.30	180.60	10434.39	5474.21	-5473.37	96.15	5474.21	178.99	0.77
82	15751.00	88.90	180.50	10436.71	5569.15	-5568.34	95.24	5569.15	179.02	0.64
83	15845.00	87.50	181.00	10439.67	5663.06	-5662.28	94.01	5663.06	179.05	1.58
84	15940.00	88.50	181.00	10442.98	5757.95	-5757.21	92.35	5757.95	179.08	1.05
85	16035.00	87.10	180.10	10446.63	5852.84	-5852.13	91.44	5852.84	179.10	1.75
86	16129.00	87.40	179.70	10451.14	5946.72	-5946.02	91.60	5946.73	179.12	0.53
87	16224.00	87.80	179.60	10455.12	6041.63	-6040.93	92.18	6041.64	179.13	0.43
88	16318.00	88.60	179.20	10458.07	6135.58	-6134.88	93.17	6135.59	179.13	0.95
89	16413.00	89.10	178.90	10459.98	6230.56	-6229.85	94.74	6230.57	179.13	0.61
90	16508.00	88.70	179.00	10461.80	6325.54	-6324.82	96.48	6325.55	179.13	0.43
91	16602.00	88.00	179.00	10464.51	6419.51	-6418.76	98.12	6419.51	179.12	0.74
92	16697.00	88.50	178.30	10467.41	6514.46	-6513.69	100.36	6514.46	179.12	0.91
93	16792.00	88.80	177.50	10469.65	6609.41	-6608.60	103.84	6609.42	179.10	0.90
94	16887.00	88.90	177.10	10471.55	6704.35	-6703.47	108.31	6704.35	179.07	0.43
95	16982.00	89.30	176.60	10473.05	6799.27	-6798.32	113.53	6799.27	179.04	0.67
96	17076.00	88.50	178.50	10474.85	6893.21	-6892.21	117.55	6893.21	179.02	2.19
97	17171.00	88.50	176.80	10477.34	6988.15	-6987.10	121.45	6988.15	179.00	1.79
98	17265.00	88.90	176.20	10479.47	7082.03	-7080.89	127.18	7082.04	178.97	0.77
99	17360.00	89.40	175.70	10480.88	7176.88	-7175.65	133.89	7176.90	178.93	0.74
100	17454.00	89.00	177.30	10482.19	7270.78	-7269.46	139.63	7270.80	178.90	1.75
101	17569.00	89.10	176.60	10484.10	7385.68	-7384.28	145.75	7385.72	178.87	0.61
PTB	17613.00	89.10	176.60	10484.79	7429.64	-7428.20	148.36	7429.68	178.86	0.00

