



# DIAMOND TESTING

P.O. Box 157  
HOISINGTON, KANSAS 67544  
(620) 653-7550 • (800) 542-7313  
STC 21098.D61

Company Grand Mesa Operating Company Lease & Well No. North Trust No. 1-32  
Elevation 2329 KB Formation Cherokee Effective Pay -- Ft. Ticket No. 1950  
Date 1-17-05 Sec. 32 Twp. 15S Range 22W County Trego State Kansas  
Test Approved By Wesley Hansen Diamond Representative Roger D. Friedly

Formation Test No. 1 Interval Tested from 4,194 ft. to 4,278 ft. Total Depth 4,278 ft.  
Packer Depth 4,189 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
Packer Depth 4,194 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
Depth of Selective Zone Set          ft.

Top Recorder Depth (Inside) 4,175 ft. Recorder Number 21098 Cap. 5,000 psi  
Bottom Recorder Depth (Outside) 4,275 ft. Recorder Number 13387 Cap. 4,000 psi  
Below Straddle Recorder Depth          ft. Recorder Number          Cap.          psi

Drilling Contractor Mallard JV, Inc. Drill Collar Length 245 ft. I.D. 2 1/4 in.  
Mud Type Chemical Viscosity 60 Weight Pipe Length -- ft. I.D. -- in.  
Weight 9.5 Water Loss 8.8 cc. Drill Pipe Length 3,917 ft. I.D. 3 1/2 in.  
Chlorides 3,200 P.P.M. Test Tool Length 32 ft. Tool Size 3 1/2 - IF in.  
Jars: Make Bowen Serial Number No. 1 Anchor Length 22' perf. w/62' drillpipe Size 4 1/2 - FH in.  
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 - XH in.

Blow: 1st Open: Weak, 1/2 in., blow increasing. Off bottom of bucket in 27 mins. No blow back during shut-in.  
2nd Open: Weak surface blow increasing. Off bottom of bucket in 27 1/2 mins. No blow back during shut-in.

Recovered 100 ft. of gas in pipe  
Recovered 77 ft. of gassy & muddy oil = 1.093400 bbls. (Grind out: 2%-gas; 34%-mud; 64%-oil)  
Recovered 124 ft. of gassy & heavy oil cut mud = 1.760800 bbls. (Grind out: 8%-gas; 45%-oil; 47%-mud)  
Recovered 245 ft. of gas & mud cut oil = 1.205400 bbls. (Grind out: 22%-gas; 36%-mud; 42%-oil)  
Recovered 446 ft. of TOTAL FLUID = 4.059600 bbls.  
Remarks Diesel fuel in bucket.  
Tool Sample Grind Out: 10%-gas; 40%-oil; 50%-mud

Time Set Packer(s) 5:42 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 8:42 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 116°  
Initial Hydrostatic Pressure ..... (A) 2007 P.S.I.  
Initial Flow Period ..... Minutes 30 (B) 13 P.S.I. to (C) 125 P.S.I.  
Initial Closed In Period ..... Minutes 45 (D) 1264 P.S.I.  
Final Flow Period ..... Minutes 45 (E) 130 P.S.I. to (F) 185 P.S.I.  
Final Closed In Period ..... Minutes 60 (G) 1263 P.S.I.  
Final Hydrostatic Pressure ..... (H) 2007 P.S.I.



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**FLUID SAMPLE DATA**

Company Grand Mesa Operating Company

Lease & Well No. North Trust No. 1-32

Date 1-17-05 Sec. 32 Twp. 15 S Range 22 W

Formation Test No. 1 Interval Tested From 4,194 ft. to 4,278 ft. Total Depth 4,278 ft.

Formation Cherokee

	<u>MUD PIT</u>	<u>RECOVERY</u>
Viscosity	<u>60</u> CP	<u>--</u> CP
Weight	<u>9.5</u>	<u>--</u>
Water Loss	<u>8.8</u> CC	<u>--</u> CC
PH Factor	<u>9.5</u>	<u>--</u>

	<u>RESISTIVITY</u>	<u>CHLORIDE CONTENT</u>
Recovery Water	<u>-- @ -- °F.</u>	<u>--</u> ppm
Recovery Mud	<u>-- @ -- °F.</u>	<u>--</u> ppm
Recovery Mud Filtrate	<u>-- @ -- °F.</u>	<u>--</u> ppm
Mud Pit Sample	<u>1.60 @ 63 °F.</u>	<u>4,200</u> ppm
Mud Pit Sample Filtrate	<u>1.70 @ 65 °F.</u>	<u>3,800</u> ppm

Sample Taken By ROGER D. FRIEDLY

Witness By WESLEY HANSEN

Remarks Pit filtrate triton dish chlorides were 3,200 Ppm

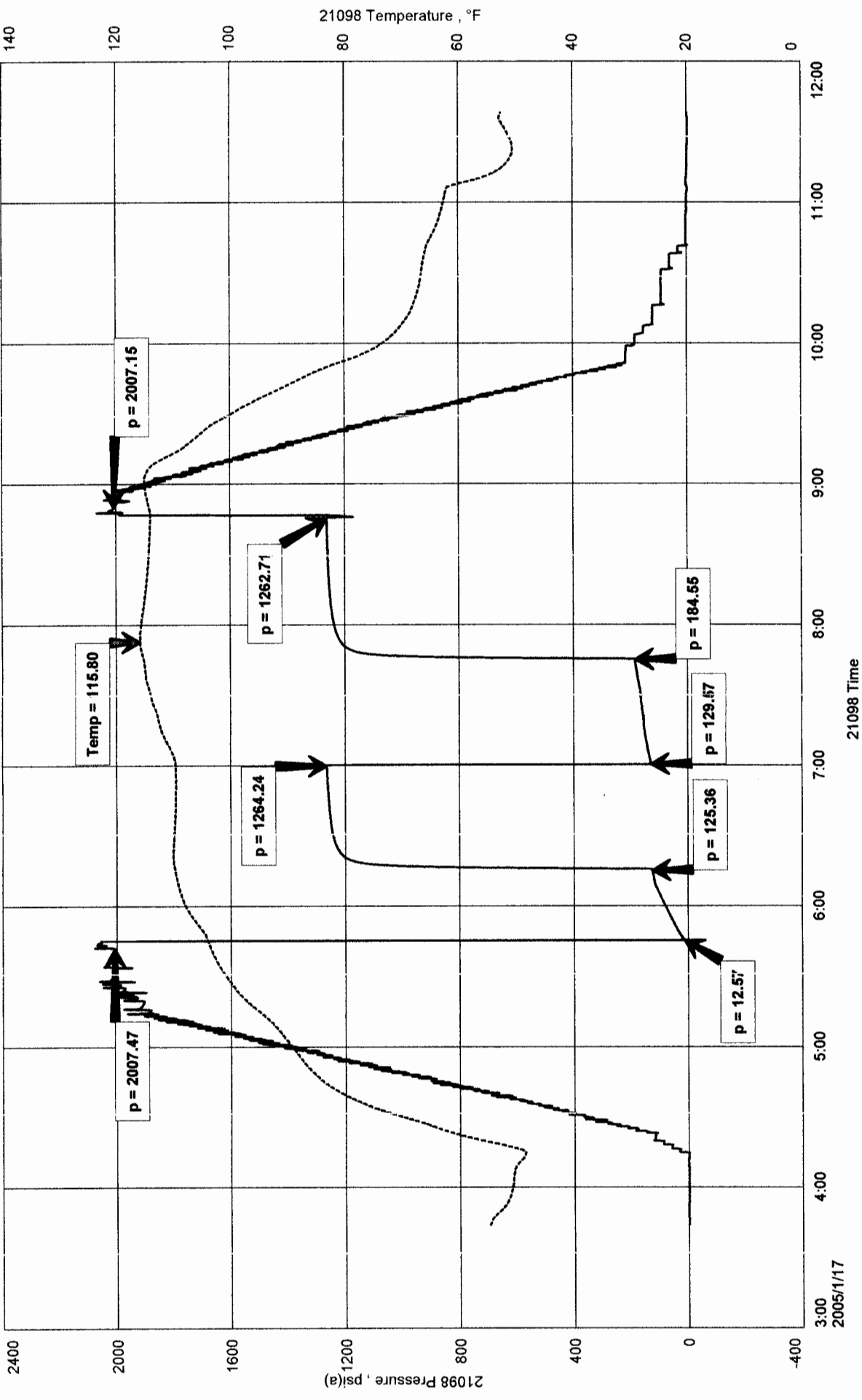
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GRAND MESA OPERATION COMPANY  
 DST #1 CHEROKEE 4,194' - 4,278'  
 Start Test Date: 2005/01/17  
 Final Test Date: 2005/01/17

NORTH TRUST # 1-32  
 Formation: DST #1 CHEROKEE 4,194' - 4,278'  
 Pool: WILDCAT

# NORTH TRUST # 1-32

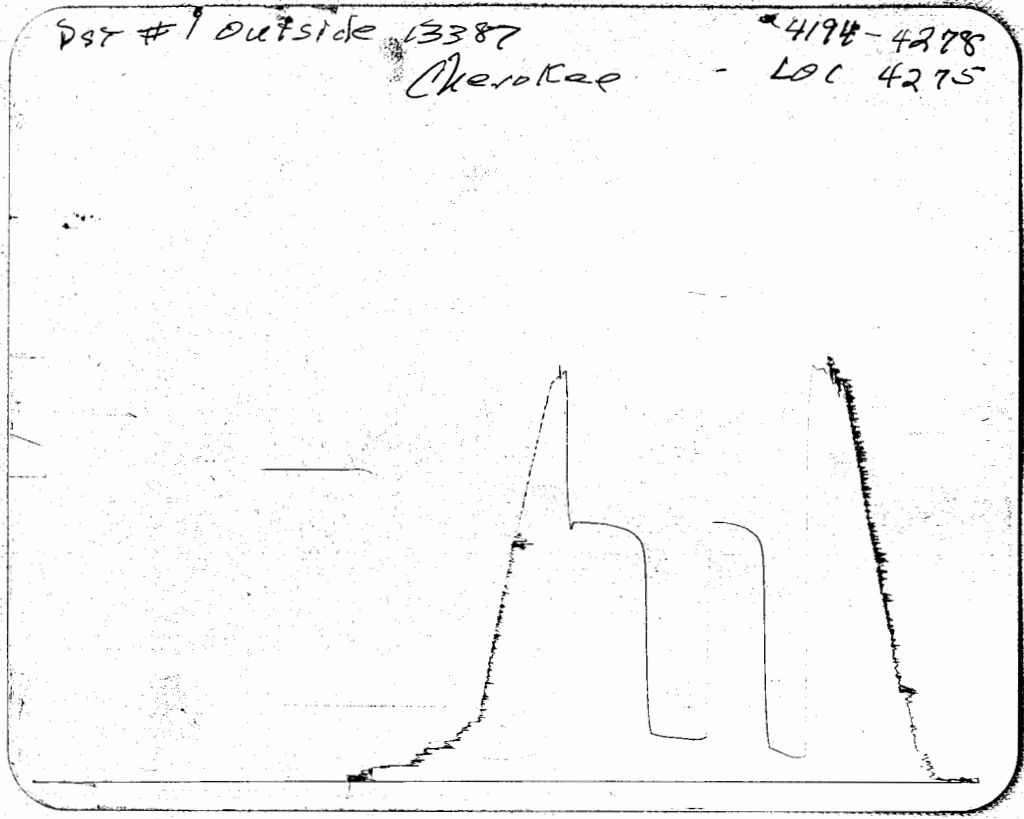


DST #1 outside 13387

Cherokee

4194-4278

LOC 4275





# DIAMOND TESTING

P.O. Box 157  
HOISINGTON, KANSAS 67544  
(620) 653-7550 • (800) 542-7313  
STC 21098.D62

Company Grand Mesa Operating Company Lease & Well No. North Trust No. 1-32  
Elevation 2329 KB Formation Cherokee Effective Pay      Ft. Ticket No. 1951  
Date 1-17-05 Sec. 32 Twp. 15S Range 22W County Trego State Kansas  
Test Approved By Wesley Hansen Diamond Representative Roger D. Friedly

Formation Test No. 2 Interval Tested from 4,270 ft. to 4,285 ft. Total Depth 4,285 ft.  
Packer Depth 4,265 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.  
Packer Depth 4,270 ft. Size 6 3/4 in. Packer Depth      ft. Size      in.

Depth of Selective Zone Set      ft.  
Top Recorder Depth (Inside) 4,251 ft. Recorder Number 21098 Cap. 5,000 psi  
Bottom Recorder Depth (Outside) 4,282 ft. Recorder Number 13387 Cap. 4,000 psi  
Below Straddle Recorder Depth      ft. Recorder Number      Cap.      psi

Drilling Contractor Mallard JV, Inc. Drill Collar Length 245 ft. I.D. 2 1/4 in.  
Mud Type Chemical Viscosity 56 Weight Pipe Length      ft. I.D.      in.  
Weight 9.3 Water Loss 8.8 cc. Drill Pipe Length 3,993 ft. I.D. 3 1/2 in.  
Chlorides 3,400 P.P.M. Test Tool Length 32 ft. Tool Size 3 1/2 - IF in.  
Jars: Make Bowen Serial Number No. 1 Anchor Length 15 ft. Size 4 1/2 - FH in.  
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 - XH in.

Blow: 1st Open: Weak, 1/2 in., blow increasing. Off bottom of bucket in 19 1/2 mins. Fair, 2 in., blow back during shut-in.  
2nd Open: Weak, 1/8 in., blow increasing. Off bottom of bucket in 18 mins. Fair, 2 in., blow back during shut-in.

Recovered 200 ft. of gas in pipe  
Recovered 196 ft. of clean oil = 2.783200 bbls. (Gravity: 39 @ 60°)  
Recovered 129 ft. of gas & oil cut watery mud = 1.256440 bbls. (Grind out: 10%-gas; 5%-oil; 20%-water; 65%-mud)  
Recovered 183 ft. of muddy salt water with a trace of oil = .900360 bbls. (Grind out: 2%-mud; 98%-water)  
Recovered 508 ft. of TOTAL FLUID = 4.940000 bbls.

Remarks Tool Sample Grind Out: 2%-mud; 42%-oil; 56%-water

Time Set Packer(s) 9:47 ~~XXM~~ P.M. Time Started Off Bottom 12:47 ~~XXM~~ A.M. Maximum Temperature 122°  
Initial Hydrostatic Pressure ..... (A) 2020 P.S.I.  
Initial Flow Period ..... Minutes 30 (B) 32 P.S.I. to (C) 130 P.S.I.  
Initial Closed In Period ..... Minutes 45 (D) 1298 P.S.I.  
Final Flow Period ..... Minutes 45 (E) 139 P.S.I. to (F) 209 P.S.I.  
Final Closed In Period ..... Minutes 60 (G) 1297 P.S.I.  
Final Hydrostatic Pressure ..... (H) 2034 P.S.I.



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**FLUID SAMPLE DATA**

Company Grand Mesa Operating Company

Lease & Well No. North Trust No. 1-32

Date 1-17-05 Sec. 32 Twp. 15 S Range 22 W

Formation Test No. 2 Interval Tested From 4,270 ft. to 4,285 ft. Total Depth 4,285 ft.

Formation Cherokee

	<u>MUD PIT</u>	<u>RECOVERY</u>	
Viscosity	<u>56</u> CP	<u>--</u> CP	
Weight	<u>9.3</u>	<u>--</u>	
Water Loss	<u>8.8</u> CC	<u>--</u> CC	
PH Factor	<u>10.0</u>	<u>--</u>	<u>Water</u> <u>7.0</u>

	<u>RESISTIVITY</u>	<u>CHLORIDE CONTENT</u>
Recovery Water	<u>.36 @ 68 °F.</u>	<u>18,500 ppm</u>
Recovery Mud	<u>-- @ -- °F.</u>	<u>-- ppm</u>
Recovery Mud Filtrate	<u>-- @ -- °F.</u>	<u>-- ppm</u>
Mud Pit Sample	<u>1.50 @ 66 °F.</u>	<u>4,400 ppm</u>
Mud Pit Sample Filtrate	<u>1.60 @ 68 °F.</u>	<u>4,000 ppm</u>

Sample Taken By ROGER D. FRIEDLY

Witness By WESLEY HANSEN

Remarks Pit filtrate triton dish chlorides were 3,400 Ppm  
Recovery water dish chlorides were 15,500 Ppm

## GENERAL INFORMATION

### Client Information:

Company: GRAND MESA OPERATING COMPANY  
Contact: LARRY FRIEND  
Phone:                      Fax:                      e-mail:

### Site Information:

Contact: WESLEY HANSEN  
Phone:                      Fax:                      e-mail:

### Well Information:

Name: GRAND MESA OPERATING COMPANY  
Operator: NORTH TRUST # 1-32  
Location-Downhole: DST #2 CHEROKEE 4,270' - 4,285'  
Location-Surface: SEC 32-15S-22W, TREGO COUNTY

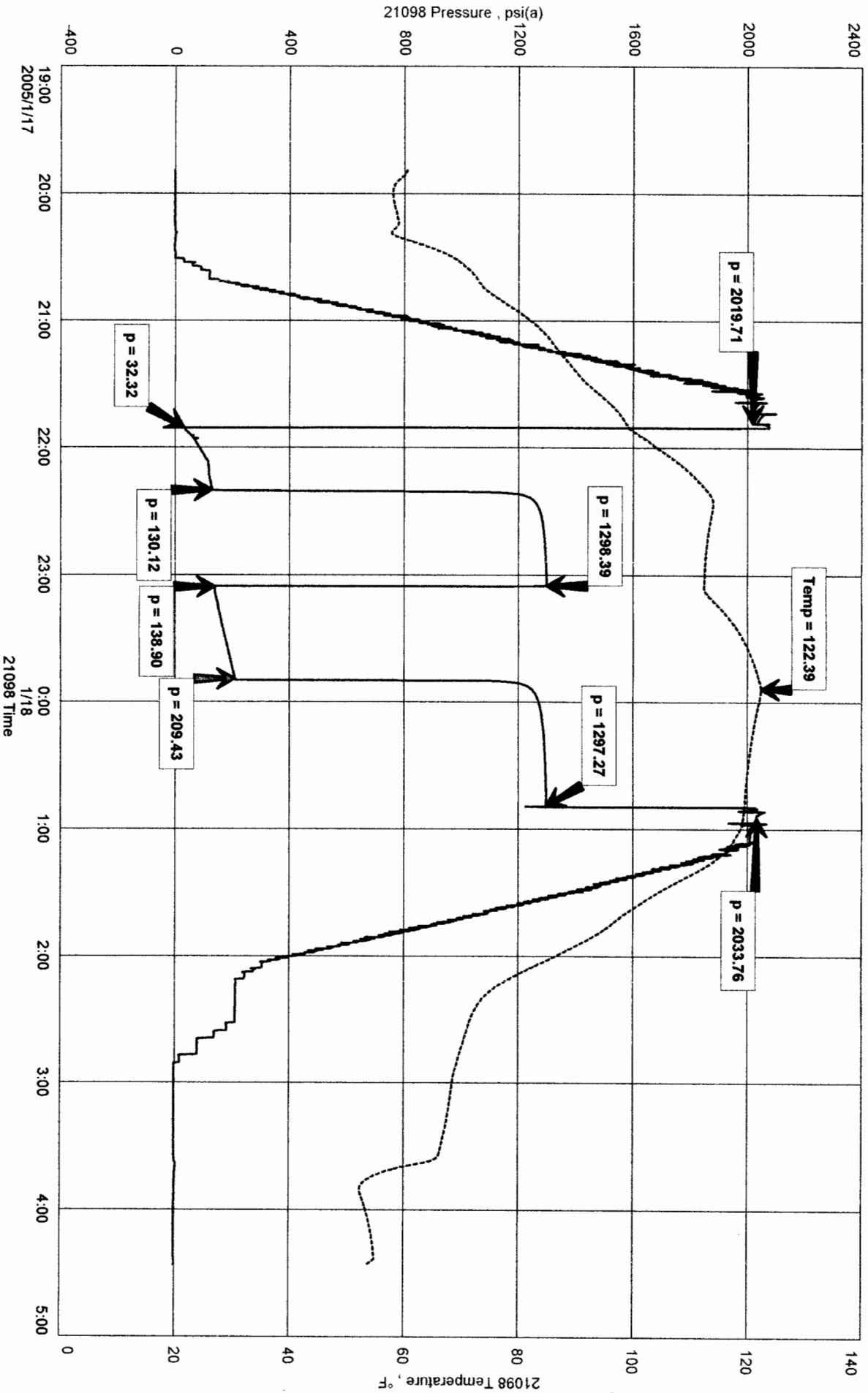
### Test Information:

Company: DIAMOND TESTING  
Representative: ROGER D. FRIEDLY  
Supervisor: WESLEY HANSEN  
Test Type: CONVENTIONAL                      Job Number:  
Test Unit: NO 1  
Start Date: 2005/01/17                      Start Time: 19:46:00  
End Date: 2005/01/18                      End Time: 04:23:00  
Report Date:                      Prepared By:  
Remarks:                      Qualified By:

RECOVERED: 200' GAS IN PIPE  
196' CLEAN OIL 39 GRAVITY @ 60 deg>  
129' G&OCWM (10% GAS, 5% OIL, 20% WTR, 65% MUD)  
183' MSW ( 2% MUD, 98% WTR, WITH A TRACE OF OIL)  
508' TOTAL FLUID

TOOL SAMPLE: 2% MUD, 42% OIL, 56% WTR

# GRAND MESA OPERATING COMPANY



DST # 2 outside 13387  
Cherokee

4270-4285  
LOC 4282

