

# KERR-MCGEE OIL & GAS ONSHORE LP (LAMBERT STATE PLANE COORD)

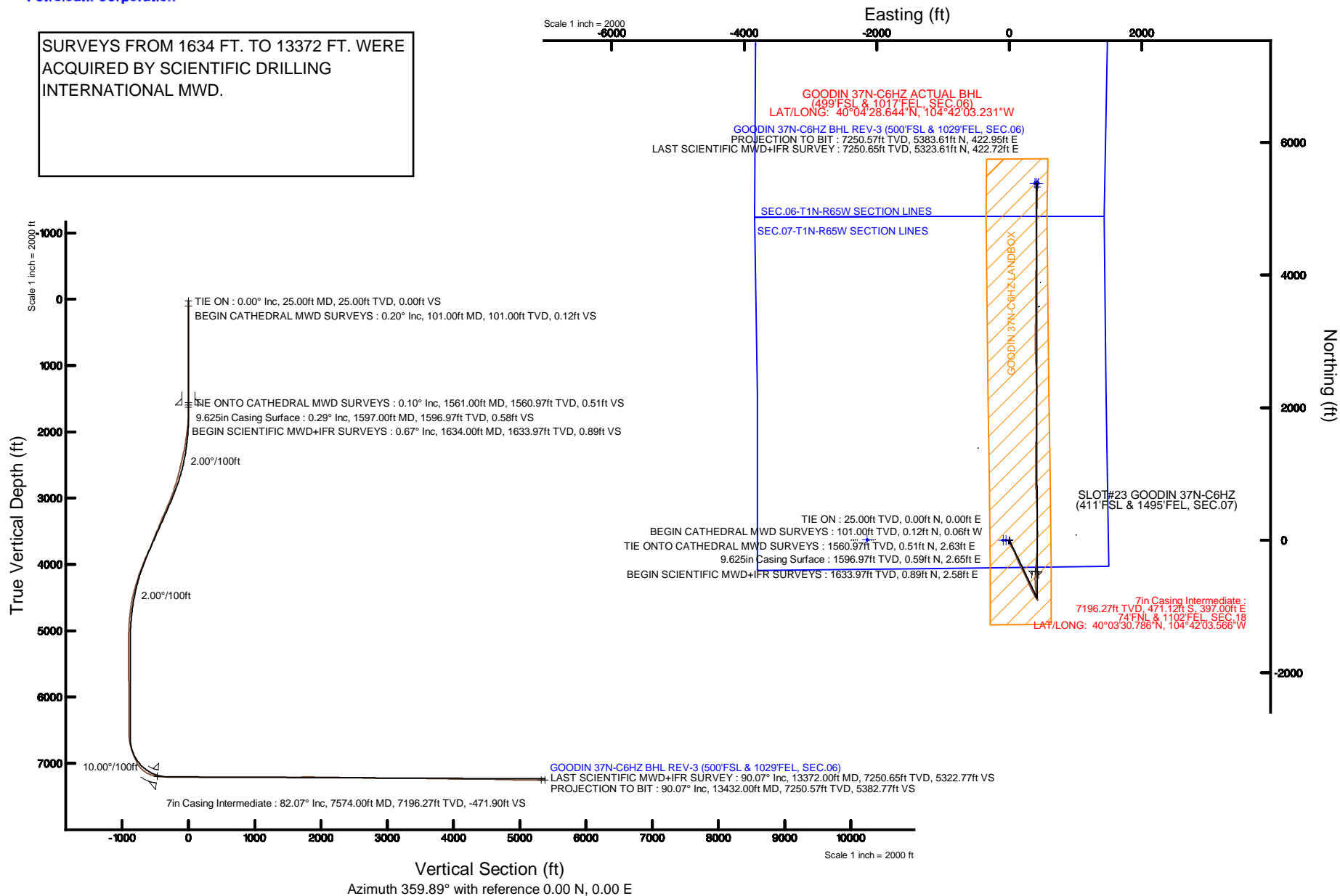
Location: COLORADO Slot: SLOT#23 GOODIN 37N-C6HZ (411'FSL & 1495'FEL, SEC.07)  
 Field: WELD COUNTY (KERR MCGEE) Well: GOODIN 37N-C6HZ  
 Facility: SEC.07-T1N-R65W Wellbore: GOODIN 37N-C6HZ PWB



Plot reference wellpath is GOODIN 37N-C6HZ (REV-C.0) PWP

True vertical depths are referenced to H&P 307 (25KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 307 (25KB) (RKB)	North Reference: True north
H&P 307 (25KB) (RKB) to Mean Sea Level: 5004 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#23 GOODIN 37N-C6HZ (411'FSL & 1495'FEL, SEC.07)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 6/25/2015

SURVEYS FROM 1634 FT. TO 13372 FT. WERE ACQUIRED BY SCIENTIFIC DRILLING INTERNATIONAL MWD.



ANADARKO

# SURVEY REPORT

GOODIN 37N-C6HZ

H&P 307

2/15/2015



The **Ultimate Partner** In Wellbore Placement

CUSTOMER ANADARKO  
PROJECT GOODIN 37N-C6HZ  
FIELD WATTENBERG

SDI JOB NO. 255802  
SDI DISTRICT Casper  
SDI KIT/UNIT C11-EM#70 / 77-MP-42

### SITE INFORMATION

Site Name GOODIN PAD  
Lat/Long 40° 3' 36.23" N, 104° 41' 55.637" E  
Northing 1,265,739.76 ft  
Easting 3,224,261.66 ft

Section 07  
Township 1N  
Range 65W

### MAP INFORMATION

North Reference True North  
Grid Correction  
System US State Plane 1983  
Datum North American Datum 1983 (GRS 1980)  
Map Zone LAMBERT COLORADO SP NORTH ERN ZONE  
(501) FEET



### WELL INFORMATION

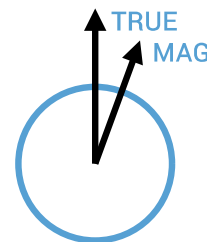
Lat/Long 40° 3' 35.442" N, 104° 42' 8.672" W  
Northing 1,265,650.89 ft  
Easting 3,223,248.92 ft  
UWI 05-123-40743

### DEPTH AND ELEVATION REFERENCE

Ground Level 5004 ft above Mean Sea Level  
Reference Datum RKB  
Reference Height 25 ft above G.L.  
Reference Elevation 5029 ft

### VERTICAL SECTION REFERENCE

+N/-S 0 ft  
+E/-W 0 ft  
Proposal Direction 359.89°  
Calculation Method Minimum Curvature



### GEOMAGNETIC REFERENCE INFORMATION

Local Gravity: 999.032 mG [computed]

MD	MODEL	DATE	DECLINATION	MAG TO TRUE
0-5868 ft	Mag VAR IFR	11 Feb 2015	8.14°	add 8.14°
5868-8654 ft	Mag VAR IFR	11 Feb 2015	8.08°	add 8.08°
8654-13372 ft	Mag VAR IFR	11 Feb 2015	8.06°	add 8.06°

### WELL NOTES

SURVEYS FROM 0 FT. TO 1561 FT. WERE ACQUIRED BY CATHEDRAL MWD.

SURVEYS FROM 1634 FT. TO 13372 FT. WERE ACQUIRED BY SCIENTIFIC DRILLING INTERNATIONAL MWD.

### OPERATORS

C. COLLINGS, S. NAJAD, S. WAXLER

SDI Operator Name (Printed)

SIGNATURE

DATE

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	COURSE LENGTH
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
0.00	0.00	334.30	0.00	0.00	0.00	0.00	Invalid	Invalid
25.00	0.00	334.30	25.00	0.00	0.00	0.00	0.00	25.00
101.00	0.20	334.30	101.00	0.12	0.12	-0.06	0.26	76.00
179.00	0.30	330.10	179.00	0.42	0.42	-0.22	0.13	78.00
257.00	0.30	349.70	257.00	0.80	0.80	-0.36	0.13	78.00
338.00	0.30	11.20	338.00	1.21	1.21	-0.35	0.14	81.00
418.00	0.50	351.50	418.00	1.77	1.76	-0.36	0.30	80.00
498.00	0.30	343.20	497.99	2.31	2.31	-0.48	0.26	80.00
578.00	0.30	23.60	577.99	2.70	2.70	-0.45	0.26	80.00
658.00	0.50	125.80	657.99	2.69	2.69	-0.09	0.79	80.00
738.00	0.40	132.70	737.99	2.30	2.30	0.40	0.14	80.00
818.00	0.50	125.10	817.99	1.90	1.91	0.89	0.15	80.00
898.00	0.60	145.20	897.98	1.36	1.36	1.42	0.27	80.00
978.00	0.70	136.60	977.98	0.66	0.66	1.99	0.17	80.00
1058.00	0.40	76.40	1057.97	0.37	0.37	2.60	0.76	80.00
1138.00	0.40	52.70	1137.97	0.60	0.61	3.09	0.21	80.00
1218.00	0.30	231.70	1217.97	0.64	0.65	3.15	0.87	80.00
1298.00	0.20	298.70	1297.97	0.58	0.59	2.86	0.36	80.00
1378.00	0.10	205.00	1377.97	0.58	0.59	2.71	0.29	80.00
1458.00	0.10	300.00	1457.97	0.56	0.56	2.62	0.18	80.00
1538.00	0.10	142.50	1537.97	0.54	0.54	2.60	0.25	80.00
1561.00	0.10	123.60	1560.97	0.51	0.51	2.63	0.14	23.00
1634.00	0.67	345.07	1633.97	0.89	0.89	2.58	1.03	73.00
1726.00	1.50	217.11	1725.96	0.45	0.45	1.71	2.16	92.00
1818.00	3.68	191.63	1817.86	-3.40	-3.40	0.39	2.62	92.00
1910.00	5.77	182.81	1909.55	-10.90	-10.90	-0.43	2.40	92.00
2003.00	7.88	173.22	2001.89	-21.90	-21.90	0.09	2.57	93.00
2097.00	8.84	157.27	2094.90	-34.97	-34.96	3.64	2.66	94.00
2191.00	10.61	153.19	2187.54	-49.37	-49.35	10.34	2.02	94.00
2286.00	12.41	153.98	2280.63	-66.37	-66.33	18.76	1.90	95.00
2380.00	14.13	154.89	2372.12	-85.85	-85.80	28.06	1.84	94.00
2475.00	15.06	150.42	2464.05	-107.10	-107.03	39.07	1.54	95.00

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	COURSE LENGTH
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
2569.00	15.42	147.53	2554.75	-128.29	-128.19	51.81	0.89	94.00
2664.00	17.02	149.09	2645.97	-150.91	-150.78	65.73	1.75	95.00
2758.00	18.00	156.40	2735.62	-176.05	-175.89	78.62	2.56	94.00
2852.00	19.48	156.26	2824.64	-203.72	-203.55	90.74	1.58	94.00
2947.00	20.85	160.70	2913.82	-234.20	-234.01	102.70	2.16	95.00
3041.00	22.52	159.46	3001.16	-266.87	-266.65	114.55	1.84	94.00
3135.00	24.05	155.39	3087.51	-301.17	-300.92	128.84	2.36	94.00
3230.00	25.44	156.98	3173.79	-337.58	-337.30	144.88	1.62	95.00
3324.00	25.44	153.80	3258.68	-374.31	-374.00	161.69	1.45	94.00
3418.00	25.81	151.13	3343.44	-410.38	-410.04	180.48	1.29	94.00
3512.00	25.26	152.67	3428.26	-446.15	-445.77	199.56	0.92	94.00
3607.00	25.02	153.42	3514.26	-482.15	-481.74	217.86	0.42	95.00
3701.00	22.72	156.01	3600.22	-516.55	-516.10	234.13	2.69	94.00
3796.00	24.31	153.51	3687.33	-550.85	-550.37	250.32	1.98	95.00
3936.00	27.13	158.14	3813.46	-606.33	-605.81	275.06	2.47	140.00
4078.00	24.19	154.27	3941.45	-662.65	-662.08	299.75	2.38	142.00
4172.00	23.53	154.56	4027.42	-696.98	-696.37	316.17	0.71	94.00
4266.00	21.08	155.25	4114.38	-729.31	-728.68	331.31	2.62	94.00
4360.00	20.66	153.54	4202.21	-759.54	-758.88	345.77	0.79	94.00
4454.00	19.14	154.56	4290.59	-788.33	-787.64	359.78	1.66	94.00
4643.00	14.11	152.05	4471.64	-836.74	-836.00	383.90	2.69	189.00
4737.00	12.28	148.01	4563.16	-855.36	-854.60	394.57	2.18	94.00
4831.00	10.00	143.51	4655.38	-870.42	-869.65	404.72	2.59	94.00
4925.00	7.61	143.28	4748.26	-882.00	-881.20	413.30	2.54	94.00
5019.00	6.82	137.51	4841.52	-891.12	-890.31	420.80	1.14	94.00
5114.00	4.27	138.19	4936.07	-897.93	-897.11	426.97	2.69	95.00
5208.00	2.57	144.06	5029.90	-902.26	-901.43	430.54	1.84	94.00
5302.00	1.35	93.65	5123.85	-904.04	-903.21	432.89	2.13	94.00
5396.00	0.38	301.95	5217.84	-903.95	-903.12	433.73	1.80	94.00
5491.00	0.23	308.25	5312.84	-903.67	-902.84	433.32	0.16	95.00
5585.00	0.37	304.10	5406.84	-903.38	-902.55	432.92	0.16	94.00
5773.00	0.63	304.13	5594.83	-902.45	-901.62	431.55	0.14	188.00

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	COURSE LENGTH
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
5961.00	0.83	292.32	5782.81	-901.35	-900.52	429.44	0.13	188.00
6055.00	1.05	317.25	5876.80	-900.46	-899.64	428.22	0.49	94.00
6150.00	0.33	338.12	5971.79	-899.56	-898.74	427.53	0.78	95.00
6244.00	0.17	321.21	6065.79	-899.20	-898.39	427.34	0.19	94.00
6338.00	0.09	71.22	6159.79	-899.07	-898.25	427.33	0.23	94.00
6432.00	0.07	37.80	6253.79	-899.00	-898.18	427.44	0.06	94.00
6526.00	0.51	268.65	6347.79	-898.97	-898.15	427.05	0.59	94.00
6621.00	0.66	274.55	6442.79	-898.93	-898.12	426.08	0.17	95.00
6684.00	0.80	271.91	6505.78	-898.89	-898.07	425.28	0.22	63.00
6715.00	0.91	258.94	6536.78	-898.93	-898.11	424.83	0.72	31.00
6762.00	2.60	347.10	6583.76	-897.96	-897.15	424.22	5.80	47.00
6810.00	7.59	5.04	6631.56	-893.74	-892.92	424.26	10.80	48.00
6904.00	13.55	0.32	6723.92	-876.53	-875.71	424.87	6.40	94.00
6998.00	19.44	345.28	6814.05	-850.34	-849.53	420.95	7.70	94.00
7093.00	23.18	349.22	6902.55	-816.65	-815.86	413.43	4.21	95.00
7140.00	25.02	351.58	6945.45	-797.73	-796.94	410.24	4.42	47.00
7187.00	26.39	350.55	6987.80	-777.59	-776.81	407.07	3.07	47.00
7234.00	32.56	350.41	7028.69	-754.79	-754.01	403.25	13.13	47.00
7281.00	41.47	353.28	7066.19	-726.79	-726.03	399.31	19.32	47.00
7328.00	49.39	355.99	7099.15	-693.48	-692.72	396.23	17.33	47.00
7375.00	55.92	357.12	7127.65	-656.20	-655.44	394.01	14.02	47.00
7422.00	61.39	357.97	7152.09	-616.11	-615.36	392.30	11.74	47.00
7469.00	68.40	0.53	7172.02	-573.58	-572.83	391.77	15.71	47.00
7524.00	78.29	3.44	7187.76	-521.00	-520.24	393.63	18.68	55.00
7629.00	86.23	5.41	7201.89	-417.37	-416.60	401.66	7.79	105.00
7721.00	87.74	4.99	7206.72	-325.89	-325.11	409.99	1.70	92.00
7813.00	89.36	4.19	7209.04	-234.23	-233.43	417.35	1.96	92.00
7905.00	90.13	2.43	7209.45	-142.40	-141.59	422.66	2.09	92.00
7997.00	89.70	0.81	7209.58	-50.45	-49.63	425.26	1.82	92.00
8089.00	89.93	0.89	7209.88	41.54	42.36	426.63	0.27	92.00
8181.00	90.13	359.60	7209.82	133.53	134.35	427.02	1.42	92.00
8275.00	90.87	359.67	7209.00	227.53	228.35	426.42	0.79	94.00

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	COURSE LENGTH
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
8370.00	90.74	358.80	7207.66	322.51	323.33	425.15	0.93	95.00
8465.00	89.50	358.06	7207.47	417.48	418.29	422.54	1.52	95.00
8559.00	88.69	357.45	7208.96	511.40	512.21	418.86	1.08	94.00
8654.00	90.07	357.22	7209.99	606.30	607.09	414.44	1.47	95.00
8748.00	89.29	356.86	7210.51	700.18	700.97	409.58	0.91	94.00
8843.00	89.56	357.82	7211.46	795.08	795.86	405.16	1.05	95.00
8938.00	89.13	358.61	7212.54	890.03	890.80	402.20	0.95	95.00
9032.00	90.07	359.48	7213.21	984.02	984.79	400.64	1.37	94.00
9127.00	90.40	0.90	7212.82	1079.01	1079.78	400.95	1.53	95.00
9221.00	91.04	0.91	7211.63	1172.99	1173.76	402.43	0.68	94.00
9316.00	90.64	0.01	7210.24	1267.97	1268.75	403.20	1.03	95.00
9411.00	89.76	0.61	7209.91	1362.97	1363.75	403.72	1.11	95.00
9505.00	90.84	1.39	7209.41	1456.95	1457.73	405.36	1.41	94.00
9599.00	90.17	0.44	7208.58	1550.93	1551.71	406.86	1.24	94.00
9694.00	91.18	0.58	7207.47	1645.91	1646.70	407.70	1.07	95.00
9789.00	90.47	0.16	7206.10	1740.90	1741.69	408.31	0.87	95.00
9883.00	90.00	0.71	7205.72	1834.89	1835.68	409.02	0.77	94.00
9977.00	88.76	0.78	7206.74	1928.88	1929.67	410.25	1.33	94.00
10072.00	88.92	0.54	7208.66	2023.85	2024.64	411.35	0.31	95.00
10167.00	89.60	0.61	7209.89	2118.83	2119.63	412.31	0.71	95.00
10261.00	88.62	0.34	7211.35	2212.82	2213.61	413.09	1.08	94.00
10356.00	88.46	359.83	7213.77	2307.78	2308.58	413.23	0.56	95.00
10450.00	88.66	359.23	7216.14	2401.75	2402.55	412.46	0.68	94.00
10544.00	88.79	358.63	7218.23	2495.71	2496.51	410.71	0.65	94.00
10638.00	89.30	358.15	7219.80	2589.67	2590.46	408.07	0.74	94.00
10732.00	88.82	357.07	7221.35	2683.58	2684.36	404.15	1.25	94.00
10826.00	89.06	357.87	7223.08	2777.48	2778.25	400.01	0.89	94.00
10920.00	89.13	359.20	7224.57	2871.44	2872.21	397.61	1.42	94.00
11014.00	89.56	358.94	7225.65	2965.42	2966.19	396.09	0.54	94.00
11109.00	89.80	0.16	7226.18	3060.42	3061.18	395.34	1.31	95.00
11203.00	89.70	1.52	7226.59	3154.40	3155.17	396.71	1.45	94.00
11297.00	90.10	0.90	7226.75	3248.38	3249.15	398.70	0.79	94.00



MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	COURSE LENGTH
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
11391.00	90.91	0.46	7225.93	3342.36	3343.14	399.81	0.98	94.00
11486.00	89.70	0.54	7225.42	3437.35	3438.13	400.64	1.28	95.00
11580.00	89.36	0.78	7226.20	3531.34	3532.12	401.72	0.44	94.00
11674.00	87.92	0.37	7228.43	3625.31	3626.09	402.66	1.59	94.00
11768.00	88.08	359.91	7231.71	3719.25	3720.03	402.89	0.51	94.00
11863.00	89.36	0.77	7233.82	3814.22	3815.00	403.46	1.62	95.00
11957.00	89.90	0.31	7234.43	3908.21	3908.99	404.35	0.75	94.00
12052.00	89.06	0.70	7235.29	4003.20	4003.99	405.19	0.97	95.00
12146.00	89.60	0.79	7236.39	4097.18	4097.97	406.40	0.58	94.00
12241.00	90.00	0.53	7236.73	4192.17	4192.96	407.50	0.51	95.00
12335.00	89.93	2.08	7236.78	4286.14	4286.94	409.64	1.65	94.00
12429.00	88.49	1.72	7238.08	4380.07	4380.87	412.76	1.58	94.00
12524.00	89.23	0.99	7239.97	4475.02	4475.83	415.01	1.09	95.00
12618.00	89.77	1.02	7240.80	4569.00	4569.81	416.66	0.57	94.00
12712.00	88.39	359.92	7242.31	4662.98	4663.79	417.44	1.87	94.00
12806.00	88.18	359.41	7245.12	4756.94	4757.74	416.89	0.59	94.00
12901.00	88.76	0.23	7247.66	4851.90	4852.71	416.59	1.05	95.00
12995.00	89.23	1.84	7249.31	4945.86	4946.68	418.28	1.79	94.00
13089.00	89.43	0.95	7250.42	5039.82	5040.64	420.57	0.97	94.00
13184.00	89.77	0.19	7251.08	5134.81	5135.63	421.51	0.88	95.00
13278.00	90.34	0.52	7251.00	5228.81	5229.63	422.09	0.70	94.00
13372.00	90.07	0.22	7250.67	5322.81	5323.63	422.69	0.43	94.00