

ROSEWOOD RESOURCES INC.

Field: Sherman County, KS
 Site: Armstrong 14-31H
 Well: #14-31H
 Wellpath: Lateral

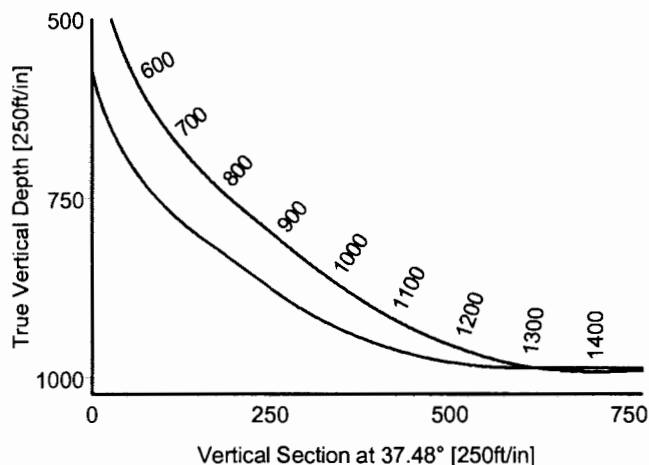


Azimuths to Grid North
 True North: 2.36°
 Magnetic North: 9.98°

Magnetic Field
 Strength: 53383nT
 Dip Angle: 66.81°
 Date: 1/18/2007
 Model: igrf2005

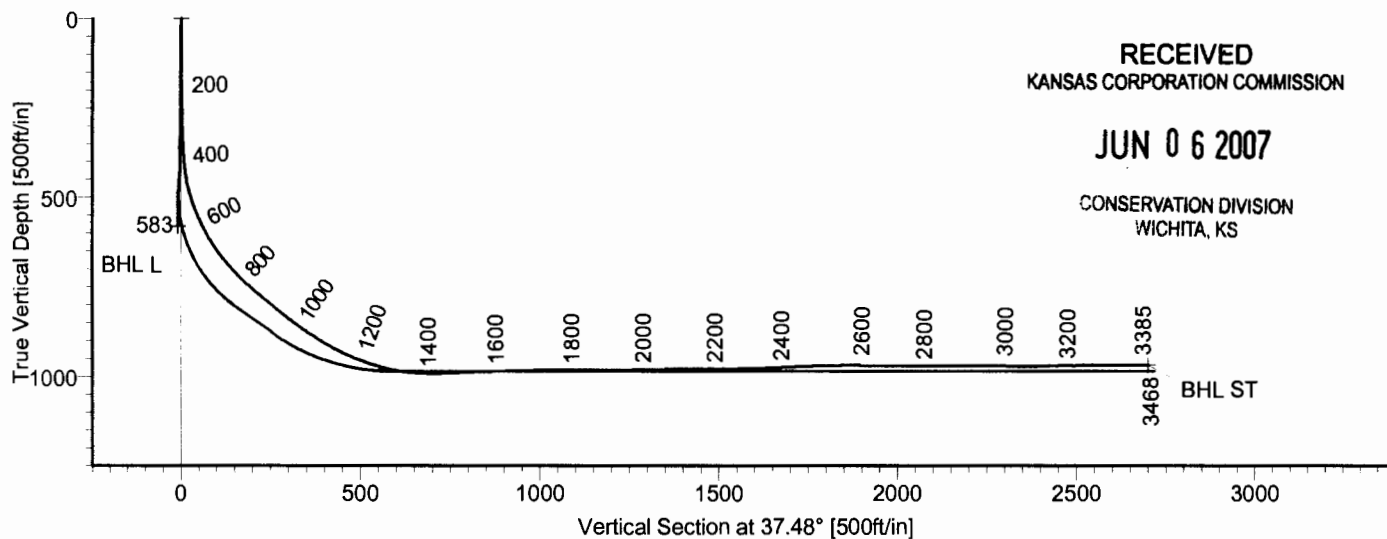
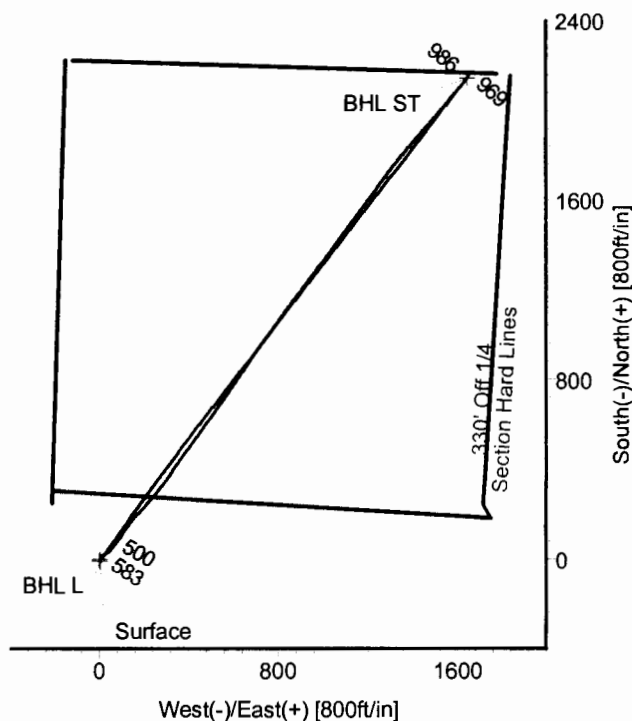
ROSEWOOD RESOURCES

Note:
 All penetrations into the Niobrara Chalk
 must be 330' from section or lease lines



LEGEND

- #14-31H, Lateral, Plan #3
- #14-31H (Lateral ST)
- Lateral



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 KANSAS CORPORATION COMMISSION

JUN 06 2007

CONSERVATION DIVISION
 WICHITA, KS

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Surface	0.00	0.00	0.00	376609.75	946578.54	39°18'28.504N	101°43'25.798W	Point
BHL L	582.81	-9.39	-0.16	376600.36	946578.38	39°18'28.412N	101°43'25.796W	Point
BHL ST	969.08	2142.29	1644.50	378752.04	948223.04	39°18'50.329N	101°43'06.013W	Point

STRATA
 DIRECTIONAL TECHNOLOGY, INC.

STRATA DIRECTIONAL TECHNOLOGY, INC.
 1034 Regional Park Drive Houston, Texas 77060
 Phone: 713-934-9600 Fax: 713-934-9067

Wellpath: (#14-31H/Lateral)

Created By: David Vogler

Date: 2/7/2007

Checked: _____

Date: _____

Strata Directional Technology, Inc.

Survey Report

Company: ROSEWOOD RESOURCES INC.				Date: 2/6/2007		Time: 11:58:09		Page: 1	
Field: Sherman County, KS				Co-ordinate(NE) Reference: Well: #14-31H, Grid North					
Site: Armstrong 14-31H				Vertical (TVD) Reference: 3703'GL+13'KB 3716.0					
Well: #14-31H				Section (VS) Reference: Well (0.00N,0.00E,37.48Azi)					
Wellpath: Lateral				Survey Calculation Method: Minimum Curvature				Db: Adapti	

Field: Sherman County, KS			
Map System: US State Plane Coordinate System 1927		Map Zone: Kansas, Northern Zone	
Geo Datum: NAD27 (Clarke 1866)		Coordinate System: Well Centre	
Sys Datum: Mean Sea Level		Geomagnetic Model: igrf2005	

Site: Armstrong 14-31H

Site Position:	Northing: 376609.75 ft	Latitude: 39 18 28.504 N
From: Map	Easting: 946578.54 ft	Longitude: 101 43 25.798 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 0.00 ft		Grid Convergence: -2.36 deg

Well: #14-31H	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 39 18 28.504 N
+E/-W 0.00 ft	Longitude: 101 43 25.798 W
Position Uncertainty: 0.00 ft	

Wellpath: Lateral	Drilled From: Surface
Current Datum: 3703'GL+13'KB	Tie-on Depth: 0.00 ft
Magnetic Data: 1/18/2007	Above System Datum: Mean Sea Level
Field Strength: 53383 nT	Declination: 7.63 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 66.81 deg
+N/-S ft	+E/-W Direction
	deg
0.00	37.48

Survey Program for Definitive Wellpath			
Date: 1/29/2007	Validated: No	Version: 0	
Actual From ft	To Survey ft	Toolcode	Tool Name
403.00	530.00	Survey #1 (403.00-530.00)	MWD
583.00	583.00	Survey #2 (583.00-583.00)	Std MWD Projection

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
403.00	1.10	162.10	402.98	-3.68	1.19	-2.20	0.27	0.27	0.00	MWD
435.00	4.90	205.90	434.93	-5.20	0.69	-3.71	13.05	11.87	136.87	MWD
467.00	3.40	199.50	466.84	-7.33	-0.23	-5.95	4.90	-4.69	-20.00	MWD
498.00	1.80	134.80	497.82	-8.54	-0.19	-6.89	9.98	-5.16	-208.71	MWD
530.00	0.50	213.30	529.81	-9.01	0.09	-7.09	5.53	-4.06	245.31	MWD
583.00	0.50	213.30	582.81	-9.39	-0.16	-7.55	0.00	0.00	0.00	BHL L

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg Min Sec	<--- Longitude --- Deg Min Sec
Surface		0.00	0.00	0.00	376609.75	946578.54	39 18 28.504 N	101 43 25.798 W
BHL L		582.81	-9.39	-0.16	376600.36	946578.38	39 18 28.412 N	101 43 25.796 W

Strata Directional Technology, Inc.

Survey Report

Company: ROSEWOOD RESOURCES INC.				Date: 2/6/2007		Time: 11:59:34		Page: 1		
Field: Sherman County, KS				Co-ordinate(NE) Reference: Well: #14-31H, Grid North						
Site: Armstrong 14-31H				Vertical (TVD) Reference: 3703'GL+13'KB 3716.0						
Well: #14-31H				Section (VS) Reference: Well (0.00N,0.00E,37.48Azi)						
Wellpath: Lateral ST				Survey Calculation Method: Minimum Curvature Db: Adapti						
Field: Sherman County, KS										
Map System: US State Plane Coordinate System 1927					Map Zone: Kansas, Northern Zone					
Geo Datum: NAD27 (Clarke 1866)					Coordinate System: Well Centre					
Sys Datum: Mean Sea Level					Geomagnetic Model: igrf2005					
Site: Armstrong 14-31H										
Site Position:		Northing: 376609.75 ft		Latitude: 39 18 28.504 N						
From: Map		Easting: 946578.54 ft		Longitude: 101 43 25.798 W						
Position Uncertainty: 0.00 ft				North Reference: Grid						
Ground Level: 0.00 ft				Grid Convergence: -2.36 deg						
Well: #14-31H Slot Name:										
Well Position: +N/-S 0.00 ft		Northing: 376609.75 ft		Latitude: 39 18 28.504 N						
+E/-W 0.00 ft		Easting: 946578.54 ft		Longitude: 101 43 25.798 W						
Position Uncertainty: 0.00 ft										
Wellpath: Lateral ST				Drilled From: Surface						
Current Datum: 3703'GL+13'KB				Height: 3716.00 ft		Tie-on Depth: 0.00 ft				
Magnetic Data: 1/29/2007						Above System Datum: Mean Sea Level				
Field Strength: 53380 nT						Declination: 7.62 deg				
Vertical Section: Depth From (TVD)				+N/-S		Mag Dip Angle: 66.81 deg				
ft				ft		+E/-W		Direction		
0.00				0.00		ft		deg		
						0.00		37.48		
Survey Program for Definitive Wellpath										
Date: 2/6/2007		Validated: No		Version: 0						
Actual From To		Survey		Toolcode		Tool Name				
ft ft										
321.00 449.00		Survey #1 (321.00-449.00)		Gyroscope		Gyroscope				
498.00 3333.00		Survey #2 (498.00-3333.00)		MWD		Std MWD				
3385.00 3385.00		Survey #3 (3385.00-3385.00)		Project		Projection				
Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
321.00	2.22	14.05	320.92	6.03	1.51	5.71	0.69	0.69	0.00	Gyroscope
353.00	2.55	11.43	352.89	7.33	1.80	6.91	1.09	1.03	-8.19	Gyroscope
385.00	3.11	22.60	384.85	8.83	2.28	8.39	2.45	1.75	34.91	Gyroscope
417.00	6.33	51.50	416.74	10.73	3.99	10.94	12.21	10.06	90.31	Gyroscope
449.00	10.69	58.58	448.39	13.38	7.91	15.43	13.99	13.62	22.12	Gyroscope
498.00	17.90	62.70	495.84	19.21	18.49	26.49	14.85	14.71	8.41	MWD
530.00	21.60	56.70	525.95	24.70	27.79	36.51	13.17	11.56	-18.75	MWD
562.00	24.20	48.20	555.44	32.31	37.60	48.52	13.13	8.12	-26.56	MWD
594.00	26.80	40.00	584.33	42.21	47.13	62.18	13.68	8.12	-25.62	MWD
626.00	30.30	37.50	612.43	54.15	56.69	77.46	11.56	10.94	-7.81	MWD
658.00	34.60	38.20	639.43	67.70	67.23	94.63	13.49	13.44	2.19	MWD
690.00	38.60	38.40	665.11	82.67	79.05	113.70	12.51	12.50	0.62	MWD
722.00	41.00	36.00	689.70	98.98	91.42	134.18	8.90	7.50	-7.50	MWD
753.00	43.70	33.70	712.61	116.12	103.35	155.04	10.04	8.71	-7.42	MWD
785.00	46.60	33.70	735.17	135.00	115.93	177.67	9.06	9.06	0.00	MWD
817.00	49.70	36.10	756.52	154.53	129.58	201.48	11.18	9.69	7.50	

RECEIVED
KANSAS CORPORATION COMMISSION

JUN 06 2007

CONSERVATION DIVISION
WICHITA, KS

 $5'' = 100'$

FLEET MD

COMPANY : STRATA

WELL : ARMSTRONG 14-31H

FIELD : GOODLAND

COUNTY : SHERMAN

STATE : KANSASAS

COUNTRY : USA

API WELL NO. : 15-181-20494-0100

WELL LOCATION

TWO MILE SOUTH OF GOODLAND

SEC: TWP: RANGE:

COMPANY : STRATA
WELL : ARMSTRONG 14-31H
FIELD : GOODLAND
COUNTY : SHERMAN
STATE : KANSAS
COUNTRY : USA
API NO. : 15-181-20494-0100

DEPTH REF. :

ELEVATION : 3703 ft

WATER DEPTH :

BOREHOLE RECORD

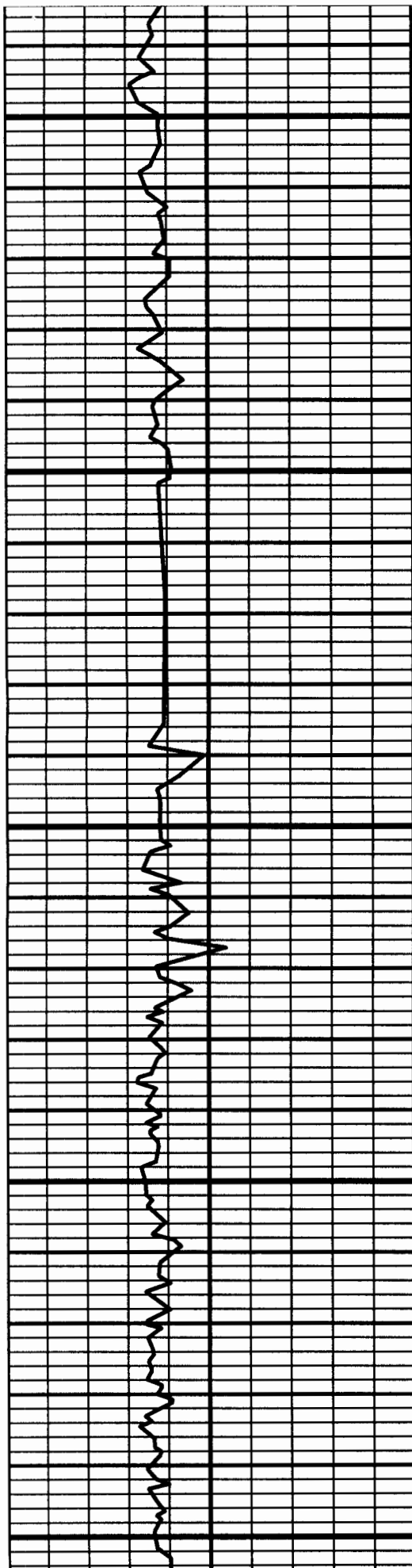
DEVIATION RECORD

[illegible]

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KANSAS CORPORATION COMMISSION
JUN 06 2007
CONSERVATION DIVISION
WICHITA, KS

Run Data

Run Data						
RUN NUMBER	1					
START DATE	1/25/07					
START TIME	1:00 AM					
END DATE	1/30/07					
END TIME	5:00					
DEPTH IN (ft)	548					
DEPTH OUT (ft)	3383					
LOG TOP (ft)	498					
LOG BOTTOM (ft)	3333					
HOLE SIZE (in)	6.25					
MUD DATA @ (ft)						
MUD TYPE	AIR/MIST					
DENSITY (lb / gal)						
VISCOSITY (s / qt)						
pH						
FLUID LOSS (cm3 / 30)						
SALINITY (ppm)						
Rm (ohmm @ deg F)						
Rmf (ohmm @ deg F)						
MAX TEMP (deg F)						
Rm @ MAX TEMP (ohmm)						
LWD ENGINEER #1	PAUL SIMS					
LWD ENGINEER #2	JASON MCCUDDY					
LWD ENGINEER #3	BRANDON NORMAN					



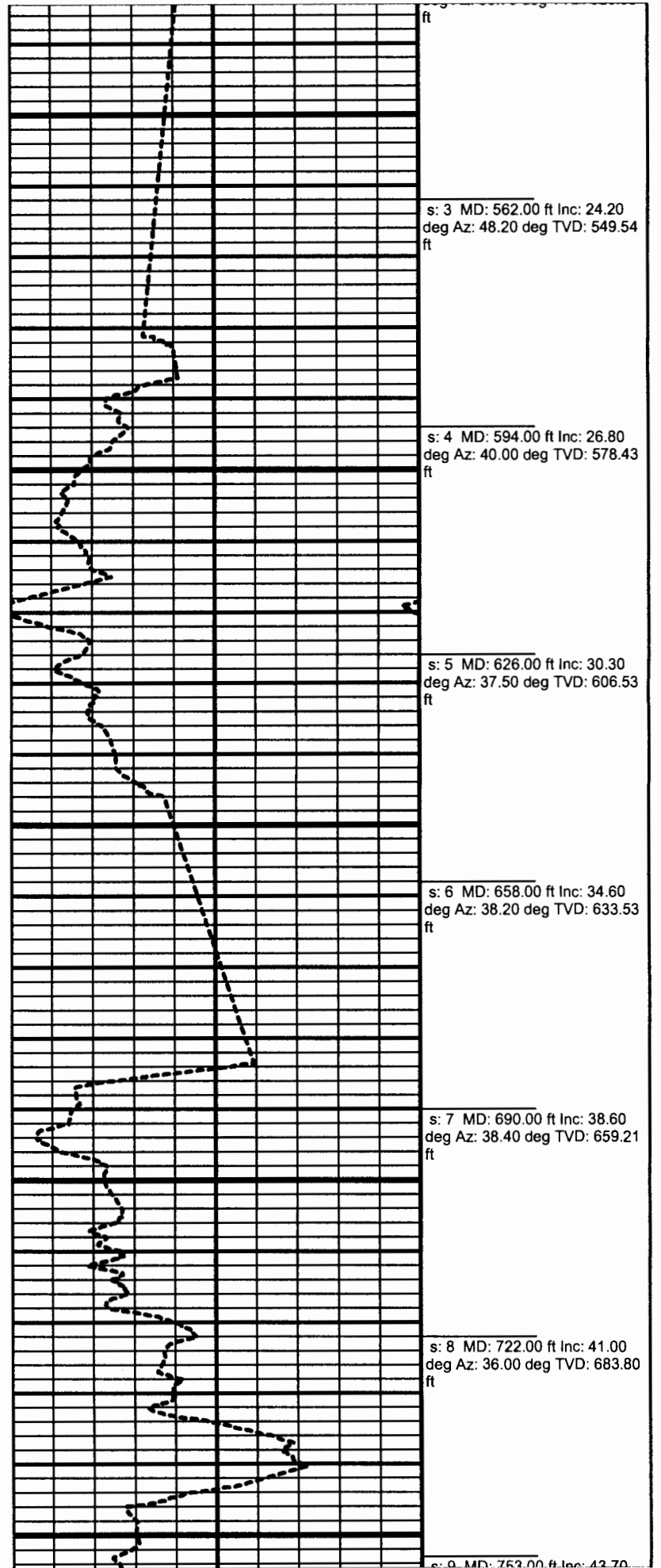
550

600

650

700

750



s: 3 MD: 562.00 ft Inc: 24.20
deg Az: 48.20 deg TVD: 549.54
ft

s: 4 MD: 594.00 ft Inc: 26.80
deg Az: 40.00 deg TVD: 578.43
ft

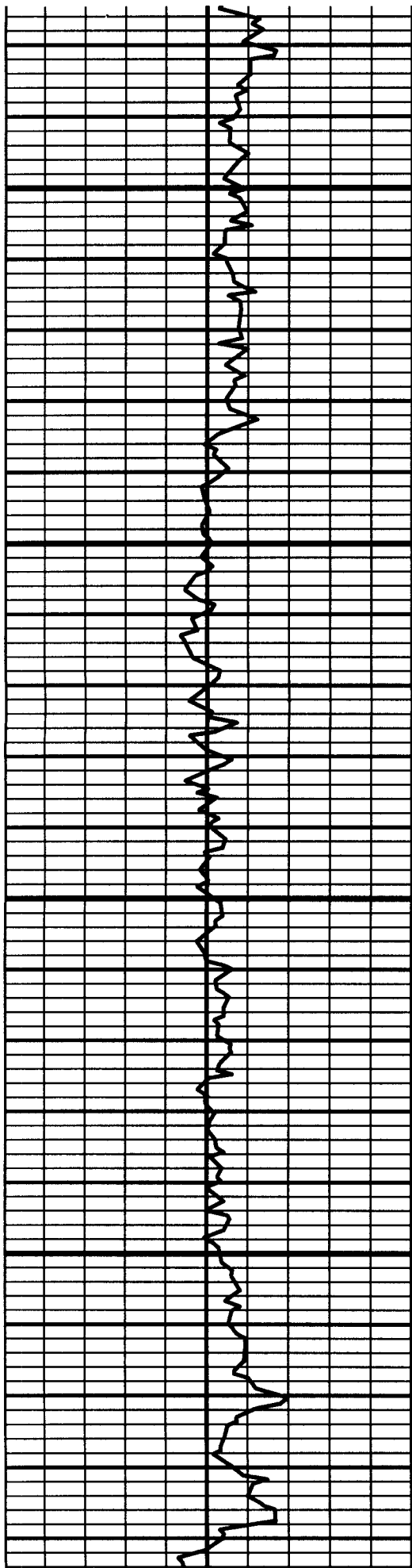
s: 5 MD: 626.00 ft Inc: 30.30
deg Az: 37.50 deg TVD: 606.53
ft

s: 6 MD: 658.00 ft Inc: 34.60
deg Az: 38.20 deg TVD: 633.53
ft

s: 7 MD: 690.00 ft Inc: 38.60
deg Az: 38.40 deg TVD: 659.21
ft

s: 8 MD: 722.00 ft Inc: 41.00
deg Az: 36.00 deg TVD: 683.80
ft

s: 9 MD: 752.00 ft Inc: 42.70

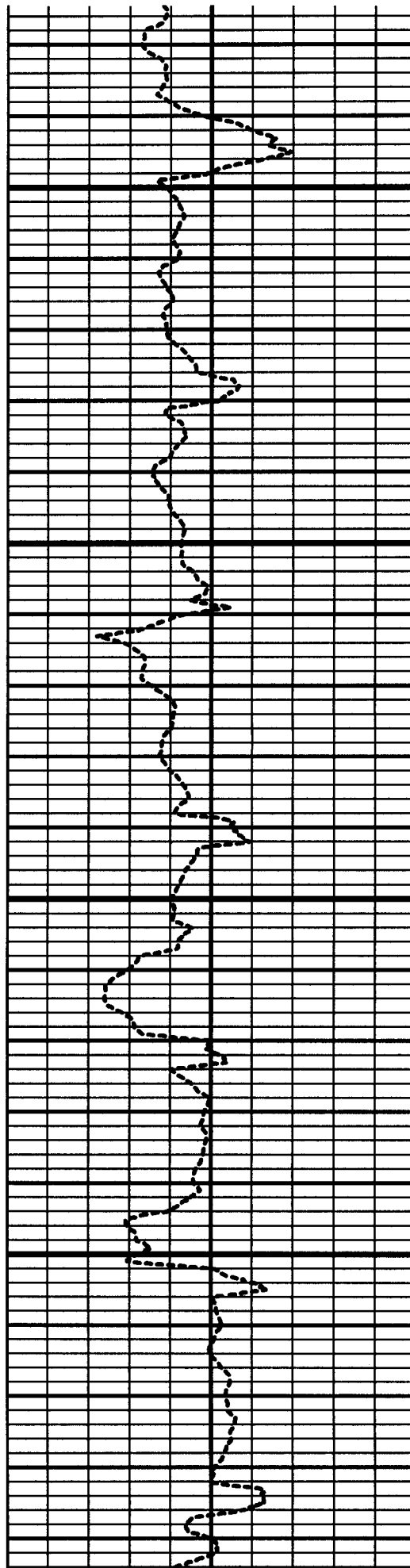


1000

1050

1100

1150



s: 16 MD: 975.00 ft Inc: 54.00
deg Az: 41.40 deg TVD: 849.83
ft

s: 17 MD: 1007.00 ft Inc: 56.10
deg Az: 40.50 deg TVD: 868.16
ft

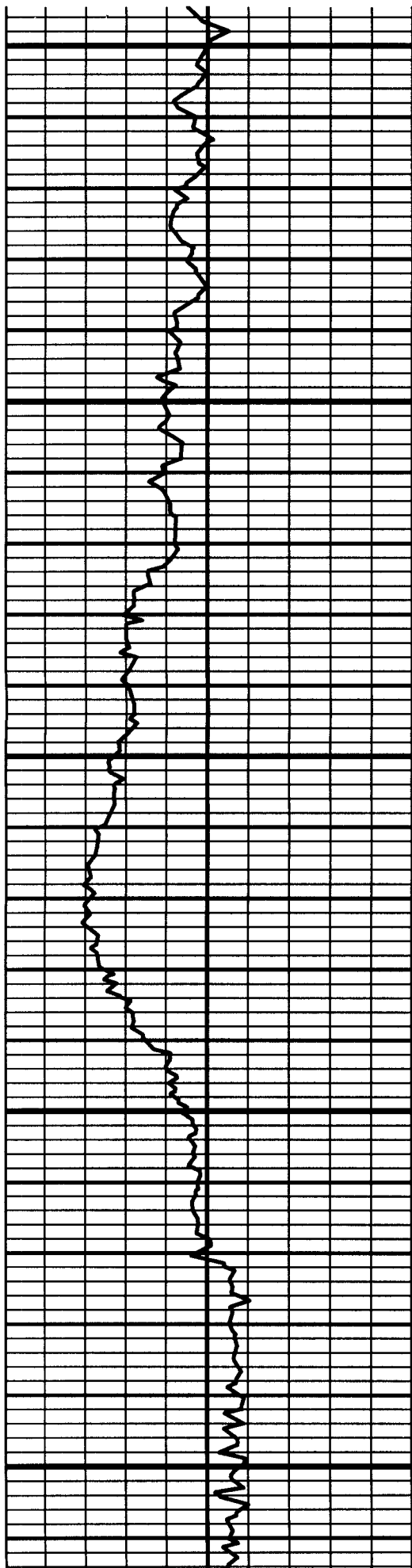
s: 18 MD: 1038.00 ft Inc: 57.70
deg Az: 39.90 deg TVD: 885.09
ft

s: 19 MD: 1070.00 ft Inc: 59.40
deg Az: 39.30 deg TVD: 901.78
ft

s: 20 MD: 1101.00 ft Inc: 62.30
deg Az: 37.00 deg TVD: 916.88
ft

s: 21 MD: 1133.00 ft Inc: 64.80
deg Az: 35.00 deg TVD: 931.14
ft

s: 22 MD: 1165.00 ft Inc: 68.00
deg Az: 34.00 deg TVD: 943.95
ft



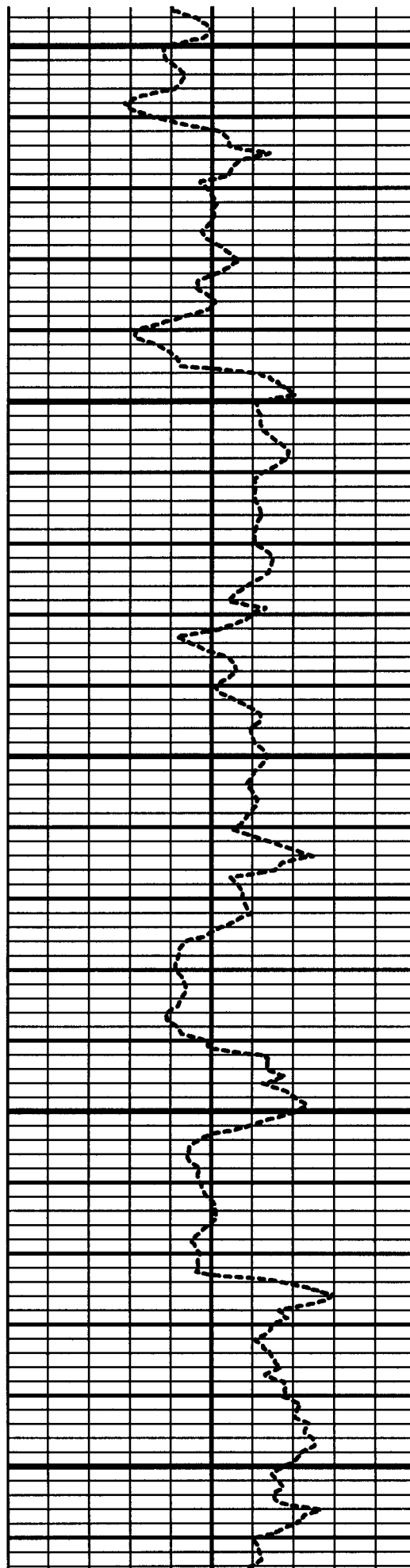
1200

1250

1300

1350

1400



s: 23 MD: 1197.00 ft Inc: 70.90
deg Az: 34.30 deg TVD: 955.18
ft

s: 24 MD: 1229.00 ft Inc: 73.40
deg Az: 34.70 deg TVD: 964.99
ft

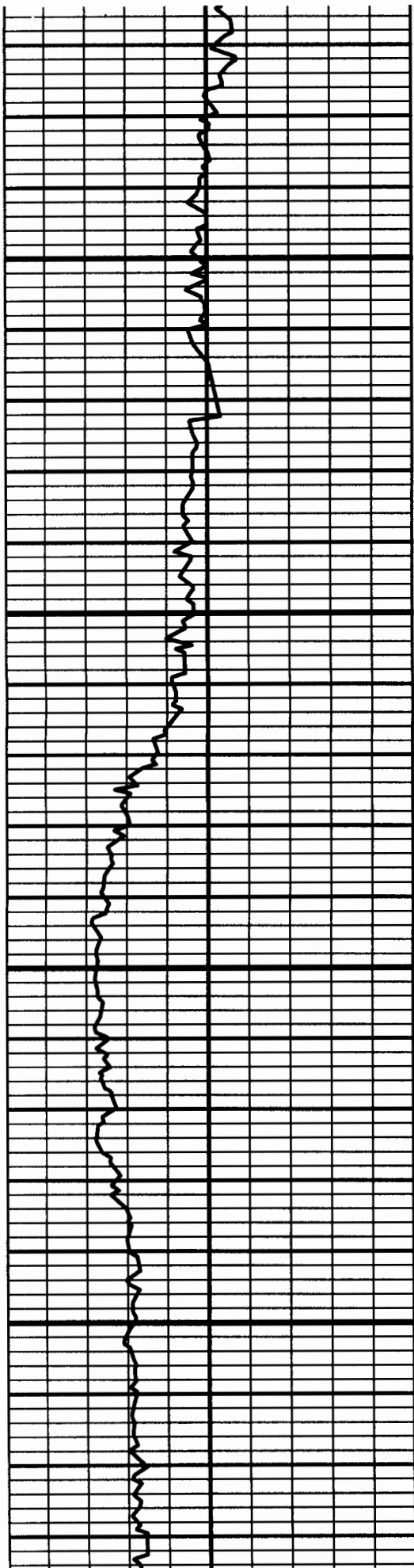
s: 25 MD: 1260.00 ft Inc: 76.50
deg Az: 35.10 deg TVD: 973.04
ft

s: 26 MD: 1292.00 ft Inc: 81.20
deg Az: 36.10 deg TVD: 979.22
ft

s: 27 MD: 1323.00 ft Inc: 85.40
deg Az: 36.20 deg TVD: 982.84
ft

s: 28 MD: 1355.00 ft Inc: 87.10
deg Az: 36.50 deg TVD: 984.93
ft

s: 29 MD: 1387.00 ft Inc: 90.10
deg Az: 37.00 deg TVD: 985.71
ft

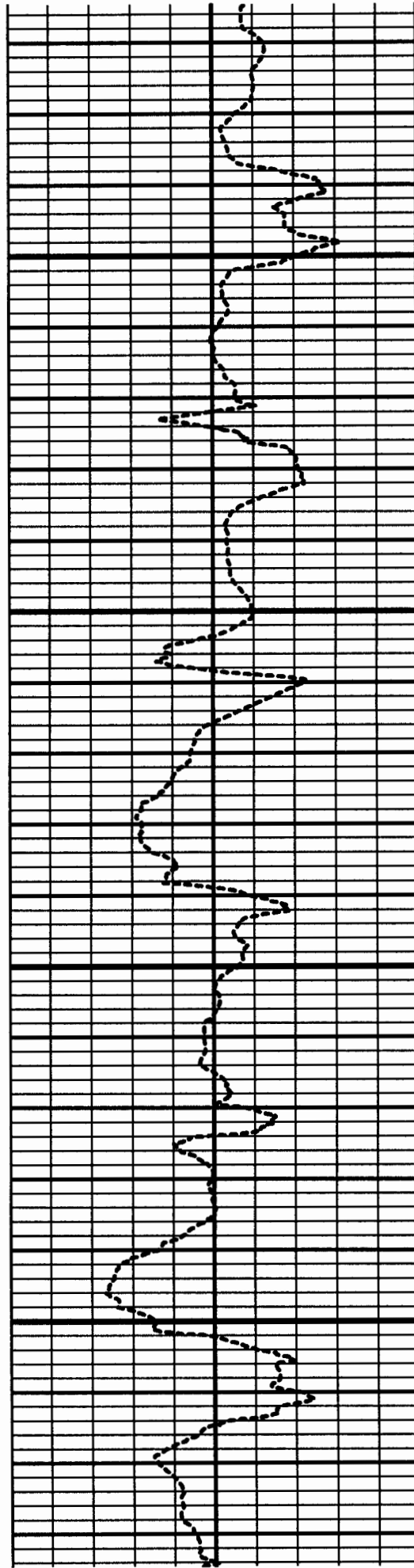


1450

1500

1550

1600



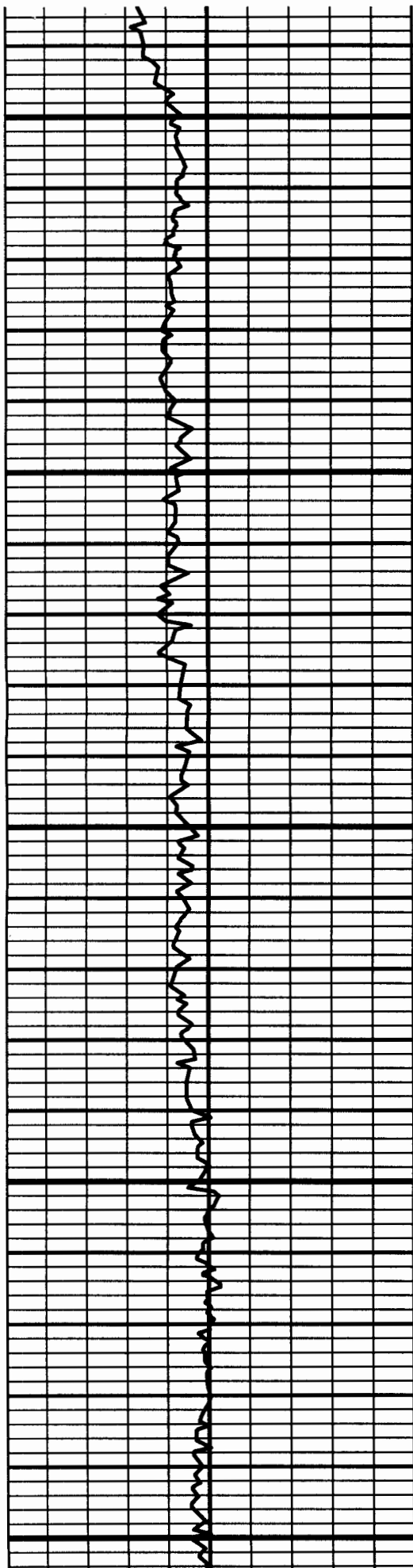
s: 30 MD: 1419.00 ft Inc: 92.50
deg Az: 36.30 deg TVD: 984.99
ft

s: 31 MD: 1451.00 ft Inc: 91.20
deg Az: 35.80 deg TVD: 983.95
ft

s: 32 MD: 1483.00 ft Inc: 92.20
deg Az: 35.20 deg TVD: 983.00
ft

s: 33 MD: 1515.00 ft Inc: 92.20
deg Az: 35.60 deg TVD: 981.78
ft

s: 34 MD: 1547.00 ft Inc: 92.40
deg Az: 35.10 deg TVD: 980.49
ft



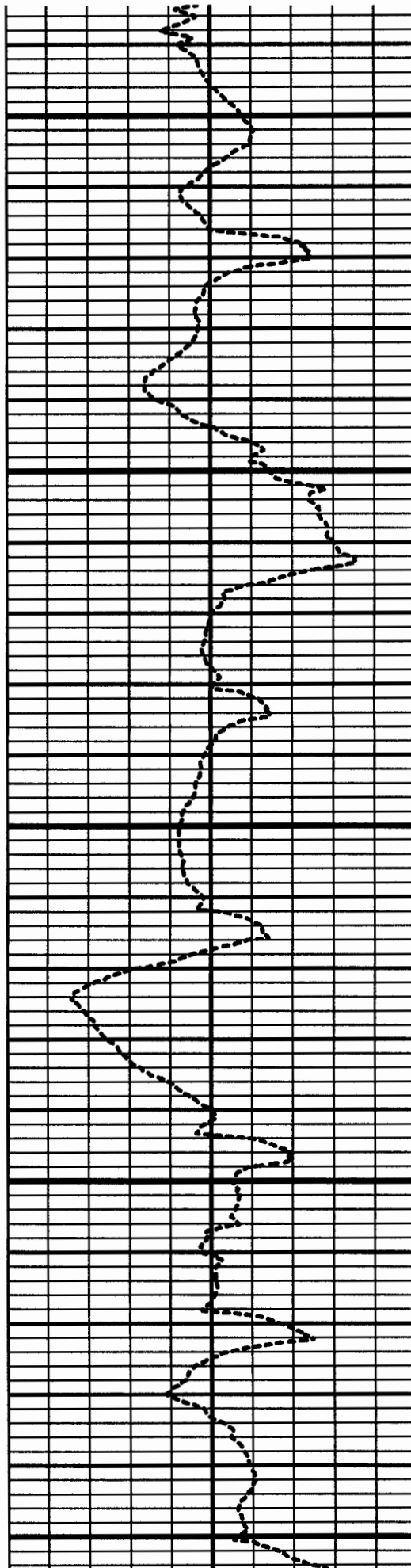
1650

1700

1750

1800

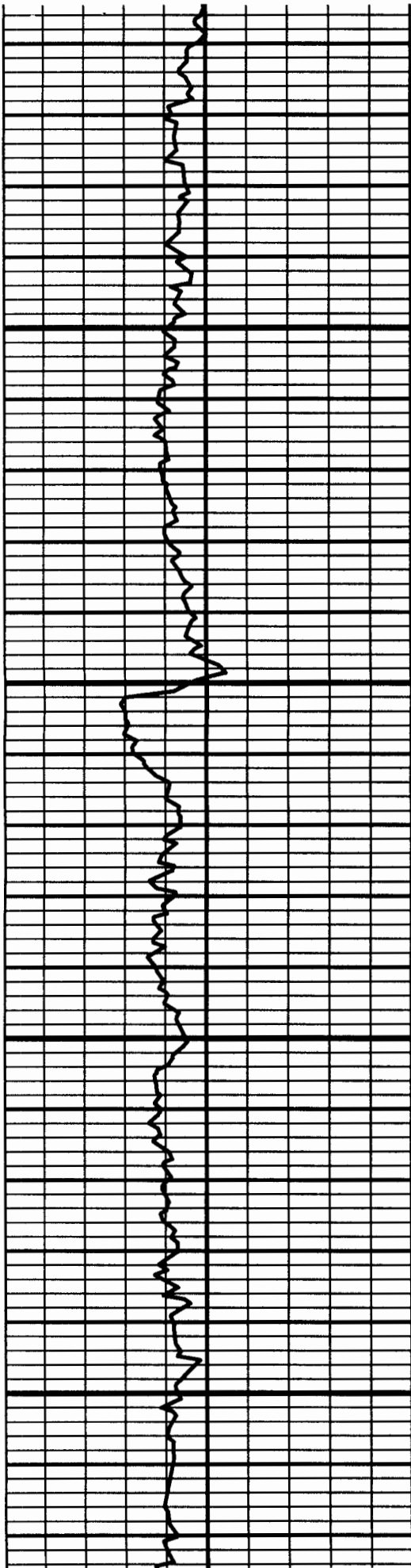
1850



s: 35 MD: 1642.00 ft Inc: 91.10
deg Az: 33.90 deg TVD: 977.59
ft

s: 36 MD: 1738.00 ft Inc: 90.30
deg Az: 35.10 deg TVD: 976.42
ft

s: 37 MD: 1834.00 ft Inc: 89.90
deg Az: 34.20 deg TVD: 976.25
ft

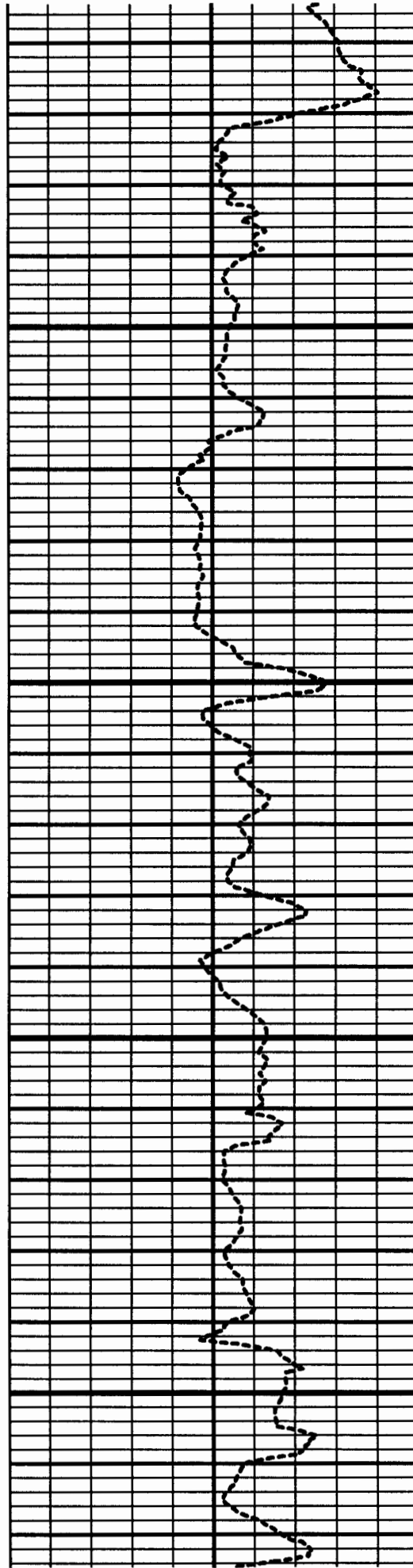


1900

1950

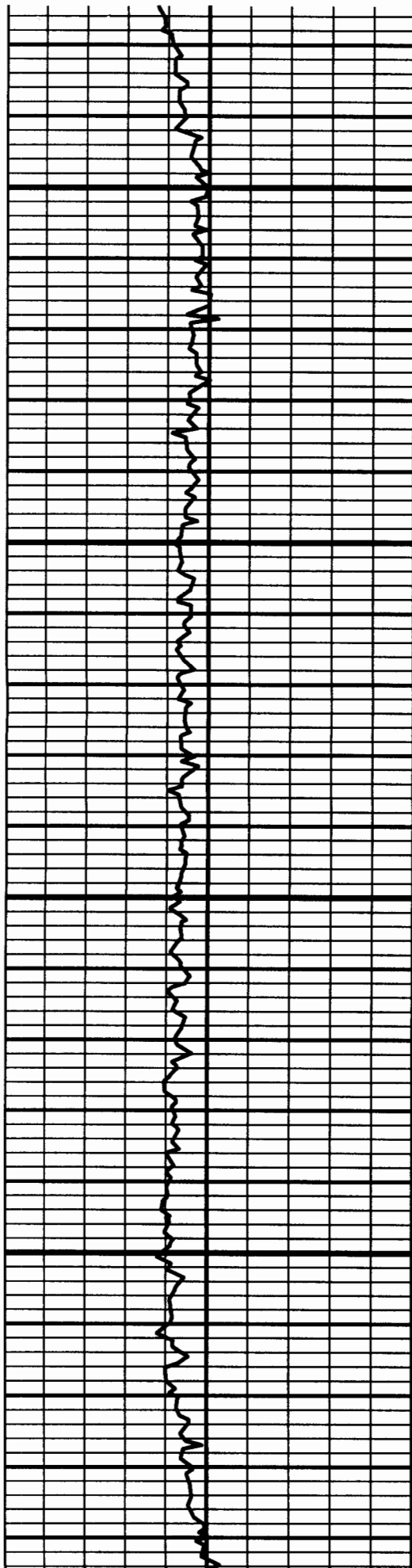
2000

2050



s: 38 MD: 1929.00 ft Inc: 90.80
deg Az: 36.50 deg TVD: 975.67
ft

s: 39 MD: 2025.00 ft Inc: 91.30
deg Az: 35.90 deg TVD: 973.91
ft

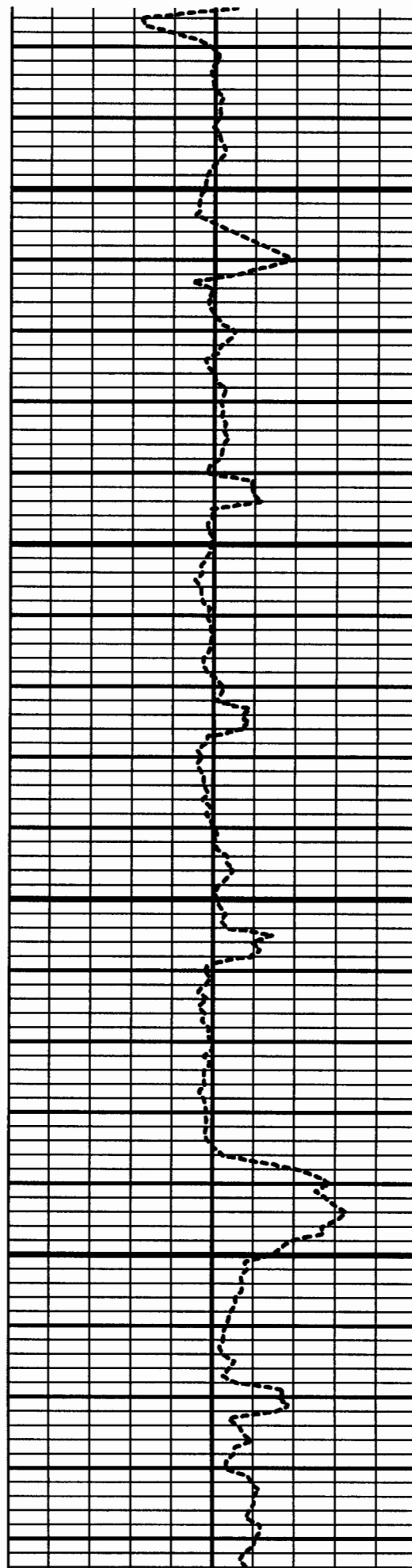


2100

2150

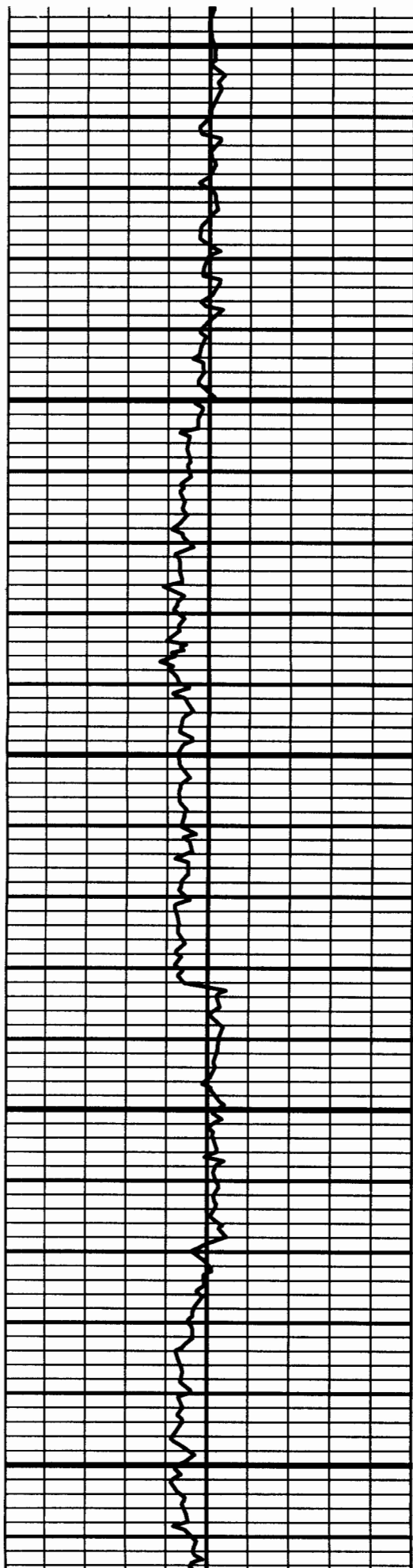
2200

2250



s: 40 MD: 2121.00 ft Inc: 90.30
deg Az: 37.40 deg TVD: 972.57
ft

s: 41 MD: 2216.00 ft Inc: 90.10
deg Az: 36.30 deg TVD: 972.24
ft



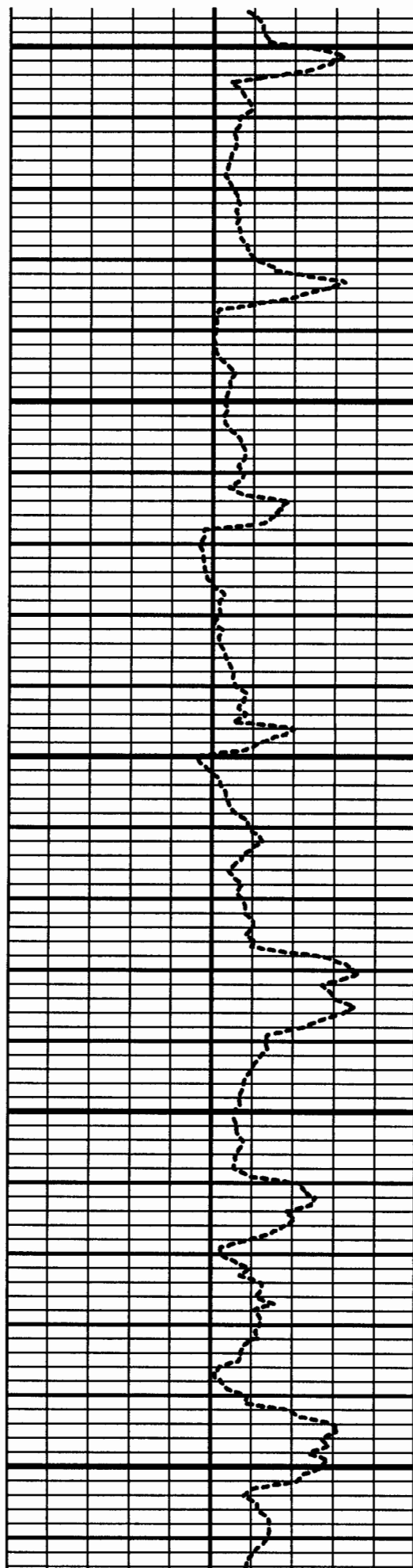
2300

2350

2400

2450

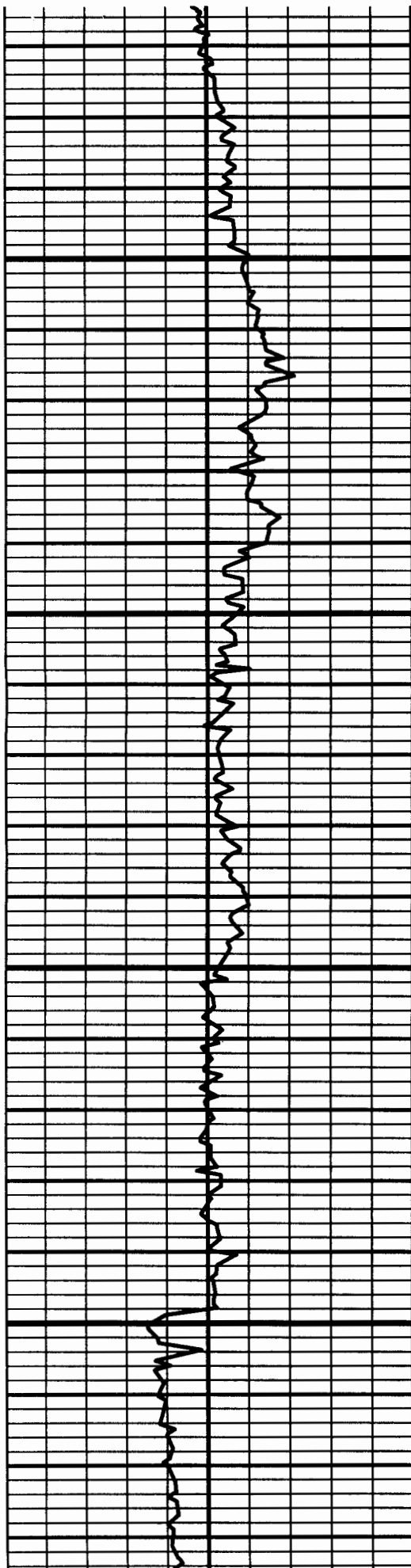
2500



s: 42 MD: 2312.00 ft Inc: 92.00
deg Az: 37.50 deg TVD: 970.48
ft

s: 43 MD: 2408.00 ft Inc: 92.40
deg Az: 36.10 deg TVD: 966.79
ft

s: 44 MD: 2503.00 ft Inc: 90.90
deg Az: 36.50 deg TVD: 964.06
ft

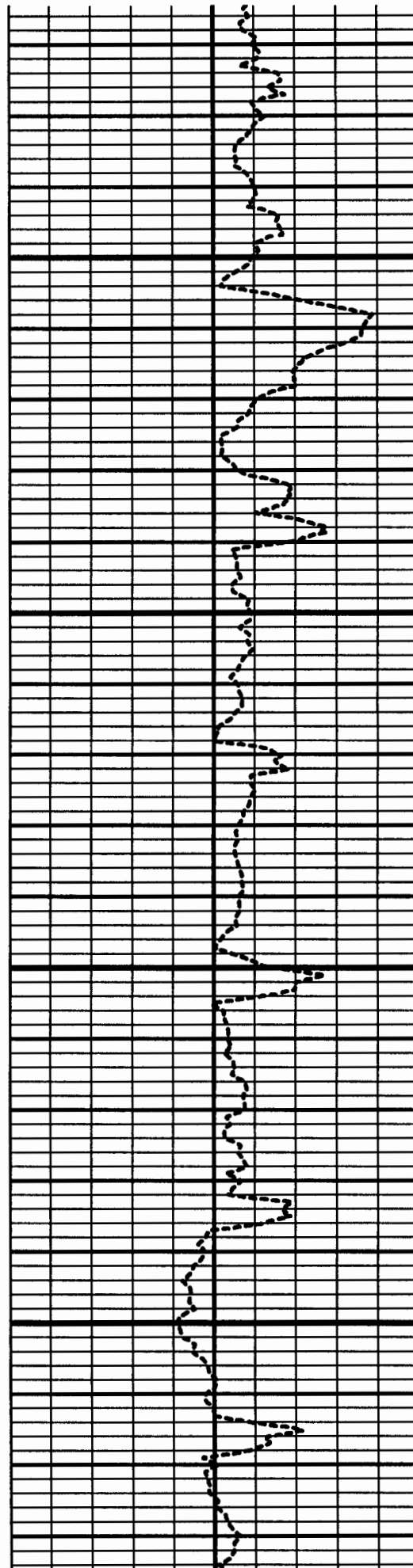


2550

2600

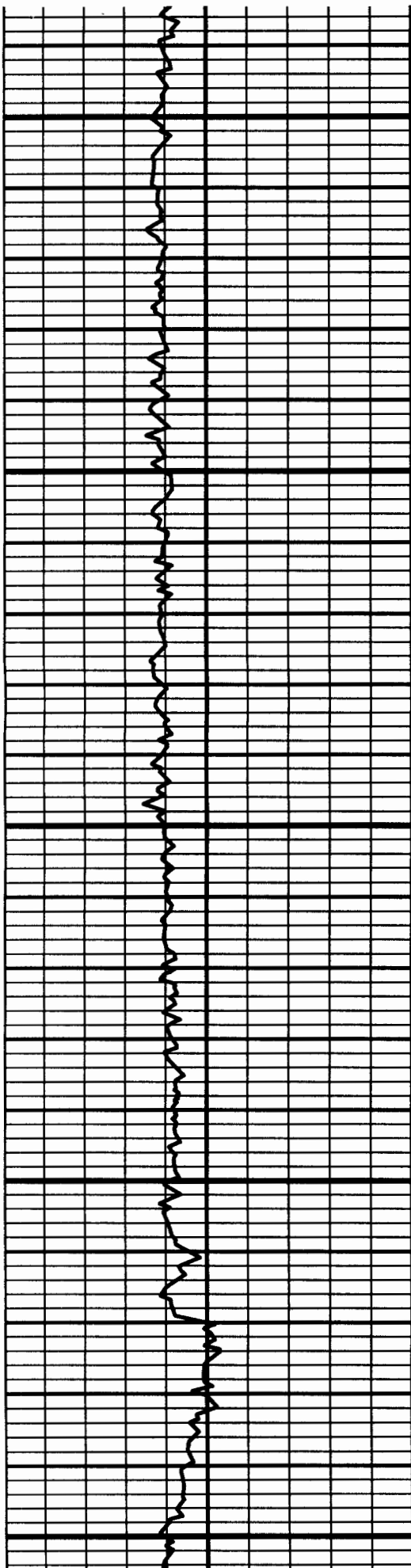
2650

2700



s: 45 MD: 2599.00 ft Inc: 89.20
deg Az: 36.80 deg TVD: 963.97
ft

s: 46 MD: 2695.00 ft Inc: 89.60
deg Az: 36.40 deg TVD: 964.98
ft



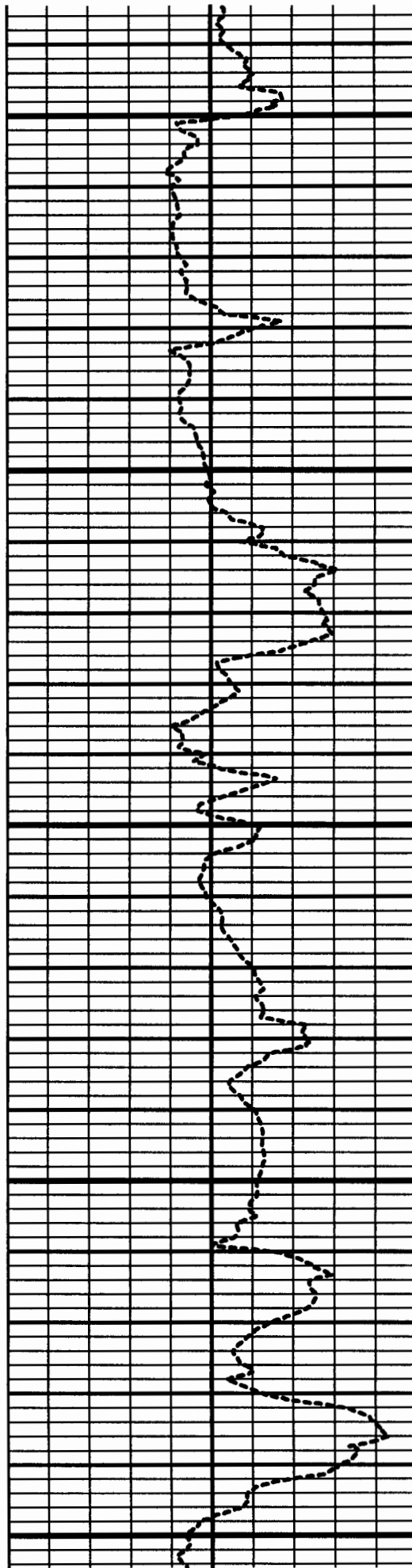
2750

2800

2850

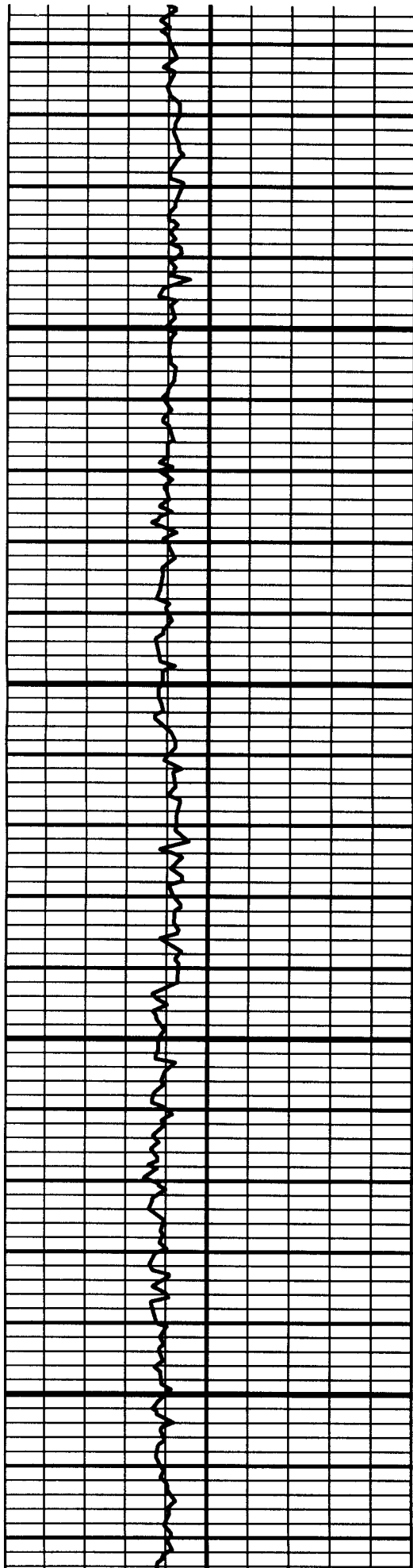
2900

2950



s: 47 MD: 2791.00 ft Inc: 90.60
deg Az: 36.20 deg TVD: 964.81
ft

s: 48 MD: 2886.00 ft Inc: 90.20
deg Az: 38.00 deg TVD: 964.14
ft

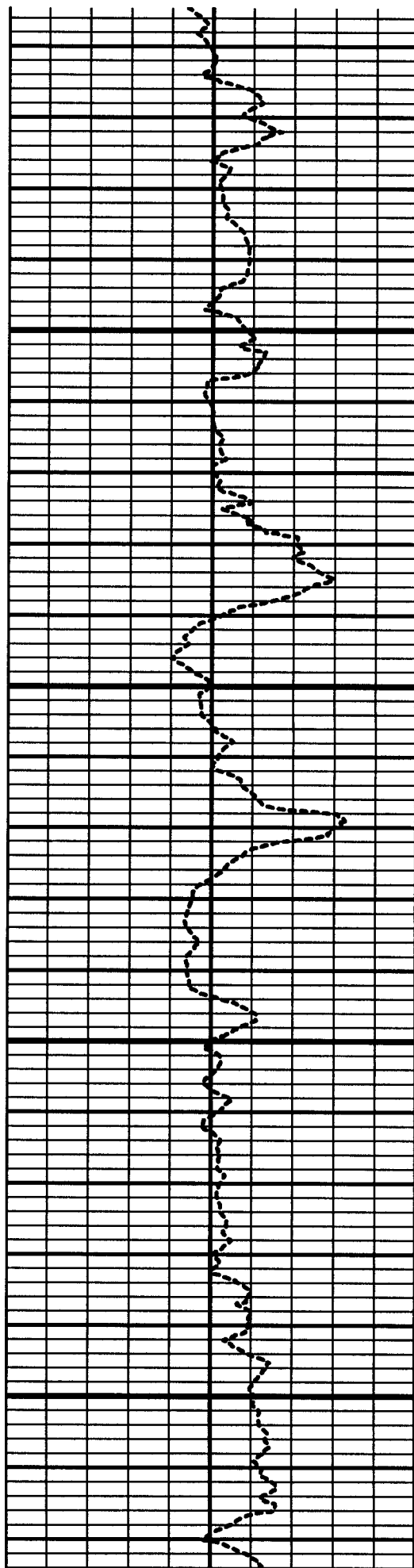


3000

3050

3100

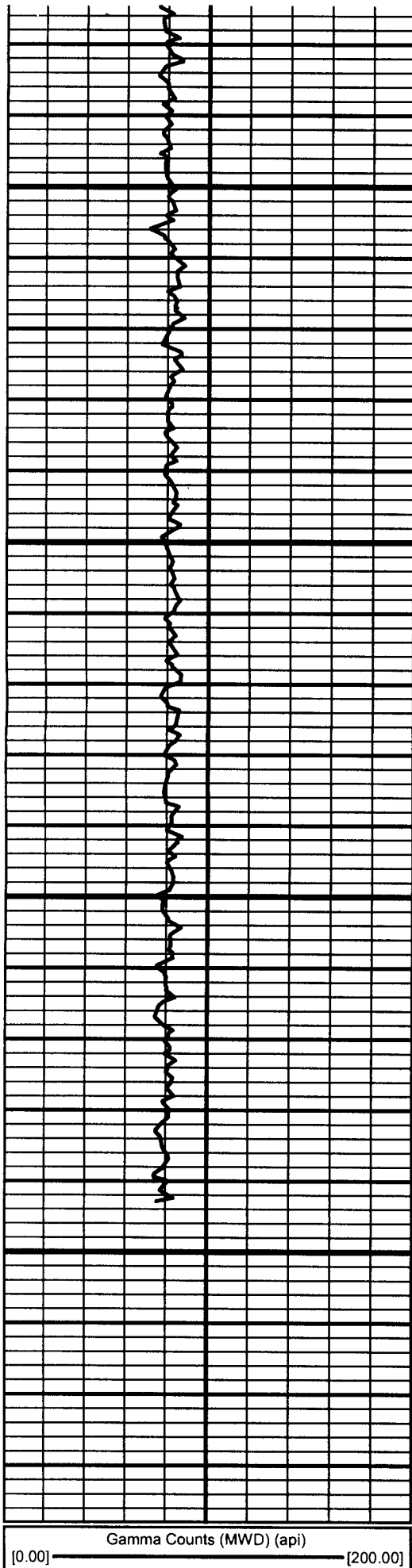
3150



s: 49 MD: 2982.00 ft Inc: 88.50
deg Az: 40.40 deg TVD: 965.23
ft

s: 50 MD: 3078.00 ft Inc: 91.00
deg Az: 41.60 deg TVD: 965.64
ft

s: 51 MD: 3173.00 ft Inc: 91.00



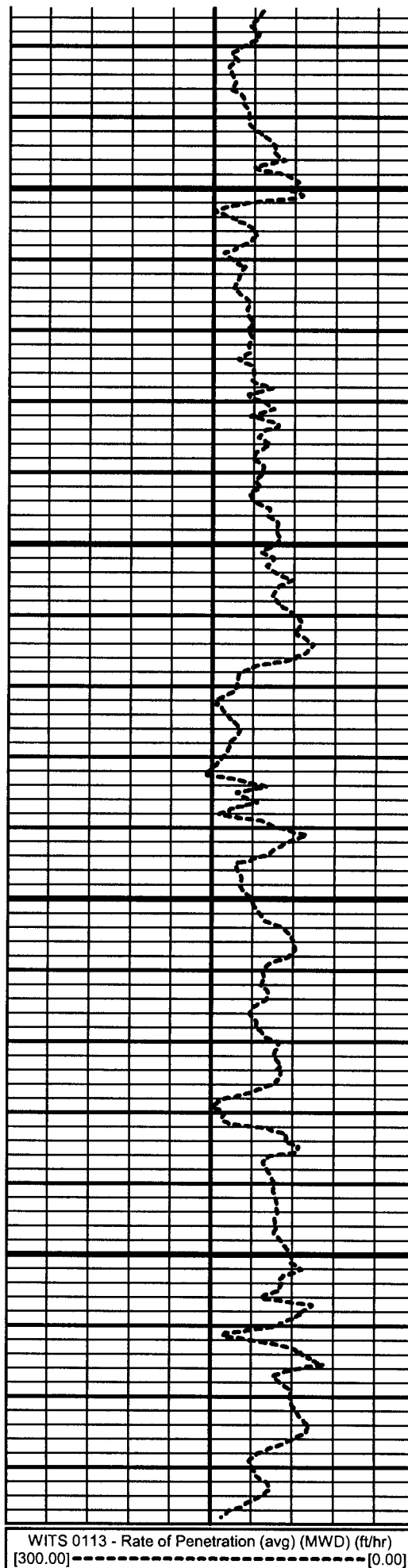
3200

3250

3300

3350

MD
1:240 (ft)



s: 51 MD: 3175.00 ft Inc: 91.00
deg Az: 41.10 deg TVD: 963.98
ft

s: 52 MD: 3269.00 ft Inc: 90.80
deg Az: 39.90 deg TVD: 962.47
ft

s: 53 MD: 3333.00 ft Inc: 89.60
deg Az: 40.50 deg TVD: 962.25
ft



Scientific Drilling

5" = 100'

FEET MD