

Tour Report

Date 9/28/83

T.D. 1090

Δ T.D. (tour) 50

Time 8 PM to 6 AM

Current Status Drilling Ahead

Activity Since Last Report DRILLED OUT LAST OF CEMENT AND RUBBER PLUGS) AND THEN EXTENSIVELY CIRCULATED HOLE TO CLEAR CEMENT & RUBBER CUTTINGS FROM HOLE UNTIL 11:30; 11:30-~~12~~ DRILLING TIL END OF SHIFT

Drilling Rates

1050-1055 ~ 4' / HR

1060-1070 ~ 4' / HR

Drilling Breaks

1078-1090 = 18 MIN

Mud Loss/Gain

Mud Temp.

IN	Out	Time	Depth
<del>27.7</del>	<del>10.56</del>	<del>2 AM</del>	<del>1050</del>
<u>26.5</u>	<u>25.5</u>	<u>2 AM</u>	<u>1060</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Mud: Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_

Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_

H<sub>2</sub>S 0

Surveys

Additional Comments:

SAMPLE AT 1050' 95% CEMENT + RUBBER, CIRCULATED FURTHER TO TRY TO CLEAR UP PASSAGE, SLOW DRILLING UNTIL 1078 FT THEN FAST. WHEN THE CLAY ZONE WAS ENCOUNTERED AND PENETRATED, DRILL MUD TEMPERATURE ROSE FROM 25.7 - 27.3 (HP DRUBE) AND TO 29.1°C ON HAND DIGITAL METER

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Tour Report

Date 7/19

T.D. ~~820~~ 1020 (drill)  $\Delta$  T.D. (tour) 200  
1040 (geol.)

Time 12 PM to 10 AM

Current Status Drilling

Activity Since Last Report \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

driller's  
depths →

Drilling Rates

Drilling Breaks

820 - 840      40 m  
840 - 860      40 m  
1    2-10 m drilling  
1    15 m circ., 5 m change  
2    80 - 70

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
1015 Surface  
\_\_\_\_\_

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN	Out	Time	Depth
	<u>24</u>	<u>24</u>	<u>0200</u>	<u>860</u>
	<u>23</u>	<u>24</u>	<u>0500</u>	<u>940</u>
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Mud: Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_  
Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_

H<sub>2</sub>S 0 ppm

Surveys \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional Comments: Tour report #5 indicates T.D. 840', However, driller says it's 820', based on number of red inserts (protectors) on 4 inch bed. Am continuing consecutive numbering of samples. If driller is correct, this represents depth of bit when sp. taken. Columbia Geoscience without consideration of lag time

Tour Report

Date 9/14/83

T.D. 1060\*  
1040 (acc)

Δ T.D. (tour) 20 ft

Time 10 AM to \_\_\_\_\_

Current Status \_\_\_\_\_

Activity Since Last Report Drilled to T.D., circulated TD @ 13:30, circulated to 15:00, pull up 400'

Drilling Rates

Drilling Breaks

~ 1.5 min/ft to 1020  
3-4 min/ft from 1020-1060

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN	Out	Time	Depth
	<u>25.8</u>	<u>26.7</u>	<u>14:27</u>	<u>1060</u>
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Mud: Visc. 55 Wt. 7.4 Filt. 7-1 LCM (lbs/bbl) ∅  
Alk. 0.5 pH 10.0 Cl (ppm) 150 PP 100 SPM \_\_\_\_\_

H<sub>2</sub>S \_\_\_\_\_

Surveys \_\_\_\_\_

Additional Comments: \* 1060 by the geologists, 1040 by the driller - Discrepancy occurred between 700' and 820'. Will strap out of the hole or log to tell  
Columbia Geoscience

#5

SANDIA NATIONAL LABORATORIES: Newberry Project 1983

Tour Report START 640' 200' Date 9/19/83

T.D. 840 Δ T.D. (tour) 840 Time 2PM to 12 MIDNITE

Current Status \_\_\_\_\_

Activity Since Last Report 2PM - 7PM DRILLING AHEAD (434 @ 680'; 7PM @ 740'); 7PM SHUT DOWN FOR MAINTENANCE UNTIL 8:15'; 8:45 DRILLING; (9:52 PM @ 780')

Drilling Rates	Drilling Breaks
660-680 34 MIN	
680-700 34 MIN	
700-780 35 MIN	
800-820 45 MIN (NEW DRILLER)	

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN	Out	Time	Depth
	24.2	24.6	5:23 PM	700
	24.1	24.6	7 PM	740
	24.1	24.8	11:25 PM	820

Mud: Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_  
 Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_  
 H<sub>2</sub>S \_\_\_\_\_ (C)

Surveys \_\_\_\_\_

Additional Comments:  
LAG TIME 23 MIN AT 800'

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Tour Report

Date Sept 18, 83

T.D. 640 ft

Δ T.D. (tour) 140 ft

Time 4 AM to 2 PM

Current Status Drilling Ahead

Activity Since Last Report 4 AM to 5 AM Rotate 2.5m. while repairing mud pit pump. ~~5:00-5:30~~ 5:00-5:30 Drill, 5:30-7 Min. mud. Drill all day.

Drilling Rates

Drilling Breaks

520-540 3 min = 1.5 min/ft

Rough drilling ~ 538'

580-600 1.5-2 min/ft

Rough drilling ~ 565'

600-640 ~ 2+ min/ft

Slow drilling 524-526'

Mud Loss/Gain Slow steady minor loss

Mud Temp.	IN	Out	Time	Depth
	<u>24.0</u>	<u>24.1</u>	<u>4:00</u>	<u>500'</u>
	<u>23.1</u>	<u>24.9</u>	<u>12:00</u>	<u>600'</u>
	<u>24.4</u>	<u>24.9</u>	<u>1:58</u>	<u>620'</u>

Mud: Visc. 44 Wt. 8.8 Filt. 8-9 LCM (lbs/bbl) ∅  
Alk. .6 pH 10.5 Cl (ppm) 150 PP 100 SPM 35-40

H<sub>2</sub>S \_\_\_\_\_

Surveys \_\_\_\_\_

Additional Comments:

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Tour Report

Date 9/17/83

T.D. 360

Δ T.D. (tour) 210

Time 8 AM to 6 PM

Current Status Drilling

Activity Since Last Report 8 AM - 9:30 MAKING MUD; 9:30 - 12:30 PULLING OUT

TO ADD STABILIZER; 12:30 - 6:30 DRILLING (2 PM 220')

Drilling Rates

Drilling Breaks

150-185 ~ 1 MIN 10 SEC / FT

0

220-240 - 12 MIN.

260-280 - 16 MIN

280-300 - 28 MIN (INTENTIONALLY SLOWED)

300-320 - 14 MIN

Mud Loss/Gain Minor steady loss ~ 1 bbl/hr

Mud Temp. IN 22.2°C Out 23.1°C Time 15:15 Depth 260'

Mud: Visc. 40 Wt. 8.6 Filt. 11.4 LCM (lbs/bbl) 0

Alk. .4 pH 9.5 Cl (ppm) 150 PP      SPM     

H<sub>2</sub>S 0.0

Surveys     

Additional Comments: PHEW!

SANDIA NATIONAL LABORATORIES: Newberry Project

1983

Tour Report

Date 9/17/83

T.D. 500

Δ T.D. (tour) 140

Time 6PM to 4AM

Current Status Drilling

Activity Since Last Report \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Drilling Rates

Drilling Breaks

<u>380 - 400</u>	<u>25 m</u>	} ~ 405 drilling
<u>400 - 420</u>	<u>25 m</u>	
<u>420 - 440</u>	<u>20 m</u>	last 5' very fast
<u>440 - 460</u>	<u>20 m</u>	
<u>460 - 480</u>	<u>25 m</u>	
<u>480 - 500</u>	<u>25 m</u>	

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN <u>24</u>	Out <u>24</u>	Time <u>0300</u>	Depth <u>450</u>
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Mud: Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_

Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_

H<sub>2</sub>S 0

Surveys \_\_\_\_\_

Additional Comments: Fast drilling in basaltic lapilli tuff  
 8:30 PM trip out 15 rods (300'), back in with rods from track  
 16:30 back on bottom; added 18" to sub  
 10:20 drilling ahead, like 10 min. at each 20' Columbia Geoscience  
 stopped 1h @ 12 PM because mud would not clear of cuttings

Tour Report

Date 4/16/83

T.D. 150ft

Δ T.D. (tour) 150ft

Time 8:00 AM to 6:00

Current Status Shut down for night.

Activity Since Last Report Spud well @ 11:54 w/ 10 1/4" bit, set ~ 6' of 12" surface pipe, drill, trip out to remove jets from bit, RTH, drill, shut down for night.

Drilling Rates

Drilling Breaks

0-130 15-30 sec/ft

130-150 ~ 1 min/ft

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN <u>24</u>	Out <u>24</u>	Time _____	Depth _____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Mud: Visc. 42 Wt. 8.5 Filt. NA LCM (lbs/bbl) ∅

Alk. NA pH 10.5 Cl (ppm) NA PP NA BPM 76

H<sub>2</sub>S \_\_\_\_\_

Surveys \_\_\_\_\_

Additional Comments:



Tour Report

Date 9/29/83

T.D. 1350

Δ T.D. (tour) 90'

Time 5 PM to 3 AM

Current Status DRILLING

Activity Since Last Report DRILLED ALL NIGHT

Drilling Rates

1250-1260 ~10"/HR

1270-1280 28 MIN

1300-1310 V. SLOW

1330-1340 3 HRS

-1350 4 1/2 H

Drilling Breaks

1260-1270 ~2 MIN.

1310-1320 ~30 MIN

got hard at 1328

set log at 1349

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN	Out	Time	Depth
	<u>33.3</u>	<u>44.4</u>	<u>6:35</u>	<u>1270</u>
	<u>33.4</u>	<u>44.8</u>	<u>9 PM</u>	<u>1300</u>
	<u>33.4</u>	<u>44.9</u>	<u>10:39</u>	<u>1320</u>
	<u>32.7</u>	<u>45.4</u>	<u>11:51</u>	<u>1335</u>
	<u>32.6</u>	<u>44.3</u>	<u>3:21 AM</u>	<u>1338</u>

Mud: Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_

Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_

H<sub>2</sub>S \_\_\_\_\_

Surveys \_\_\_\_\_

Additional Comments:

Driller notes next down. got hard at 1328, stayed  
hard for 10' at 1330-40, then drilled - were full  
Matrix in cuttings

Tour Report

Date 9/29/83

T.D. 1260

Δ T.D. (tour) 170

Time 6 AM to         

Current Status Drilling

Activity Since Last Report Drill all day, shut down for 1 hr to service rig

Drilling Rates

Drilling Breaks

1040-1110 1 min/foot

1042 - slow rough drilling for few feet

1110-1130 1 min/ft (10 min/70')

1150-1155 slowed down ~ 2 min/ft

1155-1159 speed up - 1 min/ft rough

1159-1161 6 min/ft

1161-1175 faster - saw bit 1.2 min/ft

1175-1260 pyromet, slower

Mud Loss/Gain 0

Mud Temp. IN 32.6 Out 33.3 Time 9:30 Depth 1155

Mud: Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_

Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_

H<sub>2</sub>S \_\_\_\_\_

Surveys \_\_\_\_\_

Additional Comments:

Tour Report

Date 9/30/83

T.D. 1390

Δ T.D. (tour) 0

Time 1pm to 11pm

Current Status \_\_\_\_\_

Activity Since Last Report shut down, pull up ~200', shut  
in well waiting on barite,

Drilling Rates

Drilling Breaks

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN <u>68.3</u>	Out <u>76.4°C</u>	Time <u>1056</u>	Depth <u>1390</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_  
 Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_

H<sub>2</sub>S \_\_\_\_\_

Surveys \_\_\_\_\_

Additional Comments:

Tour Report

Date 9/30/83

T.D. 1390

Δ T.D. (tour) 40

Time 7:00 to 1:00

Current Status Drilling waiting on barite

Activity Since Last Report \_\_\_\_\_

Drilling Rates

Drilling Breaks

1370-1375	2 1/2 h	
* Well flowing on its own		
at 1375' barite 11.6 gpm. Thermocouple shows 114°F.		
1375	mod temp climbing rapidly	1355'
1380	temp level off	1360'
1370-1390	3 h	mod temp

Mud Loss/Gain \_\_\_\_\_

Mud Temp.	IN	Out	Time	Depth

Mud: Visc. \_\_\_\_\_ Wt. \_\_\_\_\_ Filt. \_\_\_\_\_ LCM (lbs/bbl) \_\_\_\_\_  
 Alk. \_\_\_\_\_ pH \_\_\_\_\_ Cl (ppm) \_\_\_\_\_ PP \_\_\_\_\_ SPM \_\_\_\_\_

H<sub>2</sub>S \_\_\_\_\_

Surveys 11:00 barite added 1-2 sacks  
11:40 shut in with BOP after pulling back 200(?)'

Additional Comments:

\* Well began flowing on its own at 1350. Did not flow at 1330. Hand, continuously also drilling began at 1336' (Don's notes);