WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

WELL TYPE: GS

COMPANY: SOUTHERN CALIF. GAS CO.
WELL: PORTER 69H
FIELD: ALISO CANYON
COUNTY: LOS ANGELES STATE: CALIFORNIA
LOCATION: DISTRICT 2
OTHER SVC:
API NUMBER: 0403724223
SEC: 27 TWN: 3N RNG: 16W
VS

PERMANENT DATUM: GROUND LEVEL ELEV:
LOG MEASURED FROM MAT 0' ABOVE PERM DATUM
DRILLING MEASURED FROM

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

DATE LOG RAN	03-17-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			1227
EFFECTIVE DEPTH	7773' PLUG	CASING PSI			1227
PICKUP DEPTH	N/A	INJECTION RATE		N/A	
BOT LOGGED INT	7350'	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	162.5 F.	OIL Gr.	N/A	OIL =	N/A
AT DEPTH	7345.0'	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	MANDREL				

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

Remarks/Survey Results

11:00 AM - ON LOCATION
11:15 AM - RAN IN HOLE
11:20 AM - BEGIN SURVEY
02:30 PM - PULL OUT OF HOLE
03:00 PM - OFF LOCATION

TOOL DIAGRAM

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

CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	54.5	SURFACE	859'				
9.625"	47	SURFACE	7960.8'				
5.500"	15.5	7510.1'	7771.8'				
2.875"	6.5	SURFACE	7723.2'				

STR.	PIPE DIA.	PERFORATIONS
A	9.625"	7605'-7670', 7704'-7762', 7785'-7850'.
		PACKERS: 7379.5'-7398.8', 7401.7'-7407'.
		MANDRELS: 3987.8'-3994.4', 7316.1'-7322.4'.
		SLEEVES: 7355.2'-7359.5', 7414.4'-7418.7'.
		NO-GO: 7393.3'-7394.4', 7428.9'-7430.3', 7501.1'-7515.9'.
		COLLARS: 7390.9'-7393.3'.

Audio Data: c:\data\noise.txt

DEPTH	200HZ	600HZ	1000HZ	2000HZ
100	10.80	5.70	4.00	2.40
250	10.10	5.50	3.80	2.30
500	9.90	5.30	3.60	2.10
520	9.90	5.30	3.70	2.10
540	9.90	5.30	3.70	2.10
560	10.00	5.30	3.70	2.10
580	9.90	5.30	3.70	2.10
600	9.80	5.30	3.60	2.10
620	9.90	5.30	3.80	2.20
640	9.80	5.30	3.70	2.10
660	9.90	5.30	3.70	2.10
680	9.90	5.40	3.80	2.20
700	9.80	5.30	3.70	2.20
720	9.80	5.30	3.70	2.20
740	9.90	5.30	3.80	2.20
760	9.90	5.40	3.80	2.20
780	9.70	5.30	3.60	2.10
800	9.70	5.30	3.70	2.10
820	9.80	5.30	3.70	2.10
840	9.70	5.20	3.70	2.10
860	9.80	5.30	3.70	2.10
880	9.80	5.20	3.70	2.10
900	9.80	5.30	3.70	2.20
920	9.60	5.20	3.70	2.10
940	9.70	5.30	3.70	2.20
1000	9.60	5.20	3.70	2.20
1250	9.50	5.20	3.70	2.20
1440	9.50	5.20	3.70	2.20
1460	9.40	5.20	3.70	2.20
1480	9.50	5.20	3.70	2.20
1500	9.50	5.30	3.70	2.20
1520	9.50	5.30	3.80	2.30
1540	9.50	5.30	3.70	2.20
1560	9.40	5.30	3.70	2.20
1580	9.40	5.20	3.70	2.20
1600	9.40	5.20	3.70	2.20
1620	9.50	5.30	3.80	2.20
1650	9.50	5.30	3.70	2.20
1750	9.40	5.20	3.70	2.20
2000	9.50	5.30	3.70	2.20
2250	9.30	5.30	3.80	2.50
2550	9.40	5.30	3.70	2.30
2750	9.20	5.20	3.70	2.20
3000	9.30	5.20	3.70	2.20
3250	9.20	5.20	3.70	2.20
3500	9.10	5.20	3.70	2.20
3750	9.10	5.30	3.90	2.30
4000	9.20	5.60	4.20	2.50
4250	9.00	5.30	3.90	2.30
4500	9.10	5.40	4.00	2.40
4750	8.90	5.30	3.90	2.30
5000	8.80	5.20	3.80	2.40
5250	8.70	5.20	3.80	2.30
5500	8.80	5.10	3.70	2.30
5750	8.50	5.10	3.80	2.30
6000	8.50	5.10	3.70	2.30
6250	8.50	5.10	3.70	2.30
6500	8.80	5.00	3.70	2.20
6750	8.30	5.10	3.80	2.30
6900	8.30	5.20	3.80	2.30
6910	8.40	5.20	3.80	2.30
6920	8.20	5.10	3.80	2.30
6930	8.70	5.20	3.90	2.30
6940	8.40	5.30	3.90	2.40
6950	8.20	5.20	3.80	2.30
6960	8.50	5.20	3.90	2.40
6970	8.30	5.30	4.00	2.60
6980	8.70	5.40	4.10	2.70
6990	8.70	5.40	4.10	2.70
7000	8.90	5.70	4.40	3.10
7010	8.90	5.70	4.50	3.10
7020	8.70	5.60	4.40	3.10
7030	8.70	5.50	4.30	2.90
7040	8.90	6.20	5.10	4.00
7050	8.60	5.80	4.60	3.30
7060	8.50	5.60	4.40	3.10
7070	8.40	5.50	4.20	2.80
7080	8.30	5.40	4.10	2.60
7090	8.30	5.30	4.00	2.50
7100	8.60	5.20	3.90	2.40
7110	8.80	5.30	3.90	2.40
7120	8.30	5.20	3.80	2.40
7130	8.70	5.20	3.80	2.30
7140	8.50	5.20	3.90	2.40
7150	8.30	5.10	3.80	2.30
7160	8.40	5.10	3.80	2.30
7170	8.30	5.20	3.90	2.50
7180	8.20	5.20	3.80	2.40
7190	8.40	5.10	3.80	2.30
7200	8.50	5.10	3.80	2.30
7210	8.10	5.10	3.80	2.30
7220	8.20	5.10	3.80	2.30
7230	8.00	5.10	3.80	2.30
7240	8.10	5.10	3.70	2.30
7250	8.20	5.20	3.80	2.30
7260	8.00	5.20	3.80	2.30
7270	8.30	5.50	4.20	2.80
7280	7.90	5.10	3.80	2.30
7290	8.30	5.10	3.80	2.40
7300	8.00	5.20	3.80	2.40
7310	8.00	5.20	3.80	2.40
7320	8.30	5.10	3.80	2.30
7330	8.00	5.10	3.70	2.30
7340	8.10	5.20	3.80	2.30
7350	8.00	5.20	3.80	2.30

1530 COLLAR LOCATOR [MV] 1930

75 TEMPERATURE [DEG F] 95

0.02 AUDIO DETECTION LOG [MV] 200

-2 DIFFERENTIAL TEMPERATURE [DEG F] 2