

**Wellbenders Directional Services**

13901 TX 105
Conroe, TX 77304
936-539-9602

Rose 2H

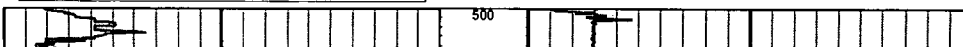
Scale 1"=100' - MD
8/19/2018 8:29 AM

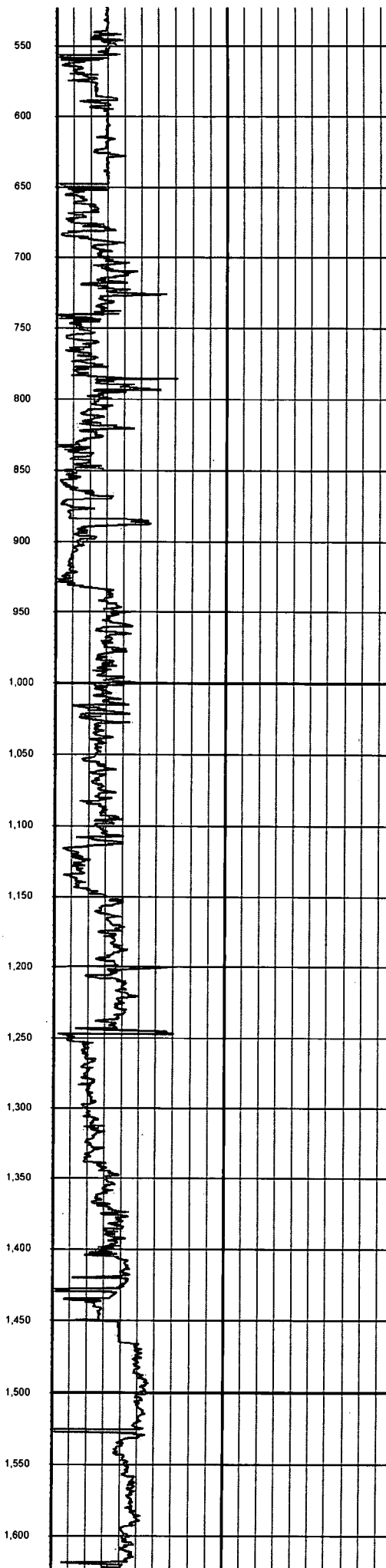
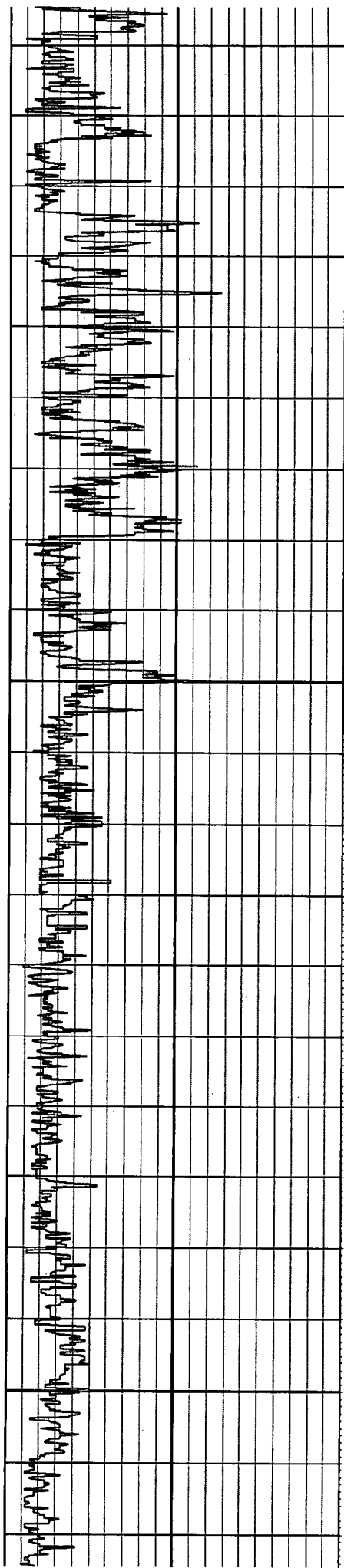
Oper. Company: Percussion Petroleum Operating**Well:** Rose 2H**Field:** N. Seven Rivers; Glorieta-Yeso**Rig:** Silver Oak #1**Well ID:** 30-015-45113**Job Number:** NMDG2018-1134**State:** New Mexico**County:** Eddy**Country:** United States**Location:** Eddy County, New Mexico**Start Date:** 08/11/2018 10:15:00**End Date:** 08/18/2018 21:48:00**Latitude:** 32.680563**Longitude:** -104.427371**Elev GL:** 3378**Elev DF:** 17**Elev KB:** 3395**Notes:** Gamma Ray Log**Operator 1:** Drew Wood**Operator 2:** Allen Miller**Notes:** Gamma Ray Log

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	797	797	636	636	636
Bit Size	12 1/4"	12 1/4"	8 3/4"	8 3/4"	8 1/2"
Cal Factor	1.1266	1.1266	1.1016	1.1016	1.1016
Survey Offset	60.00	60.00	75.00	59.00	51.00
Gamma Offset	44.00	44.00	59.00	75.00	67.00
Resistivity Offset	0.00	0.00	0.00	0.00	0.00
Start Depth	107.00	926.00	1243.00	2113.00	4923.00
StartDate	8/11/2018	8/12/2018	8/13/2018	8/14/2018	8/16/2018
StartTime	02:45	06:29	10:20	07:00	17:30
EndDepth	926.00	1243.00	2113.00	4923.00	8427.00
EndDate	8/11/2018	8/12/2018	8/14/2018	8/16/2018	8/19/2018
EndTime	22:30	19:45	06:45	16:15	07:45
Mud Type	WBM	WBM	WBM	WBM	WBM
Mud Weight	8.5	8.5	8.35	8.4	8.7
Funnel Viscosity	28	28	28	28	28
Plastic Viscosity	1	1	1	1	1
Yield Point	1	1	1	1	1
Gel Strength	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Solids Content	1.3	1.3	0.3	0.2	2.1
Sand Content	Tr	Tr	Tr	Tr	Tr
Mud Alkalinity	0.1	0.1			0.14
Filtrate Alkalinity	0.05 / 0.22	0.05 / 0.22	0 / 0.29	0.3 / 0.27	0.11 0.08
Chlorides	1400	1400	1400	1300	4500
Temperature	101	105	115	124	122
Hole Data			Casing Data		
Size	From	To	Size	From	To
20"	0.00	107.00	20"	0.00	107.00
12 1/4"	107.00	1243.00	9 5/8"	0.00	1242.00
8 3/4"	1243.00	4923.00			
8 1/2"	4923.00	8427.00			

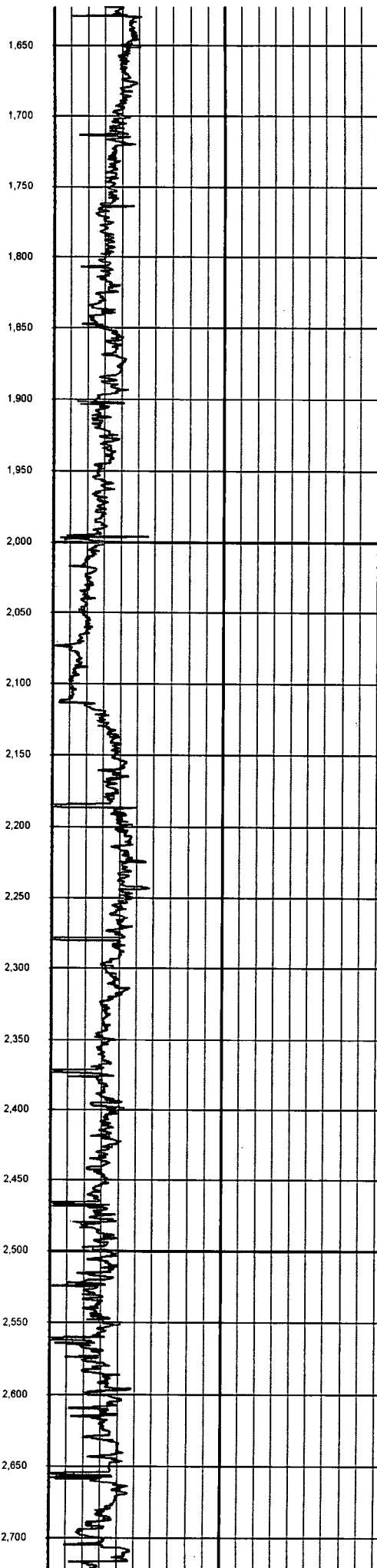
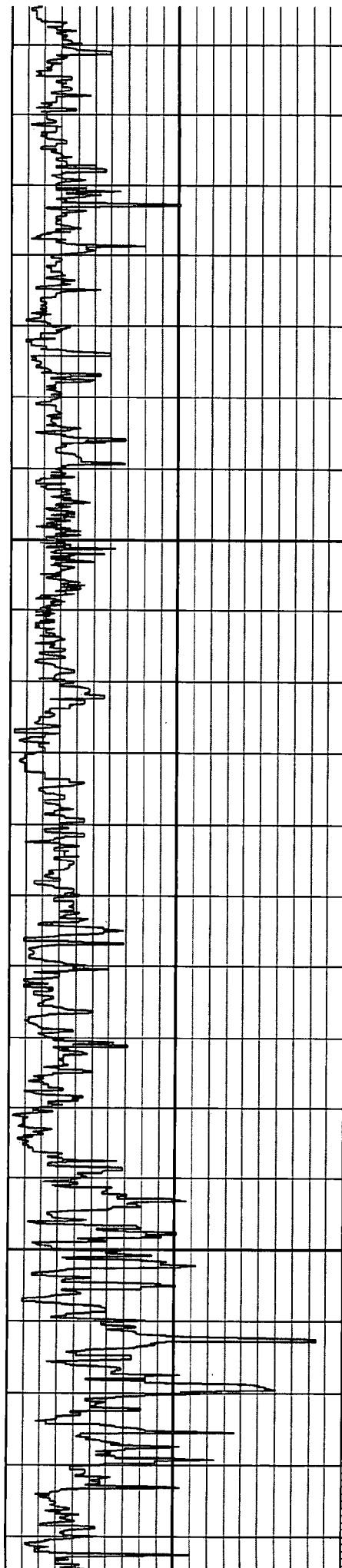
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

0.00 GR(API) 150.00 MD 0.00 ROP(FT/HR) 500.00 Surveys (MD/INC/AZ)

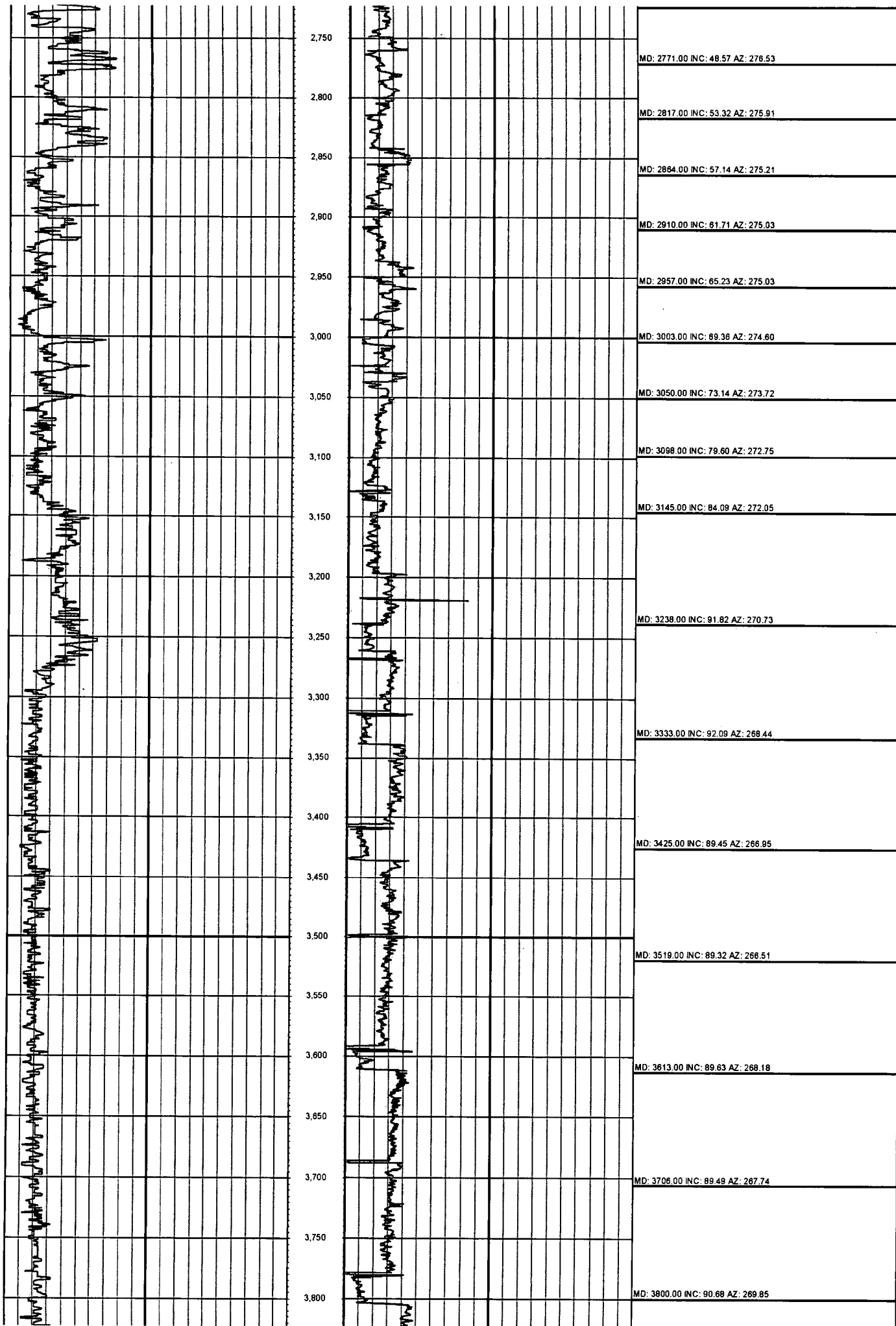


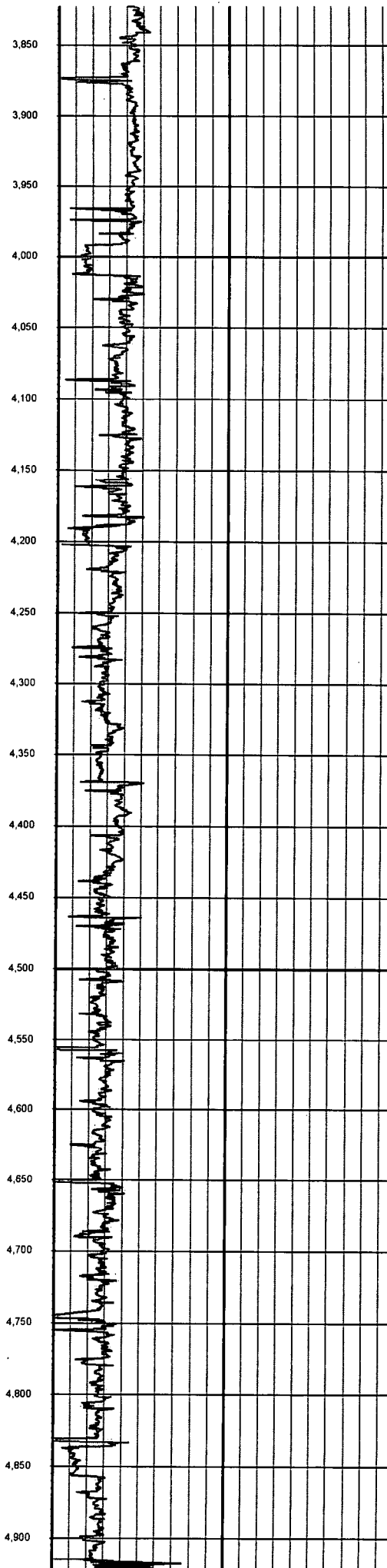
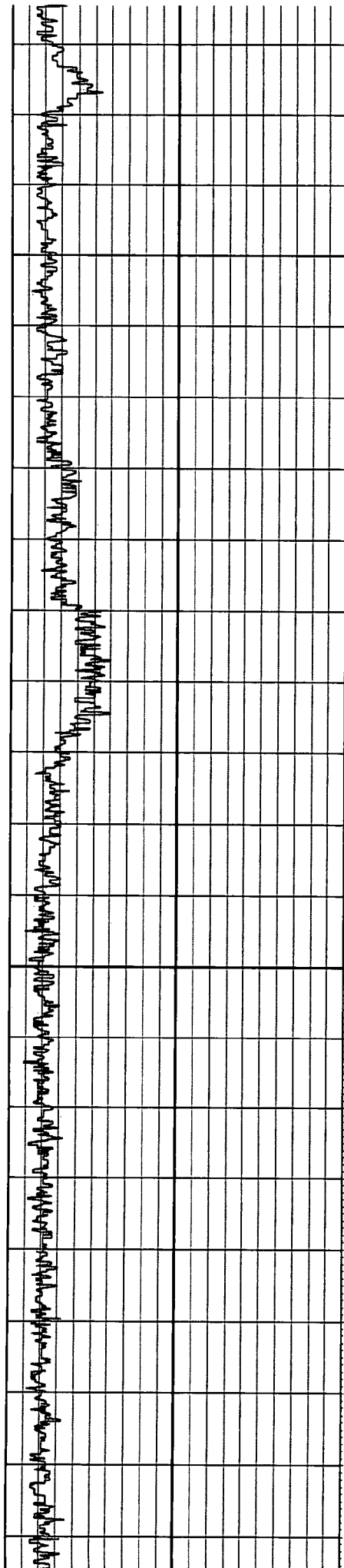


MD: 591.00 INC: 3.30 AZ: 328.65
MD: 683.00 INC: 4.97 AZ: 323.37
MD: 775.00 INC: 7.03 AZ: 322.32
MD: 866.00 INC: 9.19 AZ: 317.49
MD: 958.00 INC: 10.02 AZ: 315.29
MD: 1050.00 INC: 10.07 AZ: 316.96
MD: 1141.00 INC: 10.95 AZ: 313.27
MD: 1183.00 INC: 11.78 AZ: 313.27
MD: 1265.00 INC: 11.47 AZ: 314.06
MD: 1359.00 INC: 11.16 AZ: 315.20
MD: 1453.00 INC: 11.52 AZ: 307.55
MD: 1546.00 INC: 11.89 AZ: 306.32

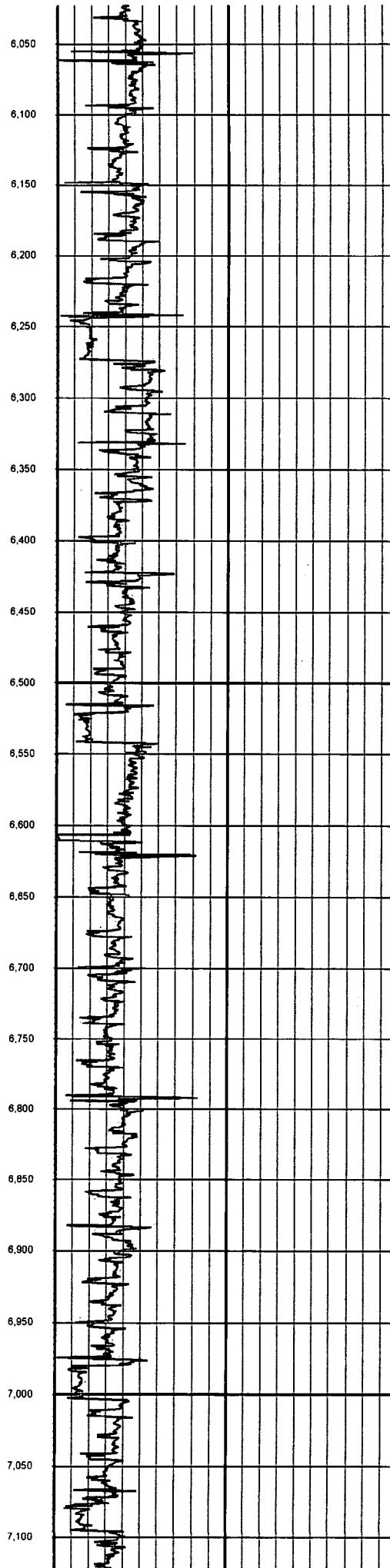
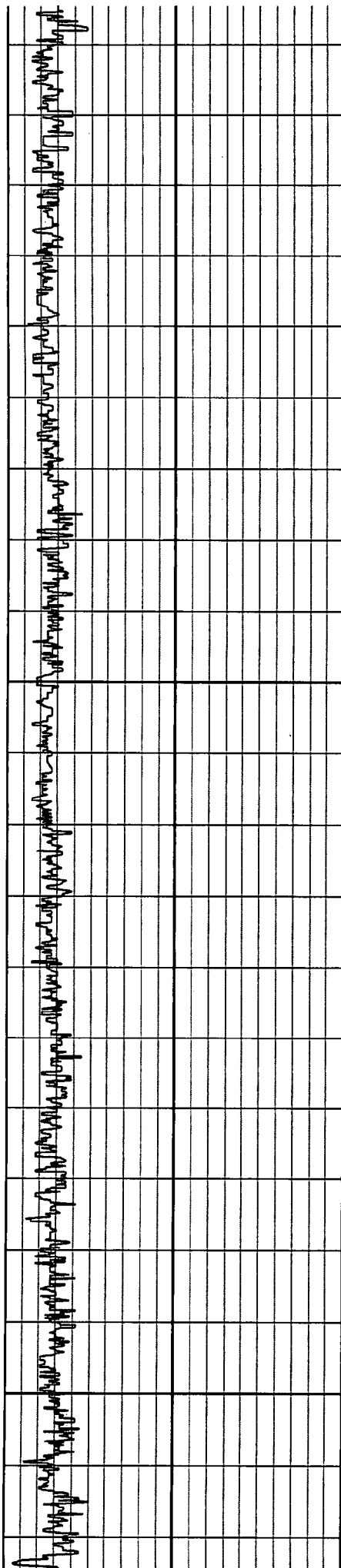


MD: 1641.00 INC: 11.69 AZ: 306.85
MD: 1734.00 INC: 11.52 AZ: 307.55
MD: 1829.00 INC: 11.30 AZ: 308.35
MD: 1924.00 INC: 11.03 AZ: 309.14
MD: 2018.00 INC: 10.86 AZ: 309.58
MD: 2112.00 INC: 10.60 AZ: 309.75
MD: 2206.00 INC: 10.77 AZ: 310.37
MD: 2299.00 INC: 10.81 AZ: 310.72
MD: 2393.00 INC: 12.66 AZ: 303.95
MD: 2440.00 INC: 18.07 AZ: 296.22
MD: 2487.00 INC: 22.20 AZ: 292.35
MD: 2534.00 INC: 26.55 AZ: 289.27
MD: 2581.00 INC: 30.24 AZ: 285.85
MD: 2629.00 INC: 35.12 AZ: 281.45
MD: 2676.00 INC: 39.65 AZ: 279.08
MD: 2724.00 INC: 45.01 AZ: 278.02





MD: 3895.00 INC: 91.52 AZ: 270.29
MD: 4014.00 INC: 88.84 AZ: 270.20
MD: 4109.00 INC: 89.14 AZ: 270.03
MD: 4202.00 INC: 89.19 AZ: 271.26
MD: 4296.00 INC: 89.58 AZ: 271.52
MD: 4391.00 INC: 89.45 AZ: 271.26
MD: 4484.00 INC: 89.45 AZ: 270.90
MD: 4578.00 INC: 89.71 AZ: 270.46
MD: 4669.00 INC: 89.56 AZ: 270.11
MD: 4760.00 INC: 89.41 AZ: 269.32
MD: 4859.00 INC: 89.67 AZ: 270.82



MD: 6084.00 INC: 91.16 AZ: 270.11

MD: 6175.00 INC: 91.47 AZ: 270.64

MD: 6266.00 INC: 91.52 AZ: 268.97

MD: 6358.00 INC: 92.04 AZ: 268.62

MD: 6451.00 INC: 92.35 AZ: 269.08

MD: 6542.00 INC: 90.48 AZ: 269.41

MD: 6635.00 INC: 90.24 AZ: 269.59

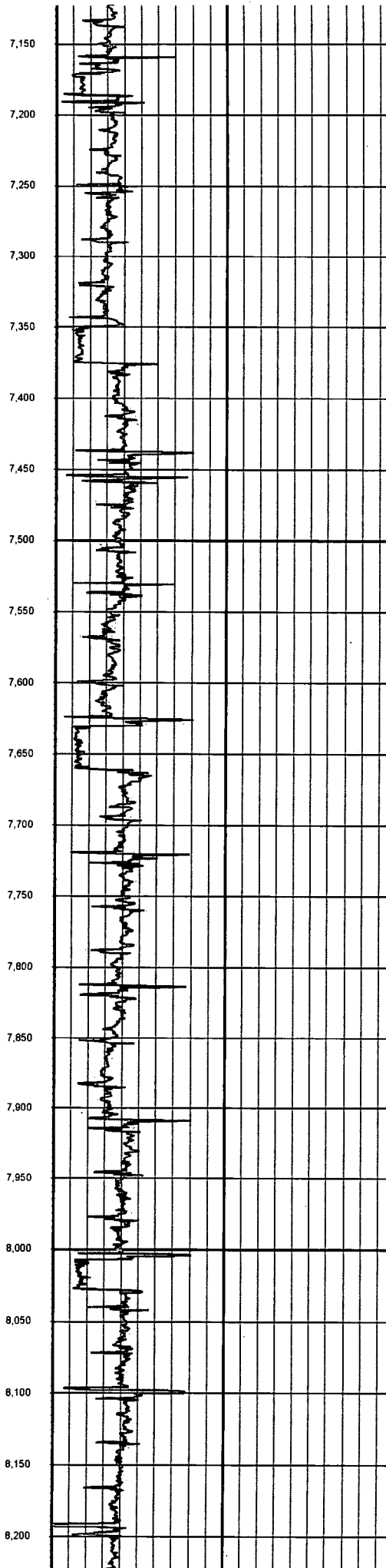
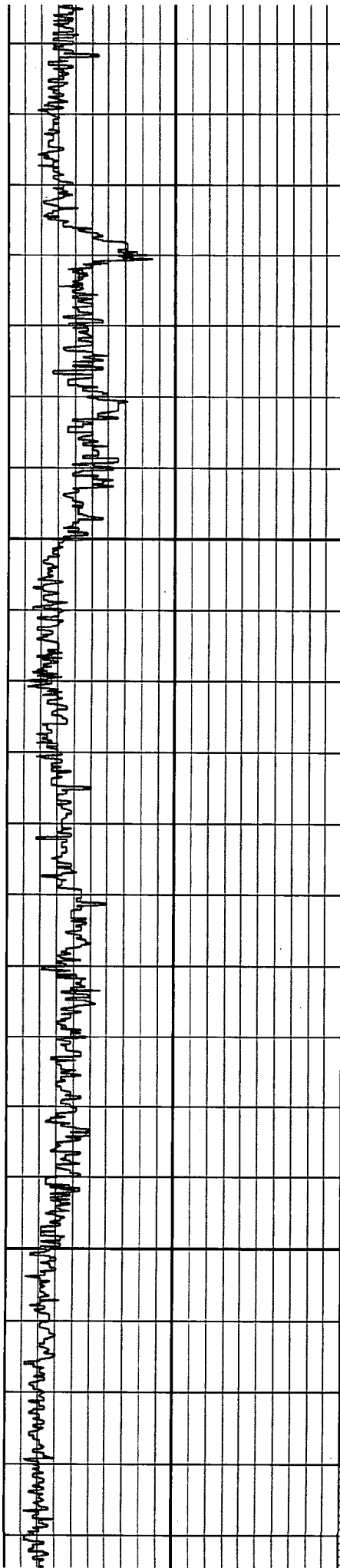
MD: 6726.00 INC: 90.51 AZ: 270.20

MD: 6819.00 INC: 90.95 AZ: 270.90

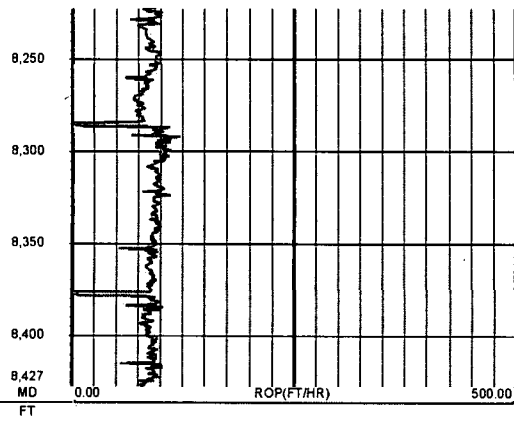
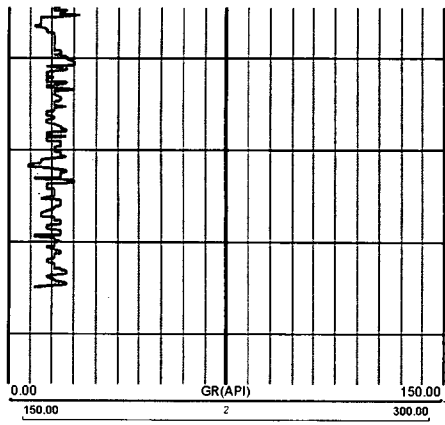
MD: 6910.00 INC: 91.25 AZ: 271.70

MD: 7002.00 INC: 90.07 AZ: 270.73

MD: 7094.00 INC: 90.95 AZ: 270.20



MD: 7185.00 INC: 92.48 AZ: 270.46
MD: 7278.00 INC: 93.36 AZ: 271.08
MD: 7372.00 INC: 92.26 AZ: 270.03
MD: 7465.00 INC: 92.57 AZ: 270.20
MD: 7560.00 INC: 92.48 AZ: 271.08
MD: 7655.00 INC: 91.34 AZ: 269.50
MD: 7748.00 INC: 91.65 AZ: 269.15
MD: 7843.00 INC: 92.31 AZ: 269.59
MD: 7937.00 INC: 92.70 AZ: 270.20
MD: 8032.00 INC: 91.08 AZ: 269.85
MD: 8126.00 INC: 91.30 AZ: 270.11
MD: 8220.00 INC: 91.47 AZ: 270.55



MD: 8312.00 INC: 91.47 AZ: 270.99

MD: 8360.00 INC: 91.60 AZ: 271.17

Surveys (MD/INC/AZ)