Schlumberger

INDUCTION ELECTRICAL LOG

COUNTY CHURCHILL
FIELD or LOCATION T-24N-23E
WELL DIXIE FEDERAL 45-15
COMPANY THERMAL POWER CO.

COMPANY THERMAL POWER COMPANY
WELL DIXIE FEDERAL 45-15
FIELD DIXIE VALLEY
COUNTY CHURCHILL STATE NEVADA
Location: 1980' FSL & 660' FEL
Other Services: BHC-GR
Permanent Datum: GROUND LEVEL Elev.: 3763
Log Measured From: KELLY BUSHING 10 Ft. Above Perm. Datum
Drilling Measured From: KELLY BUSHING
Elev.: K.B. 3773 D.F. G.L. 3763

Date: 12-15-78
Run No.: ONE
Type Log: INDUCTION ELECTRICAL LOG
Depth-Driller: 9993
Depth-Logger: 9993
Bottom Logged Interval: 9993
Top Logged Interval: 2700
Type Fluid in Hole: LIGNOSULFONATE
Salinity, PPM Cl: 1000
Density: 9.2
Level: FULL
Max. Rec. Temp. Deg. F: 220
Operating Rig Time: 12 HRS
Recorded By: R. MOORE
Witnessed By: MR. MARTIN

Run No.	Bit From	Bit To	Size	Type Bit	Size Csg.	Wgt.	Depth	Type Fluid	Density	Visc.	pH	Fluid Loss	Source of Sample	Rm @ Meas. Temp.	Rmf @ Meas. Temp.	Rmc @ Meas. Temp.	Source of Rmf & Rmc	Rm @ BHT	Time Since Circ.	Max. Rec. Temp. Deg. F	Equip. Location	Recorded By	Witnessed By
ONE	2700	9993	8 3/4"	HTC	7"	23	9993	LIGNOSULFONATE	9.2	40	10.5	6.4	MUD PIT	.68 @ 70°	.52 @ 70°	.85 @ 70°	MEASURED	.31 @ 220°	12 HRS	220		R. MOORE	MR. MARTIN

Circulation Stopped: 0600 12-14-78
Logger on Bottom: 1100 12-15-78
Max. Rec. Temp. Deg. F: 220
Equipment No. & Location: 3763 FALLON
Recorded By: R. MOORE
Witnessed By: MR. MARTIN

"The well name, location and borehole information was furnished by the customer."

RUN NO. ONE

Run No.	ONE
Service Order No.	43815
Well Head	---
Cat	---
Cat/Sgn	13-15
Crew	---
Unit Number	---
Truck SP - Turbo	---
Truck SP	---
S. P. Cartridge	---

EQUIPMENT DATA

Tool	60-280
Mon. Panel	---
Type	---
Cat	---
Cat/Sgn	13-15
Crew	---
Unit Number	---
Truck SP - Turbo	---
Truck SP	---
S. P. Cartridge	---

CALIBRATION DATA

6 FF40	1 K
Shop	Before Survey
Hole	Before and After Survey
Ground	Open Hole
Type Log	SURFACE
Speed of Log	---
SP	REC. SPL --- mv Meter SPL --- mv
GR	---

RECORD CHANGES

Run	Log	Depth	Time	Up Hole	Down Hole

REMARKS:

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, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

SPONTANEOUS-POTENTIAL
$SP = -K \log \frac{R_{mf}}{R_w}$ MILLIVOLTS

6FF40 INDUCTION
CONDUCTIVITY
MILLIMHOS/M
200 100 0

6 FF40 INDUCTION
0 100

Base SP Shift

Base SP Shift

Base SP Shift

Base SP Shift

Correlation Line

SPONTANEOUS-POTENTIAL
$SP = -K \log \frac{R_{mf}}{R_w}$ MILLIVOLTS

6 FF40 INDUCTION
0 100

CONDUCTIVITY
MILLIMHOS/M
200 100 0

6 FF40 INDUCTION

COMPANY THERMAL POWER COMPANY
WELL DIXIE FEDERAL 45-15
FIELD DIXIE VALLEY
COUNTY CHURCHILL STATE NEVADA

SCALE MD 1"=100'
SCALE TVD 1"=100'
DATA TD 9993'
Elev.: GL 3763'
KB 3773'
DF ---'
GL 3763'