WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

WELL TYPE
OG

COMPANY: SOUTHERN CALIF. GAS CO.
WELL: SESNON FEE 4
FIELD: ALISO CANYON
COUNTY: LOS ANGELES STATE: CALIFORNIA
LOCATION: OTHER SVC:
DISTRICT 2

API NUMBER: 0403700650
SEC: 32 TWN: 3N RNG: 16W

CB

PERMANENT DATUM: GROUND LEVEL ELEV: 2278.00 FT.
LOG MEASURED FROM KB 11' ABOVE PERM DATUM
DRILLING MEASURED FROM

-ELEVATIONS-
KB: 2289.00 Ft.
DF: Ft.
GL: 2278.00 Ft.

DATE LOG RAN	04-11-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			1952
EFFECTIVE DEPTH	9345'	CASING PSI			1952
PICKUP DEPTH	9196'	INJECTION RATE		N/A	
BOT LOGGED INT	9196'	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	198.3 F.	OIL Gr.		OIL =	
AT DEPTH	9196.0'	GAS Gr.		GAS=	
TEMPERATURE SENS	1 F/DIV.	MPP		BHP =	
LOGGING SPEED	100 FPM			WATER=	
RECORDED BY	S. MACIAS				
WITNESSED BY	N/A				
EMAIL TO	A. KARGAR				
DEPTH CORRELATION	PACKER				

Equipment Data

COLLAR LOCATOR	1.375"		
TEMPERATURE TOOL	1.375"		
AUDIO DETECTOR	1.375"		

Remarks/Survey Results

06:30 AM - ON LOCATION
09:00 AM - RAN IN HOLE
09:05 AM - BEGIN SURVEY
12:57 PM - PULL OUT OF HOLE
01:30 PM - OFF LOCATION

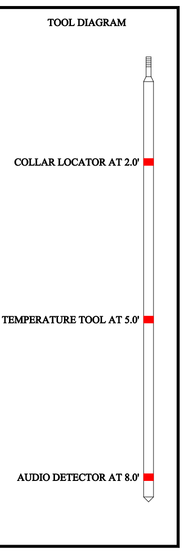
SAND TAG MARKERS: 9004' TOP S1
9078' TOP S4
9187' TOP S8

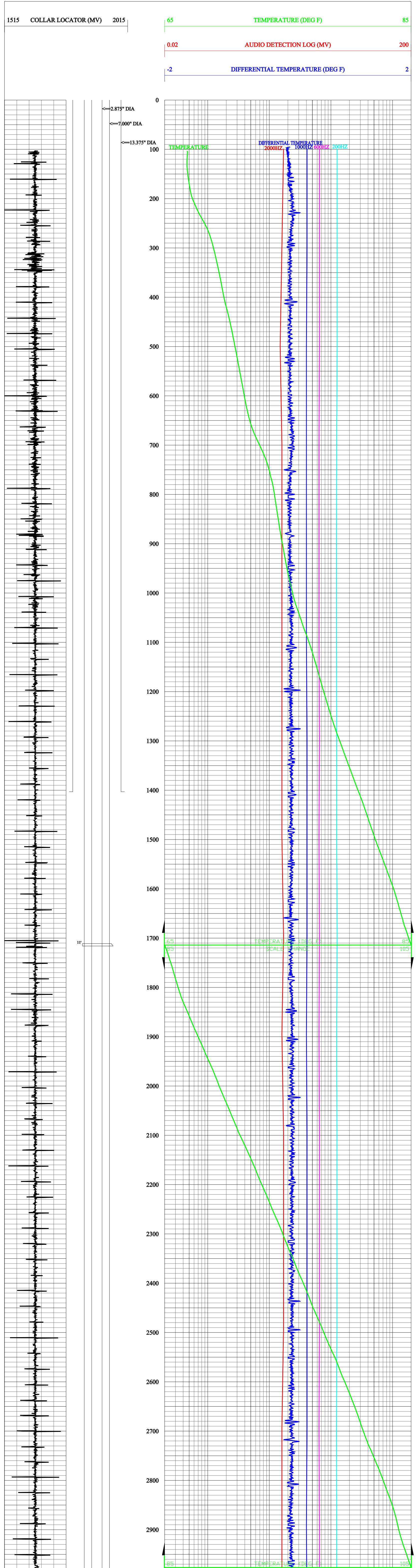
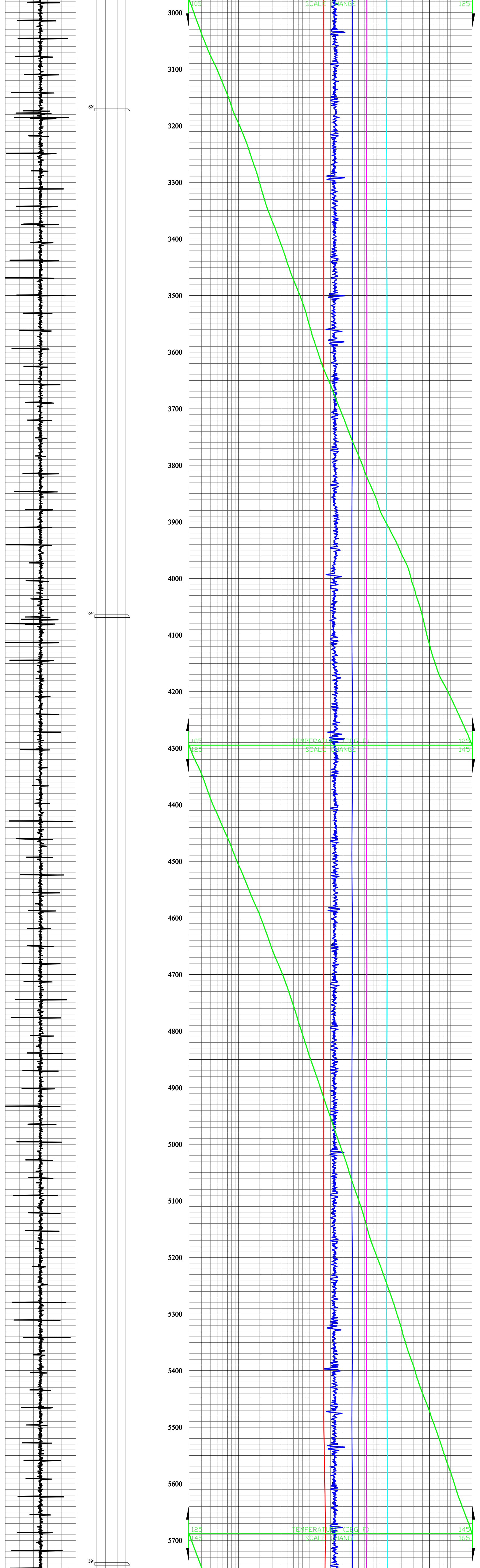
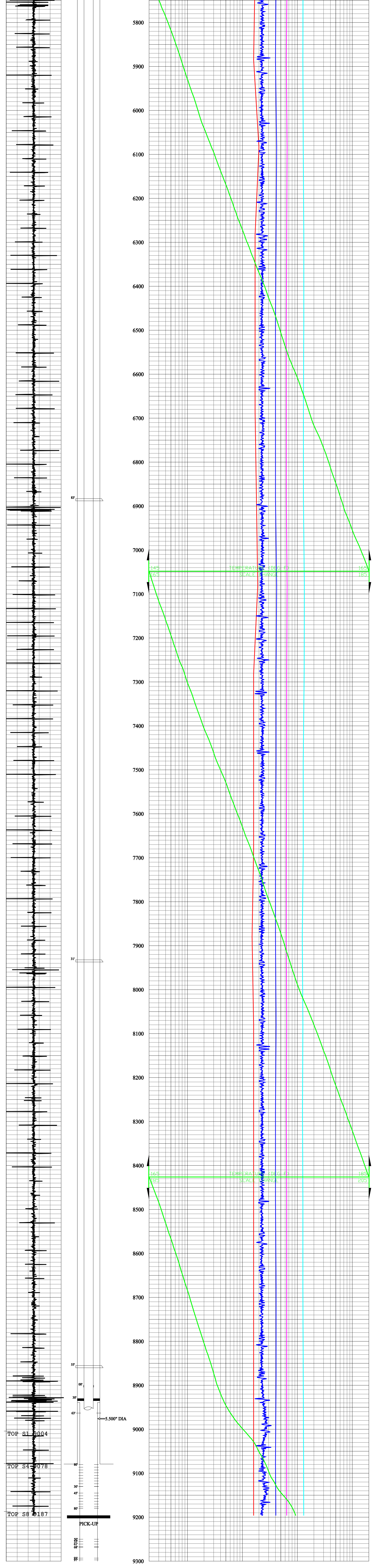
CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	54.5	SURFACE	1403'				
7.000"	29.0	SURFACE	9079'				
5.500"	17.0	8939'	9362'				
2.875"	6.5	SURFACE	8953'				

STR.	PIPE DIA.	PERFORATIONS
A	7.000"	WSO: 8963'.
	5.500"	9080'-9130', 9145'-9180', 9250'-9255', 9261'-9268', 9293'-9297'.
		PACKERS: 8930'.
		GAS LIFT MANDRELS: 1711' 3169', 4064', 5739', 6883',7931', 8855'.
		SLIDING SLEEVES: 8900'
		NO-GO: 8932'.

TOOL DIAGRAM



```
#     DEPTH      200Hz      600Hz     1000Hz     2000Hz
#-------------------------------------------------------
      100.0      12.60       6.50       4.10       1.70
      200.0      12.60       6.50       4.10       1.60
      400.0      12.60       6.50       4.00       1.50
      600.0      12.40       6.40       4.00       1.60
      620.0      12.30       6.40       4.00       1.60
      640.0      12.30       6.40       4.00       1.60
      660.0      12.40       6.50       4.10       1.60
      680.0      12.40       6.40       4.10       1.60
      700.0      12.60       6.50       4.10       1.70
      720.0      12.40       6.40       4.00       1.60
      740.0      12.50       6.50       4.10       1.70
      760.0      12.50       6.50       4.10       1.70
      780.0      12.50       6.50       4.10       1.70
      800.0      12.30       6.40       4.10       1.60
      820.0      12.40       6.50       4.00       1.60
      840.0      12.50       6.50       4.10       1.60
      860.0      12.20       6.40       4.10       1.60
      880.0      12.50       6.50       4.10       1.60
      900.0      12.50       6.50       4.10       1.60
      920.0      12.40       6.40       4.00       1.60
      940.0      12.40       6.40       4.00       1.60
      960.0      12.50       6.50       4.10       1.60
      980.0      12.40       6.40       4.00       1.60
     1000.0      12.60       6.50       4.10       1.60
     1020.0      12.40       6.40       4.00       1.60
     1040.0      12.50       6.40       4.00       1.60
     1060.0      12.40       6.40       4.10       1.60
     1080.0      12.60       6.40       4.00       1.60
     1100.0      12.70       6.50       4.10       1.70
     1250.0      12.60       6.30       4.00       1.60
     1500.0      12.80       6.50       4.20       2.00
     1750.0      13.10       6.40       4.10       1.70
     2000.0      13.10       6.30       4.00       1.70
     2250.0      12.90       6.30       4.00       1.70
     2500.0      12.90       6.30       4.00       1.80
     2750.0      13.40       6.50       4.20       1.90
     3000.0      13.30       6.40       4.10       1.60
     3250.0      12.80       6.40       4.10       1.60
     3500.0      12.80       6.30       4.00       1.60
     3750.0      12.30       6.30       4.00       1.50
     3800.0      12.60       6.40       4.10       1.60
     3820.0      12.40       6.30       4.00       1.60
     3840.0      12.60       6.40       4.00       1.60
     3860.0      12.60       6.40       4.10       1.60
     3880.0      12.80       6.40       4.10       1.60
     3900.0      13.00       6.40       4.00       1.60
     3920.0      13.10       6.40       4.10       1.60
     3940.0      13.10       6.30       4.00       1.60
     3960.0      12.70       6.30       4.00       1.60
     3980.0      12.70       6.40       4.00       1.60
     4000.0      12.50       6.30       4.00       1.50
     4020.0      13.00       6.30       4.10       1.60
     4040.0      13.10       6.40       4.00       1.50
     4060.0      12.70       6.30       4.00       1.50
     4080.0      12.90       6.40       4.10       1.50
     4100.0      12.80       6.30       4.10       1.50
     4120.0      12.80       6.40       4.10       1.60
     4140.0      13.00       6.40       4.10       1.60
     4160.0      12.90       6.40       4.10       1.60
     4180.0      12.70       6.40       4.10       1.60
     4200.0      13.10       6.40       4.10       1.60
     4400.0      13.20       6.40       4.10       1.60
     4600.0      12.60       6.30       4.00       1.50
     4620.0      12.70       6.30       4.00       1.50
     4640.0      12.70       6.40       4.10       1.50
     4660.0      12.80       6.30       4.00       1.50
     4680.0      12.80       6.40       4.10       1.50
     4700.0      13.10       6.40       4.00       1.50
     4750.0      12.90       6.50       4.30       1.90
     5000.0      12.70       6.50       4.20       1.70
     5250.0      12.90       6.40       4.10       1.50
     5500.0      12.70       6.40       4.10       1.50
     5750.0      12.30       6.30       4.00       1.50
     6000.0      12.80       6.50       4.10       1.60
     6250.0      12.80       6.50       4.20       1.60
     6500.0      12.90       6.50       4.20       1.60
     6750.0      12.80       6.50       4.20       1.60
     7000.0      12.50       6.40       4.20       1.60
     7250.0      12.70       6.40       4.20       1.60
     7500.0      12.30       6.30       4.10       1.50
     7750.0      11.90       6.40       4.20       1.60
     8000.0      11.50       6.50       4.40       2.00
     8250.0      11.30       6.40       4.20       1.70
     8500.0      11.20       6.30       4.20       1.80
     8750.0      11.70       6.60       4.50       1.70
     8800.0      12.00       7.00       5.00       1.80
     8810.0      12.00       6.90       5.00       1.80
     8820.0      12.00       7.00       5.00       1.80
     8830.0      12.00       7.00       5.00       1.80
     8840.0      12.10       7.10       5.20       1.90
     8850.0      12.30       7.20       5.30       1.90
     8860.0      12.20       7.20       5.30       1.90
     8870.0      11.20       6.70       4.70       1.80
     8880.0      12.40       7.50       5.60       2.10
     8890.0      12.20       7.30       5.40       1.90
     8900.0      12.40       7.30       5.40       2.00
     8910.0      12.30       7.40       5.50       2.00
     8920.0      12.30       7.20       5.30       1.80
     8930.0      12.00       7.10       5.10       1.80
     8940.0      12.40       7.20       5.20       2.00
     8950.0      12.20       7.10       5.10       1.90
     8960.0      12.10       6.90       4.90       1.80
     8970.0      11.50       6.50       4.30       1.80
     8980.0      11.60       6.50       4.30       1.70
     8990.0      11.60       6.50       4.30       1.80
     9000.0      11.80       6.50       4.40       1.70
     9010.0      11.70       6.50       4.30       1.70
     9020.0      11.60       6.40       4.30       1.70
     9030.0      11.70       6.50       4.30       1.70
     9040.0      11.90       6.40       4.30       1.80
     9050.0      11.70       6.50       4.30       1.80
     9060.0      11.90       6.50       4.40       1.90
     9070.0      11.80       6.40       4.30       1.80
     9080.0      11.80       6.50       4.30       1.80
     9090.0      12.10       6.50       4.40       1.90
     9100.0      11.90       7.20       5.30       3.10
     9196.0      14.80      10.90       9.30       7.90
```