

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. 205 E. Bender, HOBBS, NM 88240		² OGRID Number 022351
⁴ Property Code 011125	⁵ Property Name VACUUM GLORIETA WEST UNIT	³ API Number 3002532263
		⁶ Well No. 98

⁷ Surface Location									
Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
P	35	17-S	34-E		937	SOUTH	532	EAST	LEA

⁸ Proposed 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
P/I	35/35	17S	34E		37/1937	SOUTH/S	232/532	EAST/E	LEA
⁹ Proposed Pool 1 VACUUM GLORIETA UNITIZED INTERVAL					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² WellType Code O	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4007'
¹⁶ Multiple No	¹⁷ Proposed Depth 5951' TVD	¹⁸ Formation PADDOCK	¹⁹ Contractor UNKNOWN	²⁰ Spud Date 1/25/99

²¹ Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone.
Describe the blowout prevention program, if any. Use additional sheets if necessary.

(UPPER PADDOCK)

TEXACO INTENDS TO DRILL A 1000' LATERAL @ 143-185 DEGREES & A 1000' LATERAL @ 0 DEGREES IN GLORIETA FORMATION. THE INTENDED PROCEDURE IS AS FOLLOWS:

1. Move pump jack. LD rds pmp & tbg. Set pkr @ 5899'. TIH w/latch, space out assembly, & whipstock. (Csg collars @ 5800, & 5843', top of window @ 5829', btm of window @ 5836', KOP @ 5840'.
2. Drill short radius curve using bit to measured depth of 6007'. TVD @ 5951'. Final angle will be 89 degrees from vertical. Drill 1000' horizontal section (azimuth 143-185 degrees).
3. Retrieve whipstock. TIH W/latch, space out assembly, whipstock. (csg collars @ 5800 & 5843, top of window @ 5809', btm of window @ 5816', KOP @ 5820'.
4. Drill short radius curve using bit to depth of 6030'. TVD @ 5850'. Final angle will be 90 deg from vertical. Drill 1000' horizontal lateral.
5. Foam/acid wash both horizontal laterals using coiled tubing unit. Place well on production.

²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature <i>J. Denise Luake</i>			
Printed Name J. Denise Luake		Approved By: <i>[Signature]</i>	
Title Engineering Assistant		Title:	
Date 1/15/99		Approval Date: <i>1/15/99</i>	Expiration Date:
Telephone 397-0405		Conditions of Approval: Attached ☐	

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Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 3002532263	² Pool Code 62160	³ Pool Name VACUUM GLORIETA
⁴ Property Code	⁵ Property Name VACUUM GLORIETA WEST UNIT	⁶ Well No. 98
⁷ OGRID Number 022351	⁸ Operator Name TEXACO EXPLORATION & PRODUCTION INC.	⁹ Elevation 4007'

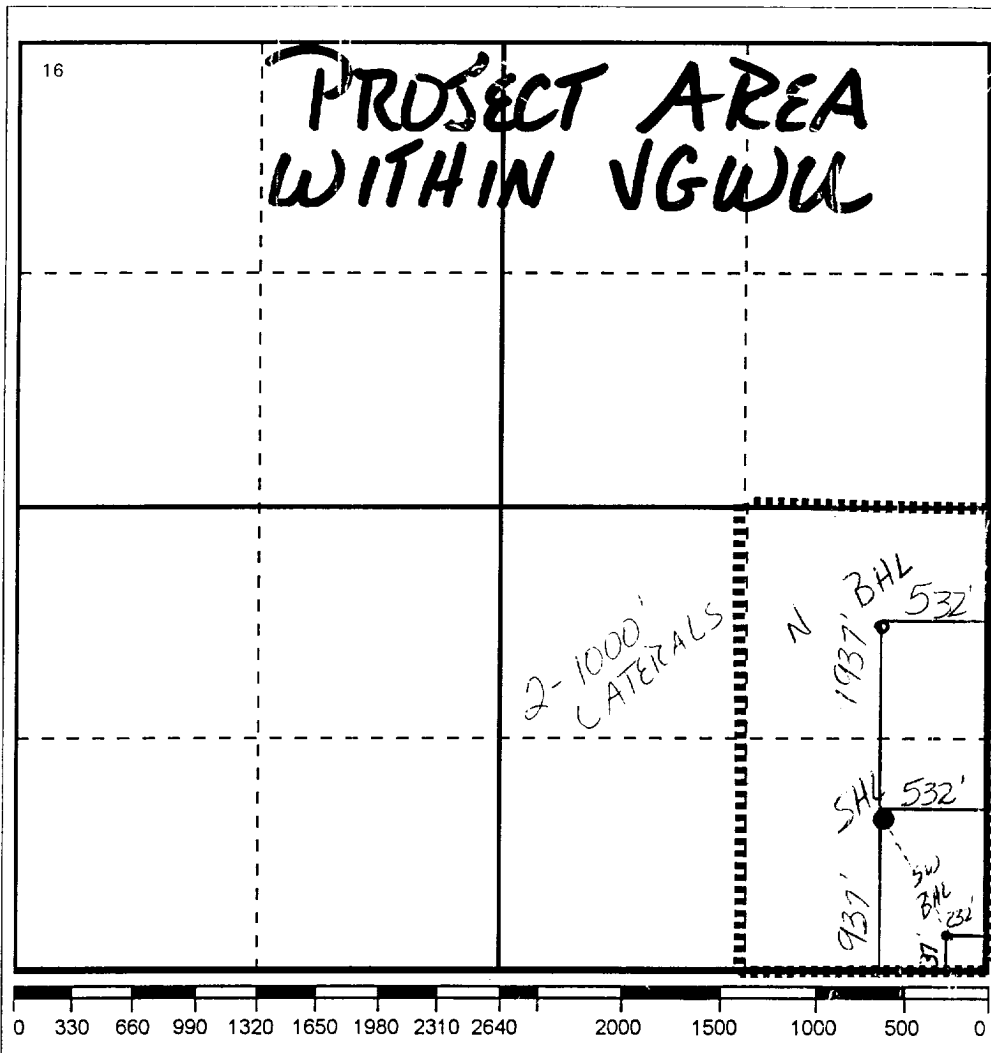
¹⁰ Surface Location

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
P	35	17-S	34-E		937	SOUTH	532	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
P/I	35/35	17S	34E		37/1937	SOUTH	232/532	EAST	LEA
¹² Dedicated Acres 40	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ Order No.						

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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

Printed Name

J. Denise Leake

Position

Engineering Assistant

Date

1/15/99

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 knowledge and belief.

Date Surveyed

Signature & Seal of
Professional Surveyor

Certificate No.

Scientific Drilling Planning Report

Company: Texaco E & P, Inc. Field: Vacuum Glorieta West Unit Site: Lea County, New Mexico Well: VGWU #98 Wellpath: South Lateral	Date: 12/16/98 Co-ordinate(NE) Reference: Site: Lea County, New Mexico, True North Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level Section (VS) Reference: Site (0.0E,0.0N,161.5Azi) Plan: South Lateral
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Field: Vacuum Glorieta West Unit Map Projection & Zone: US State Plane Coordinate System 1927 Texas, Central Zone Ellipsoid: Clarke - 1866 Field Datum: Mean Sea Level	Local Coordinate Reference: Site Centre Location of Field Centre: N/A Field Centre Map Easting: m Field Centre Map Northing: m Direction of Local North: True Local Vertical Reference: Wellpath Datum Geomagnetic Model: IGRF95
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Site: Lea County, New Mexico

Site Centre: m E m N	Latitude Longitude
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Site Water Depth: 0.0 ft

Magnetic Declination: 0.00 deg
Grid Convergence: 0.00 deg

Measured Depths Referenced To: SITE 0.0 ft above Mean Sea Level

Well: VGWU #98

Originating From:	0.0 ft +N/-S 0.0 ft +E/-W	Map Easting : 0.00 m Map Northing: 0.00 m	
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Wellpath: South Lateral

Origin of Vertical Section: Site Centre	0.0 ft +N/-S 0.0 ft +E/-W
Direction of Vertical Section: 161.50 deg	

Plan: South Lateral	Date Composed: 12/16/98 Version: 1
Principal: Yes	Locked: No

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg	Target
5850.0	0.00	143.00	5850.0	0.0	0.0	0.00	0.00	0.00	0.00	
6007.1	88.80	143.00	5951.3	-79.2	59.7	56.53	56.53	0.00	0.00	
6257.9	88.61	143.00	5957.0	-279.5	210.6	0.08	-0.08	0.00	-179.28	false target
6594.2	88.36	180.00	5966.2	-592.8	315.5	11.00	-0.08	11.00	90.89	
6901.3	88.37	185.44	5975.0	-899.3	300.9	1.77	0.01	1.77	89.87	Toe Target

Section 1 : Inc Azi MD Part 1 Build 56.53

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
5850.0	0.00	143.00	5850.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5860.0	5.65	143.00	5860.0	-0.4	0.3	0.5	56.53	56.53	0.00	0.00
5870.0	11.31	143.00	5869.9	-1.6	1.2	1.9	56.53	56.53	0.00	0.00
5880.0	16.96	143.00	5879.6	-3.5	2.7	4.2	56.53	56.53	0.00	0.00
5890.0	22.61	143.00	5889.0	-6.2	4.7	7.4	56.53	56.53	0.00	0.00
5900.0	28.27	143.00	5898.0	-9.7	7.3	11.5	56.53	56.53	0.00	0.00
5910.0	33.92	143.00	5906.6	-13.8	10.4	16.4	56.53	56.53	0.00	0.00
5920.0	39.57	143.00	5914.6	-18.6	14.0	22.0	56.53	56.53	0.00	0.00
5930.0	45.23	143.00	5921.9	-23.9	18.0	28.4	56.53	56.53	0.00	0.00
5940.0	50.88	143.00	5928.6	-29.9	22.5	35.5	56.53	56.53	0.00	0.00
5950.0	56.53	143.00	5934.5	-36.3	27.4	43.1	56.53	56.53	0.00	0.00
5960.0	62.19	143.00	5939.6	-43.2	32.5	51.3	56.53	56.53	0.00	0.00

Scientific Drilling Planning Report

Company: Texaco E & P, Inc.
Field: Vacuum Gioneta West Unit
Site: Lea County, New Mexico
Well: VGWU #98
Wellpath: South Lateral

Date: 12/16/98 Time: 11:23:21 Page: 2
Co-ordinate(N/E) Reference: Site: Lea County, New Mexico, True North
Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
Section (VS) Reference: Site (0.0E,0.0N,161.5Azi)
Plan: South Lateral

Section 1 : Inc Azi MD Part 1 Build 56.53

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
5970.0	67.84	143.00	5943.9	-50.4	38.0	59.9	56.53	56.53	0.00	0.00
5980.0	73.49	143.00	5947.2	-57.9	43.7	68.8	56.53	56.53	0.00	0.00
5990.0	79.14	143.00	5949.5	-65.7	49.5	78.0	56.53	56.53	0.00	0.00
6000.0	84.80	143.00	5950.9	-73.6	55.5	87.4	56.53	56.53	0.00	0.00
6007.1	88.80	143.00	5951.3	-79.2	59.7	94.1	56.53	56.53	0.00	0.00

Section 2 : DT6 Curve Part 1 Drop 0.08 Tur

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
6100.0	88.73	143.00	5953.3	-153.4	115.6	182.2	0.08	-0.08	0.00	-179.28
6200.0	88.65	143.00	5955.6	-233.3	175.8	277.0	0.08	-0.08	0.00	-179.28
6257.9	88.61	143.00	5957.0	-279.5	210.6	331.9	0.08	-0.08	0.00	-179.28

Section 3 : DT4 Azm. Part 1 Drop 0.08 Turn

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
6300.0	88.54	147.63	5958.0	-314.1	234.6	372.3	11.00	-0.16	11.00	90.89
6350.0	88.47	153.13	5959.3	-357.5	259.3	421.3	11.00	-0.13	11.00	90.77
6400.0	88.42	158.63	5960.7	-403.1	279.7	471.1	11.00	-0.11	11.00	90.63
6450.0	88.38	164.13	5962.1	-450.5	295.6	521.0	11.00	-0.08	11.00	90.48
6500.0	88.36	169.64	5963.5	-499.1	307.0	570.8	11.00	-0.05	11.00	90.33
6550.0	88.35	175.14	5965.0	-548.7	313.6	619.8	11.00	-0.02	11.00	90.17
6594.2	88.36	180.00	5966.2	-592.8	315.5	662.2	11.00	0.01	11.00	90.01

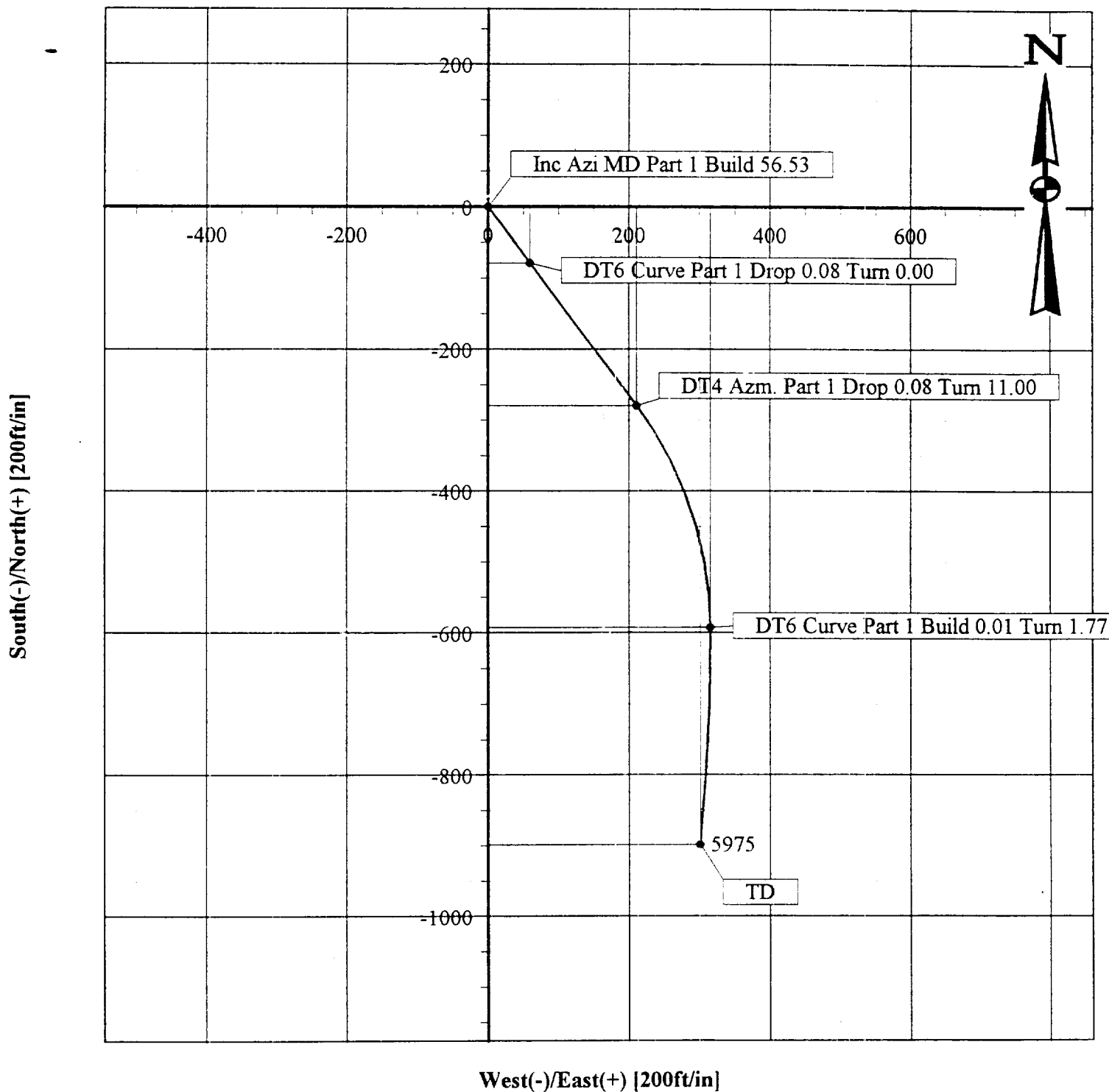
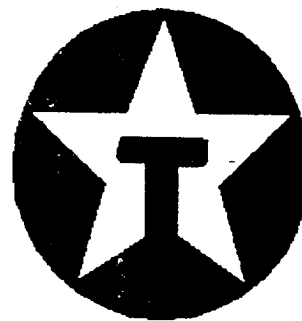
Section 4 : DT6 Curve Part 1 Build 0.01 Tu

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
6600.0	88.36	180.10	5966.4	-598.6	315.5	667.8	1.77	0.00	1.77	89.87
6700.0	88.36	181.87	5969.3	-698.5	313.7	762.0	1.77	0.00	1.77	89.87
6800.0	88.37	183.64	5972.1	-798.4	308.9	855.1	1.77	0.01	1.77	89.82
6901.3	88.37	185.44	5975.0	-899.3	300.9	948.3	1.77	0.01	1.77	89.77



Scientific
Drilling

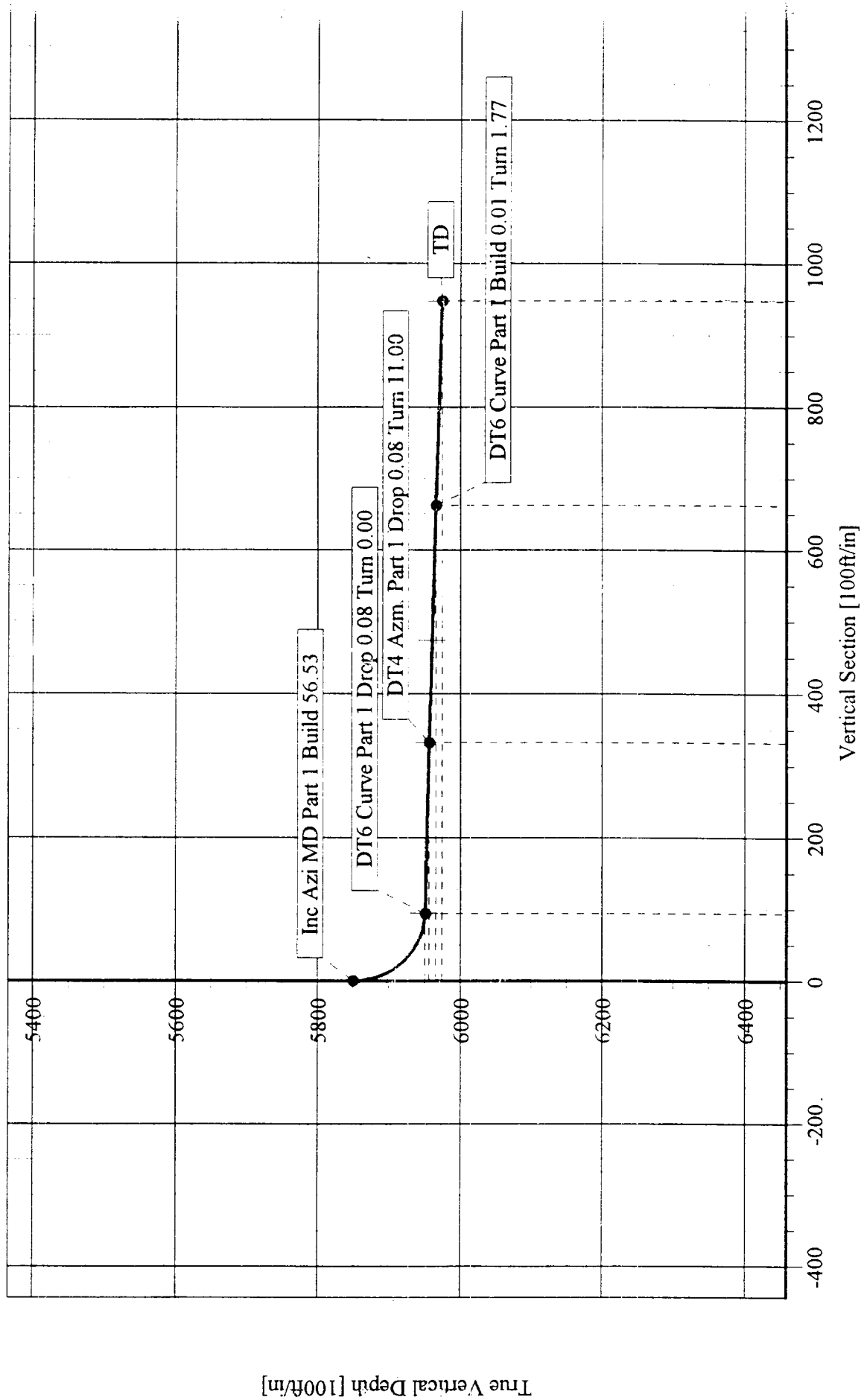
Texaco E & P, Inc.
Field: Vacuum Glorieta West Unit
Site: Lea County, New Mexico
Well: VGWU #98
Wellpath: South Lateral
Plan: South Lateral





Scientific
Drilling

Texaco E & P, Inc.
Field: Vacuum Glorieta West Unit
Site: Lea County, New Mexico
Well: VGWU #98
Wellpath: South Lateral
Plan: South Lateral



Scientific Drilling Planning Report

Company: Texaco E & P, Inc.	Date: 12/16/98	Time: 11:54:57	Page: 1
Field: Vacuum Glorieta West Unit	Co-ordinate(N/E) Reference: Site: Lea County, New Mexico, True North		
Site: Lea County, New Mexico	Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level		
Well: VGWU #98	Section (VS) Reference:	Site (0.0E,0.0N,0.0Azi)	
Wellpath: North Lateral	Plan:	Plan #1	

Field: Vacuum Glorieta West Unit	Local Coordinate Reference: Site Centre
	Location of Field Centre: N/A
	Field Centre Map Easting: m
	Field Centre Map Northing: m
Map Projection & Zone: US State Plane Coordinate System 1927 Texas, Central Zone	Direction of Local North: True
Ellipsoid: Clarke - 1866	Local Vertical Reference: Wellpath Datum
Field Datum: Mean Sea Level	Geomagnetic Model: IGRF95

Site: Lea County, New Mexico

Site Centre: m E m N	Latitude Longitude
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Site Water Depth: 0.0 ft

Magnetic Declination: 0.00 deg
Grid Convergence: 0.00 deg

Measured Depths Referenced To: SITE 0.0 ft above Mean Sea Level

Well: VGWU #98

Originating From: 0.0 ft +N/-S 0.0 ft +E/-W	Map Easting : 0.00 m Map Northing: 0.00 m
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Wellpath: North Lateral

Origin of Vertical Section: Site Centre 0.0 ft +N/-S
 0.0 ft +E/-W

Direction of Vertical Section: 0.00 deg

Plan: Plan #1	Date Composed: 12/16/98
	Version: 1
Principal: Yes	Locked: No

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS d/100ft	Buidd d/100ft	Turn d/100ft	TFO deg	Target
5700.0	0.00	0.00	5700.0	0.0	0.0	0.00	0.00	0.00	0.00	
5810.0	0.00	0.00	5810.0	0.0	0.0	0.00	0.00	0.00	0.00	
6029.9	90.00	0.00	5950.0	140.0	0.0	40.93	40.93	0.00	0.00	Target #1
6389.9	90.64	0.00	5948.0	500.0	0.0	0.18	0.18	0.00	0.00	Target #2
6890.0	91.20	0.00	5940.0	1000.0	0.0	0.11	0.11	0.00	0.00	Target #3

Section 1 : Straight MD Part 1 Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Buidd d/100ft	Turn d/100ft	TFO deg
5700.0	0.00	0.00	5700.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5810.0	0.00	0.00	5810.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

Section 2 : HZ Landing Part 1 Build 40.93

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Buidd d/100ft	Turn d/100ft	TFO deg
5820.0	4.09	0.00	5820.0	0.4	0.0	0.4	40.93	40.93	0.00	0.00
5830.0	8.19	0.00	5829.9	1.4	0.0	1.4	40.93	40.93	0.00	0.00
5840.0	12.28	0.00	5839.8	3.2	0.0	3.2	40.93	40.93	0.00	0.00
5850.0	16.37	0.00	5849.5	5.7	0.0	5.7	40.93	40.93	0.00	0.00
5860.0	20.46	0.00	5858.9	8.8	0.0	8.8	40.93	40.93	0.00	0.00

Scientific Drilling Planning Report

Company: Texaco E & P, Inc.
Field: Vacuum Glorieta West Unit
Site: Lea County, New Mexico
Well: VGWU #98
Wellpath: North Lateral

Date: 12/16/98 **Time:** 11:54:57 **Page:** 2
Co-ordinate(NE) Reference: Site: Lea County, New Mexico, True North
Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
Section (VS) Reference: Site (0.0E,0.0N,0.0Azi)
Plan: Plan #1

Section 2 : HZ Landing Part 1 Build 40.93

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
5870.0	24.56	0.00	5868.2	12.7	0.0	12.7	40.93	40.93	0.00	0.00
5880.0	28.65	0.00	5877.1	17.1	0.0	17.1	40.93	40.93	0.00	0.00
5890.0	32.74	0.00	5885.7	22.2	0.0	22.2	40.93	40.93	0.00	0.00
5900.0	36.83	0.00	5893.9	27.9	0.0	27.9	40.93	40.93	0.00	0.00
5910.0	40.93	0.00	5901.7	34.2	0.0	34.2	40.93	40.93	0.00	0.00
5920.0	45.02	0.00	5909.0	41.0	0.0	41.0	40.93	40.93	0.00	0.00
5930.0	49.11	0.00	5915.8	48.4	0.0	48.4	40.93	40.93	0.00	0.00
5940.0	53.20	0.00	5922.1	56.1	0.0	56.1	40.93	40.93	0.00	0.00
5950.0	57.30	0.00	5927.8	64.4	0.0	64.4	40.93	40.93	0.00	0.00
5960.0	61.39	0.00	5932.9	73.0	0.0	73.0	40.93	40.93	0.00	0.00
5970.0	65.48	0.00	5937.4	81.9	0.0	81.9	40.93	40.93	0.00	0.00
5980.0	69.57	0.00	5941.2	91.1	0.0	91.1	40.93	40.93	0.00	0.00
5990.0	73.67	0.00	5944.3	100.6	0.0	100.6	40.93	40.93	0.00	0.00
6000.0	77.76	0.00	5946.8	110.3	0.0	110.3	40.93	40.93	0.00	0.00
6010.0	81.85	0.00	5948.6	120.2	0.0	120.2	40.93	40.93	0.00	0.00
6020.0	85.94	0.00	5949.6	130.1	0.0	130.1	40.93	40.93	0.00	0.00
6029.9	90.00	0.00	5950.0	140.0	0.0	140.0	40.93	40.93	0.00	0.00

Section 3 : DT6 Curve Part 1 Build 0.18

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
6100.0	90.12	0.00	5949.9	210.1	0.0	210.1	0.18	0.18	0.00	0.00
6200.0	90.30	0.00	5949.6	310.1	0.0	310.1	0.18	0.18	0.00	0.00
6300.0	90.48	0.00	5948.9	410.1	0.0	410.1	0.18	0.18	0.00	0.00
6389.9	90.64	0.00	5948.0	500.0	0.0	500.0	0.18	0.18	0.00	0.00

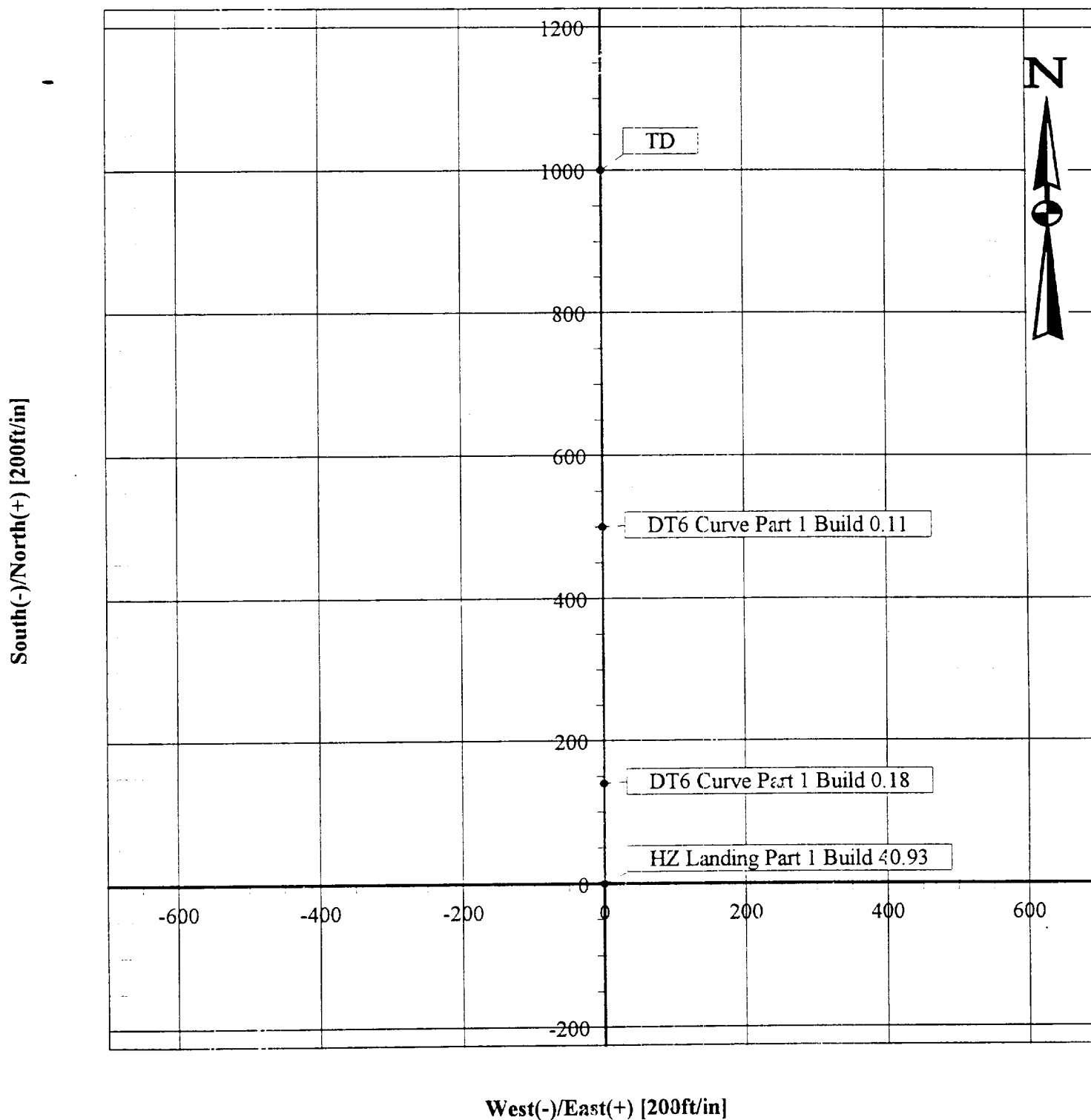
Section 4 : DT6 Curve Part 1 Build 0.11

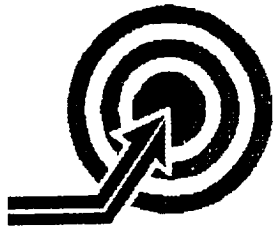
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS d/100ft	Build d/100ft	Turn d/100ft	TFO deg
6400.0	90.65	0.00	5947.9	510.1	0.0	510.1	0.11	0.11	0.00	0.00
6500.0	90.76	0.00	5946.7	610.1	0.0	610.1	0.11	0.11	0.00	0.00
6600.0	90.87	0.00	5945.2	710.1	0.0	710.1	0.11	0.11	0.00	0.00
6700.0	90.98	0.00	5943.6	810.0	0.0	810.0	0.11	0.11	0.00	0.00
6800.0	91.10	0.00	5941.8	910.0	0.0	910.0	0.11	0.11	0.00	0.00
6890.0	91.20	0.00	5940.0	1000.0	0.0	1000.0	0.11	0.11	0.00	0.00



Scientific
Drilling

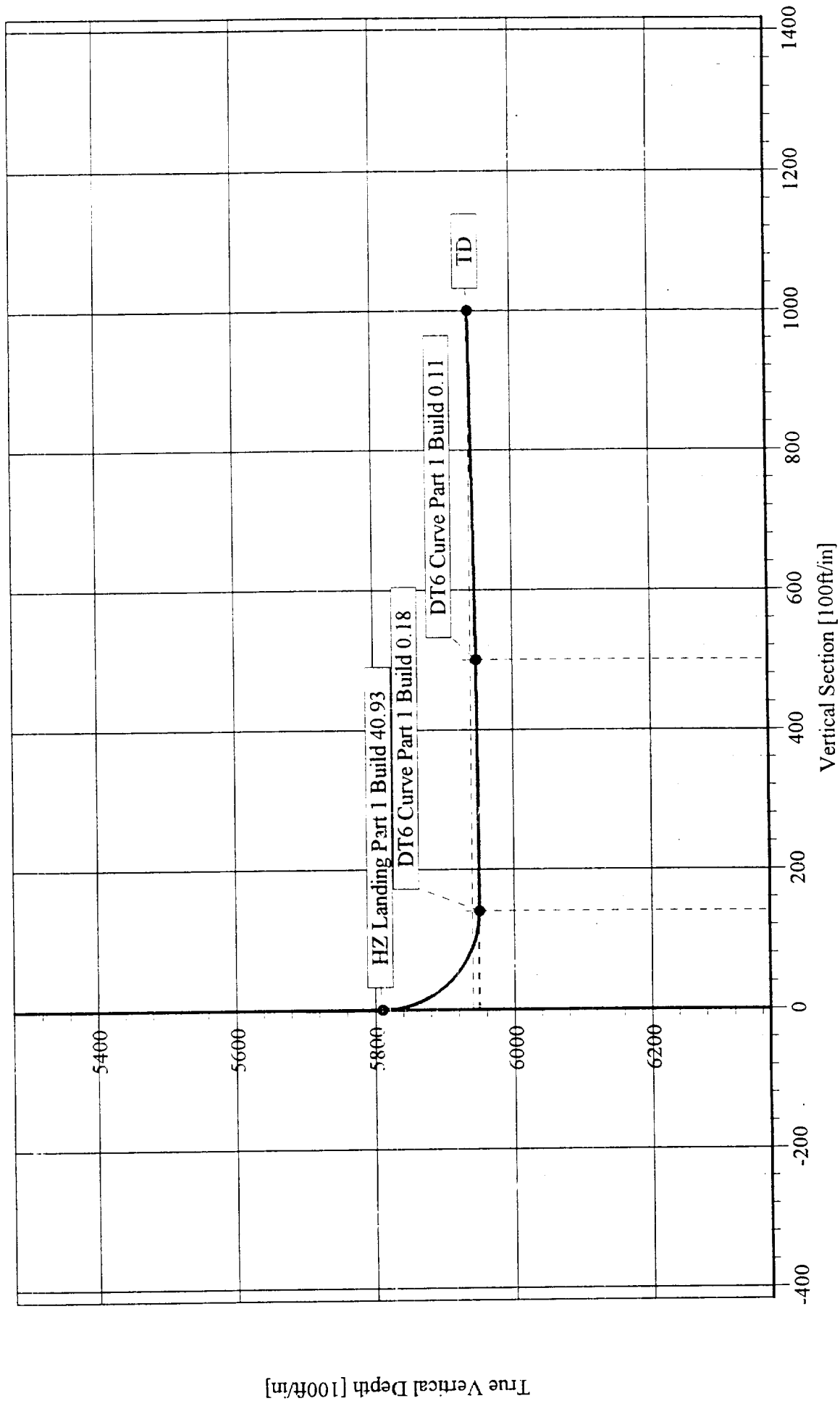
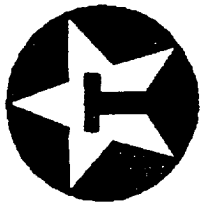
Texaco E & P, Inc.
Field: Vacuum Glorieta West Unit
Site: Lea County, New Mexico
Well: VGWU #98
Wellpath: North Lateral
Plan: Plan #1





Scientific
Drilling

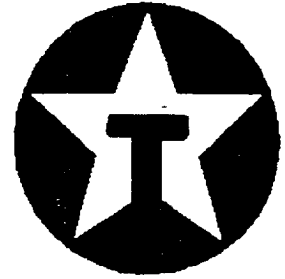
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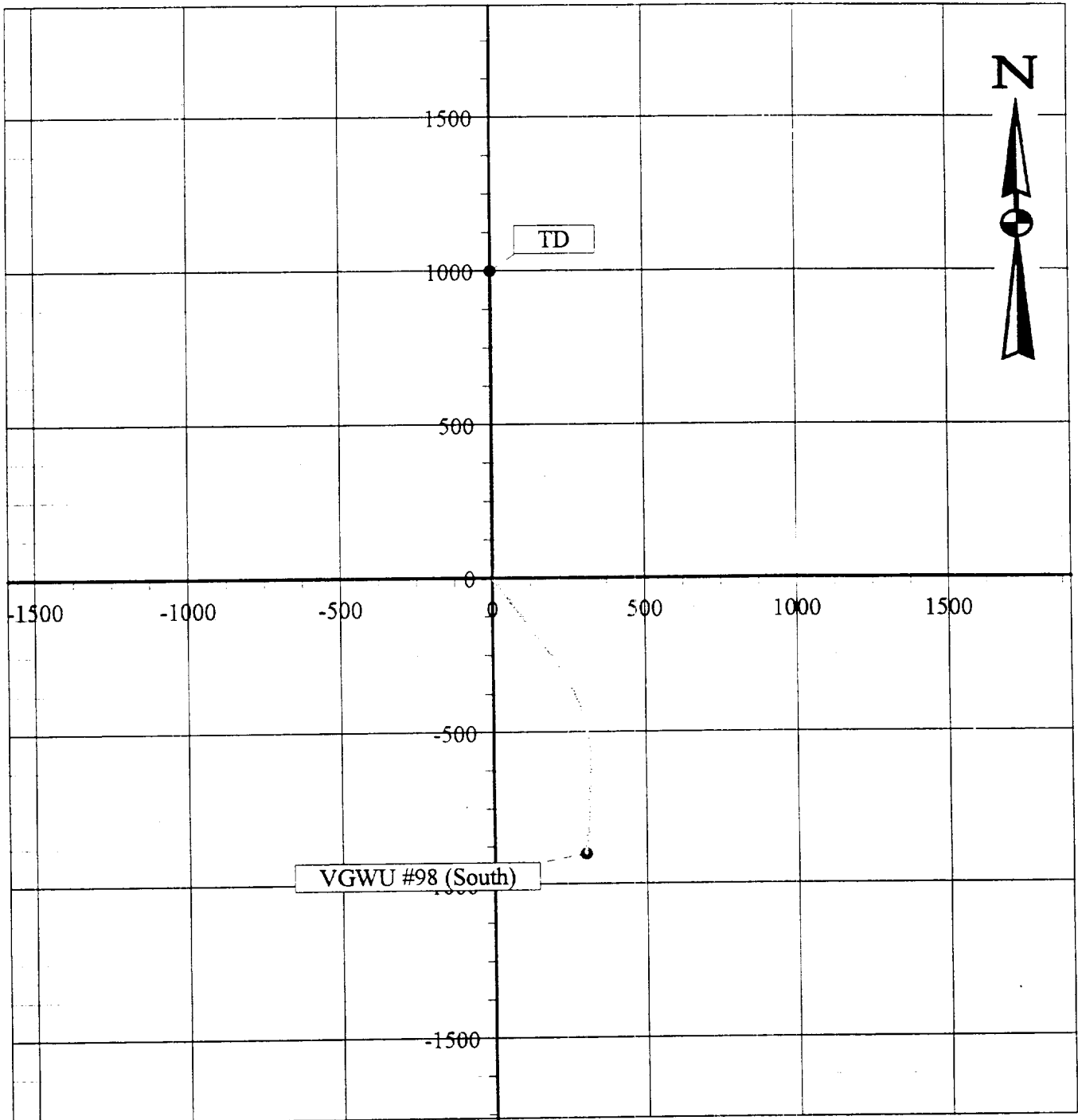


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South(-)/North(+) [500ft/in]



West(-)/East(+) [500ft/in]