



HOBBS OCD

MAR 21 2017

RECEIVED

Lea County, NM (NAD 27 NME)

Gem 36 State Com #702Y

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: #702Y

Ground Level: 3432.0
KB = 25 @ 3457.0usft (Precision #612)
Northing 358497.00 Easting 720769.00 Latitude 32° 5' 36.881 N Longitude 103° 37' 13.606 W

SECTION DETAILS

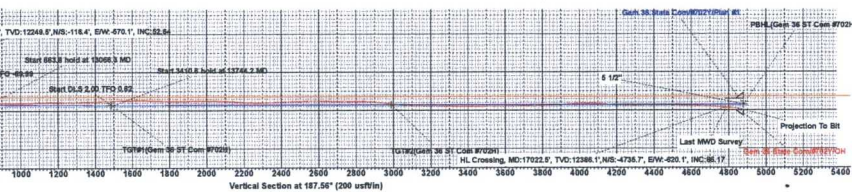
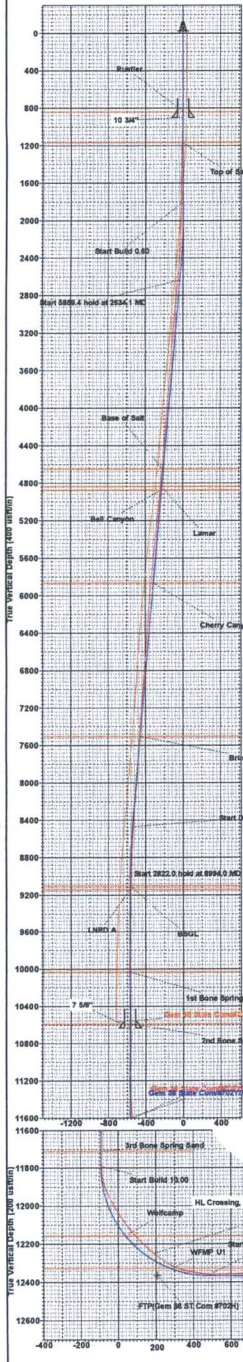
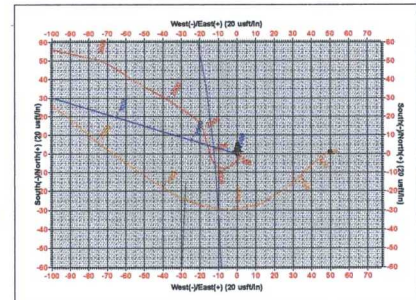
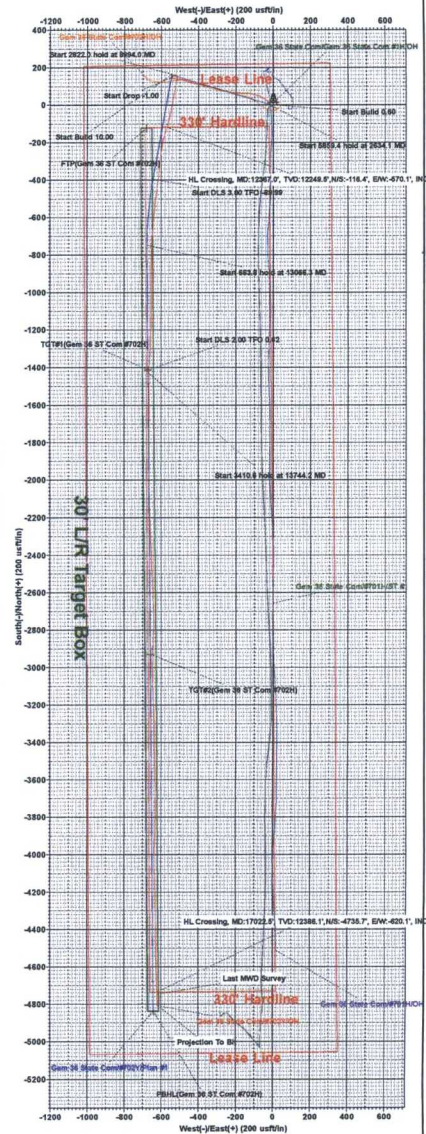
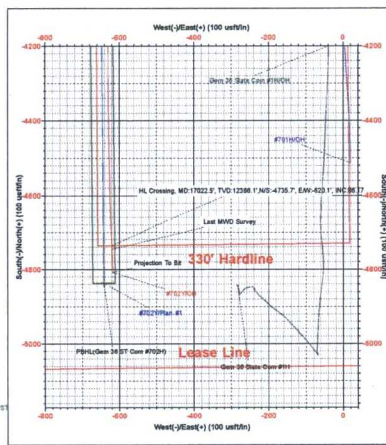
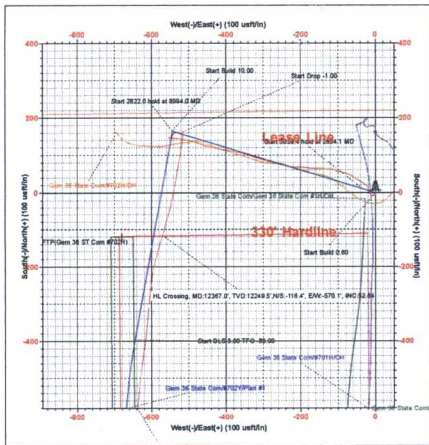
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1800.0	0.00	0.00	1800.0	0.0	0.0	0.00	0.00	0.0	
3	2634.1	5.00	286.84	2633.1	10.5	-34.8	0.60	286.84	-5.9	
4	8493.6	5.00	286.84	8470.2	158.7	-524.1	0.00	0.00	-88.3	
5	8994.0	0.00	0.00	8970.0	165.0	-545.0	1.00	180.00	-91.8	
6	11816.0	0.00	0.00	11792.0	165.0	-545.0	0.00	0.00	-91.8	
7	12713.1	89.71	190.13	12365.0	-396.2	-645.3	10.00	190.13	477.6	
8	13066.3	89.72	179.54	12366.7	-747.6	-675.0	3.00	-89.99	829.9	
9	13730.1	89.72	179.54	12370.0	-1411.3	-669.6	0.00	0.00	1487.1	TGT#1(Gem 36 ST Com #702H)
10	13744.2	90.00	179.54	12370.0	-1425.5	-669.5	2.00	0.62	1501.2	PBHL(Gem 36 ST Com #702H)
11	17154.9	90.00	179.54	12370.0	-4836.0	-642.0	0.00	0.00	4878.4	

CASING DETAILS

TVD	MD	Name	Size
900.0	900.0	10 3/4"	10-3/4
10630.010654.0		7 5/8"	7-5/8
12370.017154.9		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 #702H)	12365.0	-119.0	-680.0	398378.00	720089.00
PBHL(Gem 36 ST Com #702H)	12370.0	-4836.0	-642.0	398661.00	720127.00
TGT#1(Gem 36 ST Com #702H)	12370.0	-1411.3	-669.6	397085.70	720099.41
TGT#2(Gem 36 ST Com #702H)	12370.0	-2928.3	-657.4	395568.70	720111.83



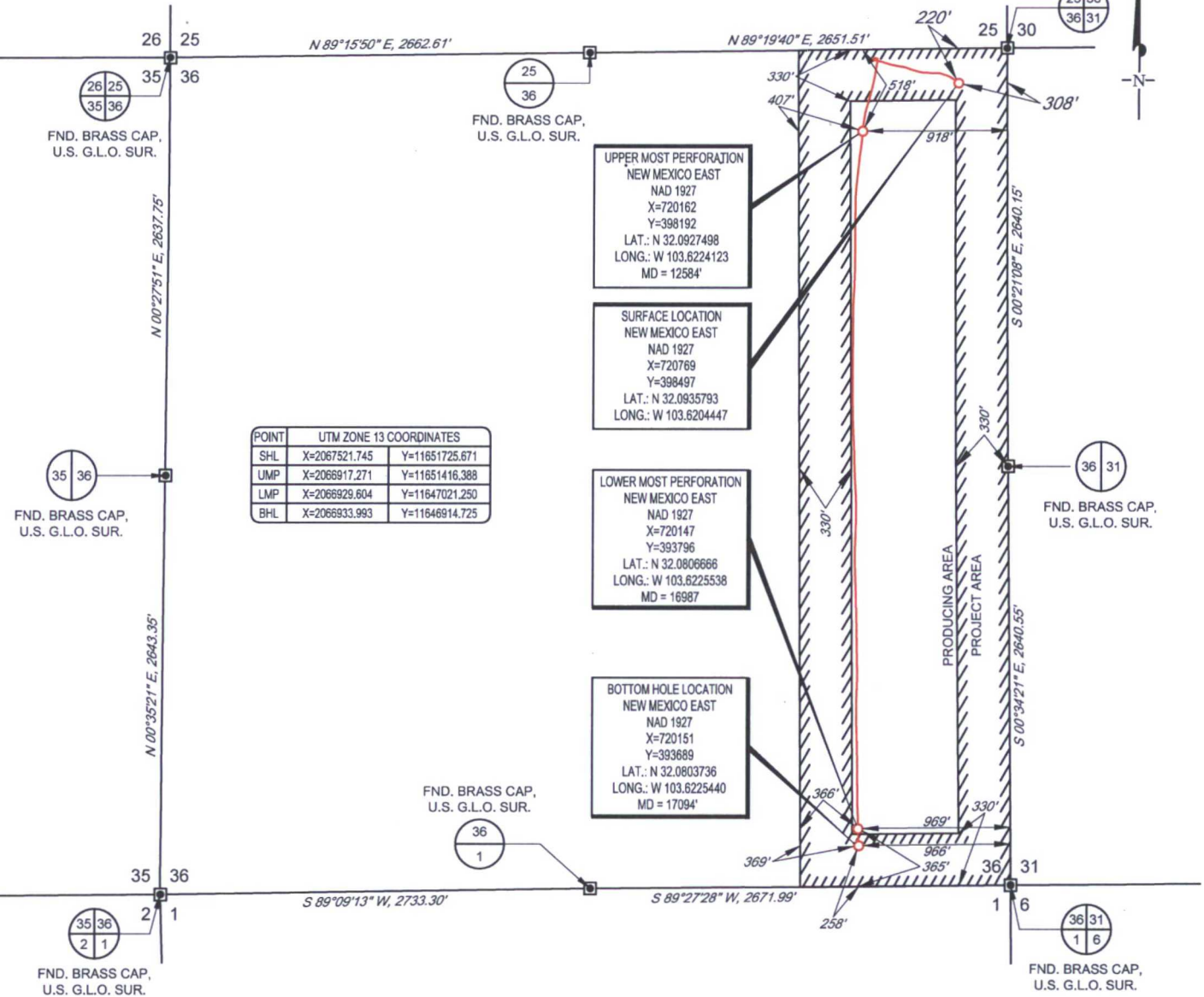
Lea County, NM (NAD 27 NME)
Gem 36 State Com #702Y
Precision #612
Plan #1
Scale: 1 inch = 100 feet
Date: 11/16/2015
Model: IGRF2015

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.



POINT	UTM ZONE 13 COORDINATES	
SHL	X=2067521.745	Y=11651725.671
UMP	X=2066917.271	Y=11651416.388
LMP	X=2066929.604	Y=11647021.250
BHL	X=2066933.993	Y=11646914.725

LEASE NAME & WELL NO.: GEM 36 STATE COM #702Y
SECTION 36 TWP 25-S RGE 32-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3432'
DESCRIPTION 220' FNL & 308' 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 9, 2017

GEM 36 STATE COM #702Y AS-COMPLETED	REVISION:		NOTES:
	INT	DATE	
DATE: 02/09/17			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.
FILE:AD_GEM36STATECOM_702Y			
DRAWN BY: A.C.C.			
SHEET: 1 OF 1			



Directional Survey Report

Company Name: EOG Resources

Well Name: Gem 36 State Com #702Y

Rig ID: PD 612

API/UWI: 30-025-42948

Start Date: 11/18/15

End Date: 12/8/15

Survey Company: Precision Directional Services

Job Number: WT150039

Location: Lea Co NM

State/Prov: New Mexico

County: Lea Co

Field: Wolfcamp

Latitude: 32.093578

Longitude: -103.620446

KB: 3457

North Reference: Grid

Proposed Azimuth: 187.56

Declination: 6.76

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
Tiein	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	207.00	0.50	78.00	207.00	0.19	0.88	-0.30	0.24
2	394.00	0.40	168.00	393.99	-0.28	1.82	0.04	0.34
3	580.00	1.50	212.40	579.97	-2.97	0.65	2.86	0.67
4	765.00	1.40	238.30	764.91	-6.20	-2.57	6.49	0.36
5	836.00	1.10	246.00	835.89	-6.94	-3.93	7.39	0.48
6	974.00	1.20	251.60	973.86	-7.93	-6.51	8.72	0.11
7	1,159.00	1.80	300.80	1,158.81	-7.06	-10.85	8.42	0.74
8	1,343.00	1.80	352.00	1,342.73	-2.71	-13.73	4.50	0.85
9	1,528.00	1.80	337.60	1,527.64	2.85	-15.24	-0.82	0.24
10	1,712.00	1.60	350.10	1,711.56	8.05	-16.79	-5.77	0.23
11	1,897.00	1.40	341.80	1,896.49	12.74	-17.94	-10.27	0.16
12	2,081.00	1.30	323.70	2,080.44	16.56	-19.88	-13.80	0.24
13	2,266.00	3.60	304.50	2,265.26	21.54	-25.90	-17.95	1.30
14	2,450.00	3.30	303.00	2,448.93	27.70	-35.11	-22.84	0.17
15	2,634.00	5.90	298.00	2,632.32	35.02	-47.90	-28.42	1.43
16	2,819.00	4.70	306.60	2,816.53	44.01	-62.38	-35.42	0.78
17	3,004.00	5.40	286.30	3,000.83	50.97	-76.82	-40.42	1.03
18	3,188.00	5.40	279.60	3,184.01	54.84	-93.67	-42.04	0.34
19	3,373.00	4.30	300.50	3,368.36	59.82	-108.23	-45.06	1.12
20	3,558.00	4.70	271.10	3,552.82	63.48	-121.79	-46.91	1.25
21	3,743.00	4.10	274.10	3,737.27	64.10	-135.96	-45.66	0.35
22	3,927.00	5.00	269.00	3,920.69	64.43	-150.54	-44.07	0.54
23	4,112.00	4.40	273.90	4,105.07	64.77	-165.68	-42.41	0.39
24	4,297.00	4.70	279.00	4,289.48	66.44	-180.25	-42.15	0.27
25	4,481.00	4.00	273.60	4,472.95	68.02	-194.10	-41.90	0.44
26	4,666.00	6.10	269.20	4,657.23	68.29	-210.37	-40.02	1.15
27	4,851.00	5.40	284.50	4,841.30	70.33	-228.62	-39.64	0.91
28	5,036.00	6.00	281.20	5,025.39	74.39	-246.54	-41.31	0.37
29	5,221.00	6.10	283.80	5,209.36	78.61	-265.57	-42.99	0.16
30	5,406.00	6.20	286.40	5,393.29	83.78	-284.70	-45.60	0.16
31	5,590.00	5.70	287.10	5,576.30	89.27	-302.96	-48.64	0.27
32	5,775.00	5.40	288.20	5,760.44	94.69	-320.01	-51.77	0.17
33	5,960.00	4.60	288.70	5,944.73	99.79	-335.31	-54.81	0.43
34	6,145.00	4.10	282.40	6,129.20	103.59	-348.80	-56.80	0.37
35	6,329.00	4.00	279.90	6,312.74	106.10	-361.54	-57.62	0.11
36	6,514.00	4.50	284.10	6,497.23	108.98	-374.94	-58.71	0.32
37	6,699.00	4.50	278.90	6,681.66	111.87	-389.15	-59.70	0.22
38	6,884.00	4.00	280.80	6,866.15	114.20	-402.65	-60.24	0.28
39	7,069.00	4.00	280.50	7,050.70	116.59	-415.34	-60.93	0.01
40	7,253.00	4.10	282.60	7,234.24	119.19	-428.07	-61.84	0.10
41	7,438.00	4.90	283.80	7,418.67	122.52	-442.19	-63.28	0.44
42	7,623.00	4.20	287.10	7,603.09	126.40	-456.34	-65.26	0.40
43	7,808.00	3.90	291.20	7,787.62	130.67	-468.68	-67.87	0.23
44	7,992.00	3.80	288.40	7,971.21	134.85	-480.30	-70.49	0.12
45	8,177.00	6.20	282.70	8,155.49	138.98	-495.87	-72.54	1.32
46	8,362.00	3.10	281.70	8,339.86	142.20	-510.51	-73.79	1.68
47	8,547.00	2.50	278.90	8,524.64	143.83	-519.40	-74.25	0.33
48	8,731.00	2.30	278.30	8,708.48	144.99	-527.02	-74.39	0.11
49	8,916.00	1.90	268.80	8,893.35	145.46	-533.76	-73.97	0.29

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
50	9,101.00	1.80	275.40	9,078.26	145.67	-539.72	-73.40	0.13
51	9,286.00	1.40	273.20	9,263.18	146.07	-544.86	-73.11	0.22
52	9,470.00	0.70	305.80	9,447.15	146.85	-548.02	-73.48	0.49
53	9,655.00	1.20	268.80	9,632.13	147.47	-550.87	-73.71	0.41
54	9,840.00	0.30	315.40	9,817.11	147.78	-553.15	-73.72	0.55
55	10,024.00	0.90	139.30	10,001.11	147.02	-552.55	-73.05	0.65
56	10,209.00	1.10	86.60	10,186.08	146.03	-549.83	-72.42	0.49
57	10,394.00	0.80	73.70	10,371.06	146.50	-546.81	-73.28	0.20
58	10,579.00	0.40	119.30	10,556.05	146.54	-545.01	-73.56	0.32
59	10,745.00	0.40	224.90	10,722.05	145.85	-544.92	-72.89	0.38
60	10,931.00	1.80	337.90	10,908.02	148.09	-546.47	-74.91	1.07
61	11,118.00	1.70	35.20	11,094.94	153.08	-545.98	-79.92	0.90
62	11,305.00	5.10	54.40	11,281.59	160.19	-537.62	-88.07	1.89
63	11,492.00	3.30	126.30	11,468.19	161.84	-526.52	-91.17	2.75
64	11,679.00	1.80	101.20	11,655.00	158.09	-519.30	-88.39	0.98
65	11,749.00	1.50	92.40	11,724.98	157.83	-517.30	-88.40	0.56
66	11,802.00	1.70	81.30	11,777.95	157.92	-515.83	-88.69	0.69
67	11,849.00	6.20	176.00	11,824.86	155.50	-514.97	-86.39	13.96
68	11,896.00	13.70	185.40	11,871.12	147.41	-515.31	-78.33	16.28
69	11,943.00	23.40	190.50	11,915.63	132.66	-517.54	-63.41	20.91
70	11,990.00	27.30	189.60	11,958.10	112.84	-521.04	-43.31	8.34
71	12,037.00	30.10	190.10	11,999.32	90.61	-524.91	-20.76	5.98
72	12,083.00	32.40	188.70	12,038.64	67.07	-528.80	3.09	5.24
73	12,129.00	35.00	189.60	12,076.91	41.87	-532.86	28.60	5.76
74	12,176.00	38.80	190.30	12,114.49	14.09	-537.74	56.78	8.13
75	12,223.00	42.10	192.60	12,150.25	-15.79	-543.81	87.20	7.70
76	12,270.00	43.90	194.00	12,184.62	-46.98	-551.19	119.09	4.34
77	12,316.00	47.30	195.20	12,216.80	-78.77	-559.49	151.70	7.62
78	12,364.00	52.50	196.10	12,247.71	-114.11	-569.40	188.03	10.93
79	12,411.00	54.70	196.40	12,275.60	-150.43	-579.98	225.43	4.71
80	12,458.00	60.10	194.00	12,300.91	-188.63	-590.34	264.65	12.27
81	12,504.00	66.50	187.60	12,321.59	-228.96	-597.96	305.64	18.65
82	12,551.00	74.80	186.20	12,337.15	-272.94	-603.27	349.94	17.88
83	12,597.00	80.50	185.00	12,346.98	-317.64	-607.65	394.83	12.65
84	12,643.00	81.40	185.40	12,354.22	-362.88	-611.77	440.22	2.14
85	12,690.00	86.40	188.20	12,359.21	-409.27	-617.31	486.93	12.18
86	12,736.00	92.50	187.80	12,359.66	-454.80	-623.70	532.90	13.29
87	12,829.00	90.30	185.40	12,357.38	-547.14	-634.39	625.85	3.50
88	12,923.00	92.30	186.20	12,355.25	-640.63	-643.88	719.77	2.29
89	13,015.00	87.20	181.30	12,355.65	-732.37	-649.90	811.51	7.69
90	13,109.00	87.70	180.30	12,359.83	-826.27	-651.21	904.76	1.19
91	13,202.00	91.30	180.60	12,360.65	-919.25	-651.94	997.03	3.88
92	13,296.00	92.40	180.10	12,357.61	-1,013.20	-652.51	1,090.24	1.29
93	13,390.00	89.60	179.20	12,355.97	-1,107.17	-651.94	1,183.32	3.13
94	13,483.00	91.80	181.80	12,354.83	-1,200.15	-652.75	1,275.59	3.66
95	13,577.00	89.90	183.10	12,353.44	-1,294.04	-656.77	1,369.20	2.45
96	13,670.00	92.40	182.50	12,351.57	-1,386.91	-661.31	1,461.85	2.76
97	13,762.00	91.80	181.10	12,348.20	-1,478.80	-664.20	1,553.33	1.65
98	13,854.00	89.30	178.50	12,347.32	-1,570.78	-663.88	1,644.46	3.92
99	13,947.00	87.10	181.80	12,350.24	-1,663.71	-664.12	1,736.62	4.26
100	14,040.00	90.70	179.60	12,352.03	-1,756.67	-665.25	1,828.92	4.54
101	14,132.00	90.30	179.70	12,351.22	-1,848.66	-664.69	1,920.04	0.45
102	14,225.00	90.30	180.30	12,350.74	-1,941.66	-664.69	2,012.23	0.65
103	14,318.00	87.40	179.40	12,352.60	-2,034.63	-664.45	2,104.36	3.26
104	14,412.00	85.60	178.10	12,358.34	-2,128.43	-662.40	2,197.07	2.36
105	14,505.00	92.00	176.60	12,360.29	-2,221.25	-658.10	2,288.53	7.07
106	14,598.00	92.10	177.60	12,356.96	-2,314.07	-653.40	2,379.92	1.08
107	14,692.00	91.90	178.50	12,353.68	-2,407.96	-650.20	2,472.57	0.98
108	14,784.00	90.70	177.60	12,351.59	-2,499.88	-647.07	2,563.28	1.63
109	14,877.00	88.00	177.10	12,352.65	-2,592.77	-642.78	2,654.80	2.95

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
110	14,970.00	89.90	178.70	12,354.35	-2,685.68	-639.37	2,746.46	2.67
111	15,063.00	90.00	182.20	12,354.43	-2,778.67	-640.10	2,838.73	3.76
112	15,156.00	83.30	182.70	12,359.86	-2,871.37	-644.06	2,931.15	7.22
113	15,250.00	84.60	180.30	12,369.77	-2,964.80	-646.51	3,024.09	2.89
114	15,343.00	88.50	178.70	12,375.37	-3,057.61	-645.70	3,115.98	4.53
115	15,436.00	89.20	177.10	12,377.24	-3,150.53	-642.29	3,207.64	1.88
116	15,529.00	89.00	178.00	12,378.70	-3,243.43	-638.31	3,299.21	0.99
117	15,593.00	89.40	179.00	12,379.59	-3,307.40	-636.64	3,362.41	1.68
118	15,687.00	90.10	178.70	12,380.00	-3,401.38	-634.75	3,455.32	0.81
119	15,781.00	91.30	179.20	12,378.85	-3,495.35	-633.03	3,548.26	1.38
120	15,875.00	90.50	179.00	12,377.38	-3,589.33	-631.55	3,641.22	0.88
121	15,968.00	90.70	179.40	12,376.40	-3,682.32	-630.25	3,733.23	0.48
122	16,061.00	92.50	181.70	12,373.80	-3,775.27	-631.15	3,825.49	3.14
123	16,154.00	93.20	181.30	12,369.18	-3,868.12	-633.58	3,917.85	0.87
124	16,247.00	92.00	180.80	12,364.96	-3,961.00	-635.28	4,010.15	1.40
125	16,340.00	86.90	177.80	12,365.85	-4,053.95	-634.15	4,102.14	6.36
126	16,433.00	87.20	178.30	12,370.64	-4,146.77	-630.99	4,193.74	0.63
127	16,526.00	89.70	179.70	12,373.16	-4,239.72	-629.36	4,285.67	3.08
128	16,619.00	91.90	179.90	12,371.86	-4,332.70	-629.04	4,377.80	2.38
129	16,713.00	88.00	178.50	12,371.94	-4,426.67	-627.73	4,470.78	4.41
130	16,806.00	89.20	179.90	12,374.21	-4,519.63	-626.43	4,562.76	1.98
131	16,899.00	86.30	177.80	12,377.86	-4,612.53	-624.57	4,654.60	3.85
132	16,992.00	86.10	178.00	12,384.03	-4,705.26	-621.17	4,746.08	0.30
133	17,033.00	86.20	178.00	12,386.78	-4,746.14	-619.74	4,786.42	0.24
134	17,095.00	86.20	178.00	12,390.89	-4,807.97	-617.58	4,847.43	0.00