WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

WELL TYPE	GS, OG
COMPANY:	SOUTHERN CALIF. GAS CO.
WELL:	PORTER 69D
FIELD:	ALISO CANYON
COUNTY:	LOS ANGELES
STATE:	CALIFORNIA
LOCATION:	DISTRICT 2
OTHER SVC:	

BFW

API NUMBER: 0403724130

SEC: 28 TWN: 3N RNG: 16W

PERMANENT DATUM: GROUND LEVEL ELEV:

LOG MEASURED FROM KB 23' ABOVE PERM DATUM

DRILLING MEASURED FROM

-ELEVATIONS-

KB: Ft.

DF: Ft.

GL: Ft.

DATE LOG RAN	03-20-2016	PRESSURE		FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI				1081
EFFECTIVE DEPTH	8107'	CASING PSI				1081
PICKUP DEPTH	8091'	INJECTION RATE		N/A		
BOT LOGGED INT	8091'	OBSERVED RATE		N/A		
TOP LOGGED INT	100'	R/A SOURCE		N/A		
TYPE OF INJECT	NONE	ACTIVITY		N/A		
FLUID IN WELL	GAS	HALF LIFE		N/A		
FLUID LEVEL	N/A			PRODUCTION DATA		
WELL STATUS	STATIC					
MAX TEMPERATURE	165.5'	OIL Gr.	N/A	OIL =	N/A	
AT DEPTH	8091'	GAS Gr.	N/A	GAS=	N/A	
TEMPERATURE SENS	1 F/DIV.	MPP	N/A	BHP =	N/A	
LOGGING SPEED	100 FPM			WATER=	N/A	
RECORDED BY	D.PROKUSKI					
WITNESSED BY	N/A					
EMAIL TO	A.KARGAR					
DEPTH CORRELATION	LINER TOP					

Equipment Data

Collar Locator	■ 1.375"		
Temperature Tool	🟩 1.375"		
Audio Detector	🟥 1.375"		

Remarks/Survey Results

10:45AM - ON LOCATION
11:00AM - RAN IN HOLE
11:05AM - BEGIN SURVEY
02:30PM - PULL OUT OF HOLE
03:00PM - OFF LOCATION

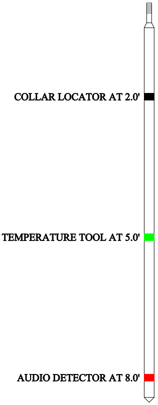
SAND TAG MARKERS: 7496' TOP MP
7773' TOP S1
7803' TOP S2
7853' TOP S4
7940' TOP S8

CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	54.5	SURFACE	1038'				
9.625"	47	SURFACE	7801'				
5.50"	17	7711'	8107'				
2.875"	6.5	SURFACE	7647'				

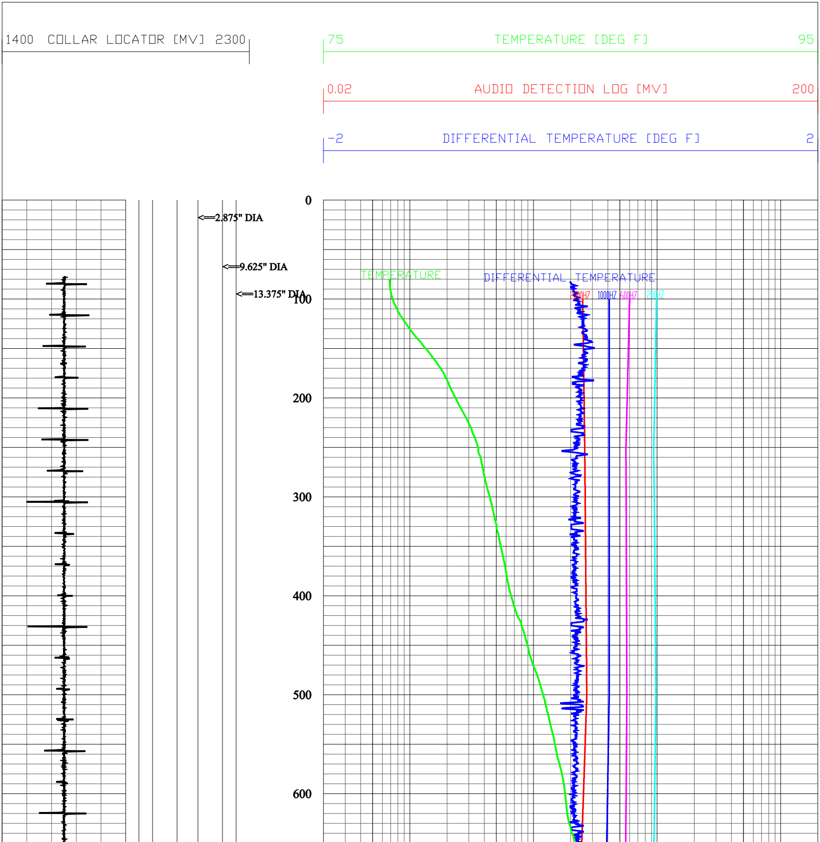
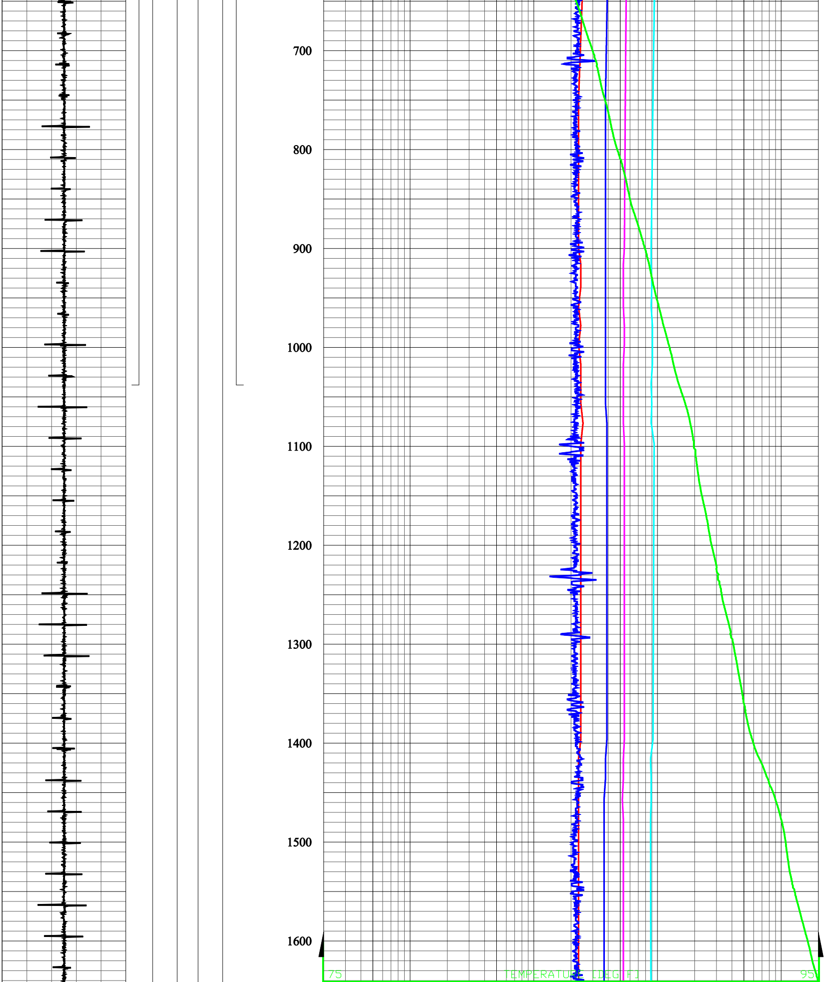
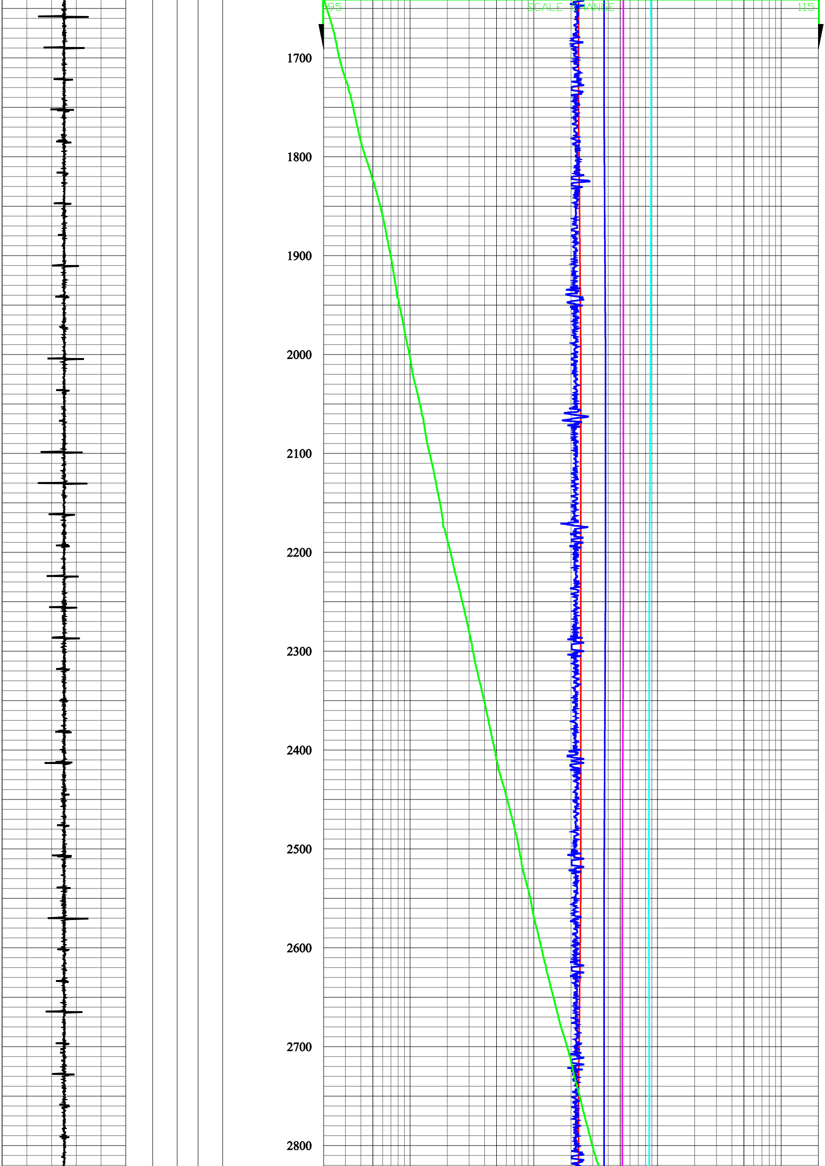
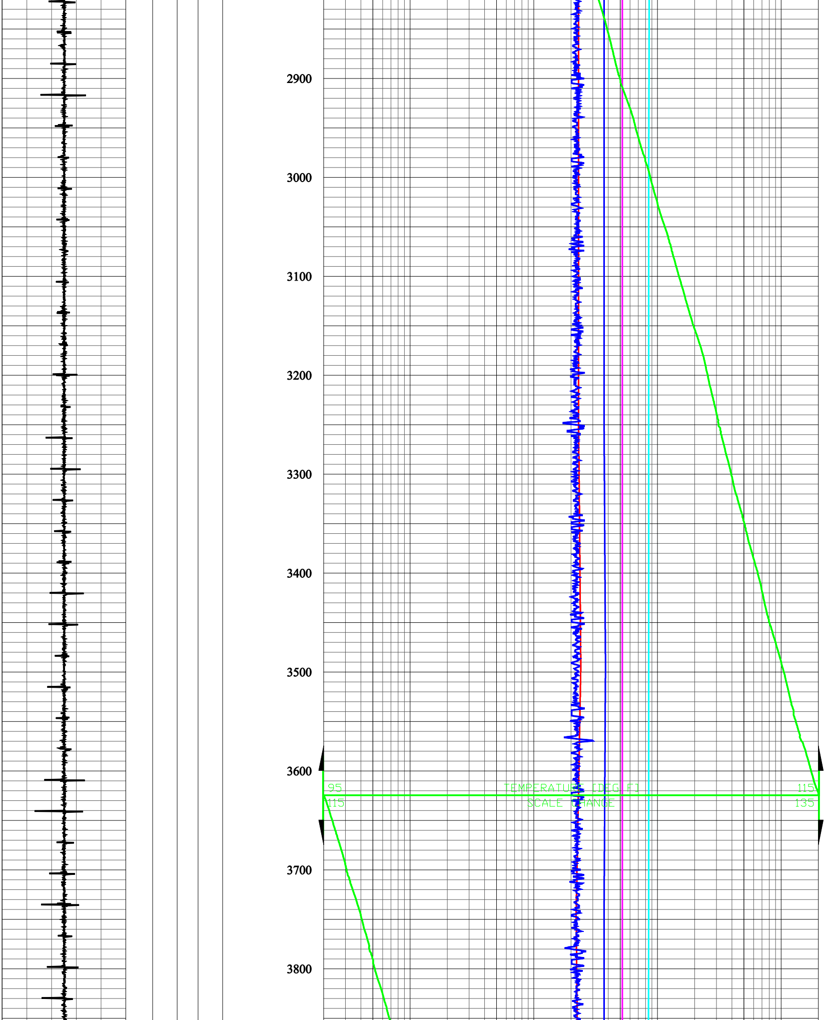
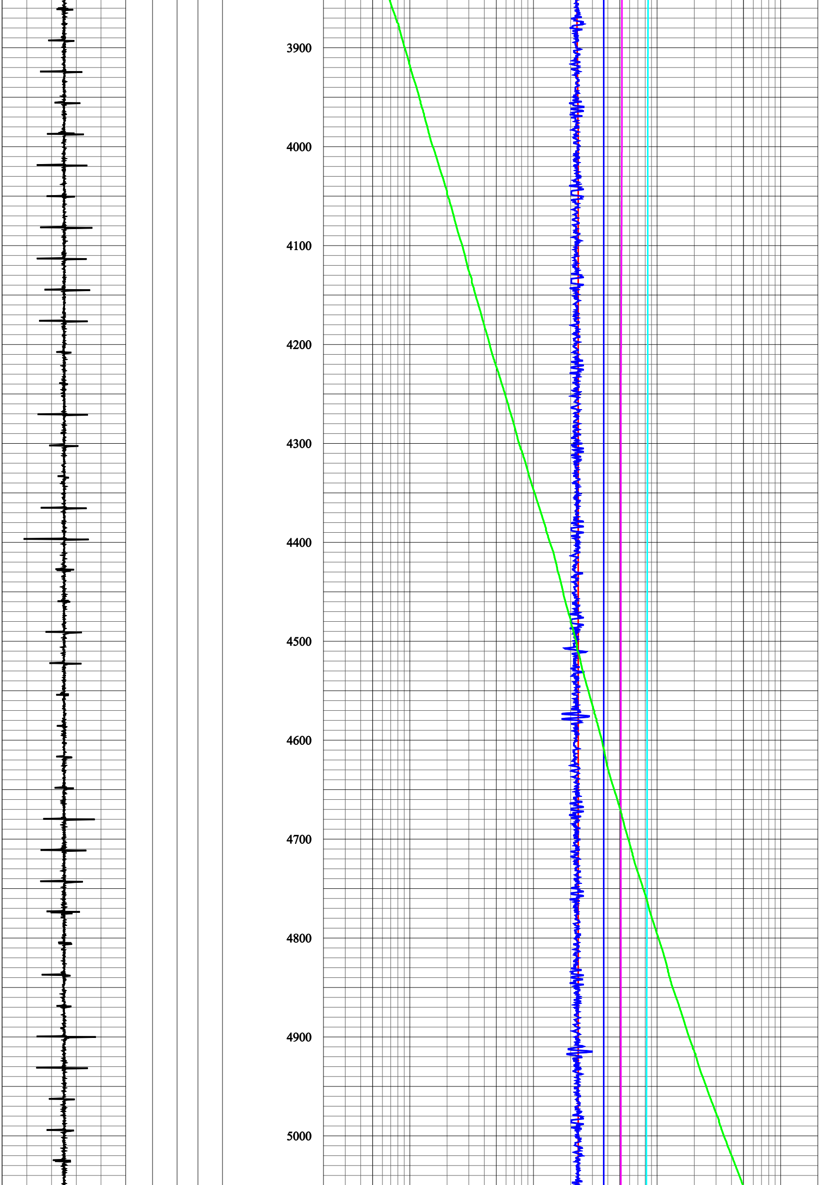
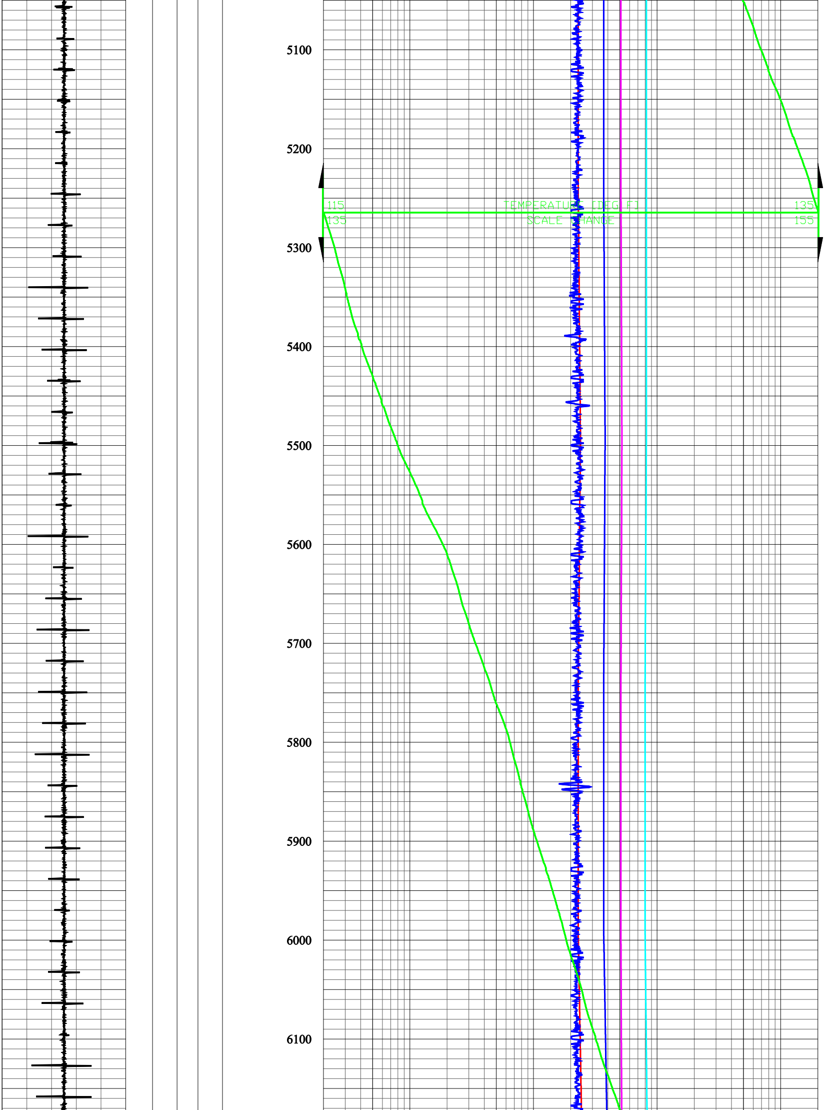
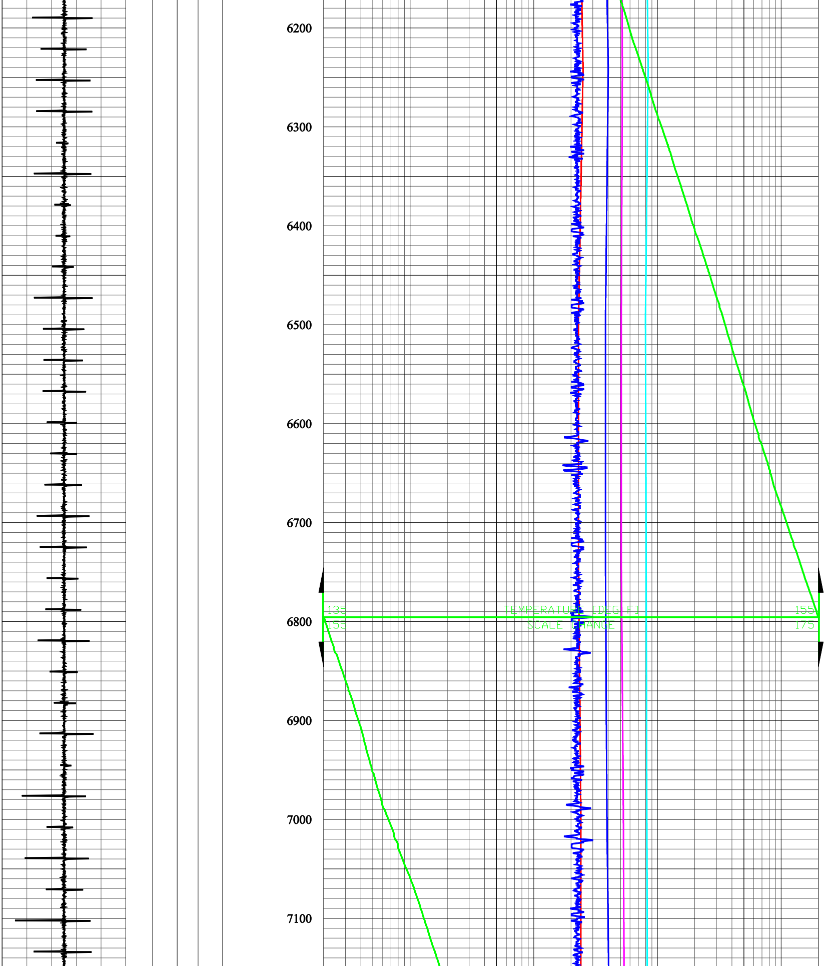
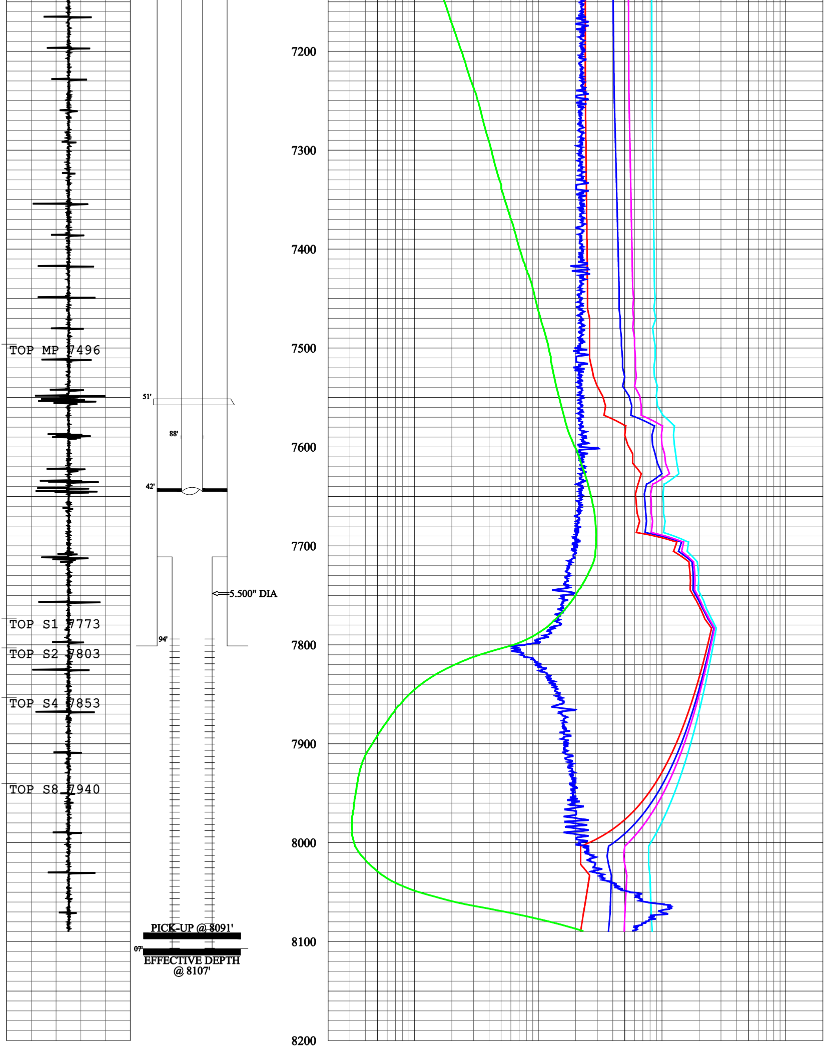
STR.	PIPE DIA.	PERFORATIONS
A	5.50"	7794'-8107'.
		PACKERS: 7642'.
		MANDRELS: 7551.3'-7557.4'.
		SLEEVES: 7588.8'-7592.7'.
		NO-GO: 7610'.

TOOL DIAGRAM



```
     Audio Data:  c:\data\noise.txt
--------------------------------------------------
   DEPTH |   200HZ |   600HZ |  1000HZ |  2000HZ |
--------------------------------------------------
     100 |    9.90 |    6.00 |    4.10 |    2.50 |
     250 |    9.40 |    5.60 |    4.10 |    2.60 |
     500 |    9.80 |    5.70 |    4.10 |    2.70 |
     750 |    9.20 |    5.50 |    3.80 |    2.30 |
     900 |    8.90 |    5.40 |    3.80 |    2.30 |
     920 |    8.90 |    5.30 |    3.80 |    2.40 |
     940 |    9.00 |    5.30 |    3.80 |    2.40 |
     960 |    8.90 |    5.30 |    3.80 |    2.30 |
     979 |    9.10 |    5.40 |    3.80 |    2.40 |
    1000 |    9.10 |    5.40 |    3.80 |    2.30 |
    1020 |    9.10 |    5.30 |    3.80 |    2.40 |
    1040 |    8.90 |    5.30 |    3.80 |    2.40 |
    1060 |    9.00 |    5.30 |    3.80 |    2.40 |
    1080 |    8.90 |    5.30 |    3.90 |    2.50 |
    1100 |    9.40 |    5.40 |    3.90 |    2.40 |
    1400 |    9.20 |    5.40 |    3.90 |    2.40 |
    1420 |    8.80 |    5.30 |    3.80 |    2.30 |
    1440 |    8.90 |    5.30 |    3.80 |    2.30 |
    1460 |    8.90 |    5.20 |    3.70 |    2.30 |
    1480 |    8.80 |    5.30 |    3.70 |    2.30 |
    1500 |    8.80 |    5.30 |    3.70 |    2.30 |
    1750 |    8.90 |    5.30 |    3.70 |    2.30 |
    2000 |    8.80 |    5.30 |    3.80 |    2.40 |
    2250 |    8.60 |    5.30 |    3.80 |    2.40 |
    2550 |    8.50 |    5.20 |    3.70 |    2.40 |
    2750 |    8.60 |    5.20 |    3.70 |    2.30 |
    3000 |    8.50 |    5.20 |    3.70 |    2.30 |
    3250 |    8.50 |    5.20 |    3.70 |    2.30 |
    3500 |    8.50 |    5.20 |    3.80 |    2.40 |
    3750 |    8.50 |    5.20 |    3.70 |    2.20 |
    4000 |    8.40 |    5.20 |    3.70 |    2.30 |
    4250 |    8.40 |    5.10 |    3.70 |    2.30 |
    4500 |    8.30 |    5.10 |    3.70 |    2.30 |
    4750 |    8.30 |    5.10 |    3.70 |    2.30 |
    5000 |    8.20 |    5.10 |    3.70 |    2.30 |
    5250 |    8.20 |    5.10 |    3.70 |    2.30 |
    5500 |    8.20 |    5.20 |    3.80 |    2.40 |
    5750 |    8.00 |    5.10 |    3.70 |    2.30 |
    6000 |    8.00 |    5.10 |    3.70 |    2.30 |
    6250 |    8.40 |    5.20 |    4.00 |    2.50 |
    6500 |    8.00 |    5.10 |    3.80 |    2.30 |
    6750 |    8.10 |    5.10 |    3.80 |    2.30 |
    7000 |    8.20 |    5.30 |    3.90 |    2.40 |
    7250 |    8.30 |    5.40 |    4.10 |    2.40 |
    7450 |    8.70 |    5.80 |    4.50 |    2.50 |
    7460 |    8.80 |    5.90 |    4.50 |    2.50 |
    7470 |    8.60 |    5.80 |    4.50 |    2.50 |
    7480 |    8.90 |    5.90 |    4.60 |    2.60 |
    7490 |    8.40 |    5.80 |    4.60 |    2.60 |
    7500 |    8.60 |    6.00 |    4.70 |    2.60 |
    7510 |    8.80 |    6.00 |    4.70 |    2.60 |
    7520 |    8.80 |    6.10 |    4.80 |    2.60 |
    7530 |    8.60 |    6.10 |    4.80 |    2.70 |
    7540 |    8.70 |    6.20 |    5.00 |    2.80 |
    7550 |    9.20 |    6.00 |    4.80 |    3.00 |
    7560 |    9.00 |    6.60 |    5.40 |    3.30 |
    7570 |    9.20 |    6.80 |    5.70 |    3.50 |
    7580 |   10.20 |    6.80 |    5.60 |    3.40 |
    7590 |   12.60 |   10.10 |    8.70 |    5.10 |
    7600 |   12.40 |    9.90 |    8.30 |    5.00 |
    7610 |   12.60 |   10.00 |    8.40 |    5.30 |
    7620 |   12.90 |   10.50 |    8.80 |    5.80 |
    7630 |   13.20 |   10.70 |    9.20 |    5.80 |
    7640 |   13.70 |   11.50 |   10.00 |    6.80 |
    7650 |   10.40 |    8.40 |    7.50 |    6.40 |
    7660 |   10.20 |    8.10 |    7.20 |    6.10 |
    7670 |   10.30 |    8.20 |    7.30 |    6.20 |
    7680 |   10.30 |    8.20 |    7.40 |    6.30 |
    7690 |   10.60 |    8.40 |    7.50 |    6.60 |
    7700 |   10.30 |    8.20 |    7.30 |    6.20 |
    7710 |   16.40 |   15.00 |   14.40 |   13.20 |
    7720 |   16.00 |   14.40 |   13.60 |   12.40 |
```

7730	19.30	18.00	17.50	16.50
7740	19.70	18.40	17.80	16.80
7750	19.80	18.50	17.90	17.00
7760	19.60	18.40	17.80	16.90
7770	21.60	20.30	19.70	18.80
7780	23.00	21.90	21.50	20.60
7790	25.40	24.30	23.80	22.40
7800	27.50	26.60	26.30	25.20
8020	7.80	5.00	3.70	2.20
8030	7.80	4.90	3.60	2.20
8040	7.80	5.00	3.70	2.20
8050	8.00	5.20	3.90	2.60
8091	8.20	5.00	3.80	2.30


1400 COLLAR LOCATOR [MV] 2300
75 TEMPERATURE [DEG F] 95
0.02 AUDIO DETECTION LOG [MV] 200
-2 DIFFERENTIAL TEMPERATURE [DEG F] 2
0
100
200
300
400
500
600
<==2.875" DIA
<==9.625" DIA
<==13.375" DIA
TEMPERATURE
DIFFERENTIAL TEMPERATURE
2000HZ
1000HZ
600HZ
200HZ