

A-4-13

COMPANY UNION OIL CO OF CALIF
 FIELD SACA
 WELL #8
 COUNTY SANDOVAL
 STATE NEW MEXICO
 LOCATION ALAMO CREEK
1/4 MILE WEST OF BOND #1 EL. App. 8650'

TOTAL DEPTH 438'
 SPUD DATE Aug 16, 1972
 COMPLETION DATE SEPT. 13, 1972
 DRILLING CONTRACTOR Calman & Anoes
 ENGINEER HARRELL
 GEOLOGIST Dondanville, Issehardt

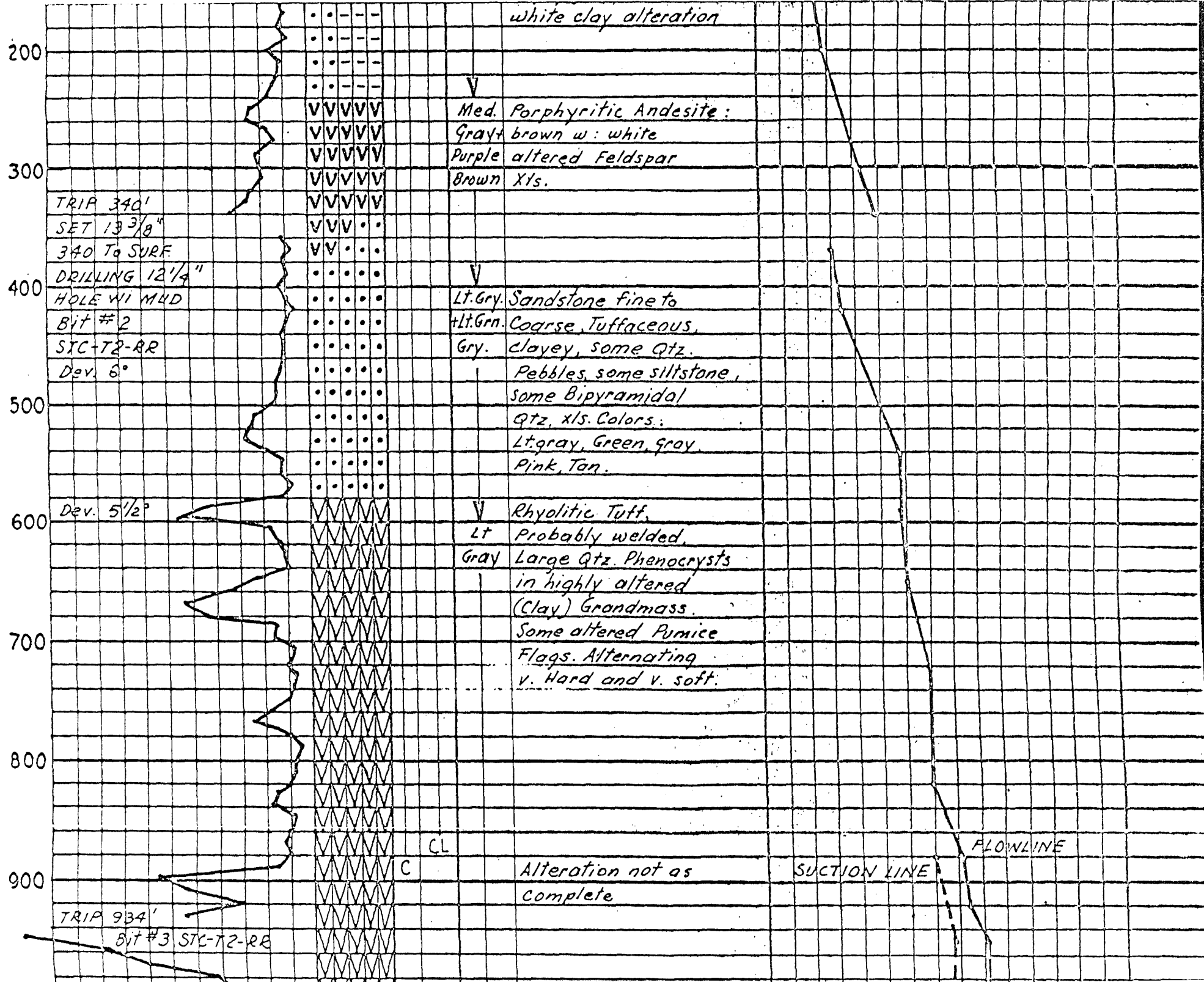
CASING RECORD
4 7/8" : 2246' to Surface, Cemented
2" : 4425' to Surface, Hung

EXPLANATION

DRILLING	ROCK	MINERALS	PHYSICAL - CHEMICAL
NB - NEW BIT	<input checked="" type="checkbox"/> SHALE	<input checked="" type="checkbox"/> CHERT	D.H.-DOWN HOLE PPM - PARTS PER MILLIO
RRB - RERUN BIT	<input checked="" type="checkbox"/> SILTSTONE	<input checked="" type="checkbox"/> VOLCANICS	B.H.-BOTTOM HOLE
CB - CORE BIT	<input checked="" type="checkbox"/> SANDSTONE	<input checked="" type="checkbox"/> INTRUSIVE	F.L. FLOW LINE
LC - LOST CIRCULATION	<input checked="" type="checkbox"/> CONGLOMERATE	<input checked="" type="checkbox"/> TUFF	T. TEMPERATURE
DEV - DEVIATION	<input checked="" type="checkbox"/> LIMESTONE	<input checked="" type="checkbox"/> METAMORPHIC	P. PRESSURE
DST - DRILL STEM TEST	<input checked="" type="checkbox"/> DOLOMITE	<input type="checkbox"/>	T.C. TIME SINCE CIRCULATION
	<input checked="" type="checkbox"/> GYP, ANHYD.	<input type="checkbox"/>	W.H. WELL HEAD

TUFF Ground mass: Opaque (O), Translucent (T)

DEPTH	PENETRATION DATA					LITHOLOGY				PHYSICAL-CHEMICAL DATA				MISC			
	MI		LITH			MINERALS		BULK COLOR	DESCRIPTION	MUD FLOWLINE TEMPERATURE							
	FT./HR.	MIN/FT.	100%	70%	50%	30%	10%			100%	70%	50%	30%	10%	50°F	100°	150°
	DRILLING					•	•	•	•	•							
	17 1/4" Hole					•	•	•	•	•							
	wi Mud					•	•	•	•	•							
	Bit #1 STC-RR					•	•	•	•	•							
100						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
200						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
300						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							
						•	•	•	•	•							



white clay alteration

V
 Med. Porphyritic Andesite:
 Gray brown w: white
 Purple altered Feldspar
 Brown Xls.

TRIP 340'

SET 13 3/8"

340 To SURF

DRILLING 12 1/4"

HOLE W/ MUD

Bit #2

STC-T2-RR

Dev. 6°

V
 Lt. Gry. Sandstone fine to
 + Lt. Grn. Coarse, Tuffaceous,
 Gry. clayey, some Qtz.
 Pebbles, some siltstone,
 some Bipyramidal
 Qtz, xls. Colors:
 Lt. gray, Green, Gray,
 Pink, Tan.

Dev. 5 1/2°

V
 Rhyolitic Tuff,
 Lt. Probably welded,
 Gray Large Qtz. Phenocrysts
 in highly altered
 (Clay) Grandmass.
 Some altered Pumice
 Flags. Alternating
 v. Hard and v. soft.

C

CL

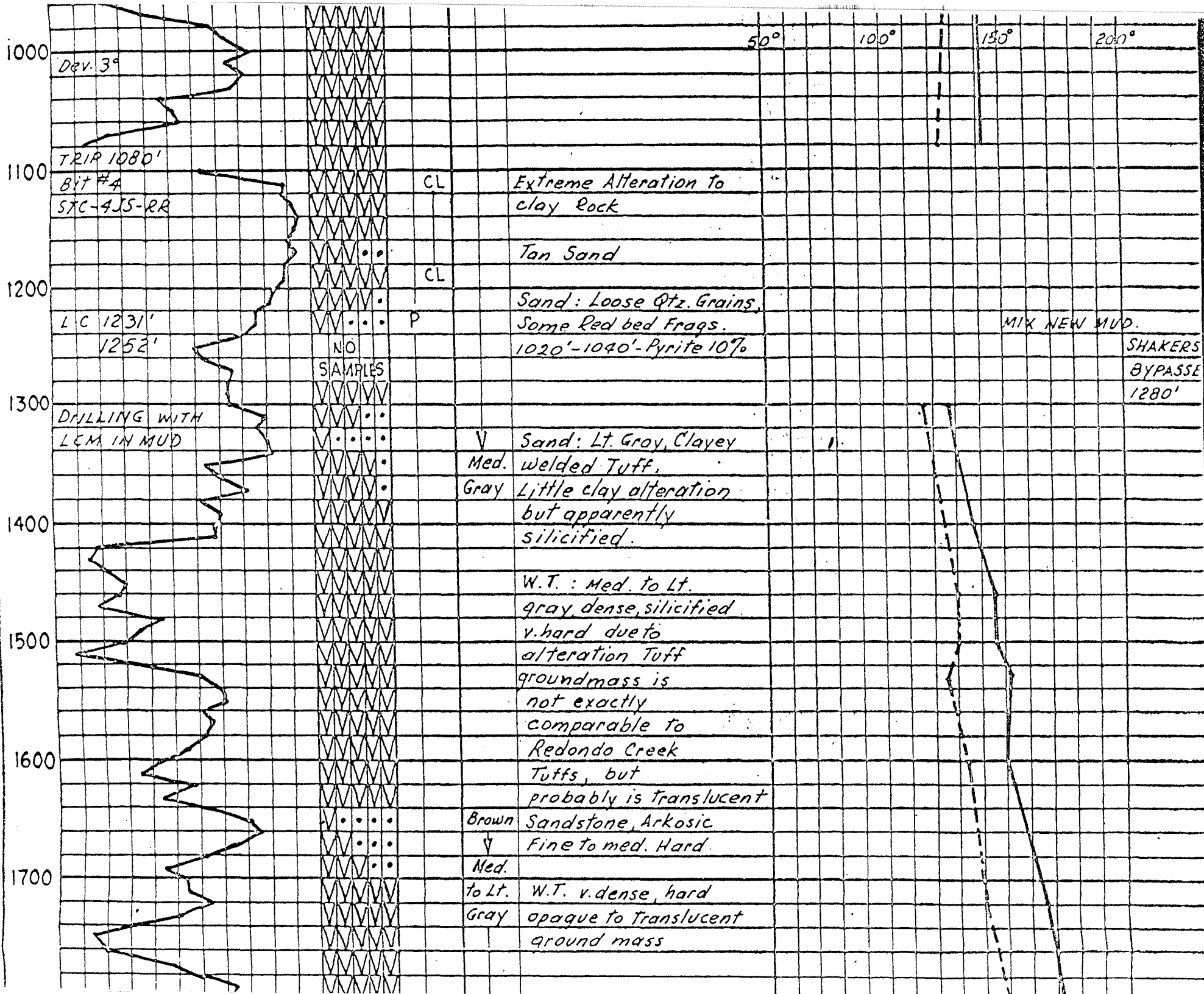
Alteration not as
 complete

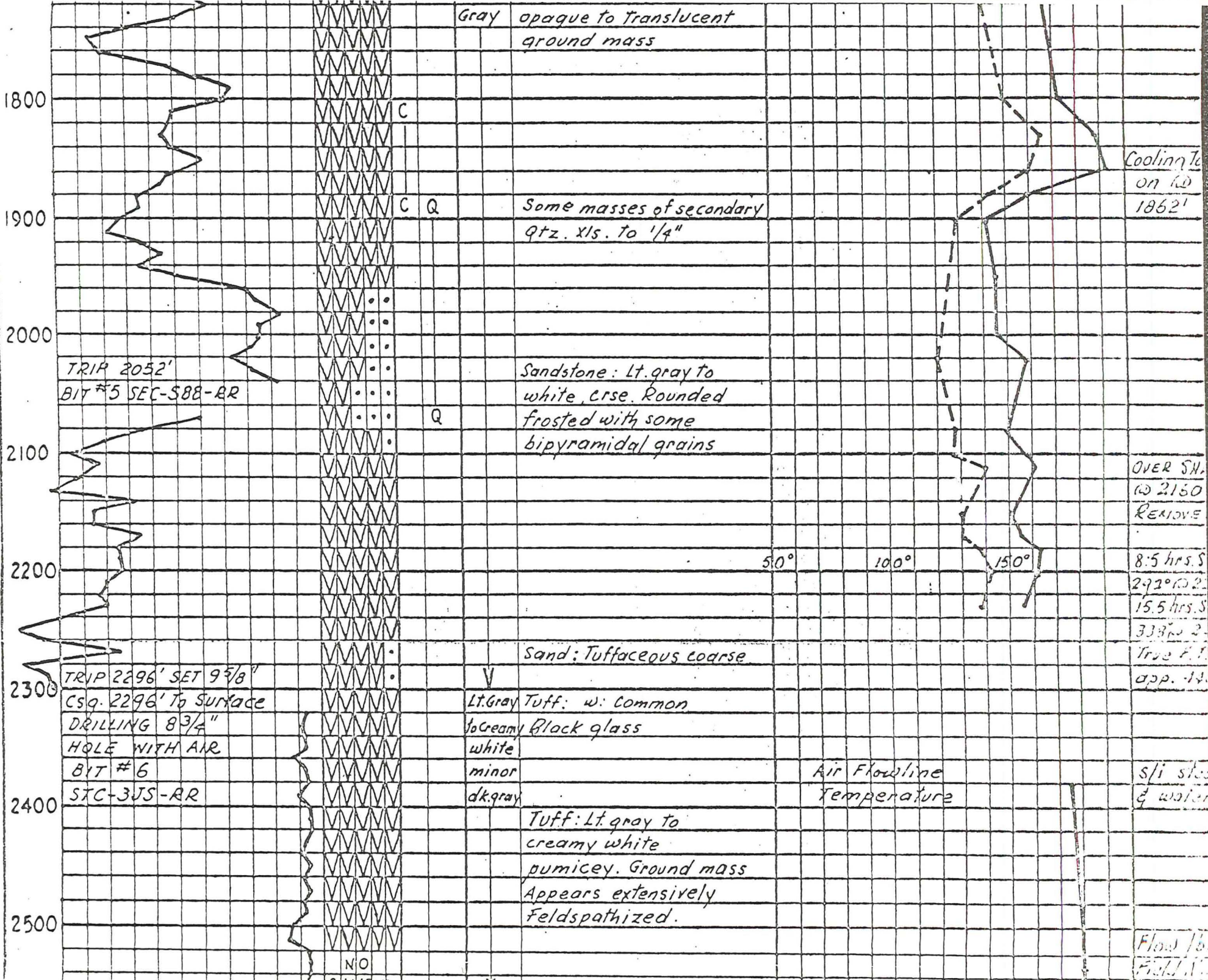
SUCTION LINE

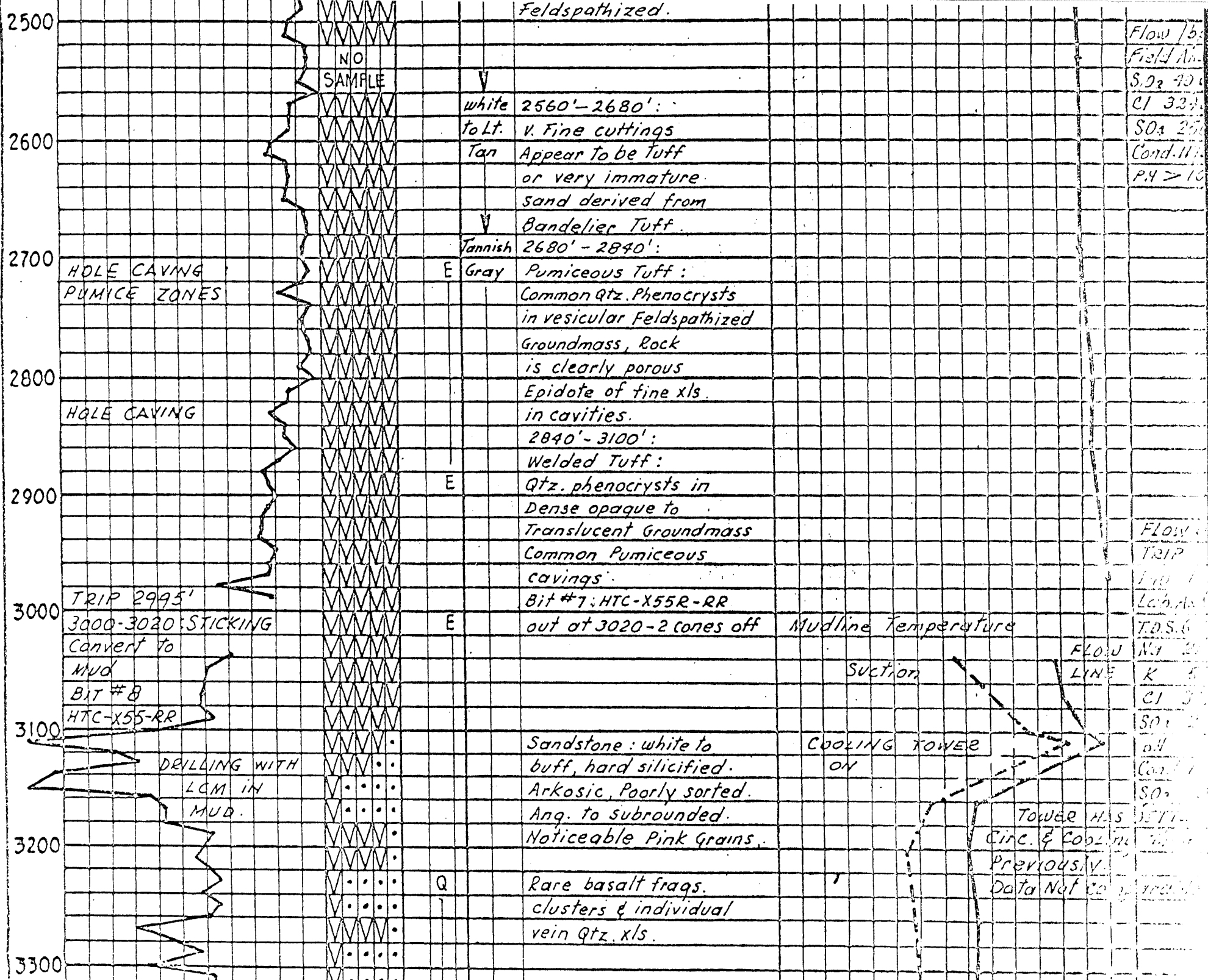
FLOWLINE

TRIP 934'

Bit #3 STC-T2-RR



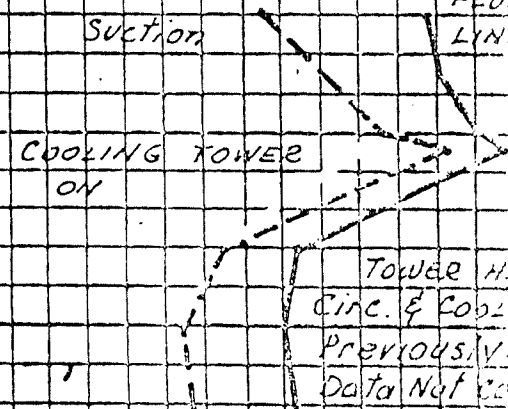




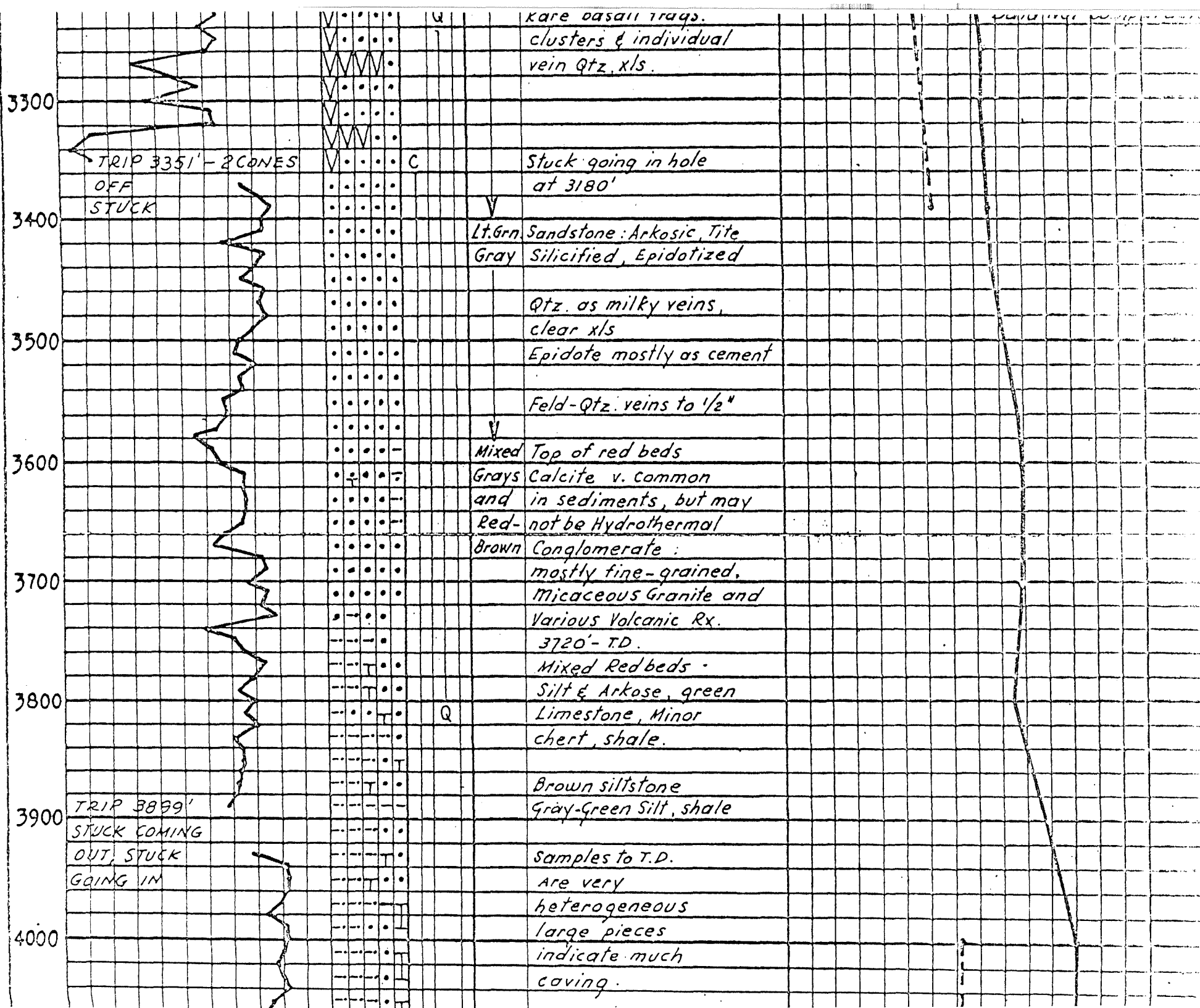
Flow /b.
Field An.
S.D. 90
CI 33
SO. 25
Cond. 11
PH > 10

Flow
TRIP
Lab. An.
T.D.S. 6

FLOW LINE
K 5
CI 3



TOWER HAS CIRC. & COOLING PREVIOUSLY. DATA NOT TO BE USED.

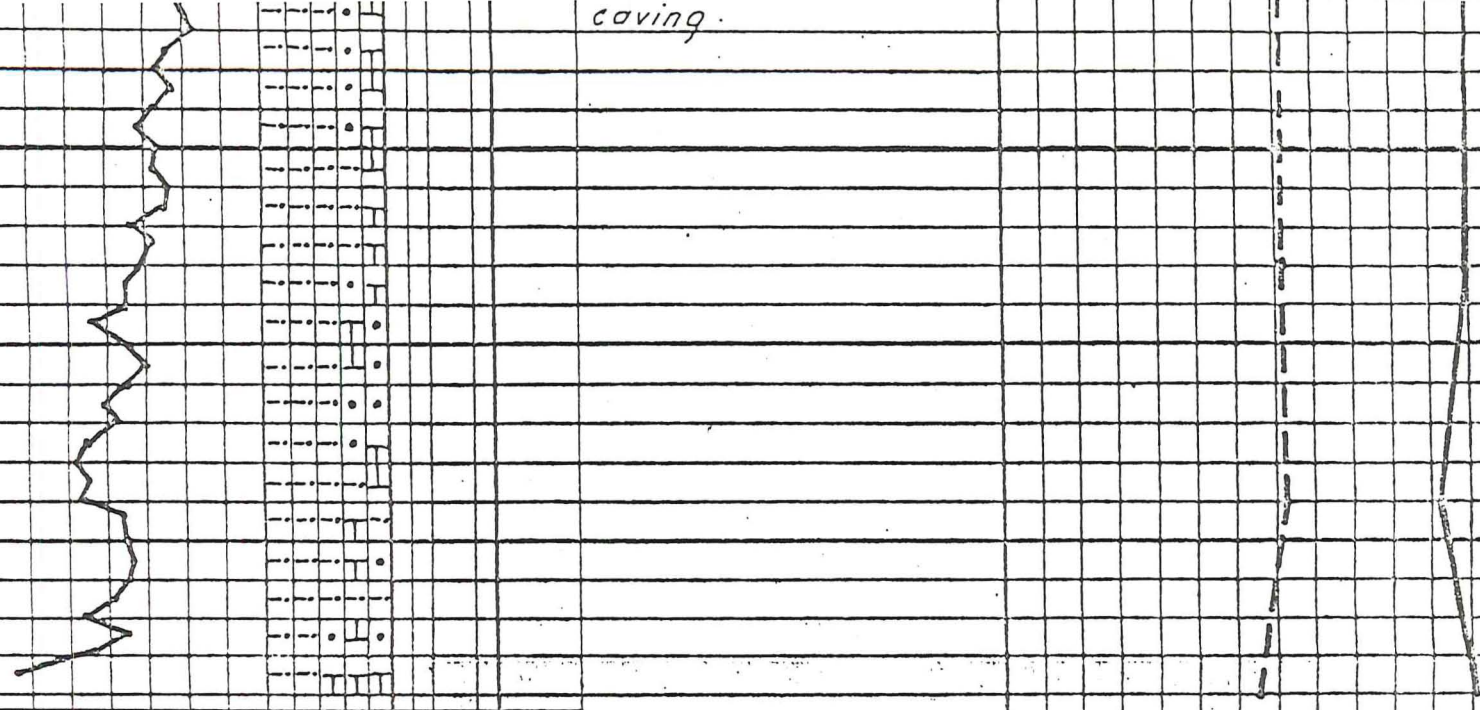


caving.

4100

4200

4300



RUN 2" 4225' TO
SURFACE FOR
SURVEY ACCESS.

NOTE.- Hole drilled
with mud 3020' to
4384' T.D. with
slow mud loss
beginning continuing
addition of gel and
lost circulation material-
Total 300 sacks LCM
Test Data: At. T.D.
ran 2" to 1975', circ.
with air, well kicked
off, Flowed 6" thru
6" orifice. Ran Tubing
To 4225' with continuing
flow. Circulated air
for 4 hrs. No flow
increase.

Temperature Survey
2 Oct. 1972
Static 3 weeks
Depth Temperature
..... 2000 F

43.1
43.2
43.3
43.4
43.5
43.6
43.7
43.8
43.9
44.0
44.1
44.2
44.3
44.4
44.5
44.6
44.7
44.8
44.9
45.0

Temperature Survey

2 Oct. 1972

Static 3 weeks

Depth Temperature

1000' 295° F

1500' 366°

2000' 416°

2500' 459°

3000' 493°

3250' 501°

3500' 507°

3750' 516°

4000' 531°

4200' 541°