

DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 West Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 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

"AS DRILLED PLAT"

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-34971		² Pool Code 71629	³ Pool Name Basin FRUITLAND COAL
⁴ Property Code 31529	⁵ Property Name FC FEDERAL COM		⁶ Well Number 15S
⁷ GRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY		⁹ Elevation 5815'

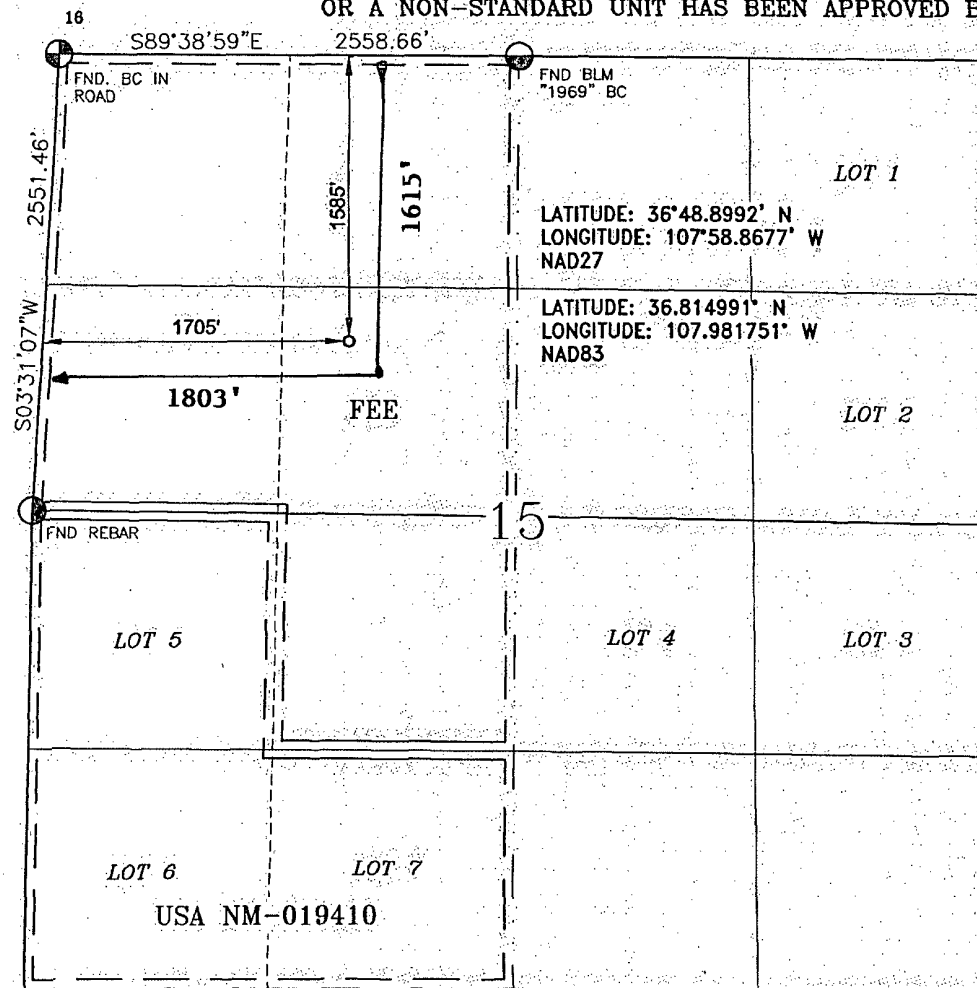
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	15	30-N	11-W		1585	NORTH	1705	WEST	SAN JUAN

¹¹ 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
F	15	30N	11W		1615	NORTH	1803	WEST	SAN JUAN
¹² Dedicated Acres FC 323.42 ACRES W/2			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No. RCVD MAY 6 '11 OIL CONS. DIV.		

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 **DIST. 3**



17 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Denise Journey
Signature
Denise Journey 5/2/11
Printed Name

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

2-6-09
Date of Survey
Signature and Seal of Professional Surveyor
GLEN W. RUSS
NEW MEXICO
15703
LICENSED PROFESSIONAL SURVEYOR
Certificate Number 15703

Legal WellName : FC FEDERAL COM #155	API / UWI: 3004534971
Operator: CONOCOPHILLIPS COMPANY	Surf Loc: 015-030N-011W-F
St/Prov: NEW MEXICO	N/S Dist (ft): 1,585.00 - FNL
County: SAN JUAN	E/W Dist (ft): 1,705.00 - FWL

RCVD MAY 6 '11
OIL CONS. DIV.
DIST. 3

Wellbore Name : Original Hole					
Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)	
INCLINATION SURVEY	01/18/2011	.00	.00	.00	
Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
01/18/2011	130.00	.75	.00	Inc-WL	MOTE
01/18/2011	232.00	.75	.00	Inc-WL	MOTE
Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)	
MWD SURVEY	01/20/2011	.00	.00	.00	
Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
01/26/2011	.00	.00	.00	IncAzi-MWD	Scientific Drilling
01/26/2011	247.00	.55	310.85	IncAzi-MWD	Scientific Drilling
01/26/2011	309.00	.38	232.27	IncAzi-MWD	Scientific Drilling
01/26/2011	370.00	1.51	117.34	IncAzi-MWD	Scientific Drilling
01/26/2011	432.00	3.26	114.09	IncAzi-MWD	Scientific Drilling
01/26/2011	493.00	4.07	110.03	IncAzi-MWD	Scientific Drilling
01/26/2011	555.00	4.83	106.37	IncAzi-MWD	Scientific Drilling
01/26/2011	617.00	4.74	105.37	IncAzi-MWD	Scientific Drilling
01/26/2011	678.00	4.42	106.33	IncAzi-MWD	Scientific Drilling
01/26/2011	743.00	4.35	105.19	IncAzi-MWD	Scientific Drilling
01/26/2011	806.00	4.03	106.30	IncAzi-MWD	Scientific Drilling
01/26/2011	870.00	4.07	104.42	IncAzi-MWD	Scientific Drilling
01/26/2011	932.00	4.33	103.13	IncAzi-MWD	Scientific Drilling
01/26/2011	997.00	4.53	99.78	IncAzi-MWD	Scientific Drilling
01/26/2011	1,061.00	4.45	99.78	IncAzi-MWD	Scientific Drilling
01/26/2011	1,125.00	4.44	103.75	IncAzi-MWD	Scientific Drilling
01/26/2011	1,188.00	4.16	102.97	IncAzi-MWD	Scientific Drilling
01/26/2011	1,251.00	4.25	99.53	IncAzi-MWD	Scientific Drilling
01/26/2011	1,315.00	4.87	101.48	IncAzi-MWD	Scientific Drilling
01/27/2011	1,378.00	4.32	108.41	IncAzi-MWD	Scientific Drilling
01/27/2011	1,442.00	3.53	115.85	IncAzi-MWD	Scientific Drilling
01/27/2011	1,506.00	3.48	112.51	IncAzi-MWD	Scientific Drilling
01/27/2011	1,569.00	3.50	112.51	IncAzi-MWD	Scientific Drilling
01/27/2011	1,632.00	3.61	103.42	IncAzi-MWD	Scientific Drilling
01/27/2011	1,696.00	3.79	98.17	IncAzi-MWD	Scientific Drilling
01/27/2011	1,760.00	3.08	98.09	IncAzi-MWD	Scientific Drilling
01/27/2011	1,824.00	2.90	105.57	IncAzi-MWD	Scientific Drilling

01/27/2011	1,886.00	2.70	112.40	IncAzi-MWD	Scientific Drilling
01/27/2011	1,950.00	1.58	140.66	IncAzi-MWD	Scientific Drilling
01/27/2011	2,013.00	1.11	167.46	IncAzi-MWD	Scientific Drilling
01/27/2011	2,076.00	.61	187.80	IncAzi-MWD	Scientific Drilling
01/27/2011	2,140.00	.36	281.60	IncAzi-MWD	Scientific Drilling
01/27/2011	2,235.00	.89	276.06	IncAzi-MWD	Scientific Drilling
01/27/2011	2,299.00	1.08	287.01	IncAzi-MWD	Scientific Drilling
01/27/2011	2,363.00	1.10	283.99	IncAzi-MWD	Scientific Drilling
01/27/2011	2,413.00	1.11	268.54	IncAzi-MWD	Scientific Drilling
Description	Date	MD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)	
FINAL BH SURVEY	01/31/2011	.00	.00	.00	
Date	MD (ft)	Incl (°)	Azm (°)	Method	Survey Company
01/31/2011	2,384.00	2.75	.00	Inc-WL	Phoenix Services LLC

I, the undersigned, certify that I, acting in my capacity as Drilling Engineer for ConocoPhillips Company am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

BEN Tolman

Subscribed and sworn to me this May 3, 2011

Crystal L. Tafaya
Notary Public in and for San Juan County, New Mexico

My Commission expires 10/12/2014



RCVD MAY 6 '11
OIL CONS. DIV.

DIST. 3

ConocoPhillips

SJB (NM West)

SEC 15-T30N-R11W

FC Federal Com #15S

API# 30-045-34971

Original Hole

Survey: Actual

Standard Survey Report

09 February, 2011

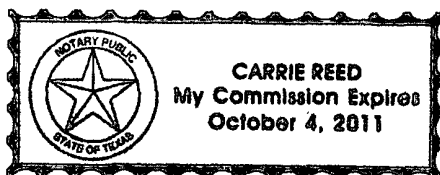
This survey is correct to the best of my knowledge and is supported by actual field data.

Robert

Notarized this date 9th of February, 2011.

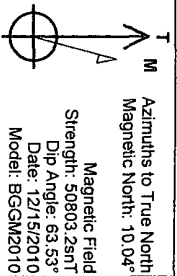
Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling
Directional Drilling Operations

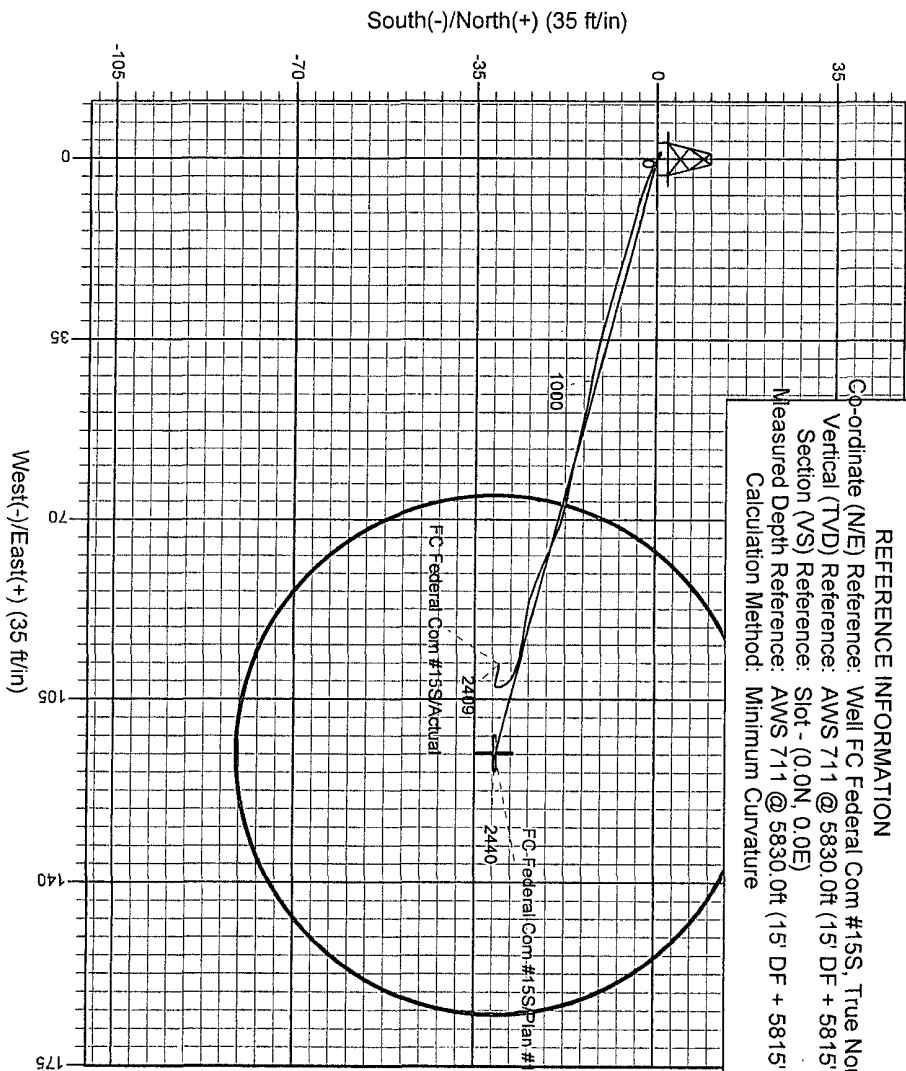
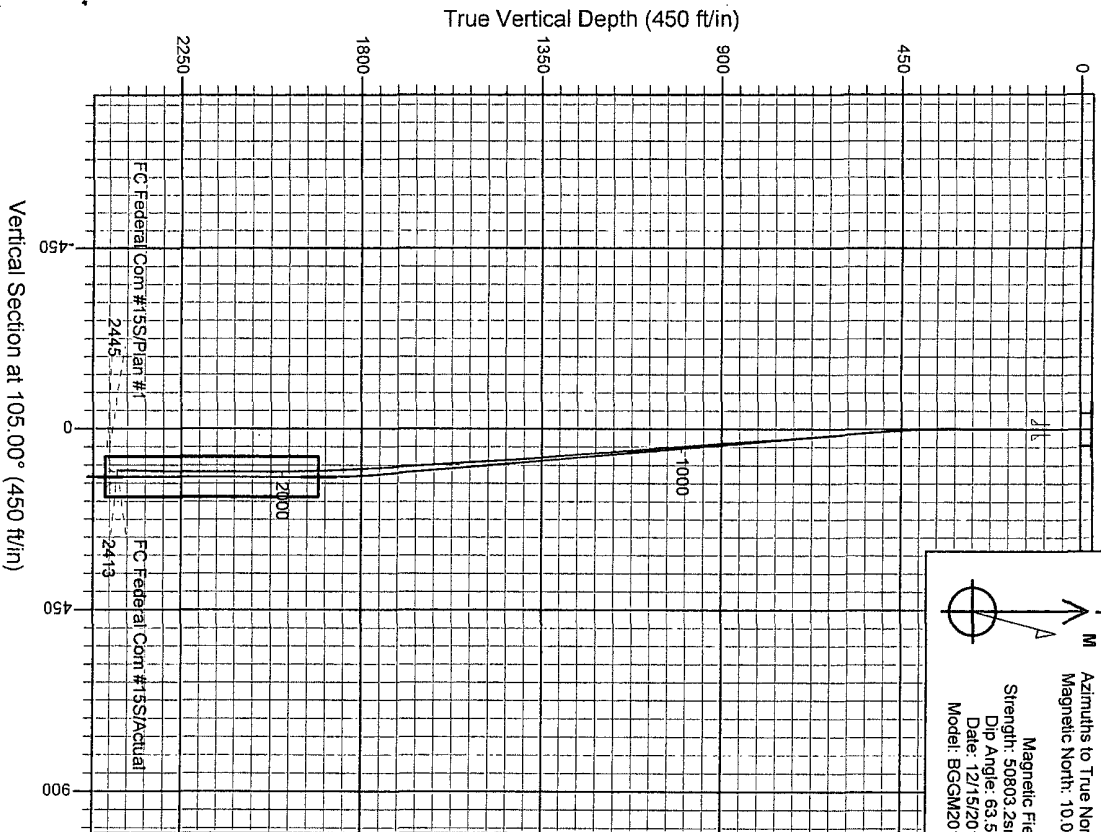
Project: SJB (NM West)
Site: SEC 15-T30N-R11W
Well: FC Federal Com #15S
Wellbore: Original Hole
Design: Plan #1



+N/-S
+E/-W
Northing
Easting

WELL DETAILS: FC Federal Com #15S
AWS 711 @ 5830.0ft (15' DF + 5815' GL)
Ground Level: 5815.0
Easting 456737.26
Latitude 36° 48' 53.952 N

Longitude 107° 58' 52.062 W
Slope



REFERENCE INFORMATION
Co-ordinate (N/E) Reference: Well FC Federal Com #15S, True North
Vertical (TVD) Reference: AWS 711 @ 5830.0ft (15' DF + 5815' GL)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: AWS 711 @ 5830.0ft (15' DF + 5815' GL)
Calculation Method: Minimum Curvature

COMPANY DETAILS: ConocoPhillips
Calculation Method: Minimum Curvature
Error System: ISCWSA
Scan Method: Closest Approach 3D
Error Surface: Combined Covariances
Warning Method: Risk Ratio

PROJECT DETAILS: SJB (NM West)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level

SITE DETAILS: SEC 15-T30N-R11W
San Juan County NM
Site Centre Latitude: 36° 48' 53.952 N
Longitude: 107° 58' 52.062 W
Positional Uncertainty: 7.5
Convergence: -0.09
Local North: True

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well FC Federal Com #15S
Project:	SJB (NM West)	TVD Reference:	AWS 711 @ 5830.0ft (15' DF + 5815' GL)
Site:	SEC 15-T30N-R11W	MD Reference:	AWS 711 @ 5830.0ft (15' DF + 5815' GL)
Well:	FC Federal Com #15S	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	edmCOP

Project	SJB (NM West), New Mexico, S-Type MV/DK Wells		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		Using Well Reference Point
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site		SEC 15-T30N-R11W			
Site Position:		Northing:	2,115,948.17 ft	Latitude:	36° 48' 53.952 N
From:	Lat/Long	Easting:	456,737.26 ft	Longitude:	107° 58' 52.062 W
Position Uncertainty:	15.0 ft	Slot Radius:	6-1/8"	Grid Convergence:	-0.09 °

Well	FC Federal Com #15S, FC Nudge					
Well Position	+N/-S	0.0 ft	Northing:	2,115,948.17 ft	Latitude:	36° 48' 53.952 N
	+E/-W	0.0 ft	Easting:	456,737.26 ft	Longitude:	107° 58' 52.062 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	5,815.0 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	12/15/2010	10.05	63.53	50,803

Design	Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	107.07	

Survey Program	Date 2/9/2011				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
247.0	2,413.0	Actual (Original Hole)	MWD SDI	MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
247.0	0.55	310.85	247.0	0.8	-0.9	-1.1	0.22	0.22	0.00
309.0	0.38	232.27	309.0	0.8	-1.3	-1.5	0.97	-0.27	-126.74
370.0	1.51	117.34	370.0	0.4	-0.7	-0.8	2.80	1.85	-188.41
432.0	3.26	114.09	431.9	-0.7	1.6	1.8	2.83	2.82	-5.24
493.0	4.07	110.03	492.8	-2.2	5.2	5.6	1.39	1.33	-6.66
555.0	4.83	106.37	554.6	-3.7	9.8	10.4	1.31	1.23	-5.90
617.0	4.74	105.37	616.4	-5.1	14.8	15.6	0.20	-0.15	-1.61
678.0	4.42	106.33	677.2	-6.4	19.5	20.5	0.54	-0.52	1.57
743.0	4.35	105.19	742.0	-7.8	24.2	25.5	0.17	-0.11	-1.75
806.0	4.03	106.30	804.8	-9.0	28.7	30.1	0.52	-0.51	1.76
870.0	4.07	104.42	868.7	-10.2	33.0	34.6	0.22	0.06	-2.94
932.0	4.33	103.13	930.5	-11.3	37.4	39.1	0.45	0.42	-2.08

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well FC Federal Com #15S
Project:	SJB (NM West)	TVD Reference:	AWS 711 @ 5830.0ft (15' DF + 5815' GL)
Site:	SEC 15-T30N-R11W	MD Reference:	AWS 711 @ 5830.0ft (15' DF + 5815' GL)
Well:	FC Federal Com #15S	North Reference:	True
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	edmCOP

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
997.0	4.53	99.78	995.3	-12.3	42.4	44.1	0.50	0.31	-5.15
1,061.0	4.45	99.78	1,059.1	-13.1	47.3	49.1	0.13	-0.13	0.00
1,125.0	4.44	103.75	1,122.9	-14.2	52.1	54.0	0.48	-0.02	6.20
1,188.0	4.16	102.97	1,185.8	-15.2	56.7	58.7	0.45	-0.44	-1.24
1,251.0	4.25	99.53	1,248.6	-16.1	61.3	63.3	0.43	0.14	-5.46
1,315.0	4.87	101.48	1,312.4	-17.1	66.3	68.4	1.00	0.97	3.05
1,378.0	4.32	108.41	1,375.2	-18.4	71.1	73.4	1.24	-0.87	11.00
1,442.0	3.53	115.85	1,439.0	-20.0	75.2	77.8	1.47	-1.23	11.63
1,506.0	3.48	112.51	1,502.9	-21.6	78.8	81.6	0.33	-0.08	-5.22
1,569.0	3.50	112.51	1,565.8	-23.1	82.3	85.5	0.03	0.03	0.00
1,632.0	3.61	103.42	1,628.7	-24.2	86.0	89.3	0.91	0.17	-14.43
1,696.0	3.79	98.17	1,692.5	-25.0	90.1	93.4	0.60	0.28	-8.20
1,760.0	3.08	98.09	1,756.4	-25.6	93.9	97.2	1.11	-1.11	-0.13
1,824.0	2.90	105.57	1,820.3	-26.2	97.1	100.6	0.67	-0.28	11.69
1,886.0	2.70	112.40	1,882.3	-27.2	100.0	103.6	0.63	-0.32	11.02
1,950.0	1.58	140.66	1,946.2	-28.5	101.9	105.8	2.35	-1.75	44.16
2,013.0	1.11	167.46	2,009.2	-29.7	102.6	106.8	1.23	-0.75	42.54
2,076.0	0.61	187.80	2,072.2	-30.7	102.7	107.2	0.92	-0.79	32.29
2,140.0	0.36	281.60	2,136.2	-31.0	102.5	107.0	1.14	-0.39	146.56
2,235.0	0.89	276.06	2,231.2	-30.8	101.4	106.0	0.56	0.56	-5.83
2,299.0	1.08	287.01	2,295.2	-30.6	100.4	104.9	0.42	0.30	17.11
2,363.0	1.10	283.99	2,359.2	-30.3	99.2	103.7	0.10	0.03	-4.72
2,413.0	1.11	268.54	2,409.2	-30.2	98.3	102.8	0.59	0.02	-30.90