

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RCVD NOV306
OIL CONS. DIV.

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Energen Resources Corporation

3a. Address

2198 Bloomfield Highway, Farmington, NM 87401

3b. Phone No. (include area code)

505.325.6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

800' FSL, 70' FWL, Sec.30, T32N, R04W, N.M.P.M.

SW/SW (M)

H2112 - BHL 1124/S, T85/W to 1083/S, 1192/W

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize ☐ Deepen ☐ Production (Start/Resume) ☐ Water Shut-Off
☐ Alter Casing ☐ Fracture Treat ☐ Reclamation ☐ Well Integrity
☐ Casing Repair ☐ New Construction ☐ Recomplete ☐ Other
☒ Change Plans ☐ Plug and Abandon ☐ Temporarily Abandon
☐ Convert to Injection ☐ Plug Back ☐ Water Disposal

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Due to a severe down-dip of the coal seam, an open-hole side track was done @ 4400' MD and drilled to TD of 3882' TVD, 5714' MD.

Directional survey will be sent along with completion report.

PBTD has been changed to 4805' MD

Lateral 4425-4805 MD

4. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Vicki Donaghey

Title

Regulatory Analyst

Date

11/03/06

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Energen Resources

Carson National Forest, SW S30, T32N, R4W

Carracas Mesa

Carracas 30 B #13

Survey

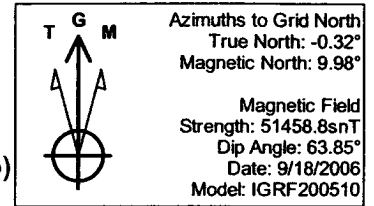
Plan: Lateral Two

Energen Resources - Survey

01 November, 2006

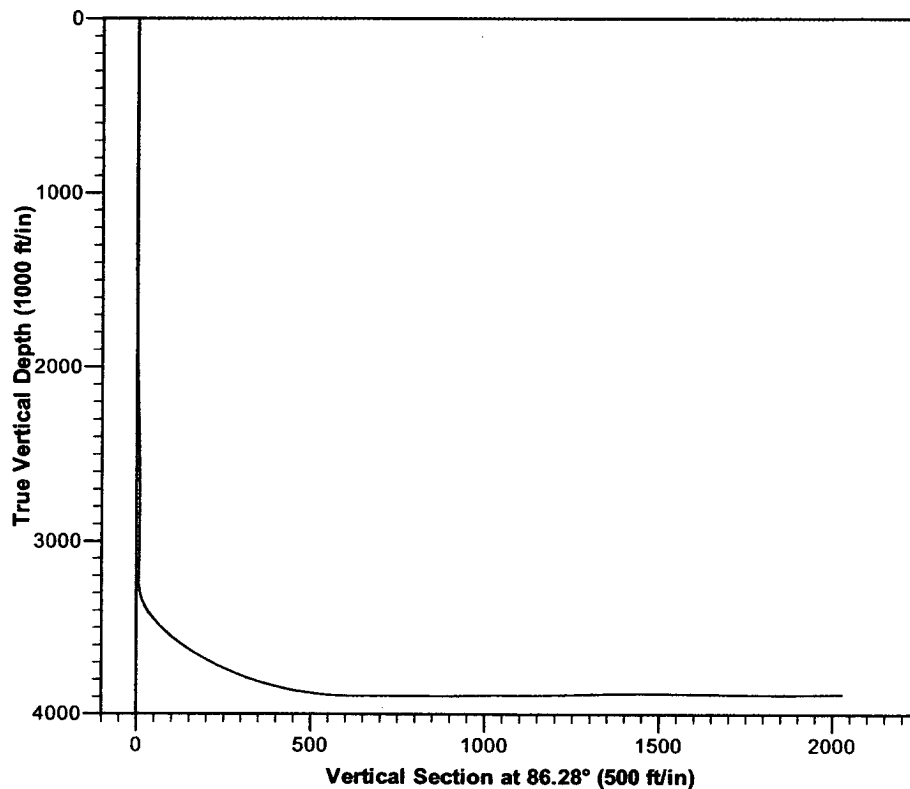
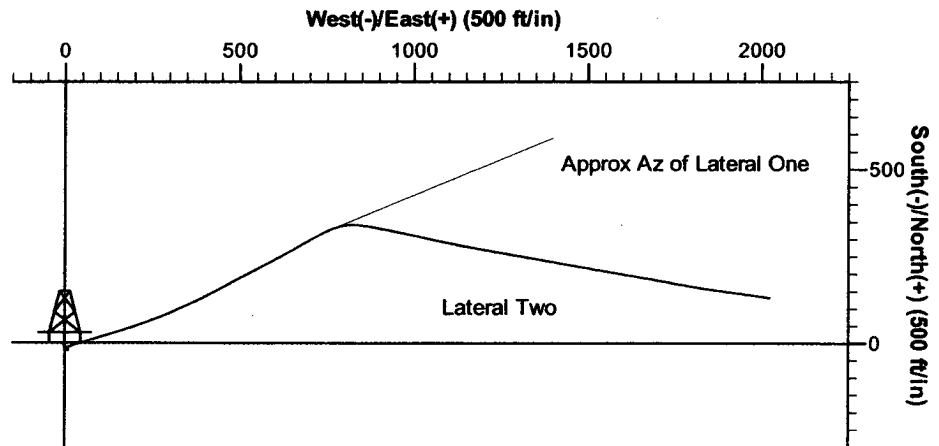


Project: Carson National Forest
Site: Carracas Mesa
Well: Carracas 30 B #13
Wellbore: Survey
Plan: Plan #1 (Carracas 30 B #13/Survey-Lateral Two)



PROJECT DETAILS: Carson National Forest, SW S30, T32N, R4W	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Western Zone
System Datum:	Mean Sea Level

SURFACE LOCATION	
Easting:	2877673.21
Northing:	2166539.50



Energen
Energen Resources - Survey



Company:	Energen Resources	Local Co-ordinate Reference:	Well Carracas 30 B #13
Project:	Carson National Forest, SW S30, T32N, R4W	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Carracas Mesa	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Well:	Carracas 30 B #13	North Reference:	Grid
Wellbore:	Survey	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Project	Carson National Forest, SW S30, T32N, R4W, S30, T32N, R4W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Carracas Mesa				
Site Position:		Northing:	2,166,539.50 ft	Latitude:	36° 57' 9.700 N
From:	Lat/Long	Easting:	2,877,673.21 ft	Longitude:	107° 18' 15.440 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.32 °

Well	Carracas 30 B #13					
Well Position	+N/-S	0.0 ft	Northing:	2,166,539.50 ft	Latitude:	36° 57' 9.700 N
	+E/-W	0.0 ft	Easting:	2,877,673.21 ft	Longitude:	107° 18' 15.440 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	0.0 ft

Wellbore	Survey				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/18/2006	10.30	63.85	51,459

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	86.28	

Survey Tool Program		Date	9/20/2006
From (ft)	To (ft)	Survey (Wellbore)	Tool Name
0.0	4,821.0	Plan #1 (Survey)	MWD
			Description
			MWD - Standard

Planned Survey						
MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	N/S (ft)	E/W (ft)
0.0	0.0	0.00	0.00	0.0	0.0	0.0
100.0	100.0	0.05	237.85	0.0	0.0	0.0
200.0	200.0	0.09	237.85	-0.1	-0.1	-0.1
300.0	300.0	0.14	237.85	-0.3	-0.2	-0.3
400.0	400.0	0.19	237.85	-0.6	-0.4	-0.6
500.0	500.0	0.24	237.85	-0.9	-0.5	-0.9
600.0	600.0	0.28	237.85	-1.3	-0.8	-1.3
700.0	700.0	0.33	237.85	-1.8	-1.1	-1.7
739.0	739.0	0.35	237.85	-2.0	-1.2	-1.9
800.0	800.0	0.37	220.05	-2.3	-1.5	-2.2
900.0	900.0	0.47	198.16	-2.7	-2.1	-2.5
1,000.0	1,000.0	0.61	185.04	-2.9	-3.0	-2.7

Energen

Energen Resources - Survey



Company: Energen Resources
Project: Carson National Forest, SW S30, T32N, R4W
Site: Carracas Mesa
Well: Carracas 30 B #13
Wellbore: Survey
Design: Plan #1

Local Co-ordinate Reference: Well Carracas 30 B #13
TVD Reference: WELL @ 0.0ft (Original Well Elev)
MD Reference: WELL @ 0.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	N/S (ft)	E/W (ft)
1,100.0	1,100.0	0.77	177.08	-3.0	-4.2	-2.7
1,200.0	1,200.0	0.94	171.93	-2.9	-5.7	-2.6
1,300.0	1,300.0	1.12	168.38	-2.7	-7.5	-2.3
1,363.0	1,362.9	1.23	166.66	-2.5	-8.7	-2.0
1,400.0	1,399.9	1.22	165.16	-2.4	-9.5	-1.8
1,500.0	1,499.9	1.19	160.96	-1.9	-11.5	-1.2
1,600.0	1,599.9	1.16	156.56	-1.3	-13.4	-0.4
1,700.0	1,699.9	1.15	152.01	-0.6	-15.2	0.4
1,800.0	1,799.8	1.14	147.35	0.3	-16.9	1.4
1,900.0	1,899.8	1.14	142.65	1.4	-18.6	2.6
1,986.0	1,985.8	1.14	138.62	2.4	-19.9	3.7
2,000.0	1,999.8	1.11	137.97	2.5	-20.1	3.8
2,100.0	2,099.8	0.89	131.97	3.7	-21.3	5.1
2,200.0	2,199.8	0.68	122.19	4.7	-22.2	6.1
2,300.0	2,299.8	0.51	105.05	5.6	-22.6	7.1
2,400.0	2,399.8	0.42	76.70	6.4	-22.6	7.9
2,500.0	2,499.8	0.46	45.11	7.1	-22.3	8.5
2,606.0	2,605.8	0.62	22.87	7.6	-21.4	9.0
2,700.0	2,699.8	0.61	10.39	8.0	-20.5	9.3
2,800.0	2,799.8	0.64	357.47	8.1	-19.4	9.4
2,900.0	2,899.7	0.69	346.03	8.0	-18.2	9.2
3,000.0	2,999.7	0.77	336.55	7.7	-17.0	8.8
3,100.0	3,099.7	0.86	328.96	7.1	-15.8	8.2
3,202.0	3,201.7	0.97	322.84	6.3	-14.4	7.2
3,224.0	3,223.7	0.88	334.79	6.1	-14.1	7.1
3,255.0	3,254.7	1.93	50.29	6.5	-13.6	7.4
3,287.0	3,286.6	4.84	66.20	8.2	-12.7	9.0
3,300.0	3,299.6	6.09	67.90	9.3	-12.2	10.2
3,318.0	3,317.5	7.83	69.36	11.4	-11.4	12.2
3,349.0	3,348.0	11.34	70.07	16.4	-9.6	17.0
3,350.0	3,349.0	11.46	70.07	16.6	-9.6	17.2
3,375.0	3,373.4	14.44	69.99	21.9	-7.7	22.5
3,380.0	3,378.2	15.04	69.98	23.2	-7.2	23.7
3,400.0	3,397.4	17.25	70.22	28.5	-5.3	28.9
3,411.0	3,407.9	18.47	70.33	31.7	-4.2	32.1
3,443.0	3,438.0	21.28	71.74	42.2	-0.7	42.4
3,450.0	3,444.5	21.92	72.25	44.7	0.1	44.8
3,472.0	3,464.7	23.92	73.67	53.1	2.6	53.0
3,503.0	3,492.8	26.29	74.37	65.9	6.3	65.7
3,535.0	3,521.1	29.02	73.67	80.4	10.3	79.9
3,550.0	3,534.2	30.25	73.54	87.7	12.4	87.0
3,566.0	3,547.9	31.57	73.41	95.7	14.8	94.9
3,597.0	3,574.0	33.94	72.97	112.0	19.6	111.0
3,600.0	3,576.5	34.15	72.94	113.7	20.1	112.6

Energen
Energen Resources - Survey



Company:	Energen Resources	Local Co-ordinate Reference:	Well Carracas 30 B #13
Project:	Carson National Forest, SW S30, T32N, R4W	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Carracas Mesa	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Well:	Carracas 30 B #13	North Reference:	Grid
Wellbore:	Survey	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	N/S (ft)	E/W (ft)
3,629.0	3,600.2	36.14	72.70	129.9	25.1	128.5
3,650.0	3,617.0	37.51	72.46	142.1	28.8	140.5
3,660.0	3,624.9	38.16	72.35	148.1	30.7	146.4
3,692.0	3,649.6	40.54	71.82	167.7	36.9	165.7
3,700.0	3,655.7	41.15	71.66	172.8	38.6	170.7
3,724.0	3,673.5	43.00	71.21	188.3	43.7	185.9
3,755.0	3,695.7	45.29	71.12	209.2	50.7	206.3
3,787.0	3,717.8	47.31	70.68	231.5	58.2	228.2
3,800.0	3,726.6	48.22	70.02	240.8	61.5	237.3
3,817.0	3,737.8	49.42	69.19	253.0	65.9	249.3
3,848.0	3,757.5	51.53	67.87	275.8	74.7	271.5
3,850.0	3,758.7	51.65	67.80	277.3	75.3	273.0
3,880.0	3,777.0	53.46	66.81	299.8	84.5	294.9
3,900.0	3,788.7	55.05	66.34	315.1	90.9	309.8
3,910.0	3,794.3	55.84	66.11	322.8	94.2	317.4
3,941.0	3,811.1	58.92	65.58	347.3	104.9	341.2
3,950.0	3,815.6	59.81	65.35	354.5	108.1	348.2
3,973.0	3,826.8	62.08	64.79	373.2	116.6	366.5
3,975.0	3,827.7	62.31	64.70	374.9	117.4	368.1
4,000.0	3,838.8	65.22	63.57	395.7	127.1	388.2
4,004.0	3,840.5	65.69	63.39	399.0	128.8	391.5
4,035.0	3,852.5	68.76	62.33	425.2	141.8	416.9
4,050.0	3,857.7	70.12	62.12	438.1	148.4	429.3
4,066.0	3,863.0	71.58	61.89	451.8	155.5	442.7
4,098.0	3,872.3	74.48	61.54	479.7	170.0	469.6
4,100.0	3,872.8	74.60	61.56	481.4	170.9	471.3
4,129.0	3,880.1	76.41	61.89	507.0	184.2	496.1
4,150.0	3,884.6	78.56	61.83	525.6	193.8	514.1
4,160.0	3,886.5	79.58	61.80	534.6	198.5	522.8
4,192.0	3,891.4	83.01	61.98	563.4	213.4	550.7
4,200.0	3,892.3	84.01	62.00	570.6	217.1	557.7
4,223.0	3,894.1	86.88	62.07	591.5	227.9	578.0
4,245.0	3,894.9	89.08	62.16	611.6	238.1	597.4
4,300.0	3,895.2	90.32	60.57	661.4	264.5	645.7
4,315.0	3,895.1	90.66	60.13	674.9	271.9	658.7
4,348.0	3,894.7	90.40	60.40	704.6	288.3	687.3
4,380.0	3,894.5	90.48	60.49	733.4	304.1	715.2
4,400.0	3,894.4	90.13	62.54	751.5	313.6	732.8
4,410.0	3,894.4	89.96	63.56	760.7	318.1	741.7
4,425.0	3,894.4	89.83	66.98	774.7	324.4	755.3 Tie Into Lateral One
4,442.0	3,894.5	89.69	70.86	790.9	330.5	771.1
4,450.0	3,894.5	89.51	73.35	798.7	333.0	778.8
4,460.0	3,894.6	89.28	76.47	808.5	335.6	788.4
4,470.0	3,894.8	89.06	79.59	818.4	337.7	798.2

Energen
Energen Resources - Survey



Company: Energen Resources
Project: Carson National Forest, SW S30, T32N, R4W
Site: Carracas Mesa
Well: Carracas 30 B #13
Wellbore: Survey
Design: Plan #1

Local Co-ordinate Reference: Well Carracas 30 B #13
TVD Reference: WELL @ 0.0ft (Original Well Elev)
MD Reference: WELL @ 0.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	N/S (ft)	E/W (ft)
4,473.0	3,894.8	88.99	80.52	821.4	338.2	801.1
4,480.0	3,895.0	89.00	83.81	828.4	339.1	808.1
4,490.0	3,895.1	89.03	88.50	838.4	339.8	818.1
4,500.0	3,895.3	89.06	93.20	848.3	339.7	828.1
4,505.0	3,895.4	89.08	95.55	853.3	339.3	833.0
4,537.0	3,895.4	90.92	98.10	884.7	335.5	864.8
4,550.0	3,895.1	91.40	99.46	897.4	333.5	877.6
4,568.0	3,894.6	92.07	101.35	914.9	330.2	895.3
4,600.0	3,893.3	92.33	101.62	945.7	323.9	926.7
4,631.0	3,892.0	92.59	101.27	975.6	317.7	957.0
4,663.0	3,890.8	91.63	101.79	1,006.5	311.3	988.4
4,695.0	3,890.2	90.48	102.67	1,037.2	304.6	1,019.6
4,700.0	3,890.2	90.34	102.68	1,042.0	303.5	1,024.5
4,727.0	3,890.2	89.60	102.76	1,067.9	297.5	1,050.9
4,758.0	3,890.2	90.40	101.79	1,097.7	290.9	1,081.1
4,790.0	3,890.0	90.40	101.35	1,128.6	284.5	1,112.5
4,800.0	3,889.9	90.45	101.13	1,138.2	282.6	1,122.3
4,822.0	3,889.7	90.57	100.65	1,159.5	278.4	1,143.9
4,853.0	3,889.3	91.10	99.95	1,189.6	272.9	1,174.4
4,885.0	3,888.4	92.15	100.21	1,220.7	267.3	1,205.9
4,900.0	3,887.8	92.53	100.17	1,235.2	264.6	1,220.6
4,917.0	3,886.9	92.95	100.12	1,251.7	261.6	1,237.4
4,949.0	3,885.3	93.12	99.86	1,282.8	256.1	1,268.8
4,981.0	3,883.5	93.30	99.95	1,313.8	250.6	1,300.3
5,000.0	3,882.4	93.09	100.01	1,332.2	247.3	1,319.0
5,012.0	3,881.8	92.95	100.04	1,343.9	245.2	1,330.8
5,044.0	3,880.4	92.07	100.21	1,374.9	239.6	1,362.3
5,076.0	3,879.5	90.92	100.12	1,406.0	233.9	1,393.7
5,108.0	3,879.2	90.22	100.65	1,437.0	228.2	1,425.2
5,139.0	3,879.3	89.52	100.39	1,467.1	222.5	1,455.7
5,170.0	3,879.8	88.64	99.68	1,497.2	217.1	1,486.2
5,202.0	3,880.7	88.02	98.89	1,528.3	212.0	1,517.8
5,234.0	3,881.8	88.20	99.16	1,559.5	206.9	1,549.4
5,266.0	3,882.5	89.16	99.68	1,590.7	201.7	1,580.9
5,298.0	3,883.1	88.90	100.21	1,621.8	196.2	1,612.4
5,300.0	3,883.1	88.89	100.22	1,623.7	195.8	1,614.4
5,329.0	3,883.7	88.72	100.39	1,651.8	190.6	1,642.9
5,361.0	3,884.4	88.64	100.21	1,682.9	184.9	1,674.4
5,393.0	3,885.0	89.43	100.21	1,713.9	179.2	1,705.9
5,400.0	3,885.0	89.35	100.25	1,720.7	178.0	1,712.8
5,424.0	3,885.4	89.08	100.39	1,744.0	173.7	1,736.4
5,456.0	3,885.9	88.90	99.95	1,775.1	168.0	1,767.9
5,489.0	3,886.5	89.25	98.89	1,807.2	162.6	1,800.4
5,500.0	3,886.6	89.69	98.73	1,817.9	161.0	1,811.3
5,520.0	3,886.5	90.48	98.45	1,837.5	158.0	1,831.1

Energen
Energen Resources - Survey



Company: Energen Resources
Project: Carson National Forest, SW S30, T32N, R4W
Site: Carracas Mesa
Well: Carracas 30 B #13
Wellbore: Survey
Design: Plan #1

Local Co-ordinate Reference: Well Carracas 30 B #13
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Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	V. Sec (ft)	N/S (ft)	E/W (ft)
5,552.0	3,886.3	90.22	98.54	1,868.8	153.2	1,862.7
5,584.0	3,886.3	89.96	97.14	1,900.1	148.9	1,894.4
5,600.0	3,886.3	90.09	97.47	1,915.8	146.8	1,910.3
5,616.0	3,886.2	90.22	97.80	1,931.5	144.7	1,926.2
5,647.0	3,885.9	91.19	97.84	1,961.9	140.5	1,956.9
5,700.0	3,883.7	93.41	97.84	2,013.7	133.3	2,009.3
5,714.0	3,882.8	94.00	97.84	2,027.4	131.4	2,023.2

Checked By: _____	Approved By: _____	Date: _____
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