C:\DATA\FERNANDO FEE 32D.LAS

WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

COMPANY:	SOUTHERN CALIF. GAS CO.
WELL:	FERNANDO FEE 32D
FIELD:	ALISO CANYON
COUNTY:	LOS ANGELES
STATE:	CALIFORNIA
LOCATION:	DISTRICT 2
OTHER SVC:	
WELL TYPE	GS

API NUMBER: 0403721356
SEC: 27 TWN: 3N RNG: 16W

VS

PERMANENT DATUM: GROUND LEVEL ELEV: 1995 FT.
LOG MEASURED FROM KB 15' ABOVE PERM DATUM
DRILLING MEASURED FROM

-ELEVATIONS-
KB: 2010 Ft.
DF: Ft.
GL: 1995 Ft.

DATE LOG RAN	12-08-2015	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			2473
EFFECTIVE DEPTH	7265'	CASING PSI			2473
PICKUP DEPTH	7114'	INJECTION RATE		N/A	
BOT LOGGED INT	7114'	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				
WELL STATUS	STATIC			PRODUCTION DATA	
MAX TEMPERATURE	160.7 F.	OIL Gr.	N/A	OIL =	N/A
AT DEPTH	6987.0'	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	PACKER				

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Equipment Data			
Collar Locator	1.375"		
Temperature Tool	1.375"		
Audio Detector	1.375"		

TOOL DIAGRAM
COLLAR LOCATOR AT 2.0'
TEMPERATURE TOOL AT 5.0'
AUDIO DETECTOR AT 8.0'

Remarks/Survey Results

08:00AM - ON LOCATION
10:00AM - RAN IN HOLE
10:45AM - BEGIN SURVEY
02:00PM - PULL OUT OF HOLE
02:30PM - OFF LOCATION
SAND TAG MARKERS: 6846' TOP MP
7115' TOP S1
7191' TOP S4
7268' TOP SE

CASING AND TUBING RECORD

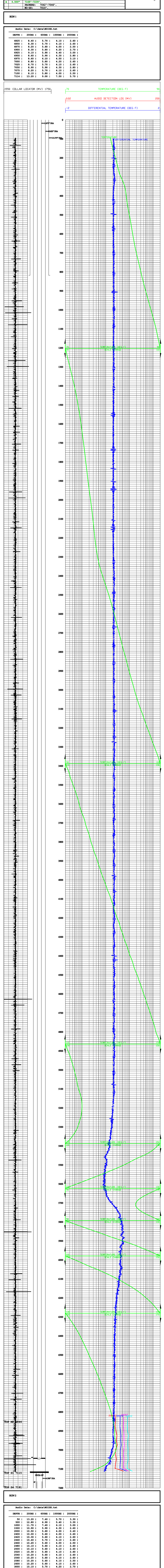
SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	48	SURFACE	818'				
8.625"	36	SURFACE	7358'				
4.500"	11.6	7120'	7241'				
2.875"	6.5	SURFACE	7047'				

STR.	PIPE DIA.	PERFORATIONS
A	4.500"	7169'-7239'.
		PACKERS: 7042'-7046'.
		NO-GO: 7010'.

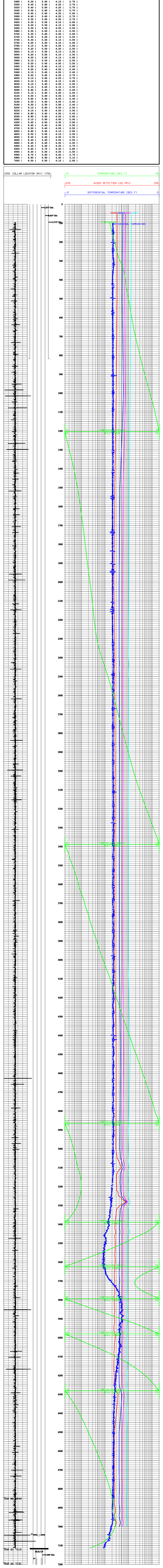
RUN 1

Audio Data: C:\data\NOISE.txt

DEPTH	200HZ	600HZ	1000HZ	2000HZ
6825	8.40	5.70	4.10	2.60
6850	8.30	5.70	4.10	2.60
6875	8.20	5.60	4.00	2.50
6900	8.30	5.80	4.20	2.70
6925	9.10	5.90	4.40	3.00
6950	8.60	5.90	4.30	2.80
6975	8.60	6.10	4.50	3.10
7000	8.80	5.80	4.20	2.60
7025	8.70	5.70	4.10	2.60
7050	8.90	5.90	4.30	2.80
7075	8.20	5.70	4.10	2.60
7100	8.10	5.80	4.00	2.50
7114	13.20	9.00	7.50	5.70



RUN 2

Audio Data: C:\data\NOISE.txt

DEPTH	200HZ	600HZ	1000HZ	2000HZ
50	13.20	7.40	5.70	3.30
500	12.80	6.90	5.40	3.30
1000	11.70	7.40	6.10	3.00
1500	10.90	5.90	4.30	2.60
2000	10.50	5.60	4.00	2.40
2400	10.00	5.60	4.00	2.60
2420	10.30	5.60	4.10	2.60
2440	10.40	5.70	4.10	2.60
2460	10.20	5.60	4.00	2.50
2480	10.10	5.60	4.10	2.60
2500	10.10	5.60	4.10	2.60
2520	10.30	5.60	4.10	2.60
2540	10.20	5.60	4.10	2.60
2560	10.20	5.60	4.10	2.60
2580	10.20	5.60	4.10	2.50
2600	10.20	5.60	4.10	2.60
3000	10.10	5.70	4.20	2.70
3500	9.80	5.50	4.10	2.60
4000	9.70	5.60	4.10	2.60
4500	11.70	6.30	4.60	3.00
5000	9.60	5.70	4.30	2.90
5050	9.90	6.00	4.60	3.30
5075	10.10	6.50	5.30	4.20
5100	10.50	7.10	6.00	4.90
5120	9.70	6.00	4.80	3.50
5140	9.80	5.80	4.50	3.10
5160	9.60	5.80	4.50	3.10
5180	9.70	5.80	4.40	3.10
5200	9.80	5.90	4.60	3.20
5210	9.70	5.90	4.60	3.20
5220	9.70	5.80	4.50	3.10
5230	9.80	6.10	4.80	3.60
5240	9.90	6.10	4.80	3.60
5250	9.80	6.20	5.00	3.80
5260	10.50	7.00	5.90	4.90
5270	10.70	7.50	6.50	5.60
5280	12.00	9.20	8.40	7.70
5300	10.10	6.60	5.40	4.30
5320	9.60	5.80	4.50	3.10
5340	9.70	5.70	4.40	3.00
5360	9.60	5.70	4.30	2.90
5380	9.70	5.50	4.20	2.70
5400	9.70	5.60	4.20	2.70
5420	9.70	5.50	4.10	2.60
5440	11.50	5.70	4.30	2.90
5460	9.30	5.50	4.10	2.60
5480	9.30	5.50	4.10	2.70
5500	9.40	5.60	4.20	2.70
5520	9.40	5.60	4.20	2.70
5540	9.30	5.60	4.20	2.70
5560	9.40	5.60	4.20	2.60
5580	9.40	5.60	4.20	2.70
5600	9.30	5.60	4.20	2.70
5620	9.30	5.50	4.10	2.60
5640	9.20	5.50	4.10	2.60
5660	9.30	5.50	4.00	2.50
5680	9.30	5.50	4.10	2.50
5700	9.30	5.60	4.20	2.60
5720	9.30	5.50	4.10	2.50
5740	9.30	5.50	4.10	2.50
5760	9.20	5.50	4.10	2.60
5780	9.10	5.50	4.00	2.50
5800	9.20	5.50	4.00	2.50
5820	9.10	5.50	4.10	2.50
5840	9.20	5.50	4.10	2.50
5860	9.20	5.50	4.10	2.60
5880	9.10	5.50	4.00	2.50
5900	9.20	5.40	4.00	2.50
5920	9.30	5.60	4.10	2.60
5940	9.20	5.40	4.00	2.40
5960	9.10	5.40	4.00	2.40
5980	9.20	5.60	4.20	2.70
6000	9.10	5.60	4.20	2.70
6020	9.10	5.50	4.10	2.60
6040	9.10	5.40	4.00	2.50
6060	9.10	5.50	4.10	2.50
6080	8.90	5.40	3.90	2.40
6100	9.10	5.40	4.00	2.50
6120	9.00	5.40	4.00	2.40
6140	9.60	5.40	4.00	2.40
6160	9.30	5.40	4.00	2.40
6180	9.00	5.30	3.90	2.40
6200	9.10	5.40	4.00	2.50
6220	9.10	5.40	4.00	2.50
6240	8.80	5.40	4.00	2.40
6260	8.80	5.60	4.20	2.60
6280	9.10	5.90	4.60	2.90
6300	9.40	6.50	5.30	3.60
6500	8.60	5.40	4.00	2.50
6700	8.50	5.40	4.00	2.50
6800	8.60	5.50	4.10	2.60
6820	8.50	5.50	4.10	2.50
6840	8.40	5.40	4.00	2.50
6860	8.40	5.40	4.00	2.50
6880	8.40	5.40	4.00	2.50
6900	8.40	5.50	4.20	2.70
6920	8.60	5.70	4.30	2.80
6940	8.40	5.50	4.00	2.50
6960	8.70	5.60	4.20	2.70
6980	8.80	5.90	4.60	3.10
7000	8.50	5.50	4.10	2.60