

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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 and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.	30-007-20329
Indicate Type of Lease	STATE ☐ FEE ☒
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	VPR A
8. Well Number	77
9. OGRID Number	180514
10. Pool name or Wildcat	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other COALBED METHANE
2. Name of Operator EL PASO ENERGY RATON, L.L.C.
3. Address of Operator PO BOX 190, RATON, NM 87740

4. Well Location Unit Letter G : 1658 feet from the North line and 1581 feet from the East line Section 10 Township 31N Range 19E NMPM Colfax County Bottom Hole Location: Unit B, Sec 10, T 31N, R 19E, 129.6' FNL, 1567.8' FEL, Colfax
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 8,372' (GR)

Pit or Below-grade Tank Application ☐ or Closure ☐
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS. ☐ P AND A ☐
OTHER: ☐	CASING/CEMENT JOB ☐
	OTHER: Horizontal Lateral ☒

1. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion. Work proposed is as follows.

06/25/05 MIRU Key Rig. LD rods, tubing, and pump. Made a scraper run.
Set whipstock at 1,019'. Start milling window from 1,019' - 1,025'.
07/03/05 MIRU CAZA Rig #232. Drill 4 3/4" horizontal lateral to 2,635' TMD, 1,222' TVD.
To 07/11/05 (See attachment for surveys.)
07/12/05 Circulate and clean hole. Run 3 1/2" perforated liner. Top of liner at 1,045'. Bottom of liner at 2,523'.
07/15/05 Retrieve whip stock. Clean out well bore with air unit to PBTD at 2,620'.
07/17/05 TIH with 2 7/8" production tubing, rods, and insert pump.
07/19/05 Put well back on production.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Mike Reisz TITLE Production Engineer DATE 07/20/05
Type or print name Mike Reisz E-mail address: mike.reisz@elpaso.com Telephone No. (505) 445-6725

For State Use Only

APPROVED BY: [Signature] TITLE DISTRICT SUPERVISOR DATE 7/25/05
Conditions of Approval (if any):



Scientific Drilling Houston

Final Survey Report



Company: EL PASO PRODUCTION
Field: VERMEJO FIELD, NEW MEXICO
Site: RATON (A77)
Well: WELL A-77
Wellpath: LATERAL

Date: 7/14/2005 Time: 08:44:44 Page: 1
Co-ordinate(NE) Reference: Well: WELL A-77, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Field: VERMEJO FIELD, NEW MEXICO

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf2005

Site: RATON (A77)

SECTION 10, T31N - R19E

Site Position: Northing: 2161505.7836 ft Latitude: 36 56 20.000 N
From: Geographic Easting: 332996.5594 ft Longitude: 104 54 17.200 W
Position Uncertainty: 0.0 ft North Reference: Grid
Ground Level: 8372.0 ft Grid Convergence: -0.34 deg

Well: WELL A-77

Slot Name:

Well Position: +N/-S 0.0 ft Northing: 2161505.7836 ft Latitude: 36 56 20.000 N
+E/-W 0.0 ft Easting: 332996.5594 ft Longitude: 104 54 17.200 W
Position Uncertainty: 0.0 ft

Wellpath: LATERAL

Drilled From: Surface
Tie-on Depth: 0.0 ft
Above System Datum: Mean Sea Level
Declination: 9.35 deg
Mag Dip Angle: 64.33 deg
Direction: deg

Current Datum: SITE Height 0.0 ft
Magnetic Data: 6/30/2005
Field Strength: 51887 nT
Vertical Section: Depth From (TVD) +N/-S
ft ft
0.0 0.0

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	ClsD ft	ClsA deg	Tool
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00	TIE LINE
100.0	0.51	328.03	100.0	0.4	-0.2	0.4	0.51	0.4	328.03	SDI GYRO
200.0	1.19	350.52	200.0	1.8	-0.6	1.8	0.74	1.9	340.15	SDI GYRO
300.0	1.59	331.38	300.0	4.0	-1.5	4.0	0.61	4.3	339.82	SDI GYRO
400.0	1.37	348.58	399.9	6.4	-2.4	6.4	0.49	6.8	339.64	SDI GYRO
500.0	0.89	22.92	499.9	8.3	-2.3	8.3	0.81	8.6	344.42	SDI GYRO
600.0	0.82	18.51	599.9	9.7	-1.8	9.7	0.10	9.9	349.57	SDI GYRO
700.0	0.51	2.79	699.9	10.8	-1.5	10.8	0.36	10.9	351.92	SDI GYRO
800.0	0.57	342.10	799.9	11.7	-1.7	11.7	0.20	11.9	351.92	SDI GYRO
900.0	0.52	296.72	899.9	12.4	-2.2	12.4	0.42	12.6	349.84	SDI GYRO
1000.0	0.36	0.77	999.9	12.9	-2.6	12.9	0.49	13.2	348.52	SDI GYRO
1032.0	5.49	358.77	1031.8	14.6	-2.7	14.6	16.03	14.8	349.66	SDI E-FIELD
1048.0	11.26	358.77	1047.6	16.9	-2.7	16.9	36.06	17.1	350.89	SDI E-FIELD
1079.0	23.00	1.47	1077.2	26.0	-2.6	26.0	37.95	26.1	354.25	SDI E-FIELD
1110.0	33.68	4.48	1104.5	40.7	-1.8	40.7	34.75	40.7	357.48	SDI E-FIELD
1141.0	42.17	357.64	1128.9	59.7	-1.5	59.7	30.53	59.7	358.52	SDI E-FIELD
1173.0	50.81	4.16	1150.9	82.8	-1.1	82.8	30.75	82.8	359.25	SDI E-FIELD
1204.0	58.32	357.34	1168.9	108.0	-0.8	108.0	30.11	108.1	359.56	SDI E-FIELD
1235.0	66.25	4.35	1183.3	135.4	-0.4	135.4	32.46	135.4	359.85	SDI E-FIELD
1263.0	73.67	357.04	1192.9	161.7	-0.1	161.7	36.09	161.7	359.97	SDI E-FIELD
1296.0	82.42	3.95	1199.8	193.9	0.2	193.9	33.49	193.9	0.07	SDI E-FIELD
1327.0	86.54	2.48	1202.7	224.7	2.0	224.7	14.10	224.7	0.50	SDI E-FIELD
1358.0	90.03	2.47	1203.7	255.7	3.3	255.7	11.26	255.7	0.74	SDI E-FIELD
1388.0	87.31	3.01	1204.4	285.6	4.7	285.6	9.24	285.7	0.95	SDI E-FIELD
1420.0	86.77	3.73	1206.0	317.5	6.6	317.5	2.81	317.6	1.19	SDI E-FIELD
1451.0	90.20	0.04	1206.8	348.5	7.6	348.5	16.25	348.6	1.25	SDI E-FIELD
1482.0	88.52	356.35	1207.2	379.5	6.6	379.5	13.08	379.5	1.00	SDI E-FIELD
1513.0	89.03	355.08	1207.9	410.4	4.3	410.4	4.41	410.4	0.61	SDI E-FIELD



Scientific Drilling Houston

Final Survey Report



Company: EL PASO PRODUCTION
Field: VERMEJO FIELD, NEW MEXICO
Site: RATON (A77)
Well: WELL A-77
Wellpath: LATERAL

Date: 7/14/2005 Time: 08:44:44 Page: 2
Co-ordinate(NE) Reference: Well: WELL A-77, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	ClsD ft	ClsA deg	Tool
1544.0	86.33	356.93	1209.1	441.3	2.2	441.3	10.55	441.3	0.28	SDI E-FIELD
1576.0	87.68	355.99	1210.8	473.2	0.2	473.2	5.14	473.2	0.02	SDI E-FIELD
1607.0	88.02	359.46	1211.9	504.1	-1.0	504.1	11.24	504.1	359.88	SDI E-FIELD
1639.0	86.10	358.31	1213.6	536.1	-1.6	536.1	6.99	536.1	359.82	SDI E-FIELD
1670.0	87.58	1.93	1215.3	567.0	-1.6	567.0	12.60	567.0	359.84	SDI E-FIELD
1702.0	86.94	0.19	1216.8	599.0	-1.0	599.0	5.79	599.0	359.91	SDI E-FIELD
1733.0	85.93	5.50	1218.8	629.9	0.5	629.9	17.40	629.9	0.05	SDI E-FIELD
1765.0	86.50	3.26	1220.9	661.7	3.0	661.7	7.21	661.7	0.26	SDI E-FIELD
1796.0	85.16	5.34	1223.1	692.5	5.3	692.5	7.97	692.6	0.44	SDI E-FIELD
1811.0	86.70	5.86	1224.2	707.4	6.8	707.4	10.83	707.5	0.55	SDI E-FIELD
1828.0	88.79	6.59	1224.9	724.3	8.6	724.3	13.02	724.4	0.68	SDI E-FIELD
1843.0	90.07	7.27	1225.0	739.2	10.4	739.2	9.66	739.3	0.81	SDI E-FIELD
1859.0	90.34	6.30	1224.9	755.1	12.3	755.1	6.29	755.2	0.93	SDI E-FIELD
1874.0	90.24	7.00	1224.9	770.0	14.0	770.0	4.71	770.1	1.04	SDI E-FIELD
1891.0	91.88	7.71	1224.6	786.8	16.2	786.8	10.51	787.0	1.18	SDI E-FIELD
1906.0	92.05	6.09	1224.0	801.7	18.0	801.7	10.85	801.9	1.29	SDI E-FIELD
1922.0	92.22	6.85	1223.4	817.6	19.8	817.6	4.86	817.9	1.39	SDI E-FIELD
1937.0	92.55	6.51	1222.8	832.5	21.6	832.5	3.16	832.8	1.48	SDI E-FIELD
1954.0	92.32	4.46	1222.1	849.4	23.2	849.4	12.12	849.7	1.56	SDI E-FIELD
1969.0	92.59	4.85	1221.5	864.3	24.4	864.3	3.16	864.7	1.62	SDI E-FIELD
1985.0	93.43	4.39	1220.6	880.3	25.7	880.3	5.98	880.6	1.67	SDI E-FIELD
2000.0	92.73	2.28	1219.8	895.2	26.6	895.2	14.80	895.6	1.70	SDI E-FIELD
2016.0	92.02	2.25	1219.1	911.2	27.2	911.2	4.44	911.6	1.71	SDI E-FIELD
2031.0	93.19	1.30	1218.5	926.2	27.7	926.2	10.04	926.6	1.71	SDI E-FIELD
2047.0	95.28	1.46	1217.3	942.1	28.0	942.1	13.10	942.5	1.70	SDI E-FIELD
2062.0	95.39	0.42	1215.9	957.1	28.3	957.1	6.94	957.5	1.69	SDI E-FIELD
2078.0	94.51	1.03	1214.5	973.0	28.5	973.0	6.68	973.4	1.68	SDI E-FIELD
2093.0	93.87	0.06	1213.4	987.9	28.6	987.9	7.73	988.4	1.66	SDI E-FIELD
2109.0	93.73	357.87	1212.3	1003.9	28.3	1003.9	13.69	1004.3	1.62	SDI E-FIELD
2124.0	93.87	356.08	1211.4	1018.9	27.5	1018.9	11.94	1019.2	1.55	SDI E-FIELD
2139.0	94.54	356.63	1210.3	1033.8	26.6	1033.8	5.77	1034.1	1.47	SDI E-FIELD
2154.0	95.28	358.66	1209.0	1048.7	26.0	1048.7	14.36	1049.0	1.42	SDI E-FIELD
2171.0	95.32	357.92	1207.4	1065.6	25.5	1065.6	4.34	1065.9	1.37	SDI E-FIELD
2186.0	94.04	354.61	1206.2	1080.6	24.5	1080.6	23.59	1080.8	1.30	SDI E-FIELD
2202.0	89.60	355.93	1205.7	1096.5	23.2	1096.5	28.95	1096.7	1.21	SDI E-FIELD
2217.0	88.92	357.43	1205.9	1111.5	22.3	1111.5	10.98	1111.7	1.15	SDI E-FIELD
2233.0	91.11	356.89	1205.9	1127.4	21.5	1127.4	14.10	1127.6	1.09	SDI E-FIELD
2248.0	93.90	358.10	1205.2	1142.4	20.9	1142.4	20.27	1142.6	1.05	SDI E-FIELD
2265.0	92.32	359.23	1204.3	1159.4	20.5	1159.4	11.42	1159.6	1.01	SDI E-FIELD
2280.0	91.55	357.94	1203.8	1174.4	20.1	1174.4	10.01	1174.5	0.98	SDI E-FIELD
2296.0	90.27	357.90	1203.5	1190.3	19.5	1190.3	8.00	1190.5	0.94	SDI E-FIELD
2311.0	89.76	359.88	1203.5	1205.3	19.2	1205.3	13.63	1205.5	0.91	SDI E-FIELD
2327.0	88.96	359.46	1203.7	1221.3	19.1	1221.3	5.65	1221.5	0.90	SDI E-FIELD
2342.0	88.72	0.02	1204.0	1236.3	19.1	1236.3	4.06	1236.5	0.88	SDI E-FIELD
2358.0	87.65	359.57	1204.5	1252.3	19.0	1252.3	7.25	1252.5	0.87	SDI E-FIELD
2373.0	86.03	358.40	1205.3	1267.3	18.7	1267.3	13.32	1267.4	0.85	SDI E-FIELD
2389.0	84.51	358.44	1206.7	1283.2	18.3	1283.2	9.50	1283.4	0.82	SDI E-FIELD
2404.0	84.35	359.08	1208.1	1298.2	18.0	1298.2	4.38	1298.3	0.79	SDI E-FIELD
2421.0	85.32	0.69	1209.6	1315.1	18.0	1315.1	11.02	1315.2	0.78	SDI E-FIELD
2436.0	86.02	2.30	1210.8	1330.1	18.3	1330.1	11.68	1330.2	0.79	SDI E-FIELD
2452.0	85.93	0.92	1211.9	1346.0	18.8	1346.0	8.62	1346.1	0.80	SDI E-FIELD
2467.0	85.43	1.04	1213.0	1361.0	19.0	1361.0	3.43	1361.1	0.80	SDI E-FIELD



Scientific Drilling Houston

Final Survey Report

el paso | Production

Company: EL PASO PRODUCTION
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Well: WELL A-77
Wellpath: LATERAL

Date: 7/14/2005 Time: 08:44:44 Page: 3
Co-ordinate(NE) Reference: Well: WELL A-77, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	ClsD ft	ClsA deg	Tool
2484.0	85.83	0.15	1214.3	1377.9	19.2	1377.9	5.73	1378.0	0.80	SDI E-FIELD
2499.0	85.86	356.96	1215.4	1392.9	18.8	1392.9	21.21	1393.0	0.78	SDI E-FIELD
2515.0	86.37	358.01	1216.5	1408.8	18.1	1408.8	7.28	1408.9	0.74	SDI E-FIELD
2530.0	87.21	358.02	1217.3	1423.8	17.6	1423.8	5.60	1423.9	0.71	SDI E-FIELD
2547.0	87.04	358.10	1218.2	1440.7	17.1	1440.7	1.10	1440.9	0.68	SDI E-FIELD
2561.0	87.04	357.48	1218.9	1454.7	16.5	1454.7	4.42	1454.8	0.65	SDI E-FIELD
2577.0	87.34	357.45	1219.7	1470.7	15.8	1470.7	1.88	1470.8	0.62	SDI E-FIELD
2635.0	87.34	357.45	1222.4	1528.6	13.2	1528.6	0.00	1528.6	0.50	PROJECTED DEPTH

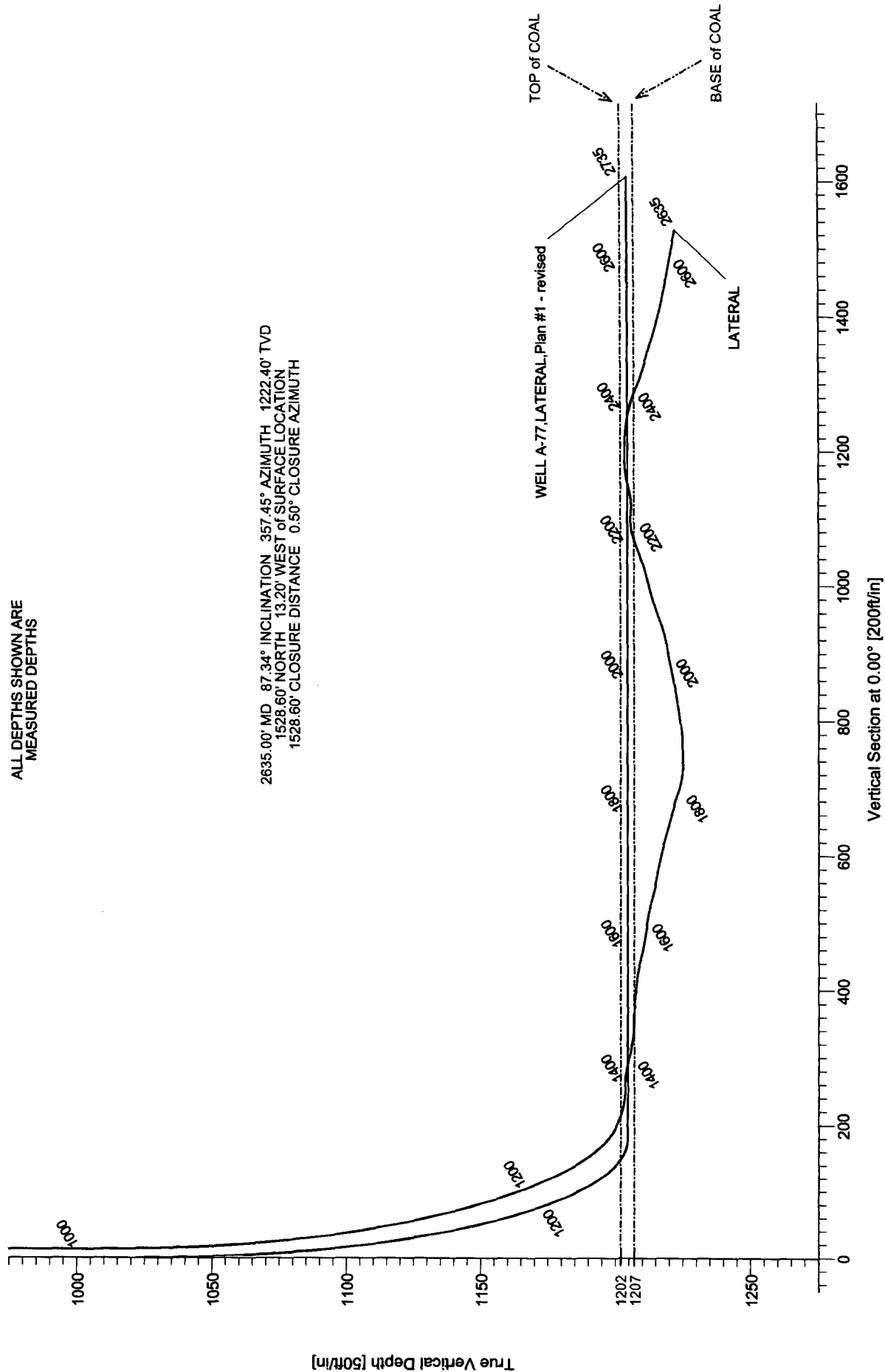
EL PASO PRODUCTION

RATON WELL A-77
LATERAL
VERMEJO FIELD, NEW MEXICO



ALL DEPTHS SHOWN ARE
MEASURED DEPTHS

2635.00' MD 87.34° INCLINATION 357.45° AZIMUTH 1222.40' TVD
1528.60' NORTH 13.20' WEST of SURFACE LOCATION
1528.60' CLOSURE DISTANCE 0.50° CLOSURE AZIMUTH





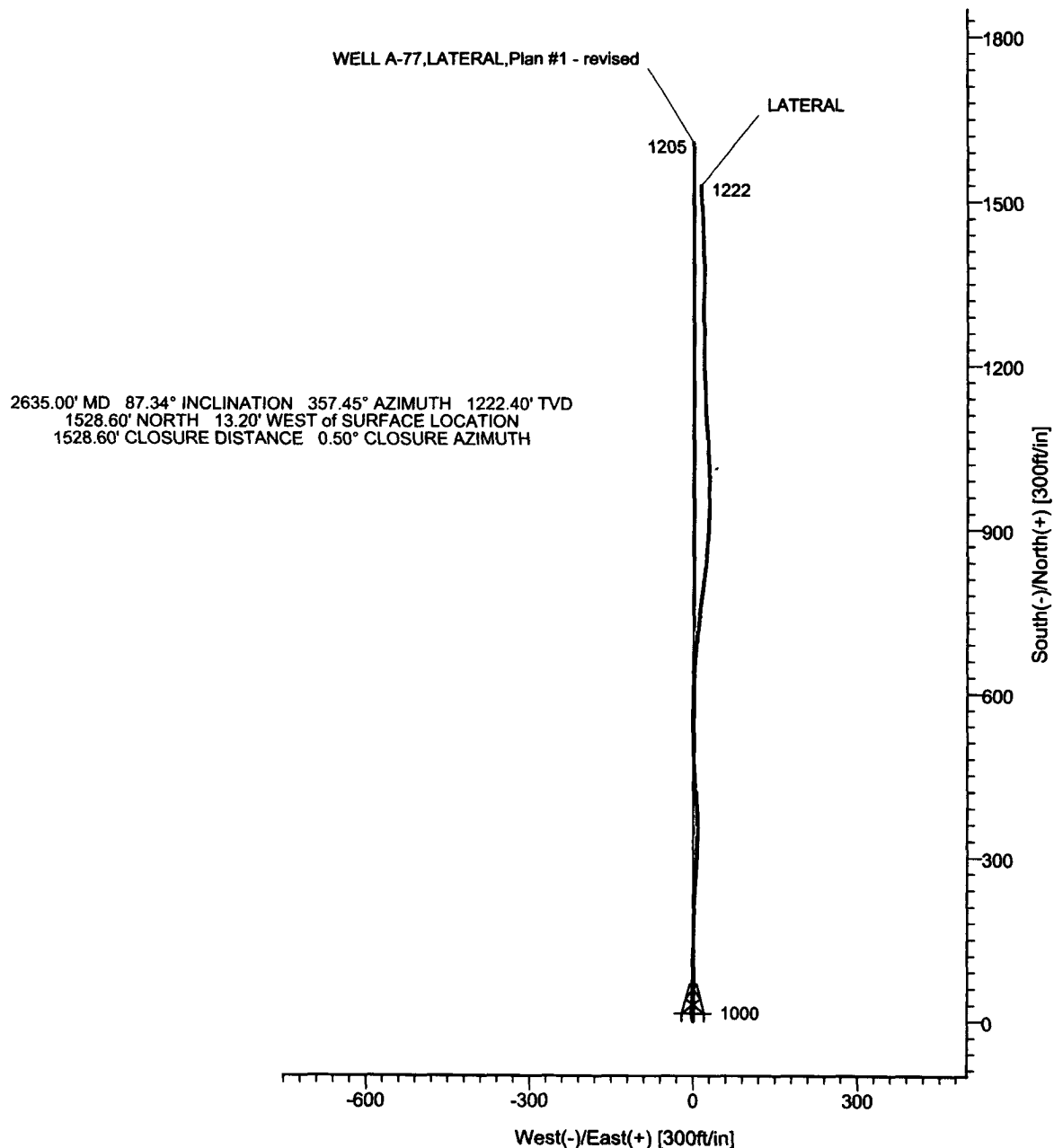
Scientific Drilling

EL PASO PRODUCTION

RATON WELL A-77
LATERAL
VERMEJO FIELD, NEW MEXICO

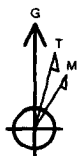
el paso Production

ALL DEPTHS SHOWN ARE
TRUE VERTICAL DEPTHS



WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
WELL A-77	0.0	0.0	2161505.7836	332996.5594	36°56'20.000N	104°54'17.200W	N/A



Azimuths to Grid North
True North: 0.34°
Magnetic North: 9.70°

Magnetic Field
Strength: 51887nT
Dip Angle: 64.33°
Date: 6/30/2005
Model: Igrf2005

July 14, 2005
Scientific Drilling
281.443.4600