THERMAL P WER COMPANY

WELL NO. CTG#1 AFE NO. BELOW
REPORT NO. 1 DATE 7 JUNE 86
TOTAL RIG DAYS 0+10 HRS TIME FROM SPUD 10 HRS
DEPTH @ 2400 HRS. 35 FOOTAGE DRLD. 35
HRS. DRILLED 5 HRS HRS. TRIPPED ____ HRS. REPAIR ____ RIG NO. ____
HRS. OTHER 5 HRS COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. 8.3 PPG VIS. 60 SEC W.L. — CK. — PH — CHL — YP —
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO 1/
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. ____ °F. DEVIATION SURVEYS: ____

CSG
" CSG. ____
" CSG. ____
" CSG. ____
LINER ____
TIE-BACK ____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
1	12¼"	REED	S136J	294-316	NONE	0	35	35	5	ALL	60	T B G
												T B G
												T B G

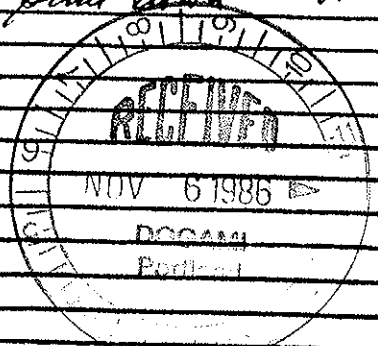
PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	54	88	0	88		

AIR COMP. NO ___ CFM ____ PSI ___ TEMP. °F ___ CHEM. ____ RATIO 1/ ___ RATE ___
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE (HIGH AVERAGE LOW) ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Mixed Spud mud. Spudded 10:30 am 6-7-86
Drilled 12¼" hole from surface to 12' depth, stopped on boulder bed POH.
Ran 12¼" air hammer; drilled 12-35' depth "rough going." POH
Ran 12¼" bit and reamed 0-35'. POH.
Ran 10¾" conductor one 35' joint; stopped at 12'. POH.
Reamed hole w 12¼" bit to 35' POH
Ran 10¾" conductor; again stopped at 12' POH and shut down.



OPERATION @ 0600 HOURS FOLLOWING DAY:
REVIEWING CONDUCTOR HOLE PROBLEM

INOPERATIVE EQUIP'T, EXPLAIN ____

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	7005
RIG MOVES	7000
RIG	1736
ABATEMENT	
BITS	701 600
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	411
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	WATER LINE 500
DAILY TOTAL	17,552
FORWARD	—
ACCU. TOTAL	17,552
AFE	86-D01-4300-02A

SUPERVISOR BOWDEN RD 9 June

THERMAL P WER COMPANY

WELL NO. CTGH-1 AFE NO. BELOW
REPORT NO. 2 DATE 8 JUNE 86
TOTAL RIG DAYS 1 + 10 HRS TIME FROM SPUD
DEPTH @ 2400 HRS. 35 FOOTAGE DRLD. 35
HRS. DRILLED 3 1/2 HRS. TRIPPED
HRS. OTHER 11 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.8 PPG VIS. 54 W.L. 54 CK. 2/32 PH 6.8 CHL 400 YP 21
P.V. 17 GELS 9/12 % SAND 3 % SOLIDS 3.5 % LOST CIRC. MTL. NONE
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

CSG
" CSG.
" CSG.
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
2	8 3/4	SMITH		AB6779	NONE	0	35	35	3 1/2	ALL	60	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	54	88		88		

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Moved truck mtd. Rotary rig 6'
Spudded second conductor hole
Drilled 8 3/4" hole in 3 1/2 hrs POH
Ran 12 1/4" bit; reamed opened hole
bit stopped at 20'. POH
Ran 12 1/4" air hammer; opened holes 35'
POH
Ran 10 3/4" conductor; stopped at 24'
POH and ran 12 1/4" bit CO to 35' POH
Ran 10 3/4 conductor; stopped at 28'
Shut down at 2300 hrs
Filled first conductor hole w
cuttings from second hole

OPERATION @ 0600 HOURS FOLLOWING DAY:
Trip & CO again; have straight
holes. Expect to cement 10 3/4"
conductor

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG 1325
ABATEMENT
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL
FUEL, WATER POWER
MUD
SUPERVISION & LABOR 300
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL
OTHER Boyles Rig Sup. 500

DAILY TOTAL 2175
FORWARD 17,552
ACCU. TOTAL 19,727
AFE 86-DOI-4300-02

SUPERVISOR BOWDEN 10 June

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO. _____
REPORT NO. 3 DATE 2 JUNE 86
TOTAL RIG DAYS 3 TIME FROM SPUD 20+10hrs
DEPTH @ 2400 HRS. 35 FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED _____
HRS. OTHER 9 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.8 VIS. 65 W.L. — CK. _____ PH _____ CHL _____ YP _____
P.V. _____ GELS _____ % SAND _____ % SOLIDS _____ % LOST CIRC. MTL. _____
GALVONIC PROBE _____ CORRATOR _____ SULPHIDE _____ OXY. _____ AIR-H₂O RATIO 1
FORM. DRLD. _____ FLOW LINE TEMP. _____ °F. SUCTION TEMP. _____ °F.
MAX. TEMP. _____ °F. DEVIATION SURVEYS: _____

CSG 10 3/4" at 35'
" CSG. _____
" CSG. _____
" CSG. _____
LINER _____
TIE-BACK _____
HRS. REPAIR _____ RIG NO. _____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO. ___ CFM _____ PSI ___ TEMP. °F ___ CHEM. _____ RATIO ___/___ RATE ___
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: _____

TOTAL STRING WT. _____ TOTAL PICKUP WT. _____ ROTARY TORQUE (HIGH AVERAGE LOW) ___ ___ ___
STEAM ENTRIES, DEPTH, LBS. _____

REMARKS FOR 24 HOUR PERIOD:

Started up rig at 9 am
Ran 12 1/4" air hammer and
C.O. to 35'. POH.
Ran one joint of 10 3/4 K-55
40.5 lbs/ft conductor casing
to 35'.
Blew hole dry with air
Cemented Conductor at 35' depth
with slurry of 16 sax Portland
Cement and 16 sax of Construction
Cement plus 3% CaCl
CIP at 1430 hrs. Shut down
rig at 1800 hrs WOC

OPERATION @ 0600 HOURS FOLLOWING DAY:
Preparing to drill out with 8 3/4" bit

INOPERATIVE EQUIP'T, EXPLAIN _____

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	Pit liner 500
RIG MOVES	
RIG	1125
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	157
SUPERVISION & LABOR	300
CEMENT SERVICES	?
TRANSPORTATION	
LOGGING SERVICES	900 330 +90
FISHING & DIRECTIONAL	
OTHER	BOYLES SUP. 250
DAILY TOTAL	3232
FORWARD	19,727
ACCU. TOTAL	22,959
AFE	86-201-4300-02

SUPERVISOR Boyles

THERMAL P WER COMPANY

WELL NO. CTGH-1 AFE NO. 10
REPORT NO. 4 DATE 6/15/84
TOTAL RIG DAYS 4 TIME FROM SPUD 3 + 10 hrs
DEPTH @ 2400 HRS. 220' FOOTAGE DRLD. 195'
HRS. DRILLED 9½ HRS. TRIPPED
HRS. OTHER 2½ COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.6 VIS. 40 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 160' = ½° ; 220' = No Data

10¾" CSG CSG. 35'
" CSG.
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
2	8¾	Smith	F3	AJ6059	None	35'	—	195'	9½	S-15000	65	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6	80	114	100	114		

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 1 x 8¾" bit, 1 x 6" DC, 10 x 4½ DC, Total Length 220'
TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Drilled 8¾" hole from 35' to 220'

2½ hrs running deviation survey problem with clock

Shut down 1900 hours

Geophysical borehole loggers called out 1700 hours

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	3096
RIG MOVES	
RIG	
ABATEMENT	
BITS	2500 (B.H.A.)
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	300 330 30 120
FISHING & DIRECTIONAL	
OTHER	
BOYLES SUP	250
DAILY TOTAL	6646
FORWARD	22946
ACCU. TOTAL	29605
AFE	

SUPERVISOR Buddy Bowden

THERMAL F WER COMPANY

WELL NO. CTAH-1 AFE NO.
REPORT NO. 5 DATE 6/11/86
TOTAL RIG DAYS 5 TIME FROM SPUD 41 1/2 hrs
DEPTH @ 2400 HRS. 420' FOOTAGE DRLD. 200'
HRS. DRILLED 11 1/2 HRS. TRIPPED
HRS. OTHER 1/2 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 9.2 VIS. 61 W.L. 10 CK. 2 PH 7.2 CHL 400 YP 26
P.V. 18 GELS 12/21 % SAND 5 % SOLIDS 6 % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 220' = 1/2°.

10 3/4 " CSG CSG. 35'
" CSG.
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

5.71

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
2	8 3/4	Smith	F-3	AV6099	None	35'	—	385'	21	15-18000	65	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	80	131	100	131		

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 8 3/4" bit, 1 x 6" drill collar, 20 x 11 1/2 DC total 420'
TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

drilled 8 3/4" hole from 220' to 420'

1/2 hr other = survey

400-410' lost 50% returns ~1000 gals

410' full returns

JLI

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	45
RIG MOVES	
RIG	2993
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	190 (10 3/4" casing)
TRANSPORTATION	
LOGGING SERVICES	300 - 830 - 150
FISHING & DIRECTIONAL	
OTHER	Boyles SUP. 250
DAILY TOTAL	4078
FORWARD	29605
ACCU. TOTAL	33683
AFE	

SUPERVISOR Ruthie Rowden

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 6 DATE 12 JUNE 86
TOTAL RIG DAYS 6 TIME FROM SPUD 50+/- Days
DEPTH @ 2400 HRS. 517 FOOTAGE DRLD. 97
HRS. DRILLED 9.5 HRS. TRIPPED
HRS. OTHER 3.5 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.8 VIS. 70 W.L. 10 CK. 2/32 PH 7 CHL 400 YP 22
P.V. 20 GELS 12/26 % SAND 0.5 % SOLIDS 5.0 % LOST CIRC. MTL. 6-8
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. — °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 517' 2°

16" CSG 35'
" CSG.
" CSG.
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
2	8 3/4	Smith	AV607G	E-3	NONE	35	517	482	3.5	15,000	60	T 4 B 3 G W
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	80	131	1000	131		

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 8 3/4" BIT ONE 6" DC 24 4.5" DCs
TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Drilled 8 3/4" hole 420' to 517'
Lost 10 barrels of mud at 425.
2 1/2 hrs circulating mud - conditioning hole at 517'
1/2 hr survey at 517'
Geophysical logging crew/truck enroute at 2100 hrs at drillsite

OPERATION @ 0600 HOURS FOLLOWING DAY:
Logging borehole, from 517 to 35'
HALLIBURTON on location
INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$1711
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	450
SUPERVISION & LABOR	BOWDEN 300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	300 +180
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	3011
FORWARD	33,683
ACCU. TOTAL	36,694
AFE	86-201-4300-02

SUPERVISOR BOWDEN 20:13 June

THERMAL P WER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 1 DATE 13 June 1986
TOTAL RIG DAYS 1 TIME FROM SPUD 60 + 10 HRS
DEPTH @ 2400 HRS. 517' FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED
HRS. OTHER 19 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. — VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR·H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG. 35'
7" " CSG. 488'
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE (HIGH AVERAGE LOW)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Colorado Logging completed GR log 0600 - 1300 hrs.

Ran 8 5/8" Set @ 517'. 00 - no fill found on btm. POH

Ran 7" casing. Stopped at 70'. POH. removed centralizer from first joint

Ran 7" Casing. Stopped at 488'. Tried to circulated csg to btm; no go

Rigged to cement. HALLIBURTON pumped 5 bbls water ahead of cement. Slurry of 127 cu ft Class G 11:1 perlite plus 40% silica flour, 2% gel at 13.5 ppg density. Tailed 32 cu ft Class G plus 40% SiO2 at 15.5 ppg. Displaced w/ 19 bbls water CIP at 0130 hrs, 14 June 86. Had good cement returns. Plug bumped at 1000 psig. Held OK

Ran 519' of 7" 26 lbs K-55 BT&C csg. Shoe at 488'; float collar at 466'.

Cement dropped in annulus

OPERATION @ 0600 HOURS FOLLOWING DAY:
Prep to do outside cement job

INOPERATIVE EQUIP'T, EXPLAIN

COSTS — 1 barrel of cement = 5.6146 ft

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$2375
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	9471
TRANSPORTATION	
LOGGING SERVICES	300 + 210
FISHING & DIRECTIONAL	
OTHER	PACKERS 250
DAILY TOTAL	12,696
FORWARD	$36,694
ACCU. TOTAL	$49,390
AFE	

SUPERVISOR BOWDEN DO 14 June

THERMAL P. WER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 8 DATE 14 June 86
TOTAL RIG DAYS 8 TIME FROM SPUD 7d+10hrs
DEPTH @ 2400 HRS. 317 FOOTAGE DRLD. 0
HRS. DRILLED — HRS. TRIPPED — HRS. REPAIR — RIG NO.
HRS. OTHER 9 COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. — VIS. — W.L. — CK. — PH — CHL — YP —
P.V. — GELS — % SAND — % SOLIDS — % LOST CIRC. MTL. —
GALVONIC PROBE — CORRATOR — SULPHIDE — OXY. — AIR-H_2O RATIO /
FORM. DRLD. — FLOW LINE TEMP. — °F. SUCTION TEMP. — °F.
MAX. TEMP. — °F. DEVIATION SURVEYS: —

10¾ CSG CSG.	35'
7 " CSG.	488
" CSG.	
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO — CFM — PSI — TEMP. °F — CHEM. — RATIO — RATE —
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: —

TOTAL STRING WT. — TOTAL PICKUP WT. — ROTARY TORQUE (HIGH AVERAGE LOW)
STEAM ENTRIES, DEPTH, LBS. —

REMARKS FOR 24 HOUR PERIOD:

Mixed 4 barrels of Class G cement and perlite 1:1 and filled annulus between 7" and 10¾". Cement level came to surface and remained there. Rigged down rotary tools. Cut off 7" casing. Pumped out pits. Digging cellar.

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN —

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	8 1000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330+210
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	1550
FORWARD	49390
ACCU. TOTAL	$ 50.940
AFE	86-D01-4300-02

SUPERVISOR Bowden DD. 15 June

THERMAL F WER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 9 DATE 15 JUNE 1986
TOTAL RIG DAYS 9 TIME FROM SPUD 8D + 10 HRS
DEPTH @ 2400 HRS. 317 FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED
HRS. OTHER 12 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. — VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG CSG. 35'
7" " CSG. 488
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Constructed cellar
Welded on LARKIN casing head to 7" casing
Set on BOP equipment

OPERATION @ 0600 HOURS FOLLOWING DAY:
Preparing to pressure test BOP

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES
- CASING
- VALVES
- FLANGES
- OTHER

INTANGIBLE
- LOCATION
- RIG MOVES
- RIG $ 1500
- ABATEMENT
- BITS
- DRILL EQUIP. MAIN.
- DRILL. EQUIP. RENTAL
- FUEL, WATER POWER
- MUD
- SUPERVISION & LABOR 300
- CEMENT SERVICES
- TRANSPORTATION
- LOGGING SERVICES 330 + 540
- FISHING & DIRECTIONAL
- OTHER Bayles Serv 250

DAILY TOTAL $ 2050
FORWARD $ 50940
ACCU. TOTAL $ 52,990
AFE 86-D01-4300-02

SUPERVISOR Bonifacio 10. 16 June

THERMAL P WER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 10 DATE 16 JUNE 1986
TOTAL RIG DAYS TIME FROM SPUD 90+ hrs
DEPTH @ 2400 HRS. 3111' FOOTAGE DRLD.
HRS. DRILLED HRS. TRIPPED
HRS. OTHER 11 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK.
P.V. GELS % SAND % SOLIDS
GALVONIC PROBE CORRATOR SULPHIDE
FORM. DRLD. FLOW LINE TEMP. °F. S
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG CSG. 35
7 " CSG. 488
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

Dennis Davis
Accumulator w't Oregon Spec
requirement ① hydraulic control
not present → ② electric remote
③ manual check
WOS specified in drilling plan
cellar to mud pit + blind rams

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM

AIR COMP. NO CFM PSI TEMP. °F CHEM.
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Nipplied up BOPs and 7" choke manifold
Could not obtain pressure buildup; found leak in 8 5/8" x 6" 900 series flange that screws into 7" LARKIN head.
Must repair or recut threads on flange to proceed with the BLM required BOP test.
Ordered replacement flange from Hodco - Farmington by 1pm delivery.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Seeking local thread checking capacity.

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1375
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	2200
FISHING & DIRECTIONAL	
OTHER	Boyles 250
DAILY TOTAL	$ 4125
FORWARD	$ 52,990
ACCU. TOTAL	$ 57,115
AFE	86 D01-4302-02

2900 logging
1200 geologist
catch-up
4100
-2200 credited
1900

SUPERVISOR BOWDEN 10. 17 June

THERMAL POWER COMPANY

WELL NO. Ciriti 1 AFE NO.
REPORT NO. 11 DATE 17 JUNE 1986
TOTAL RIG DAYS 11 TIME FROM SPUD Rig + Dig
DEPTH @ 2400 HRS. FOOTAGE DRLD.
HRS. DRILLED 5 1/2 HRS. TRIPPED
HRS. OTHER 8 COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG CSG. 35
7 " CSG. 488
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

8 hrs Worked on 8 5/8" x 6" 900 Series flange. Recut threads, still would not seat.

Replacement flange air delivered in PORTLAND.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Air delivered flange tested and sealed in Braden Casing head. Prep for BOP pressure test

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING 10¾" and 7"	1405
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	1000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	300
FISHING & DIRECTIONAL	
OTHER	Boyles 250
DAILY TOTAL	3255
FORWARD	57115
ACCU. TOTAL	60,370
AFE 86-DD1-4300-02	

1930
330
2260

SUPERVISOR BOWDEN D.O. 18 June

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 12 DATE 18 JUNE 1986
TOTAL RIG DAYS 12 TIME FROM SPUD 11d + 10HRS
DEPTH @ 2400 HRS. 517 FOOTAGE DRLD. —
HRS. DRILLED — HRS. TRIPPED — HRS. REPAIR — RIG NO.
HRS. OTHER 12 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. — VIS. — W.L. — CK. — PH — CHL — YP —
P.V. — GELS — % SAND — % SOLIDS — % LOST CIRC. MTL. —
GALVONIC PROBE — CORRATOR — SULPHIDE — OXY. — AIR-H₂O RATIO /
FORM. DRLD. — FLOW LINE TEMP. — °F. SUCTION TEMP. — °F.
MAX. TEMP. — °F. DEVIATION SURVEYS:

10 3/4" CSG. 35'
7" CSG. 488'
" CSG.
" CSG.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
—	—	—	—	—	—	—	—	—	—	—	—	T B G
—	—	—	—	—	—	—	—	—	—	—	—	T B G
—	—	—	—	—	—	—	—	—	—	—	—	T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

AIR COMP. NO — CFM — PSI — TEMP. °F — CHEM. — RATIO — / — RATE —
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. — TOTAL PICKUP WT. — ROTARY TORQUE (HIGH AVERAGE LOW)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Installed replacement flange in 7" LARKIN casing head. Installed BOP: double gate and Hydril units and 40 gallon accumulator. Tested blind rams and pipe rams with 1000 psig (water) for 30 mins each. Tested Hydril with 1750 psig (water) for 30 mins.

Precharged accumulator to 2800 psig. At remote station worked blind rams, pipe rams and Hydril with less than 10% pressure bleed down.

BOP TEST OBSERVED AND APPROVED BY DENNIS DAVIS BLM 18 JUNE 86.

Rained all day at drillsite. Snowed at the higher elevations!

OPERATION @ 0600 HOURS FOLLOWING DAY:
Adjusting DC rig base and cabs. Prep to clean out hole to 517', then run 4.5" casing core guide.

INOPERATIVE EQUIP'T, EXPLAIN —

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1500
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	$ 2050
FORWARD	60,370
ACCU. TOTAL	$62,420
AFE	86-209-430002

SUPERVISOR BOWDEN DO 19 June 86

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 13 DATE 19 JUNE 1986
TOTAL RIG DAYS 13 TIME FROM SPUD 20 + 10 HRS
DEPTH @ 2400 HRS. 517' FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 17 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR·H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
" CSG.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Aligned - stabilized core rig over BOP stack and cellar. Built rig floor and doghouse. Commenced picking up core rods at 2345 hrs

OPERATION @ 0600 HOURS FOLLOWING DAY:
Cleaned out cement to 490'; cleaned out hole to 507'. Prep to set hole below 517' to seat 4.5" string

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	2125
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	504
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	WEUDEL 844
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	700 GR/RES, ADDL
FISHING & DIRECTIONAL	
OTHER	GEOL 1530 CATCH UP
DAILY TOTAL	5703
FORWARD	62,420
ACCU. TOTAL	68,123
AFE	86-DOE 4300-02

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 14 DATE 20 JUNE 1986
TOTAL RIG DAYS 14 TIME FROM SPUD 80 1/2 HRS
DEPTH @ 2400 HRS. 529 FOOTAGE DRLD. 12
HRS. DRILLED 2 HRS. TRIPPED
HRS. OTHER 17 COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. 8.4 VIS. 45 W.L. — CK. PH . CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4" CSG 35
7 " CSG. 488
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	6"	HTC	RR62	DCS	NONE	517	529	12	2	5000	120	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	80	131	1000	131		

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO L RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 6" BIT 4.5' JOINT D.P. X SUB, T.L. 21'
TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Picked up 6" bit, drilling assembly and 3 1/2" core rods RIH

Pulled float collar at 466' and cement in bottom joint of 7" to 488'.

Cleaned out 8 3/4" hole to 517' and drilled 6" hole to 529'. Circulated 30 minutes and POH

Found that 6" bit and 4.5" joint left on bottom. Start down at 1800 hrs after calling for overshot

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2250
ABATEMENT	
BITS #3	302
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	225
FUEL, WATER POWER	
MUD	582
SUPERVISION & LABOR	302
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Boyles	250
Machining	50
DAILY TOTAL	4205
FORWARD	68,123
ACCU. TOTAL	72,328
AFE	86-201-4200-02

SUPERVISOR BOWDEN 20 June 86

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 15 DATE 21 JUNE 1986
TOTAL RIG DAYS 13 TIME FROM SPUD 12 Days
DEPTH @ 2400 HRS. 527 FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED
HRS. OTHER 13 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG. 35
7" CSG. 488
4.5" CSG. 526 Temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Ran 5½" Bowen overshot with 4½" grapples. Latched on to fish; POH with same.

Ran 26 joints of 4.5" core guide casing. Welded two straps at each coupling and slipped on 11 solid bow stabilizers. Hung this core guide string at 526' (to be recovered before running any protection casing) in 11" Larkin casinghead.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 534' without returns

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1625
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Bogles	250
Fishing tools	2215
DAILY TOTAL	$ 5070
FORWARD	$ 72,328
ACCU. TOTAL	$ 77,398
AFE 86-DO1-4200-02	

SUPERVISOR BOWDEN 22 June 86

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 16 DATE 22 JUNE 1986
TOTAL RIG DAYS 16 TIME FROM SPUD 60+ Days
DEPTH @ 2400 HRS. 591 FOOTAGE DRLD. 70
HRS. DRILLED 22 HRS. TRIPPED
HRS. OTHER 2 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. 10 CK. 1/32 PH 6.5 CHL 400 YP 15
P.V. 20 GELS 4/8 % SAND 0 % SOLIDS 0.5 % LOST CIRC. MTL. ± 1
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG. 35
7.5" CSG. 488
5" CSG. 526 Temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
1	5.937	C	20-30S-454	65 1490	—	527	588	61	22	30	350	I B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	—	—	—	35	100	35	Small triplex pump for coring	

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE (HIGH AVERAGE LOW)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Lost mud circulation just below 530' ±

Initial Christensen diamond core head was worn at end of 61' run.

Using 10" core barrel

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 613' without returns

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2291
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	750
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Boyles 250
DAILY TOTAL	$ 3921
FORWARD	$ 77,398
ACCU. TOTAL	$ 81,319
AFE	86 D01-4300-02

SUPERVISOR [illegible]

NO. 23 June 1986

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 17 DATE 6/23/86
TOTAL RIG DAYS 17 TIME FROM SPUD 16+10HRS
DEPTH @ 2400 HRS. 694 FOOTAGE DRLD. 97
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 60 W.L. 12 CK. thin PH 6.5 CHL 400 YP 10
P.V. 20 GELS 4/8 % SAND 0 % SOLIDS 0.5 % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

CSG	
10 3/4 " CSG.	35
7 " CSG.	488
4.5 " CSG.	5716 temporary
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
2	3.937	Christ.	NC	651489		588	INC	106	24	1-2000	350	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				253	1000			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored f 597 to 694'
No mud returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 719'

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR Bradley Bowdan / JLT

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	2943
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	675
FUEL, WATER POWER	
MUD	696
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	
Boyles	250
DAILY TOTAL	5194
FORWARD	81319
ACCU. TOTAL	86513
AFE	

25/Jun

THERMAL POWER COMPANY

WELL NO. LTGH-1 AFE NO.
REPORT NO. 18 DATE 6/24/86
TOTAL RIG DAYS 18 TIME FROM SPUD 17+ 10h
DEPTH @ 2400 HRS. 774 FOOTAGE DRLD. 80
HRS. DRILLED 19½ HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 4½ COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. 12 CK. film PH 6-5 CHL 400 YP 10
P.V. 13 GELS 4/8 % SAND 0 % SOLIDS 0.5 % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR·H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 738' = 2x2° No direction yet

10¾" CSG.	35
7" CSG.	488
4.5" CSG.	526 temporary
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
2	3.937"	Chris	NC	651489		588	INC	186	43½	1-2000	350	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				255	1000			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 694 - 774', NO returns
3½ hrs Pulled bit to 7" casing shoe @ 488', mixed LCM & mud & trying to plug LC2, NO success.
1½ hr rig maintenance

OPERATION @ 0600 HOURS FOLLOWING DAY:

Coring @ 797'

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	1200 (allen)
RIG MOVES	
RIG	2991
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	275
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	1130 (trucking)
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	
Boyles SUP	250
DAILY TOTAL	6476
FORWARD	86513
ACCU. TOTAL	92989
AFE	

SUPERVISOR Buddy Bowden / 325 2500

THERMAL P_WER COMPANY

WELL NO. CTG H-1 AFE NO.
REPORT NO. 19 DATE 6.25.86
TOTAL RIG DAYS 19 TIME FROM SPUD 18d + 10h
DEPTH @ 2400 HRS. 859' FOOTAGE DRLD. 85'
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 67 °F. DEVIATION SURVEYS: 733' = .2½° S32°E
MRT @ 865' = 67° F

10¾" CSG CSG. 35'
7 " CSG. 488'
4.5 " CSG. 526' (Temp.)
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
2	3.937"	Chris.	NC	651489		588	859	271	67.5	1-2000	320	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
2				25-35	100			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 774 to 859'; no returns

Water flow into hole thinning mud, losing lubricity. Rod vibration being monitored to determine if glazing is required.

JLI
26 June '86

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring @ 864'.

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	
ABATEMENT	
BITS	2579
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	275
FUEL, WATER POWER	
MUD	626 (2 days)
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	
BOYLES SUP	250
DAILY TOTAL	4360
FORWARD	93 989
ACCU. TOTAL	97 349
AFE	

SUPERVISOR Buddy Bowden

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 20 DATE 2-26-86
TOTAL RIG DAYS 20 TIME FROM SPUD 19d+10hr
DEPTH @ 2400 HRS. 918 FOOTAGE DRLD. 59
HRS. DRILLED 21 HRS. TRIPPED
HRS. OTHER 3 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 68 °F. DEVIATION SURVEYS:
MRT @ 918' = 68°F

10¾" CSG 35'
7 " CSG. 458
4½ " CSG. 526 TERMINATED
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	3.937	CHRIS	NC	651492		859	INC	59	21	1000	3-400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
2				25-35	50-100			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

CORED FROM 959 TO 918 FT
TRIP FOR BIT CHANGE @ 959 FT
TRIP FOR MIS. @ 959 FT
1HR WASH & REDRILL FROM 900 TO 913 FT
2HR RIG MAINT.

(HE)
27 JUNE 86

OPERATION @ 0600 HOURS FOLLOWING DAY:
CORING @ 938 FT

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	2165
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	275
FUEL, WATER POWER	
MUD	216
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	R
OTHER BOYLES SUP	250
2 GEOLOGISTS	330
DAILY TOTAL	3536
FORWARD	97349
ACCU. TOTAL	100,885
AFE	

BOBBI BEATTY

THERMAL POWER COMPANY

WELL NO. CTG#1 AFE NO.
REPORT NO. 21 DATE 27 JUNE 1986
TOTAL RIG DAYS 21 TIME FROM SPUD 200 + 10 HRS
DEPTH @ 2400 HRS. 962 FOOTAGE DRLD. 44
HRS. DRILLED 13 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 11 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG 488
4.5" CSG 526 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	3931			651492	-	859	10C	103	34	1000	440	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
				25-35	50-100			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 5.932" hole from 918 to 962'. No drilling fluid returns. Pulled out to grease core rods at 947'.

Had to work back through two bridges at 600-620' and at 690-710'.

At 962', banded in the inner core barrel; broke wire line in recovery attempt. POOH

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2335
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	225
FUEL, WATER POWER	
MUD	150
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Boiler Rel. 250
DAILY TOTAL	$ 3640
FORWARD	100,885
ACCU. TOTAL	$ 104,525
AFE	86 DOI 4300-02

BOWDEN
DD-28 Jun

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 22 DATE 28 JUNE 86
TOTAL RIG DAYS 22 TIME FROM SPUD 210+10HRS
DEPTH @ 2400 HRS. 1083 FOOTAGE DRLD. 121
HRS. DRILLED 20 HRS. TRIPPED
HRS. OTHER 4 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. — CK. — PH . CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

	CSG	
10¾	" CSG.	35
7	" CSG.	488
4.5	" CSG.	526 Temporary
	LINER	
	TIE-BACK	

HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	3.937			651492	—	859	—	224	38	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	25-50			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 3.937" hole from 962' to 1083'. Released tools helped
No drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
CORING AT 1123

INOPERATIVE EQUIP'T. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4004
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	275
FUEL, WATER POWER	
MUD	250
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES SP 250
DAILY TOTAL	$ 5409
FORWARD	104,525
ACCU. TOTAL	$ 109,934
AFE	86 HOT 4300-02

BOWDEN DO 29 from

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 23 DATE 24 JUNE 1986
TOTAL RIG DAYS 23 TIME FROM SPUD 220+ HOURS
DEPTH @ 2400 HRS. 1245 FOOTAGE DRLD. 162
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H,O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	3.937	CHRIS	NR	65 1492	-	859	-	386	82	1000	450	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
				5-15	25-50			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 3.937" hole from 1083' to 1245'. No drilling fluid returns. Obtaining 100% core recovery.

DO reported to D. DAVIS - BLM

Progress to 0600 hrs 30 JUNE 1986

OPERATION @ 0600 HOURS FOLLOWING DAY:
Trip for new core head at 1271' depth

INOPERATIVE EQUIPT, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 5483
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES 500 250
DAILY TOTAL	$ 6463
FORWARD	$ 109,932
ACCU. TOTAL	$ 116,895
AFE	86 DOI 4300-02

SUPERVISOR Borden

DO 30 June

THERMAL POWER COMPANY

10¾" CSG 35
7" CSG.
4.5" CSG. 488
LINER 526 temporary
TIE-BACK

WELL NO. CTGH 1 AFE NO.
REPORT NO. 24 DATE 30 JUNE 1986
TOTAL RIG DAYS 24 TIME FROM SPUD 230 +10 HRS
DEPTH @ 2400 HRS. 1316 FOOTAGE DRLD. 71
HRS. DRILLED 15 HRS. TRIPPED 4 HRS. REPAIR RIG NO.
HRS. OTHER 5 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 ppg VIS. 45 sec W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	3.937"	CHRIS	MC	454930	—	1271	INC	74		1000	400	T B G
								45	15			T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Core bit no. 3 was 2/3 worn upon replacement at 1271' depth; had cored 412' total interval from 859' to 1271' in ± 85 hrs.

Core bit no. 4 has some diameter 3.937". Had to wash at 660' on way in.

Cored 1245 to 1316' without putting fluid returns. Obtained 100% core recovery

Bowden thinks a water zone at 600', 660' and 680' is cause of both water and rock entry into borehole and is also the chief lost circulation zone.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1348' depth.

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3528
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Boyles SP	250
Lbd Grease	150
DAILY TOTAL	$ 5258
FORWARD	$ 116,895
ACCU. TOTAL	$ 122,153
AFE 86 D01 4300-02	

DO, July 8
Bowden

THERMAL P WER COMPANY

WELL NO. CTG#1 AFE NO.
REPORT NO. 23 DATE 1 JULY 1986
TOTAL RIG DAYS 23 TIME FROM SPUD 240+10 HRS
DEPTH @ 2400 HRS. 1453' FOOTAGE DRLD. 137'
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 67 °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
4.5" CSG. 526 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	3.937"	CHRIS	MC	454930	-	1271	-	182	39	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	25-50			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 1316' - 1453'
100% core recovery
No drilling fluid returns
Liquid level in well bore at 40-45' depth.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1491'

INOPERATIVE EQUIP'T, EXPLAIN

COSTS	
TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4447
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	450
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Bowles	250
DAILY TOTAL	6277
FORWARD	$ 122,153
ACCU. TOTAL	$ 128,430
AFE 86 D01 4300-02	

SUPERVISOR Bowden

DO 2 Jul 86

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 26 DATE 2 July 1986
TOTAL RIG DAYS 26 TIME FROM SPUD 25D+10HRS
DEPTH @ 2400 HRS. 1590 FOOTAGE DRLD. 137
HRS. DRILLED 24 HRS. TRIPPED
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 61 °F. DEVIATION SURVEYS: FLUID LEVEL 15'
MRT AT 1600'

10¾" CSG. 35
7⅝" CSG. 488
4½" CSG. 326 temporary.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	3.937	CHRIS	MC	434930		1271	INC	319	62	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-75	100-150			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 1453' to 1590' in
24 hrs of coring operations
137/24 hrs = 5.7083 feet/hour
as "coring operating rate"

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$4894
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Boyles	250
DAILY TOTAL	6274
FORWARD	128,430
ACCU. TOTAL	134,704
AFE	8620 / 4300-02

DO 3 July
Bowden

THERMAL POWER COMPANY

WELL NO. CGH 1 AFE NO.
REPORT NO. 27 DATE 3 JULY 1986
TOTAL RIG DAYS 27 TIME FROM SPUD 260 + 10 hrs
DEPTH @ 2400 HRS. 1690 FOOTAGE DRLD. 100'
HRS. DRILLED 23 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 1620' 1/2° N 29° E

10 3/4" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	5.937"	CHRo	MC	45 4930	-	1271	MC	419	86	1000	400	T P G
												T P G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	150			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 1590 to 1690'
100% core recovery; no drilling fluid returns
1 hr - Survey at 1620'

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1711'

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3670
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	200
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Cores	250
DAILY TOTAL	5150
FORWARD	134,704
ACCU. TOTAL	$ 139,854

No. 4 July
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 28 DATE 4 JULY 1986
TOTAL RIG DAYS 28 TIME FROM SPUD 270+10 HRS
DEPTH @ 2400 HRS. 1765 FOOTAGE DRLD. 24 75
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H,O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	3937	CHRIS	MC	A5D930		1211	TC	494	110	7000	100	I B G
												I B G
												I B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				545	1500			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 1690 to 1765'
Obtained 100% core recovery.
No drilling fluid returns!

OPERATION @ 0600 HOURS FOLLOWING DAY:
Trip for new core head, after reaming 1775' depth

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2752
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	325
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER CORES	250
DAILY TOTAL	4257
FORWARD	$ 139,854
ACCU. TOTAL	$ 144,111

ND-5 July
MW/DEN

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 29 DATE 5 July 1986
TOTAL RIG DAYS 29 TIME FROM SPUD 28 1/2 + Days
DEPTH @ 2400 HRS. 1775 FOOTAGE DRLD. 10'
HRS. DRILLED 6 HRS. TRIPPED
HRS. OTHER 18 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H,O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	3 7/8	CHRIS	MC	45490		1271	1775	504	116	1000	45	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored only 10' 1765-1775
when mistake to core barrel
occured. String rate lost
dropped. POH; picked up
new core head. RIH.
Had to wash down from 560
to 963'

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coming out of hole. Core barrel
jammed at 1779'

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1117
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	750
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	2547
FORWARD	144,111
ACCU. TOTAL	$ 146658

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 31 DATE 7 July 1986
TOTAL RIG DAYS 31 TIME FROM SPUD 320 + 10 HRS
DEPTH @ 2400 HRS. 1917 FOOTAGE DRLD. 89
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H,O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 75 °F. DEVIATION SURVEYS:
ART at 1939

10 3/4" CSG 35
7" CSG. 488
4 1/2" CSG. 326 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
5	3.937"	CHRS	MC	652446		1775	INC	142	36	1000	Vert	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	200			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 89' from 1828 to 1917'
Obtained 100% core recovery
No drilling fluid returns
D. Walters Exlog Smith on location July 7th
- installed H2S detection system
- trained two crews on H2S safety and detection system

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1939'

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	# 32 & 6
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	202
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	252
DAILY TOTAL	4646
FORWARD	130233
ACCU. TOTAL	134,879
AFE	86 DOE-4200-02

D.D. 8 July
B. Woods

THERMAL POWER COMPANY

WELL NO. CT&H-1 AFE NO.
REPORT NO. 32 DATE 8 July 1986
TOTAL RIG DAYS 32 TIME FROM SPUD 310 + 10 hrs
DEPTH @ 2400 HRS. 1998 FOOTAGE DRLD. 81
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 8.5 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG. 35'
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
5	5.97	Ol.	HC	652461		1775	TAC	223	60	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	200			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 1917 to 1998
100% core recovery; no drilling
fluid returns
All training on H2S safety
and detection completed with
all three drilling crews

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2016

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	8 2972
RIG	
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	4932
FORWARD	1346[illegible]
ACCU. TOTAL	1[illegible]
AFE	86 D01-4300-02

9 July
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 33 DATE 4 July 1986
TOTAL RIG DAYS 33 TIME FROM SPUD 32 + 10 HRS
DEPTH @ 2400 HRS. 2083 FOOTAGE DRLD. 85
HRS. DRILLED 24
HRS. OTHER
MUD WT. 8.
P.V.
GALVONIC PI
FORM. DRLD.
MAX. TEMP. *MRT est
BIT # SIZE M
3 3.937 0

Pump Pressure → 0
Fluid level drop to 150'
may be due to water level
maintenance due to pump pressure
outlet valve

PUMP	LINER
1	

AIR COMP. NO
DRILLING AS

10¾" CSG 35
" CSG.
7⅝" CSG. 488
5" CSG. 526 temporary
LINER
TIE-BACK
HRS. REPAIR / RIG NO.
YES ☐ NO ☒
PH . CHL YP
% LOST CIRC. MTL.
OXY. AIR-H₂O RATIO /
SUCTION TEMP. °F.

FT.	HRS.	WT.	RPM	COND
304	80	1000	400	T R G
				T R G
				T R G

PM	NOZZLE VEL.	ANNULUS VEL.

EM. RATIO / RATE

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 3.937" hole from 1998 to 2083' Obtained 100% recovery. No drilling fluid returns

H2S detection equipment NOT OPERATING. Home owner electric outage. Will repair or replace and have it functioning by 2500' depth

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2103'. Pump pressure fell to zero at 2102' Fluid level fell to ± 150'.

INOPERATIVE EQUIP'T. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3557
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	250
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	$ 250
DAILY TOTAL	$ 4987
FORWARD	157,131
ACCU. TOTAL	$ 162,118
AFE	86001-4300-02

DD 10 July Bowden