

HOBBS OCD

DEC 08 2011

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 40373	Pool Code 51020	Pool Name WC Red Hills; Bone Spring Upper Shale
Property Code 38961	Property Name BROWN BEAR "36" STATE	Well Number 3H
OGRID No. 7377	Operator Name EOG RESOURCES, INC.	Elevation 3318.8'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	36	25 SOUTH	33 EAST, N.M.P.M.		180'	SOUTH	2190'	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	36	25 SOUTH	33 EAST, N.M.P.M.		330'	NORTH	2190'	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	BOTTOM HOLE LOCATION NEW MEXICO EAST NAD 1927 Y=398571.4 X=749592.3 LAT.: N 32.0932226° LONG.: W 103.5270554°	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 12/7/11 Signature Date Stan Wagner Printed Name
	UPPER MOST PERF. NEW MEXICO EAST NAD 1927 Y=394130.6 X=749727.5 LAT.: N 32.0810150° LONG.: W 103.5270489°	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was located from field notes to actual survey made by me or under my supervision, and that the same is true and correct to the best of my belief. OCTOBER 18, 2011 Date of Survey <i>Terry J. Paul</i> 11/14/2011 Signature and Seal of Professional Surveyor Certificate Number 15079 WO# 111018WL-e (KA)
	SURFACE LOCATION NEW MEXICO EAST NAD 1927 Y=393800.6 X=749730.1 LAT.: N 32.0801079° LONG.: W 103.5270484°	

ELG 12-14-2011

Permit Information:

Well Name: Brown Bear 36 State No. 3H

Location:

SL: 180' FSL & 2190' FWL, Section 36, T-25-S, R-33-E, Lea Co., N.M.

BHL: 330' FNL & 21910' FWL, Section 36, T-25-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 – 1000'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4000' – 5100'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-14,126'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1000'	575	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	250	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,100'	1325	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
14,126'	150	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1
	550	11.8	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1200	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1000'	Fresh - Gel	8.6-8.8	28-34	N/c
1000' – 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' – 9,082'	Cut Brine	8.4-9.0	28-34	N/c
KOP – 14,126' Lateral	Cut Brine	9.0-9.5	40-42	8-10

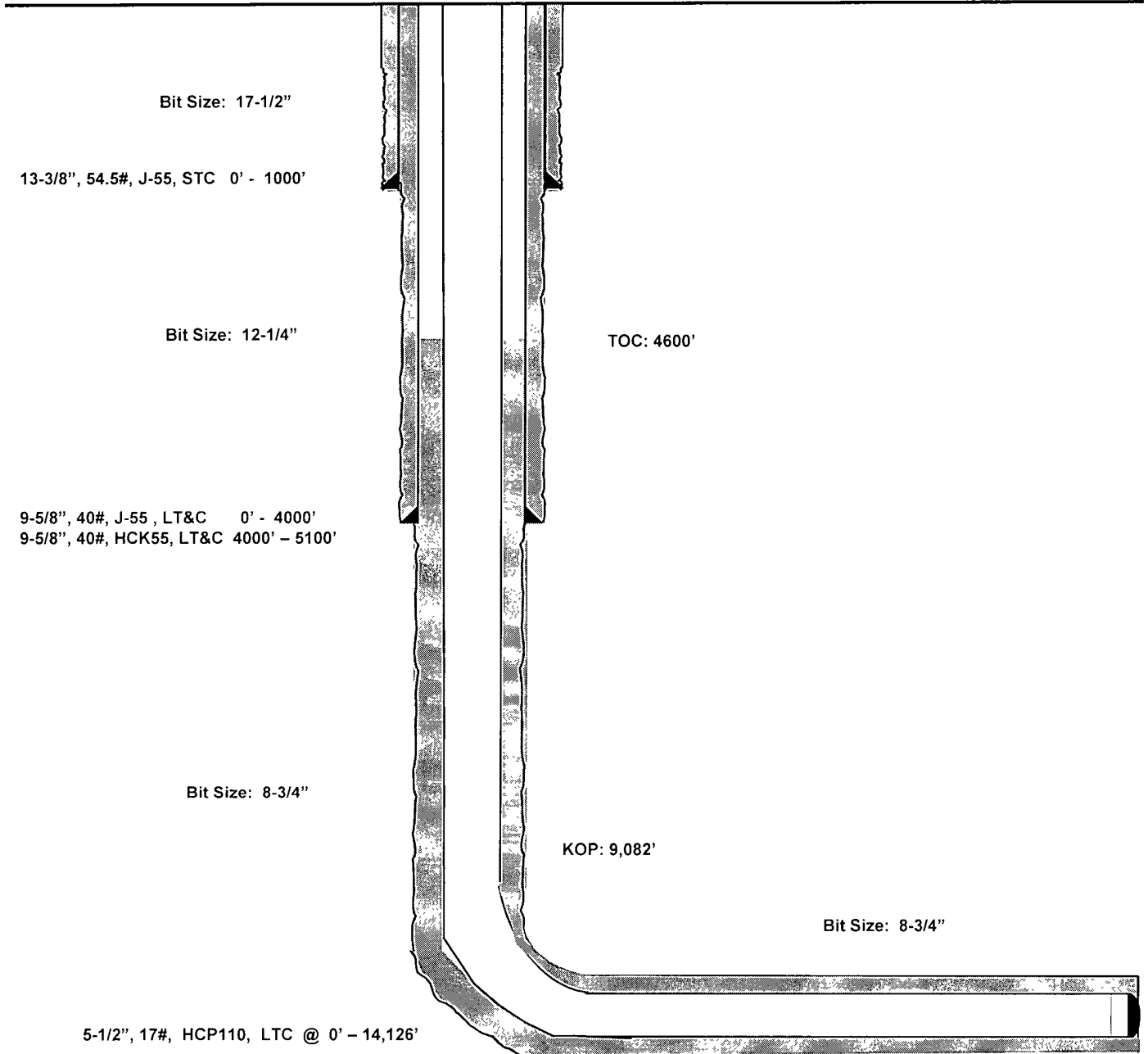
Brown Bear 36 State #3H
Red Hills
Lea County, New Mexico

180' FSL
2190' FWL
Section 36
T-25-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,343.8'
GL: 3,318.8'



Lateral: 14,126' MD, 9,560' TVD

BH Location: 330' FNL & 2190' FWL
Section 36
T-25-S, R-33-E



Project: Lea County
Site: Brown Bear "36" State
Well: #3H
Wellbore: OH
Plan: Plan #1 (#3H/OH)

PATHFINDER

A Schlumberger Company



Azimuths to Grid North
True North: -0.43°
Magnetic North: 7.06°

Magnetic Field
Strength: 48527.1snT
Dip Angle: 60.07°
Date: 12/1/2011
Model: IGRF200510

PROJECT DETAILS: Lea County
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
Local North: Grid

WELL DETAILS: #3H

Ground Elevation: 3318.8
RKB Elevation: KB = 25 @ 3343.8usft (Cactus 139)
Rig Name: Cactus 139

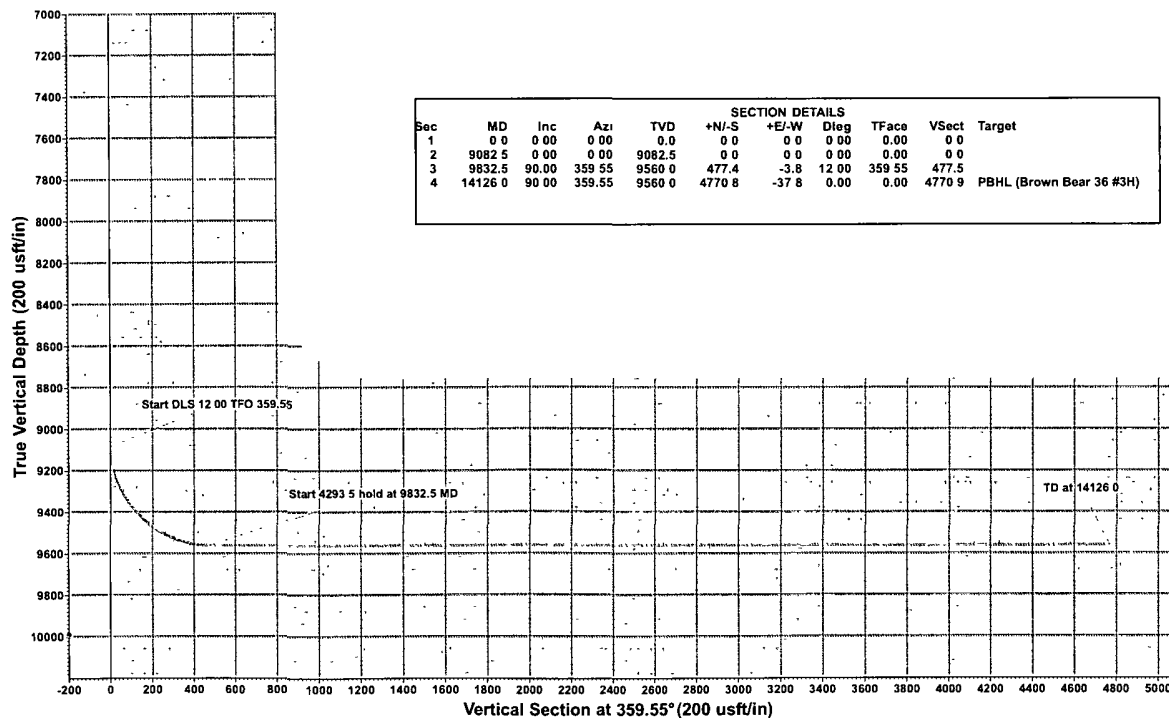
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	393800.600	749730.100	32°4'48.389 N	103°31'3.7374 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

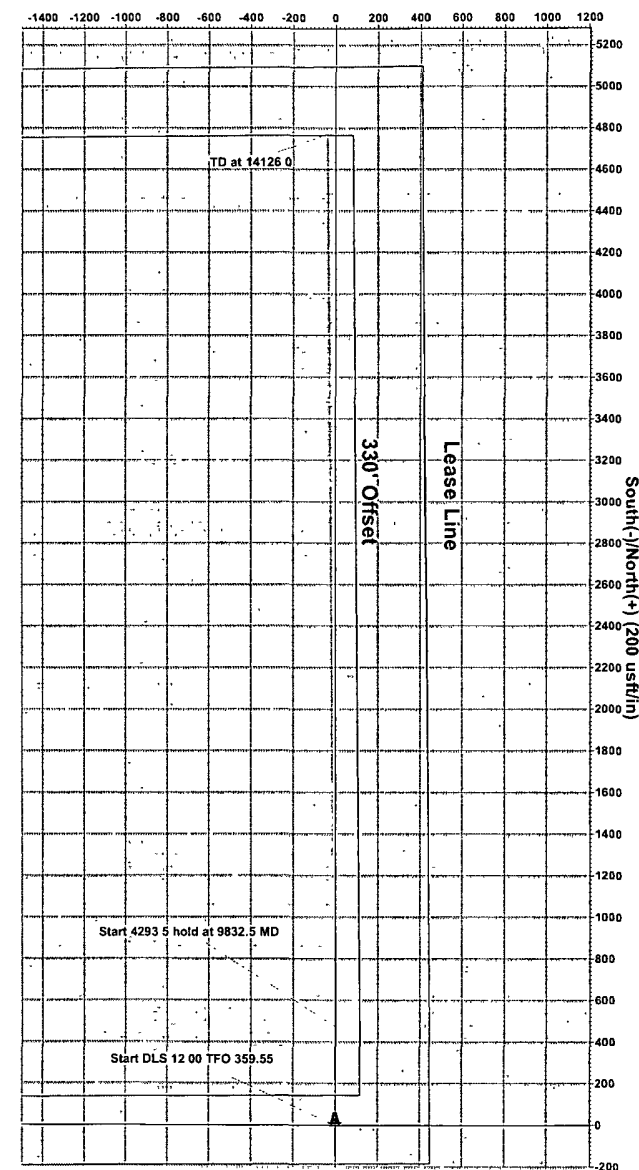
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (Brown Bear 36 #3H)	9560.0	4770.8	-37.8	398571.400	749692.300	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	9082.5	0.00	0.00	9082.5	0.0	0.0	0.00	0.00	0.0	
3	9832.5	90.00	359.55	9560.0	477.4	-3.8	12.00	359.55	477.5	
4	14126.0	90.00	359.55	9560.0	4770.8	-37.8	0.00	0.00	4770.9	PBHL (Brown Bear 36 #3H)



West(-)/East(+) (200 usft/in)



Plan: Plan #1 (#3H/OH)

Created By: Sam Biffle Date: 14 12, December 01 2011

Checked: _____ Date: _____

1000 Feet = 304.8 Meters
1000 Meters = 3280.8 Feet
1000 Feet = 304.8 Meters
1000 Meters = 3280.8 Feet



HOBBS OCD

DEC 08 2011

RECEIVED

EOG Resources, Inc.

Lea County

Brown Bear "36" State

#3H

OH

Plan: Plan #1

Pathfinder X & Y Report

01 December, 2011

PATHFINDER[®]

A Schlumberger Company

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Lea County	TVD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Site:	Brown Bear "36" State	MD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Project	Lea County		
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:		Brown Bear "36" State			
Site Position:		Northing:		393,788.200 usft	
From:		Easting:		747,970.200 usft	
Position Uncertainty:		Slot Radius:		13-3/16 "	
Map		Latitude:		32° 4' 48.396 N	
0.0 usft		Longitude:		103° 31' 57.829 W	
		Grid Convergence:		0.43 °	

Well		#3H				
Well Position	+N/-S	0.0 usft	Northing:	393,800.600 usft	Latitude:	32° 4' 48.389 N
	+E/-W	0.0 usft	Easting:	749,730.100 usft	Longitude:	103° 31' 37.374 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,318.8 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/1/2011	7.49	60.07	48,527

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.55

Survey Tool Program		Date 12/1/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	14,126.0	Plan #1 (OH)	MWD	MWD - Standard

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Lea County	TVD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Site:	Brown Bear "36" State	MD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.0	0.00	0.00	0.0	-3,343.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
100.0	0.00	0.00	100.0	-3,243.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
200.0	0.00	0.00	200.0	-3,143.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
300.0	0.00	0.00	300.0	-3,043.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
400.0	0.00	0.00	400.0	-2,943.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
500.0	0.00	0.00	500.0	-2,843.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
600.0	0.00	0.00	600.0	-2,743.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
700.0	0.00	0.00	700.0	-2,643.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
800.0	0.00	0.00	800.0	-2,543.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
900.0	0.00	0.00	900.0	-2,443.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,000.0	0.00	0.00	1,000.0	-2,343.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,100.0	0.00	0.00	1,100.0	-2,243.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,200.0	0.00	0.00	1,200.0	-2,143.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,300.0	0.00	0.00	1,300.0	-2,043.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,400.0	0.00	0.00	1,400.0	-1,943.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,500.0	0.00	0.00	1,500.0	-1,843.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,600.0	0.00	0.00	1,600.0	-1,743.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,700.0	0.00	0.00	1,700.0	-1,643.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,800.0	0.00	0.00	1,800.0	-1,543.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
1,900.0	0.00	0.00	1,900.0	-1,443.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,000.0	0.00	0.00	2,000.0	-1,343.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,100.0	0.00	0.00	2,100.0	-1,243.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,200.0	0.00	0.00	2,200.0	-1,143.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,300.0	0.00	0.00	2,300.0	-1,043.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,400.0	0.00	0.00	2,400.0	-943.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,500.0	0.00	0.00	2,500.0	-843.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,600.0	0.00	0.00	2,600.0	-743.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Lea County	TVD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Site:	Brown Bear "36" State	MD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,700.0	0.00	0.00	2,700.0	-643.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,800.0	0.00	0.00	2,800.0	-543.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
2,900.0	0.00	0.00	2,900.0	-443.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,000.0	0.00	0.00	3,000.0	-343.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,100.0	0.00	0.00	3,100.0	-243.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,200.0	0.00	0.00	3,200.0	-143.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,300.0	0.00	0.00	3,300.0	-43.8	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,400.0	0.00	0.00	3,400.0	56.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,500.0	0.00	0.00	3,500.0	156.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,600.0	0.00	0.00	3,600.0	256.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,700.0	0.00	0.00	3,700.0	356.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,800.0	0.00	0.00	3,800.0	456.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
3,900.0	0.00	0.00	3,900.0	556.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,000.0	0.00	0.00	4,000.0	656.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,100.0	0.00	0.00	4,100.0	756.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,200.0	0.00	0.00	4,200.0	856.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,300.0	0.00	0.00	4,300.0	956.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,400.0	0.00	0.00	4,400.0	1,056.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,500.0	0.00	0.00	4,500.0	1,156.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,600.0	0.00	0.00	4,600.0	1,256.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,700.0	0.00	0.00	4,700.0	1,356.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,800.0	0.00	0.00	4,800.0	1,456.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
4,900.0	0.00	0.00	4,900.0	1,556.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,000.0	0.00	0.00	5,000.0	1,656.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,100.0	0.00	0.00	5,100.0	1,756.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,200.0	0.00	0.00	5,200.0	1,856.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,300.0	0.00	0.00	5,300.0	1,956.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
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Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Lea County	TVD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Site:	Brown Bear "36" State	MD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
5,400.0	0.00	0.00	5,400.0	2,056.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,500.0	0.00	0.00	5,500.0	2,156.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,600.0	0.00	0.00	5,600.0	2,256.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,700.0	0.00	0.00	5,700.0	2,356.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,800.0	0.00	0.00	5,800.0	2,456.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
5,900.0	0.00	0.00	5,900.0	2,556.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,000.0	0.00	0.00	6,000.0	2,656.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,100.0	0.00	0.00	6,100.0	2,756.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,200.0	0.00	0.00	6,200.0	2,856.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,300.0	0.00	0.00	6,300.0	2,956.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,400.0	0.00	0.00	6,400.0	3,056.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,500.0	0.00	0.00	6,500.0	3,156.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,600.0	0.00	0.00	6,600.0	3,256.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,700.0	0.00	0.00	6,700.0	3,356.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,800.0	0.00	0.00	6,800.0	3,456.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
6,900.0	0.00	0.00	6,900.0	3,556.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,000.0	0.00	0.00	7,000.0	3,656.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,100.0	0.00	0.00	7,100.0	3,756.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,200.0	0.00	0.00	7,200.0	3,856.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,300.0	0.00	0.00	7,300.0	3,956.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,400.0	0.00	0.00	7,400.0	4,056.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,500.0	0.00	0.00	7,500.0	4,156.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,600.0	0.00	0.00	7,600.0	4,256.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,700.0	0.00	0.00	7,700.0	4,356.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,800.0	0.00	0.00	7,800.0	4,456.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
7,900.0	0.00	0.00	7,900.0	4,556.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,000.0	0.00	0.00	8,000.0	4,656.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	

Company:	EOG Resources, Inc.						Local Co-ordinate Reference:		Well #3H			
Project:	Lea County						TVD Reference:		KB = 25 @ 3343.8usft (Cactus 139)			
Site:	Brown Bear "36" State						MD Reference:		KB = 25 @ 3343.8usft (Cactus 139)			
Well:	#3H						North Reference:		Grid			
Wellbore:	OH						Survey Calculation Method:		Minimum Curvature			
Design:	Plan #1						Database:		EDM 5000.1 Single User Db			
Planned Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,100.0	0.00	0.00	0.00	8,100.0	4,756.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,200.0	0.00	0.00	0.00	8,200.0	4,856.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,300.0	0.00	0.00	0.00	8,300.0	4,956.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,400.0	0.00	0.00	0.00	8,400.0	5,056.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,500.0	0.00	0.00	0.00	8,500.0	5,156.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,600.0	0.00	0.00	0.00	8,600.0	5,256.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,700.0	0.00	0.00	0.00	8,700.0	5,356.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,800.0	0.00	0.00	0.00	8,800.0	5,456.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
8,900.0	0.00	0.00	0.00	8,900.0	5,556.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
9,000.0	0.00	0.00	0.00	9,000.0	5,656.2	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
9,082.5	0.00	0.00	0.00	9,082.5	5,738.7	0.0	0.0	0.0	0.00	393,800.60	749,730.10	
9,100.0	2.10	359.55	0.00	9,100.0	5,756.2	0.3	0.0	0.3	12.00	393,800.92	749,730.10	
9,125.0	5.10	359.55	0.00	9,124.9	5,781.1	1.9	0.0	1.9	12.00	393,802.49	749,730.09	
9,150.0	8.10	359.55	0.00	9,149.8	5,806.0	4.8	0.0	4.8	12.00	393,805.36	749,730.06	
9,175.0	11.10	359.55	0.00	9,174.4	5,830.6	8.9	-0.1	8.9	12.00	393,809.53	749,730.03	
9,200.0	14.10	359.55	0.00	9,198.8	5,855.0	14.4	-0.1	14.4	12.00	393,814.98	749,729.99	
9,225.0	17.10	359.55	0.00	9,222.9	5,879.1	21.1	-0.2	21.1	12.00	393,821.71	749,729.93	
9,250.0	20.10	359.55	0.00	9,246.6	5,902.8	29.1	-0.2	29.1	12.00	393,829.68	749,729.87	
9,275.0	23.10	359.55	0.00	9,269.8	5,926.0	38.3	-0.3	38.3	12.00	393,838.88	749,729.80	
9,300.0	26.10	359.55	0.00	9,292.6	5,948.8	48.7	-0.4	48.7	12.00	393,849.29	749,729.71	
9,325.0	29.10	359.55	0.00	9,314.7	5,970.9	60.3	-0.5	60.3	12.00	393,860.87	749,729.62	
9,350.0	32.10	359.55	0.00	9,336.2	5,992.4	73.0	-0.6	73.0	12.00	393,873.59	749,729.52	
9,375.0	35.10	359.55	0.00	9,357.0	6,013.2	86.8	-0.7	86.8	12.00	393,887.42	749,729.41	
9,400.0	38.10	359.55	0.00	9,377.1	6,033.3	101.7	-0.8	101.7	12.00	393,902.33	749,729.29	
9,425.0	41.10	359.55	0.00	9,396.4	6,052.6	117.7	-0.9	117.7	12.00	393,918.26	749,729.17	
9,450.0	44.10	359.55	0.00	9,414.8	6,071.0	134.6	-1.1	134.6	12.00	393,935.18	749,729.03	
9,475.0	47.10	359.55	0.00	9,432.3	6,088.5	152.4	-1.2	152.4	12.00	393,953.04	749,728.89	

Company:	EOG Resources, Inc	Local Co-ordinate Reference:	Well #3H
Project:	Lea County	TVD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Site:	Brown Bear "36" State	MD Reference:	KB = 25 @ 3343 8usft (Cactus 139)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
9,500.0	50.10	359.55	9,448.8	6,105.0	171.2	-1.4	171.2	12.00	393,971.79	749,728.74	
9,525.0	53.10	359.55	9,464.3	6,120.5	190.8	-1.5	190.8	12.00	393,991.38	749,728.59	
9,550.0	56.10	359.55	9,478.8	6,135.0	211.2	-1.7	211.2	12.00	394,011.75	749,728.43	
9,575.0	59.10	359.55	9,492.2	6,148.4	232.3	-1.8	232.3	12.00	394,032.86	749,728.26	
9,600.0	62.10	359.55	9,504.5	6,160.7	254.0	-2.0	254.0	12.00	394,054.64	749,728.09	
9,625.0	65.10	359.55	9,515.6	6,171.8	276.4	-2.2	276.4	12.00	394,077.03	749,727.91	
9,650.0	68.10	359.55	9,525.5	6,181.7	299.4	-2.4	299.4	12.00	394,099.97	749,727.73	
9,675.0	71.10	359.55	9,534.2	6,190.4	322.8	-2.6	322.8	12.00	394,123.40	749,727.54	
9,700.0	74.10	359.55	9,541.7	6,197.9	346.6	-2.7	346.7	12.00	394,147.25	749,727.35	
9,725.0	77.10	359.55	9,547.9	6,204.1	370.9	-2.9	370.9	12.00	394,171.46	749,727.16	
9,750.0	80.10	359.55	9,552.9	6,209.1	395.4	-3.1	395.4	12.00	394,195.96	749,726.97	
9,775.0	83.10	359.55	9,556.5	6,212.7	420.1	-3.3	420.1	12.00	394,220.69	749,726.77	
9,800.0	86.10	359.55	9,558.9	6,215.1	445.0	-3.5	445.0	12.00	394,245.58	749,726.57	
9,825.0	89.10	359.55	9,559.9	6,216.1	470.0	-3.7	470.0	12.00	394,270.55	749,726.38	
9,832.5	90.00	359.55	9,560.0	6,216.2	477.4	-3.8	477.5	12.00	394,278.05	749,726.32	
9,900.0	90.00	359.55	9,560.0	6,216.2	544.9	-4.3	545.0	0.00	394,345.55	749,725.78	
10,000.0	90.00	359.55	9,560.0	6,216.2	644.9	-5.1	645.0	0.00	394,445.54	749,724.99	
10,100.0	90.00	359.55	9,560.0	6,216.2	744.9	-5.9	745.0	0.00	394,545.54	749,724.20	
10,200.0	90.00	359.55	9,560.0	6,216.2	844.9	-6.7	845.0	0.00	394,645.54	749,723.41	
10,300.0	90.00	359.55	9,560.0	6,216.2	944.9	-7.5	945.0	0.00	394,745.54	749,722.61	
10,400.0	90.00	359.55	9,560.0	6,216.2	1,044.9	-8.3	1,045.0	0.00	394,845.53	749,721.82	
10,500.0	90.00	359.55	9,560.0	6,216.2	1,144.9	-9.1	1,145.0	0.00	394,945.53	749,721.03	
10,600.0	90.00	359.55	9,560.0	6,216.2	1,244.9	-9.9	1,245.0	0.00	395,045.53	749,720.24	
10,700.0	90.00	359.55	9,560.0	6,216.2	1,344.9	-10.7	1,345.0	0.00	395,145.52	749,719.44	
10,800.0	90.00	359.55	9,560.0	6,216.2	1,444.9	-11.4	1,445.0	0.00	395,245.52	749,718.65	
10,900.0	90.00	359.55	9,560.0	6,216.2	1,544.9	-12.2	1,545.0	0.00	395,345.52	749,717.86	
11,000.0	90.00	359.55	9,560.0	6,216.2	1,644.9	-13.0	1,645.0	0.00	395,445.51	749,717.07	

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Lea County	TVD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Site:	Brown Bear "36" State	MD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey										
MD (usft)	Inc. (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg. (°/100usft)	Northing (usft)	Easting (usft)
11,100.0	90.00	359.55	9,560.0	6,216.2	1,744.9	-13.8	1,745.0	0.00	395,545.51	749,716.27
11,200.0	90.00	359.55	9,560.0	6,216.2	1,844.9	-14.6	1,845.0	0.00	395,645.51	749,715.48
11,300.0	90.00	359.55	9,560.0	6,216.2	1,944.9	-15.4	1,945.0	0.00	395,745.50	749,714.69
11,400.0	90.00	359.55	9,560.0	6,216.2	2,044.9	-16.2	2,045.0	0.00	395,845.50	749,713.90
11,500.0	90.00	359.55	9,560.0	6,216.2	2,144.9	-17.0	2,145.0	0.00	395,945.50	749,713.11
11,600.0	90.00	359.55	9,560.0	6,216.2	2,244.9	-17.8	2,245.0	0.00	396,045.49	749,712.31
11,700.0	90.00	359.55	9,560.0	6,216.2	2,344.9	-18.6	2,345.0	0.00	396,145.49	749,711.52
11,800.0	90.00	359.55	9,560.0	6,216.2	2,444.9	-19.4	2,445.0	0.00	396,245.49	749,710.73
11,900.0	90.00	359.55	9,560.0	6,216.2	2,544.9	-20.2	2,545.0	0.00	396,345.48	749,709.94
12,000.0	90.00	359.55	9,560.0	6,216.2	2,644.9	-21.0	2,645.0	0.00	396,445.48	749,709.14
12,100.0	90.00	359.55	9,560.0	6,216.2	2,744.9	-21.7	2,745.0	0.00	396,545.48	749,708.35
12,200.0	90.00	359.55	9,560.0	6,216.2	2,844.9	-22.5	2,845.0	0.00	396,645.48	749,707.56
12,300.0	90.00	359.55	9,560.0	6,216.2	2,944.9	-23.3	2,945.0	0.00	396,745.47	749,706.77
12,400.0	90.00	359.55	9,560.0	6,216.2	3,044.9	-24.1	3,045.0	0.00	396,845.47	749,705.97
12,500.0	90.00	359.55	9,560.0	6,216.2	3,144.9	-24.9	3,145.0	0.00	396,945.47	749,705.18
12,600.0	90.00	359.55	9,560.0	6,216.2	3,244.9	-25.7	3,245.0	0.00	397,045.46	749,704.39
12,700.0	90.00	359.55	9,560.0	6,216.2	3,344.9	-26.5	3,345.0	0.00	397,145.46	749,703.60
12,800.0	90.00	359.55	9,560.0	6,216.2	3,444.9	-27.3	3,445.0	0.00	397,245.46	749,702.81
12,900.0	90.00	359.55	9,560.0	6,216.2	3,544.9	-28.1	3,545.0	0.00	397,345.45	749,702.01
13,000.0	90.00	359.55	9,560.0	6,216.2	3,644.9	-28.9	3,645.0	0.00	397,445.45	749,701.22
13,100.0	90.00	359.55	9,560.0	6,216.2	3,744.8	-29.7	3,745.0	0.00	397,545.45	749,700.43
13,200.0	90.00	359.55	9,560.0	6,216.2	3,844.8	-30.5	3,845.0	0.00	397,645.44	749,699.64
13,300.0	90.00	359.55	9,560.0	6,216.2	3,944.8	-31.3	3,945.0	0.00	397,745.44	749,698.84
13,400.0	90.00	359.55	9,560.0	6,216.2	4,044.8	-32.0	4,045.0	0.00	397,845.44	749,698.05
13,500.0	90.00	359.55	9,560.0	6,216.2	4,144.8	-32.8	4,145.0	0.00	397,945.43	749,697.26
13,600.0	90.00	359.55	9,560.0	6,216.2	4,244.8	-33.6	4,245.0	0.00	398,045.43	749,696.47
13,700.0	90.00	359.55	9,560.0	6,216.2	4,344.8	-34.4	4,345.0	0.00	398,145.43	749,695.68

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Lea County	TVD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Site:	Brown Bear "36" State	MD Reference:	KB = 25 @ 3343.8usft (Cactus 139)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
13,800.0	90.00	359.55	9,560.0	6,216.2	4,444.8	-35.2	4,445.0	0.00	398,245.43	749,694.88	
13,900.0	90.00	359.55	9,560.0	6,216.2	4,544.8	-36.0	4,545.0	0.00	398,345.42	749,694.09	
14,000.0	90.00	359.55	9,560.0	6,216.2	4,644.8	-36.8	4,645.0	0.00	398,445.42	749,693.30	
14,100.0	90.00	359.55	9,560.0	6,216.2	4,744.8	-37.6	4,745.0	0.00	398,545.42	749,692.51	
14,126.0	90.00	359.55	9,560.0	6,216.2	4,770.8	-37.8	4,770.9	0.00	398,571.40	749,692.30	

Checked By: _____	Approved By: _____	Date: _____
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