WELL ANALYSIS CORPORATION

WELL TYPE: GS

WATER INJECTION SURVEY

COMPANY: SOUTHERN CALIF. GAS CO.
WELL: PORTER 69 (43D)
FIELD: PLAYA CANYON
COUNTY: LOS ANGELES
STATE: CALIFORNIA
OTHER SVCS:

LOCATION: SEC. 33 T. 2S R. 13W
DISTRICT 2

API NUMBER: 4019-20134
RNG: 16W
PERMANENT DATUM: GROUND LEVEL ELEV: 2266' ASL
LOG MEASURED FROM KB 39' ABOVE PERM.DATUM
DRILLING MEASURED FROM GL

ELEVATIONS:
KB: 2305' ASL
GL: 2266' ASL

DATE LOGGED	04-22-2016	PRESSURE		SHUT-IN	
EFFECTIVE DEPTH	8035'	CASING PSI	1800		
PICKUP DEPTH	7801'	TUBING PSI	1600		
TOP LOGGED INT	7600'	INJECTION RATE	N/A		
BTM LOGGED INT	8000'	GAS/WATER RATIO	11.1 MCF/BBL		
FLUID IN WELL	WATER	ACTIVITY	2.0 CI		
WELL STATUS	INJECTION	HALF LIFE	5.24 DAYS		
TYPE OF INJECT	WATER				

TEMPERATURE SENS	1 FLOVC	OIL Gr.	
LOGGING SPEED	VARIOUS	GAS Gr.	
WITNESSED BY	MORSKI	BHP =	
ENGINEER	N/A		
EMAIL TO	A. KARAM		

MAX TEMPERATURE: 161.0 F

OIL = WATER =

DEPTH CORRELATION: PRODUCTION DATA

PACKER

Equipment Data

RA EJECTOR	1.375"
COLLAR LOCATOR	1.375"
TEMPERATURE TOOL	1.375"
GAMMA DETECTOR	1.375"

TOOL DIAGRAM

RA EJECTOR AT 5.0'
COLLAR LOCATOR AT 7.0'
TEMPERATURE TOOL AT 9.5'
GAMMA DETECTOR AT 13.0'

Remarks/Survey Results

SAND TAG MARKERS: MP 7440'
B1 7647'
S4 md N/A
S8 md N/A
FREM md N/A

CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	54.5	SURFACE	874'				
9.625"	47.0	SURFACE	7670'				
5.000"		7552'	8019'				
2.875"	6.50	SURFACE	7552'				

PERFORATIONS

SIZE	PIPE DIA.
5	5.500"

7697'-7738', 7738'-8019'

PACKER: 7552'
NOGO GLM: 4436' & 7444' SLIDING SLEEVE: 7504' NO-GO: 7538',

1195 COLLAR LOCATOR (MV) 1565

0 BACKGROUND [API] 100
155 TEMPERATURE (DEG F) 175
0 INERT GAS [FPS] 15

DC @ 300'-500' 0.692 FPS
DC @ 3000'-3500' 0.749 FPS
DC @ 4000'-4500' 0.815 FPS
DC @ 6000'-6500' 1.202 FPS

TEMPERATURE
BACKGROUND
13 FPS

<=2.875" DIA
<=9.625" DIA
<=5.000" DIA
7670' Top Of Milled Window
PICK-UP

7200
7300
7400
7500
7600
7700
7800

PACKER AND TOP PERFORATION CHECK
INJECTED XE-133 AT SURFACE, PASSED DETECTOR AT 7450',
WAITED 0 SEC., THEN LOGGED DOWN..

0 RADIATION INCREASES ==========>>>> 200

SLUG PASSED

TIME (SECONDS)
0
240
480

<=2.875" DIA
<=9.625" DIA
PICK-UP

7400
7500
7600
7700
7800

R1 R2 R3

REPEAT PACKER AND TOP PERFORATION CHECK
INJECTED XE-133 AT SURFACE, PASSED DETECTOR AT 7525',
WAITED 0 SEC., THEN LOGGED DOWN...

0 RADIATION INCREASES ==========>>>> 200

SLUG PASSED

TIME (SECONDS)
0
240
480

<=2.875" DIA
<=9.625" DIA
PICK-UP

7400
7500
7600
7700
7800

R1 R2 R3 R4 R5 R6 R7 R8