



Lea County, NM (NAD 27 NME)

Gem 36 State Com #701H

Precision 612

Plan #1

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #701H

Ground Level: 3432.0
KB = 612 @ 3457.0usft (Precision 612)
Northing 388498.00 Easting 720849.00 Latitude 32° 5' 36.866 N Longitude 103° 37' 12.676 W

SECTION DETAILS

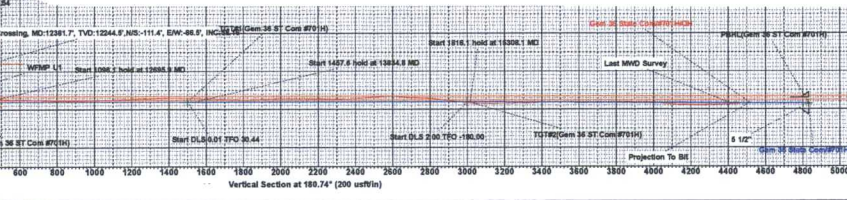
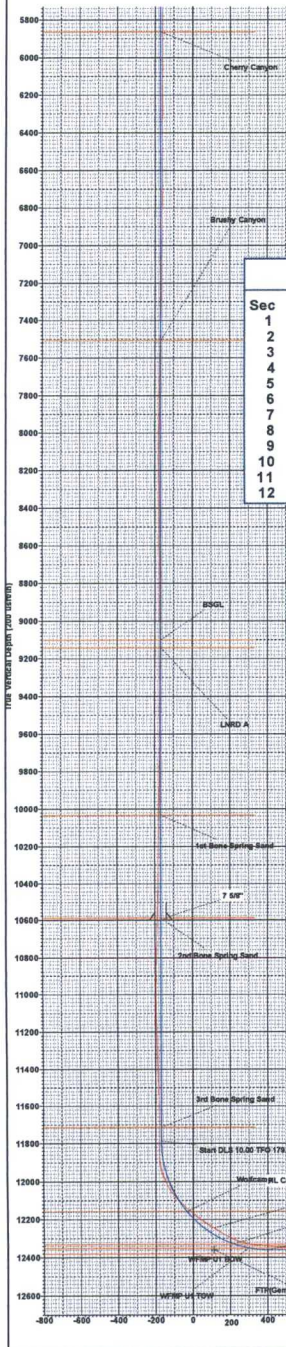
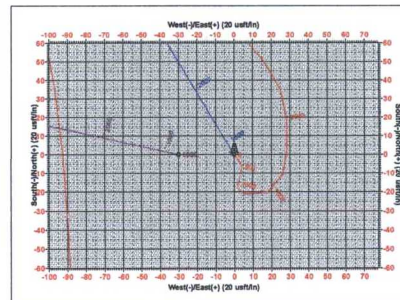
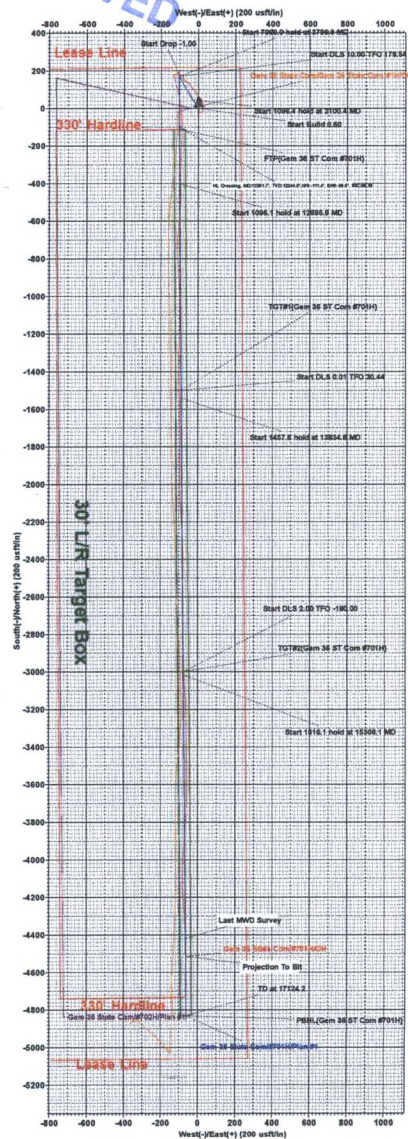
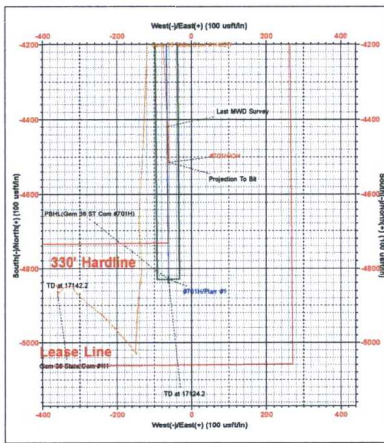
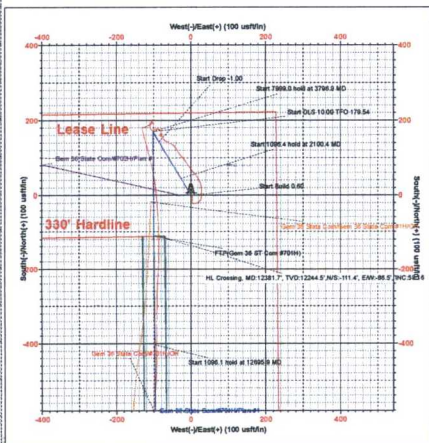
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	2100.4	6.00	328.96	2098.5	44.9	-27.0	0.60	328.96	-44.5	
4	3196.7	6.00	328.96	3188.9	143.1	-86.1	0.00	0.00	-142.0	
5	3796.9	0.00	0.00	3788.0	170.0	-102.3	1.00	180.00	-168.7	
6	11795.9	0.00	0.00	11787.0	170.0	-102.3	0.00	0.00	-168.7	
7	12695.9	90.00	179.54	12360.0	-402.9	-97.7	10.00	179.54	404.1	
8	13792.0	90.00	179.54	12360.0	-1499.0	-88.8	0.00	0.00	1500.0	TGT#1(Gem 36 ST Com #701H)
9	13834.8	90.00	179.54	12360.0	-1541.8	-88.5	0.01	30.44	1542.8	
10	15292.4	90.00	179.54	12360.0	-2999.3	-76.7	0.00	0.00	3000.0	TGT#2(Gem 36 ST Com #701H)
11	15308.1	89.69	179.54	12360.0	-3015.0	-76.6	2.00	-180.00	3015.7	
12	17124.2	89.69	179.54	12370.0	-4831.0	-62.0	0.00	0.00	4831.4	PBHL(Gem 36 ST Com #701H)

CASING DETAILS

TVD	MD	Name	Size
896.0	896.0	10 3/4"	10-3/4
10600.010608.9	7 5/8"	7 5/8"	7-5/8
12370.017124.2	5 1/2"	5 1/2"	5-1/2

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP(Gem 36 ST Com #701H)	12360.0	-111.0	-100.0	398387.00	720749.00
TGT#1(Gem 36 ST Com #701H)	12360.0	-1499.0	-88.8	398989.00	720760.17
TGT#2(Gem 36 ST Com #701H)	12360.0	-2999.3	-76.7	398498.70	720772.36
PBHL(Gem 36 ST Com #701H)	12370.0	-4831.0	-62.0	398667.00	720787.00



Lea County, NM (NAD 27 NME)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 36, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

FND. BRASS CAP,
U.S. G.L.O. SUR.

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U.S. G.L.O. SUR.

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U.S. G.L.O. SUR.

SURFACE LOCATION
NEW MEXICO EAST
NAD 1927
X=720849
Y=398498
LAT.: N 32.0935797
LONG.: W 103.6201891

UPPER MOST PERFORATION
NEW MEXICO EAST
NAD 1927
X=720756
Y=398120
LAT.: N 32.0925432
LONG.: W 103.6204952
MD = 12667'

LOWER MOST PERFORATION
NEW MEXICO EAST
NAD 1927
X=720786
Y=394070
LAT.: N 32.0814090
LONG.: W 103.6204869
MD = 16725'

BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1927
X=720788
Y=393984
LAT.: N 32.0811723
LONG.: W 103.6204815
MD = 16811'

FND. BRASS CAP,
U.S. G.L.O. SUR.

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U.S. G.L.O. SUR.

FND. BRASS CAP,
U.S. G.L.O. SUR.

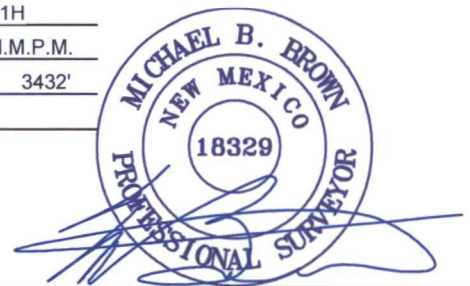
POINT	UTM ZONE 13 COORDINATES	
SHL	X=2067601.762	Y=11651727.027
UMP	X=2067511.830	Y=11651348.828
LMP	X=2067566.178	Y=11647299.414
BHL	X=2067568.966	Y=11647213.342

LEASE NAME & WELL NO.: GEM 36 STATE COM #701H
SECTION 36 TWP 25-S RGE 32-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3432'
DESCRIPTION 220' FNL & 230' FEL



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329
FEBRUARY 20, 2017



GEM 36 STATE COM #701H AS-COMPLETED	REVISION:	
	INT	DATE
DATE: 02/20/17		
FILE:AD_GEM36STATECOM_701H		
DRAWN BY: A.C.C.		
SHEET: 1 OF 1		

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 19 27.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.



Directional Survey Report

Company Name: EOG Resources

Well Name: Gem 36 State Com #701H

Rig ID: PD 612

API/UWI: 30-025-42780

Start Date: 10/7/15

End Date: 10/30/15

Survey Company: Precision Directional Services

Job Number: WT-150025

Location: Lea County

State/Prov: New Mexico

County: Lea

Field: Wolfcamp U1

Latitude: 32.093276

Longitude: 103.620513

KB: 3457

North Reference: Grid

Proposed Azimuth: 180.74

Declination: 6.77

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
Tiein	880.00	1.16	192.67	879.90	-11.51	3.02	11.47	0.00
1	1,066.00	1.90	192.60	1,065.83	-16.36	1.93	16.33	0.40
2	1,251.00	3.30	107.50	1,250.69	-20.95	6.35	20.87	1.98
3	1,436.00	4.40	67.60	1,435.30	-19.85	17.99	19.61	1.53
4	1,620.00	4.30	11.90	1,618.85	-10.41	25.94	10.07	2.21
5	1,805.00	4.70	6.60	1,803.28	3.91	28.24	-4.27	0.31
6	1,990.00	5.00	353.20	1,987.62	19.45	28.16	-19.81	0.63
7	2,175.00	5.10	343.60	2,171.91	35.34	24.88	-35.66	0.46
8	2,360.00	6.20	317.20	2,356.04	50.56	15.77	-50.76	1.51
9	2,544.00	5.80	322.80	2,539.03	65.26	3.40	-65.29	0.39
10	2,729.00	5.50	328.40	2,723.13	80.25	-6.90	-80.16	0.34
11	2,914.00	4.60	322.80	2,907.41	93.71	-16.03	-93.50	0.55
12	3,099.00	4.30	316.80	3,091.86	104.68	-25.26	-104.34	0.30
13	3,284.00	4.20	327.90	3,276.35	115.47	-33.61	-115.03	0.45
14	3,468.00	4.50	327.60	3,459.82	127.28	-41.06	-126.73	0.16
15	3,653.00	3.60	298.20	3,644.38	136.15	-50.07	-135.49	1.21
16	3,838.00	3.40	301.00	3,829.03	141.72	-59.89	-140.93	0.14
17	4,023.00	3.30	294.00	4,013.72	146.71	-69.46	-145.80	0.23
18	4,208.00	2.70	350.10	4,198.50	153.17	-75.07	-152.19	1.55
19	4,393.00	3.30	321.60	4,383.25	161.64	-79.13	-160.60	0.86
20	4,577.00	0.50	191.30	4,567.16	165.00	-82.58	-163.92	1.98
21	4,762.00	0.60	161.50	4,752.15	163.29	-82.43	-162.21	0.16
22	4,947.00	0.50	204.30	4,937.14	161.64	-82.45	-160.56	0.22
23	5,039.00	0.60	189.20	5,029.14	160.79	-82.69	-159.71	0.19
24	5,224.00	0.20	198.50	5,214.14	159.53	-82.95	-158.45	0.22
25	5,409.00	0.20	178.70	5,399.13	158.90	-83.05	-157.82	0.04
26	5,594.00	0.30	117.00	5,584.13	158.36	-82.61	-157.28	0.15
27	5,778.00	0.30	89.60	5,768.13	158.14	-81.70	-157.08	0.08
28	5,963.00	0.30	57.70	5,953.13	158.41	-80.80	-157.35	0.09
29	6,147.00	0.40	29.40	6,137.12	159.22	-80.08	-158.18	0.11
30	6,332.00	0.30	47.00	6,322.12	160.12	-79.41	-159.08	0.08
31	6,517.00	0.40	52.30	6,507.12	160.84	-78.54	-159.81	0.06
32	6,702.00	0.70	34.20	6,692.11	162.17	-77.40	-161.16	0.19
33	6,887.00	0.90	285.60	6,877.10	163.50	-78.16	-162.47	0.71
34	7,072.00	0.80	0.80	7,062.08	165.18	-79.54	-164.14	0.56
35	7,256.00	1.10	359.00	7,246.06	168.23	-79.56	-167.19	0.16
36	7,441.00	1.10	358.50	7,431.02	171.78	-79.63	-170.74	0.01
37	7,626.00	1.30	298.20	7,615.99	174.55	-81.53	-173.48	0.66
38	7,811.00	0.90	300.90	7,800.96	176.29	-84.63	-175.18	0.22
39	7,991.00	1.10	289.30	7,980.93	177.58	-87.47	-176.44	0.16
40	8,176.00	1.60	263.90	8,165.88	177.89	-91.71	-176.70	0.42
41	8,360.00	1.10	249.50	8,349.83	177.00	-95.92	-175.75	0.33
42	8,545.00	0.50	260.80	8,534.81	176.25	-98.38	-174.97	0.33
43	8,735.00	0.60	231.60	8,724.80	175.50	-99.98	-174.20	0.15
44	8,919.00	0.40	225.10	8,908.79	174.45	-101.19	-173.13	0.11
45	9,104.00	0.30	265.50	9,093.79	173.96	-102.13	-172.62	0.14
46	9,289.00	0.40	284.20	9,278.79	174.08	-103.24	-172.73	0.08
47	9,474.00	0.50	257.40	9,463.78	174.06	-104.65	-172.69	0.12
48	9,658.00	0.70	323.00	9,647.77	174.78	-106.11	-173.40	0.36
49	9,843.00	0.80	324.40	9,832.76	176.73	-107.55	-175.33	0.05

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
50	10,028.00	1.10	339.50	10,017.73	179.45	-108.92	-178.03	0.21
51	10,213.00	1.10	354.10	10,202.70	182.88	-109.72	-181.44	0.15
52	10,398.00	0.90	358.70	10,387.67	186.10	-109.94	-184.66	0.12
53	10,582.00	1.10	8.70	10,571.64	189.29	-109.71	-187.85	0.14
54	10,759.00	2.30	356.00	10,748.56	194.51	-109.70	-193.08	0.71
55	10,946.00	2.50	94.70	10,935.46	197.92	-105.89	-196.54	1.95
56	11,131.00	1.10	189.60	11,120.39	195.84	-102.17	-194.50	1.52
57	11,317.00	4.10	236.20	11,306.19	190.38	-107.99	-188.97	1.85
58	11,503.00	5.30	250.20	11,491.57	183.77	-121.60	-182.18	0.89
59	11,689.00	0.40	305.80	11,677.29	181.24	-130.21	-179.54	2.73
60	11,813.00	0.50	299.30	11,801.29	181.75	-131.04	-180.05	0.09
61	11,875.00	1.20	188.90	11,863.28	181.24	-131.37	-179.53	2.34
62	11,922.00	9.50	168.00	11,910.04	176.96	-130.64	-175.25	17.85
63	11,968.00	16.80	164.80	11,954.80	166.81	-128.11	-165.15	15.94
64	12,060.00	32.60	165.10	12,038.12	129.80	-118.18	-128.26	17.17
65	12,107.00	43.00	165.70	12,075.21	101.96	-110.95	-100.52	22.14
66	12,153.00	47.10	166.90	12,107.70	70.33	-103.25	-68.99	9.10
67	12,200.00	49.80	171.30	12,138.88	35.81	-96.63	-34.56	9.06
68	12,246.00	51.70	174.80	12,167.99	0.46	-92.34	0.74	7.19
69	12,293.00	55.40	176.90	12,195.91	-37.24	-89.62	38.40	8.65
70	12,339.00	56.80	177.50	12,221.56	-75.37	-87.76	76.50	3.23
71	12,386.00	58.30	178.70	12,246.78	-115.01	-86.45	116.12	3.85
72	12,433.00	59.00	181.50	12,271.24	-155.14	-86.52	156.25	5.30
73	12,478.00	64.40	183.10	12,292.57	-194.72	-88.12	195.84	12.40
74	12,525.00	68.10	182.40	12,311.49	-237.68	-90.18	238.82	7.99
75	12,572.00	77.20	181.10	12,325.49	-282.47	-91.54	283.63	19.54
76	12,619.00	85.00	180.30	12,332.76	-328.87	-92.10	330.03	16.68
77	12,665.00	86.50	180.10	12,336.17	-374.74	-92.26	375.90	3.29
78	12,712.00	85.20	180.80	12,339.57	-421.61	-92.63	422.77	3.14
79	12,759.00	85.10	181.70	12,343.54	-468.43	-93.65	469.60	1.92
80	12,804.00	87.70	182.40	12,346.37	-513.31	-95.26	514.50	5.98
81	12,898.00	89.50	186.60	12,348.67	-606.97	-102.63	608.24	4.86
82	12,992.00	87.80	180.60	12,350.88	-700.71	-108.53	702.05	6.63
83	13,086.00	89.20	177.60	12,353.34	-794.65	-107.05	795.97	3.52
84	13,179.00	89.90	175.30	12,354.07	-887.46	-101.30	888.70	2.59
85	13,271.00	91.50	178.50	12,352.95	-979.31	-96.32	980.47	3.89
86	13,365.00	92.00	181.30	12,350.08	-1,073.25	-96.16	1,074.41	3.02
87	13,458.00	91.60	181.00	12,347.16	-1,166.19	-98.02	1,167.36	0.54
88	13,552.00	92.90	182.60	12,343.47	-1,260.07	-100.97	1,261.26	2.19
89	13,645.00	92.10	180.80	12,339.41	-1,352.93	-103.73	1,354.16	2.12
90	13,738.00	88.00	178.70	12,339.33	-1,445.91	-103.32	1,447.12	4.95
91	13,831.00	87.50	176.90	12,342.98	-1,538.76	-99.76	1,539.92	2.01
92	13,924.00	88.90	178.50	12,345.90	-1,631.64	-96.03	1,632.74	2.29
93	14,017.00	87.90	180.40	12,348.50	-1,724.59	-95.13	1,725.67	2.31
94	14,110.00	91.10	179.90	12,349.31	-1,817.57	-95.38	1,818.65	3.48
95	14,203.00	92.20	180.80	12,346.63	-1,910.53	-95.94	1,911.61	1.53
96	14,298.00	90.80	179.20	12,344.15	-2,005.49	-95.94	2,006.56	2.24
97	14,390.00	89.20	176.20	12,344.15	-2,097.40	-92.25	2,098.42	3.70
98	14,484.00	89.20	176.00	12,345.46	-2,191.18	-85.86	2,192.10	0.21
99	14,576.00	88.50	177.10	12,347.30	-2,282.99	-80.32	2,283.84	1.42
100	14,670.00	93.00	178.30	12,346.07	-2,376.88	-76.55	2,377.67	4.95
101	14,763.00	99.00	183.30	12,336.35	-2,469.29	-77.82	2,470.09	8.38
102	14,856.00	89.50	180.80	12,329.47	-2,561.86	-81.12	2,562.70	10.56
103	14,950.00	84.70	179.00	12,334.22	-2,655.71	-80.96	2,656.53	5.45
104	15,042.00	88.50	179.40	12,339.68	-2,747.52	-79.68	2,748.32	4.15
105	15,135.00	82.40	178.90	12,347.05	-2,840.18	-78.31	2,840.95	6.58
106	15,228.00	83.80	178.20	12,358.22	-2,932.47	-75.97	2,933.21	1.68
107	15,322.00	86.40	176.60	12,366.25	-3,026.02	-71.72	3,026.69	3.24
108	15,415.00	90.10	176.40	12,369.09	-3,118.79	-66.05	3,119.38	3.98
109	15,508.00	90.70	178.20	12,368.44	-3,211.68	-61.66	3,212.20	2.04

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
110	15,602.00	92.60	178.70	12,365.74	-3,305.60	-59.12	3,306.09	2.09
111	15,695.00	91.30	179.70	12,362.57	-3,398.53	-57.83	3,399.00	1.76
112	15,788.00	89.80	180.30	12,361.68	-3,491.52	-57.83	3,491.98	1.74
113	15,881.00	89.40	179.70	12,362.33	-3,584.52	-57.83	3,584.97	0.78
114	15,973.00	89.40	181.70	12,363.29	-3,676.50	-58.95	3,676.96	2.17
115	16,065.00	90.70	184.50	12,363.21	-3,768.36	-63.92	3,768.87	3.36
116	16,158.00	93.20	183.40	12,360.05	-3,861.08	-70.33	3,861.66	2.94
117	16,251.00	87.30	184.50	12,359.64	-3,953.81	-76.73	3,954.47	6.45
118	16,344.00	82.00	180.10	12,368.31	-4,046.27	-80.46	4,046.98	7.39
119	16,437.00	87.70	177.50	12,376.66	-4,138.83	-78.51	4,139.50	6.73
120	16,530.00	91.50	177.10	12,377.31	-4,231.71	-74.13	4,232.31	4.11
121	16,623.00	90.70	175.50	12,375.52	-4,324.50	-68.13	4,325.01	1.92
122	16,717.00	93.40	178.50	12,372.16	-4,418.29	-63.21	4,418.73	4.29
123	16,813.00	93.40	178.50	12,366.47	-4,514.09	-60.71	4,514.49	0.00