WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

WELL TYPE GS VS	COMPANY: SOUTHERN CALIF. GAS CO. WELL: STANDARD SESNON 31 FIELD: ALISO CANYON COUNTY: LOS ANGELES STATE: CALIFORNIA

LOCATION:
DISTRICT 2

API NUMBER: 0403700781
SEC: 28 TWN: 3N RNG: 16W

OTHER SVC:

PERMANENT DATUM: GROUND LEVEL ELEV: 2517 FT.

LOG MEASURED FROM KB 10' ABOVE PERM DATUM

DRILLING MEASURED FROM

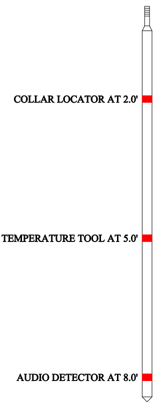
-ELEVATIONS-
KB: 2527 Ft.
DF: Ft.
GL: 2517 Ft.

DATE LOG RAN	04-06-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			0
EFFECTIVE DEPTH	9130'	CASING PSI			0
PICKUP DEPTH	8802'	INJECTION RATE	N|A		
BOT LOGGED INT	8802'	OBSERVED RATE	N|A		
TOP LOGGED INT	100'	R/A SOURCE	N|A		
TYPE OF INJECT	NONE	ACTIVITY	N|A		
FLUID IN WELL	WATER	HALF LIFE	N|A		
FLUID LEVEL	310'				
WELL STATUS	STATIC			PRODUCTION DATA	
MAX TEMPERATURE	186.8 F.	OIL Gr.	N|A	OIL =	N|A
AT DEPTH	8767.0'	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	N|A				

Equipment Data

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

TOOL DIAGRAM



Remarks/Survey Results

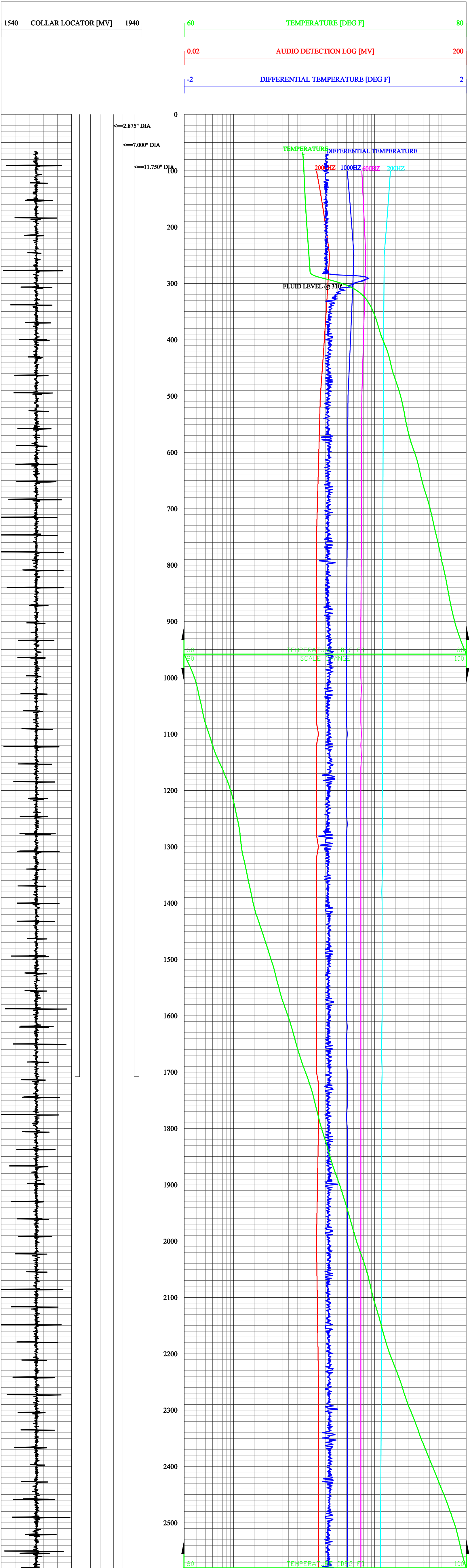
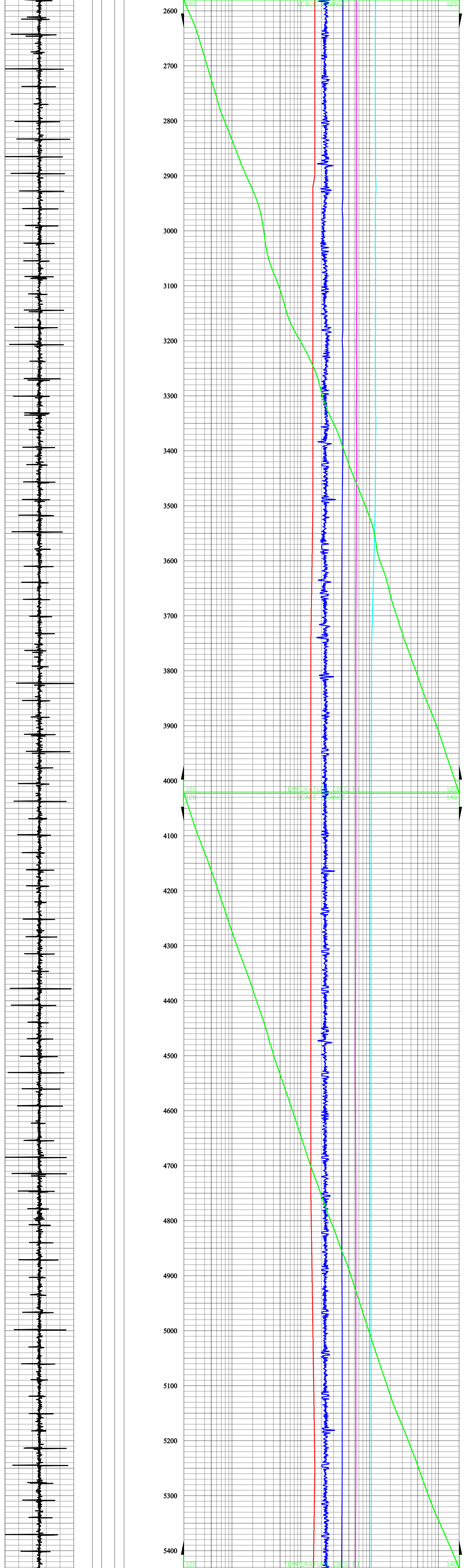
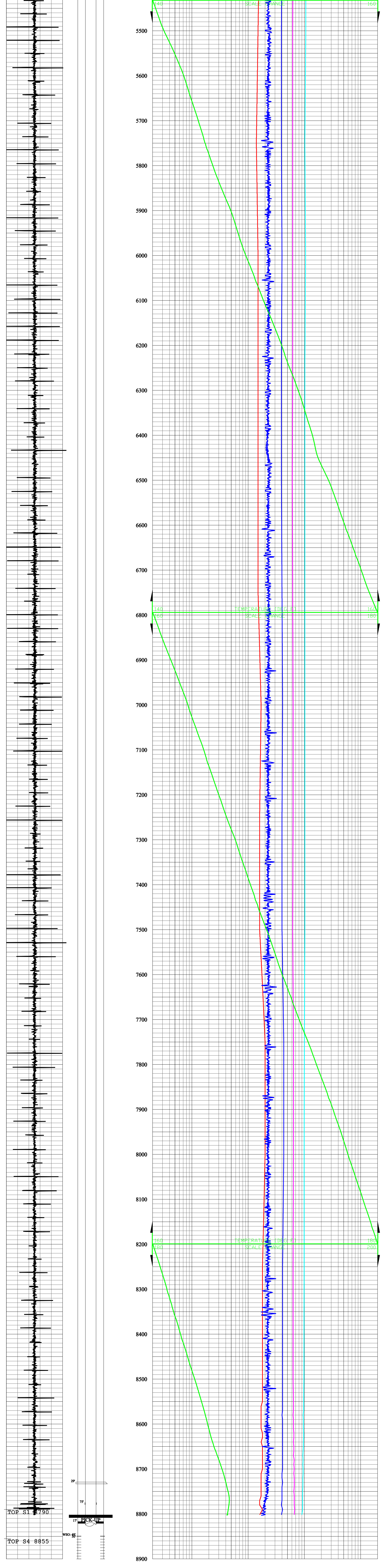
```
07:30 AM - ON LOCATION
07:40 AM - RAN IN HOLE
07:45AM - BEGIN SURVEY
11:00 AM - PULL OUT OF HOLE
11:15 AM - OFF LOCATION

SAND TAG MARKERS: 8790' TOP S1
                  8855' TOP S4
                  8992' TOP S8
```

CASING AND TUBING RECORD

SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
11.750"	47	SURFACE	1708'				
7.000"	23	SURFACE	9130'				
2.875"	6.5	SURFACE	8824'				

STR.	PIPE DIA.	PERFORATIONS
A	7.000"	WSO: 8849', 8850'-8920', 8935'-8980', 8995'-9095', 9105'-9128'. PACKERS: 8817'-8821'. MANDRELS: 8729'-8733'. SLEEVES: 8775'-8780'. NO-GO: 8806'.

```
      Audio Data:  c:\data\NOISE.txt
  -----------------------------------------------------
    DEPTH |   200HZ |  600HZ |  1000HZ |  2000HZ |
  -----------------------------------------------------
      100 |   16.80 |   6.60 |    4.10 |    1.50 |
      250 |   13.70 |   7.50 |    5.10 |    2.30 |
      500 |   13.30 |   6.60 |    4.20 |    1.70 |
      750 |   13.10 |   6.50 |    4.10 |    1.50 |
      900 |   13.00 |   6.40 |    4.00 |    1.50 |
      920 |   13.10 |   6.40 |    4.00 |    1.50 |
      940 |   13.00 |   6.40 |    4.00 |    1.50 |
      960 |   13.00 |   6.40 |    4.00 |    1.50 |
      980 |   12.90 |   6.40 |    4.00 |    1.50 |
     1000 |   13.00 |   6.40 |    4.00 |    1.50 |
     1020 |   13.00 |   6.50 |    4.00 |    1.50 |
     1040 |   13.00 |   6.40 |    4.00 |    1.50 |
     1060 |   13.00 |   6.40 |    4.00 |    1.50 |
     1080 |   12.90 |   6.40 |    4.00 |    1.50 |
     1100 |   12.90 |   6.50 |    4.10 |    1.60 |
     1120 |   12.90 |   6.40 |    4.00 |    1.50 |
     1140 |   12.90 |   6.50 |    4.00 |    1.50 |
     1160 |   12.90 |   6.40 |    4.00 |    1.50 |
     1180 |   12.90 |   6.40 |    4.00 |    1.50 |
     1200 |   12.90 |   6.40 |    4.00 |    1.50 |
     1220 |   12.80 |   6.40 |    4.00 |    1.50 |
     1240 |   12.90 |   6.40 |    4.00 |    1.50 |
     1260 |   12.90 |   6.40 |    4.10 |    1.50 |
     1280 |   12.80 |   6.40 |    4.00 |    1.50 |
     1300 |   12.80 |   6.40 |    4.00 |    1.60 |
     1320 |   12.80 |   6.40 |    4.00 |    1.50 |
     1340 |   12.90 |   6.40 |    4.00 |    1.50 |
     1360 |   12.80 |   6.40 |    4.00 |    1.50 |
     1380 |   12.70 |   6.40 |    4.00 |    1.50 |
     1400 |   12.80 |   6.40 |    4.00 |    1.50 |
     1600 |   12.80 |   6.40 |    4.00 |    1.50 |
     1620 |   12.70 |   6.40 |    4.10 |    1.50 |
     1640 |   12.70 |   6.40 |    4.00 |    1.50 |
     1660 |   12.50 |   6.40 |    4.00 |    1.50 |
     1680 |   12.70 |   6.40 |    4.00 |    1.50 |
     1700 |   12.80 |   6.40 |    4.10 |    1.50 |
     1720 |   12.70 |   6.40 |    4.10 |    1.60 |
     1740 |   12.50 |   6.40 |    4.10 |    1.60 |
     1760 |   12.60 |   6.40 |    4.10 |    1.60 |
     1780 |   12.50 |   6.40 |    4.00 |    1.60 |
     1800 |   12.60 |   6.40 |    4.10 |    1.60 |
     2000 |   12.60 |   6.40 |    4.10 |    1.50 |
     2250 |   12.50 |   6.40 |    4.10 |    1.60 |
     2500 |   12.20 |   6.40 |    4.10 |    1.60 |
     2750 |   12.10 |   6.40 |    4.10 |    1.60 |
     2900 |   12.20 |   6.40 |    4.10 |    1.60 |
     2920 |   12.40 |   6.40 |    4.10 |    1.50 |
     2940 |   12.20 |   6.40 |    4.10 |    1.50 |
     2960 |   12.20 |   6.40 |    4.00 |    1.50 |
     2980 |   12.10 |   6.40 |    4.10 |    1.50 |
     3000 |   12.20 |   6.40 |    4.10 |    1.50 |
     3020 |   12.10 |   6.40 |    4.10 |    1.50 |
     3040 |   12.10 |   6.40 |    4.10 |    1.50 |
     3060 |   12.20 |   6.40 |    4.10 |    1.50 |
     3080 |   12.20 |   6.40 |    4.10 |    1.50 |
     3100 |   12.20 |   6.50 |    4.10 |    1.50 |
     3120 |   12.20 |   6.50 |    4.10 |    1.50 |
     3140 |   12.20 |   6.50 |    4.10 |    1.50 |
     3160 |   12.10 |   6.40 |    4.10 |    1.50 |
     3180 |   12.20 |   6.50 |    4.10 |    1.50 |
     3200 |   12.10 |   6.40 |    4.00 |    1.50 |
     3220 |   12.20 |   6.40 |    4.10 |    1.50 |
     3240 |   12.10 |   6.50 |    4.10 |    1.50 |
     3260 |   12.20 |   6.50 |    4.10 |    1.50 |
     3280 |   12.10 |   6.40 |    4.10 |    1.50 |
     3300 |   12.20 |   6.50 |    4.10 |    1.50 |
     3320 |   12.10 |   6.40 |    4.10 |    1.50 |
     3340 |   12.30 |   6.40 |    4.10 |    1.50 |
     3360 |   12.30 |   6.50 |    4.10 |    1.50 |
     3380 |   12.20 |   6.40 |    4.10 |    1.50 |
     3400 |   12.20 |   6.50 |    4.10 |    1.50 |
     3500 |   12.10 |   6.40 |    4.00 |    1.50 |
     3750 |   10.70 |   6.30 |    3.90 |    1.40 |
     4000 |   10.60 |   6.30 |    3.90 |    1.40 |
     4250 |   10.50 |   6.30 |    3.90 |    1.40 |
     4500 |   10.50 |   6.20 |    3.90 |    1.40 |
     4750 |   10.50 |   6.30 |    3.90 |    1.40 |
     5000 |   10.50 |   6.30 |    4.00 |    1.50 |
     5250 |   10.60 |   6.30 |    4.00 |    1.60 |
     5500 |   10.60 |   6.20 |    3.90 |    1.50 |
     5750 |   10.20 |   6.20 |    3.90 |    1.40 |
     6000 |   10.50 |   6.20 |    4.00 |    1.50 |
     6250 |   10.20 |   6.20 |    3.90 |    1.50 |
     6500 |   10.20 |   6.10 |    3.90 |    1.50 |
     6750 |   10.20 |   6.20 |    4.00 |    1.50 |
     7000 |   10.20 |   6.30 |    4.10 |    1.70 |
     7250 |   10.20 |   6.30 |    4.00 |    1.60 |
     7500 |   10.20 |   6.20 |    4.00 |    1.60 |
     7750 |   10.00 |   6.40 |    4.30 |    2.00 |
     8000 |    9.90 |   6.40 |    4.30 |    2.00 |
     8250 |    9.90 |   6.30 |    4.10 |    1.80 |
     8500 |    9.80 |   6.30 |    4.10 |    1.80 |
     8550 |    9.70 |   6.40 |    4.10 |    1.80 |
     8560 |    9.70 |   6.40 |    4.10 |    1.70 |
     8570 |    9.70 |   6.40 |    4.10 |    1.70 |
     8580 |    9.50 |   6.30 |    4.00 |    1.70 |
     8590 |    9.60 |   6.40 |    4.10 |    1.70 |
     8600 |    9.60 |   6.40 |    4.10 |    1.70 |
     8610 |    9.60 |   6.40 |    4.10 |    1.70 |
     8620 |    9.70 |   6.50 |    4.10 |    1.80 |
     8630 |    9.70 |   6.50 |    4.10 |    1.80 |
     8640 |    9.60 |   6.40 |    4.10 |    1.70 |
     8650 |    9.60 |   6.50 |    4.10 |    1.80 |
     8660 |    9.50 |   6.50 |    4.10 |    1.80 |
     8670 |    9.40 |   6.40 |    4.10 |    1.80 |
     8680 |    9.50 |   6.60 |    4.10 |    1.80 |
     8690 |    9.40 |   6.50 |    4.10 |    1.80 |
     8700 |    9.50 |   6.60 |    4.10 |    1.80 |
     8710 |    9.50 |   6.50 |    4.00 |    1.70 |
     8720 |    9.40 |   6.60 |    4.00 |    1.70 |
     8730 |    9.40 |   6.60 |    4.10 |    1.70 |
     8740 |    9.40 |   6.60 |    4.00 |    1.70 |
     8750 |    9.30 |   6.50 |    4.00 |    1.70 |
     8760 |    9.30 |   6.60 |    4.00 |    1.70 |
     8770 |    9.30 |   6.60 |    4.00 |    1.60 |
     8780 |    9.30 |   6.60 |    3.90 |    1.60 |
     8790 |    9.30 |   6.70 |    4.10 |    1.80 |
     8802 |    9.00 |   6.60 |    3.90 |    1.60 |
```