WELL ANALYSIS CORPORATION

AUDIO DETECTION SURVEY

WELL TYPE:
GS

AJ

COMPANY: SOUTHERN CALIF. GAS CO.
WELL: PORTER 26E
FIELD: ALISO CANYON
COUNTY: LOS ANGELES
STATE: CALIFORNIA

LOCATION:
DISTRICT 2

API NUMBER: 0403721319
SEC: 28 TWN: 3N RNG: 16W

OTHER SVC:

PERMANENT DATUM: GROUND LEVEL ELEV:

LOG MEASURED FROM KB 12' ABOVE PERM DATUM

DRILLING MEASURED FROM

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

DATE LOG RAN	04-12-2016	PRESSURE	FLOWING	INJECTION	SHUT-IN
RUN NUMBER	ONE	TUBING PSI			1178
EFFECTIVE DEPTH	7912'	CASING PSI			1178
PICKUP DEPTH	7284'	INJECTION RATE	N|A		
BOT LOGGED INT	7284'	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	163.3 F	OIL Gr.		OIL =	
AT DEPTH	7284'	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	MANDREL				

Equipment Data

COLLAR LOCTOR	1.375"		
TEMPERATURE TOOL	1.375"		
AUDIO DETECTOR	1.375"		

Remarks/Survey Results

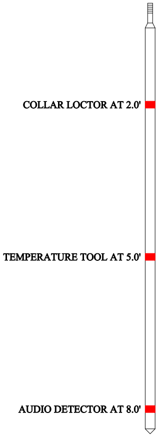
```
7:00AM ON LOCATION
8:36AM RAN IN HOLE
8:38AM BEGIN SURVEY
5:51PM PULL OUT OF HOLE
6:30PM OFF LOCATION

SAND TAG MARKERS: 7190' MP
                  7435' S1
                  7537' S4
                  7610' S8
```

CASING AND TUBING RECORD

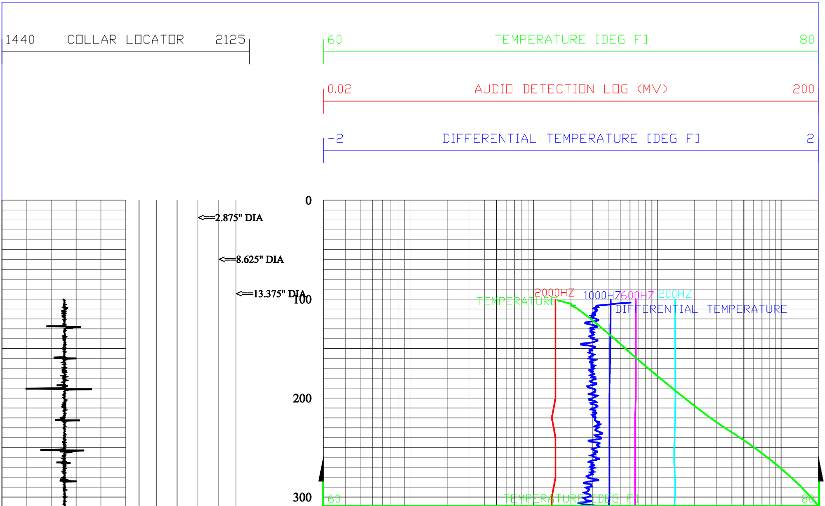
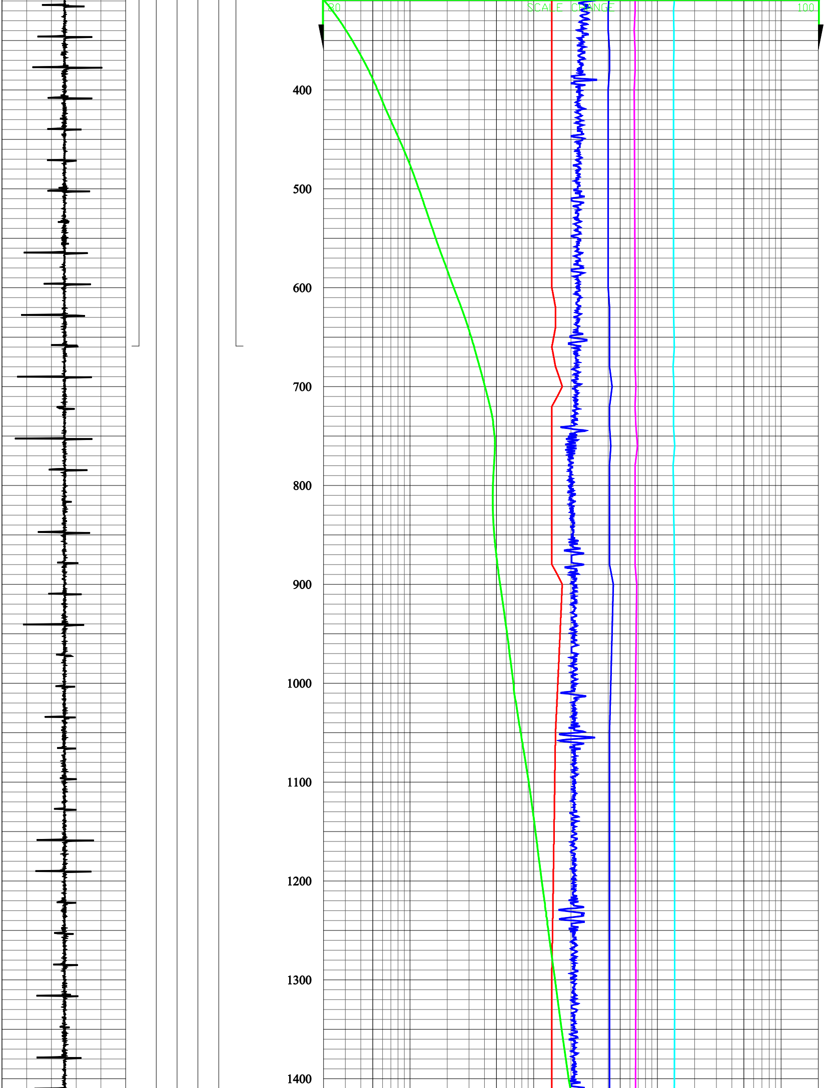
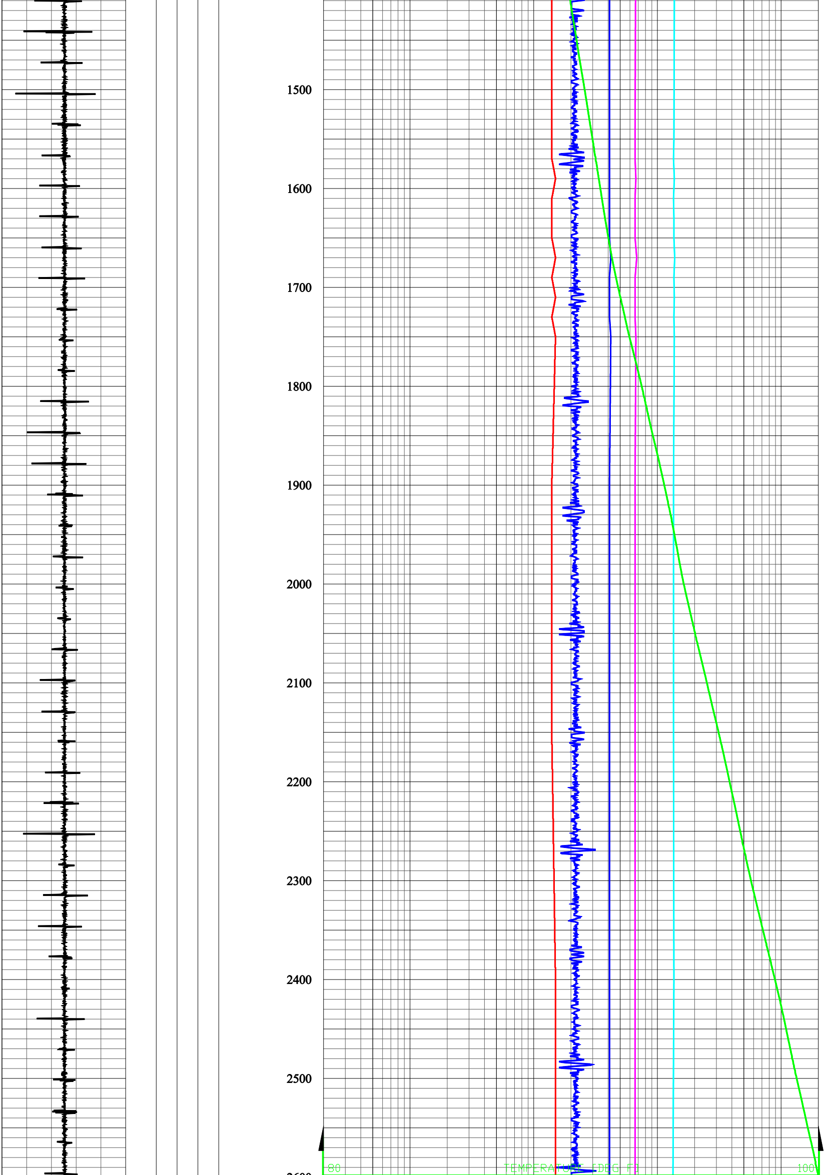
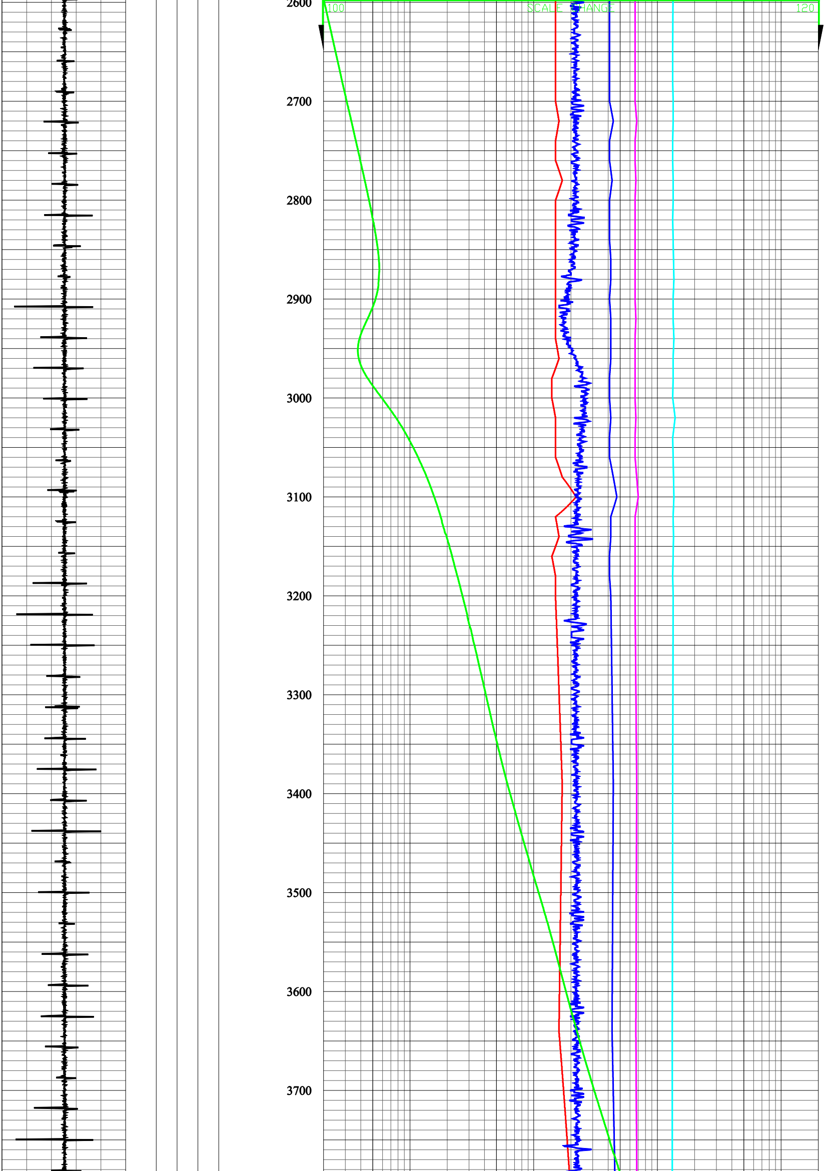
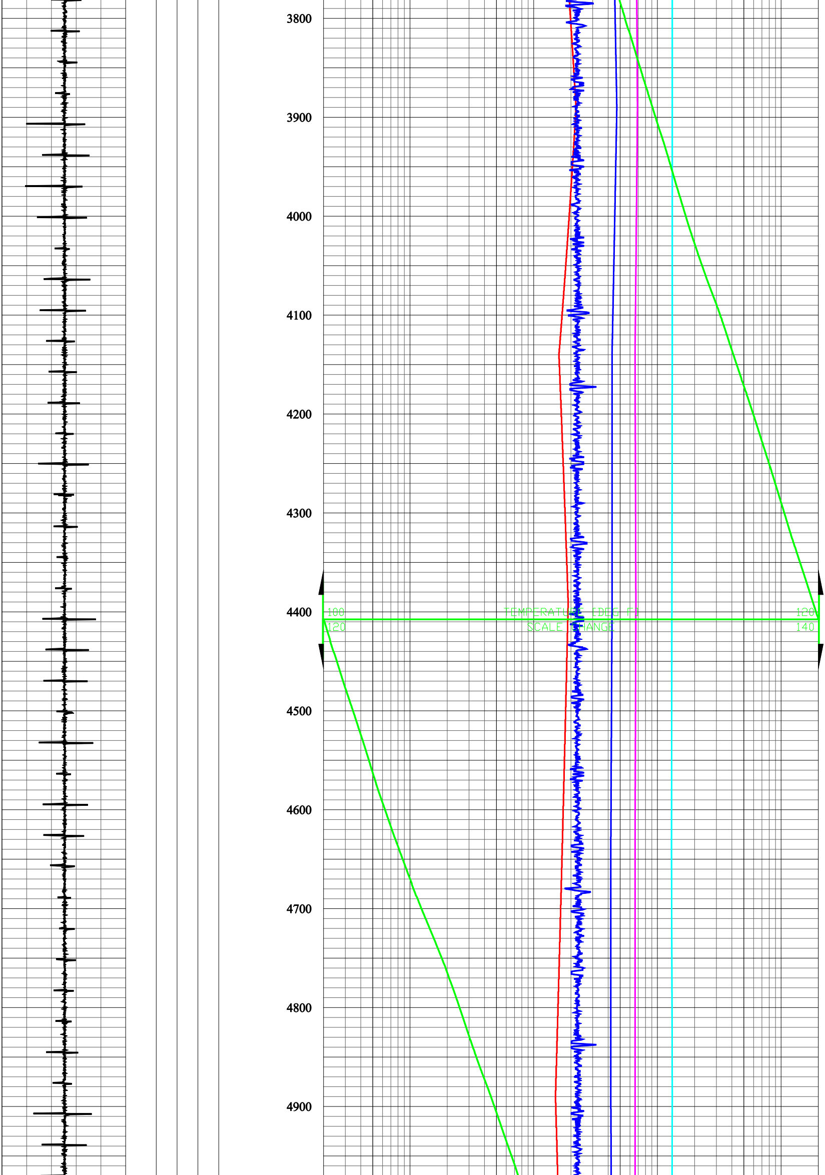
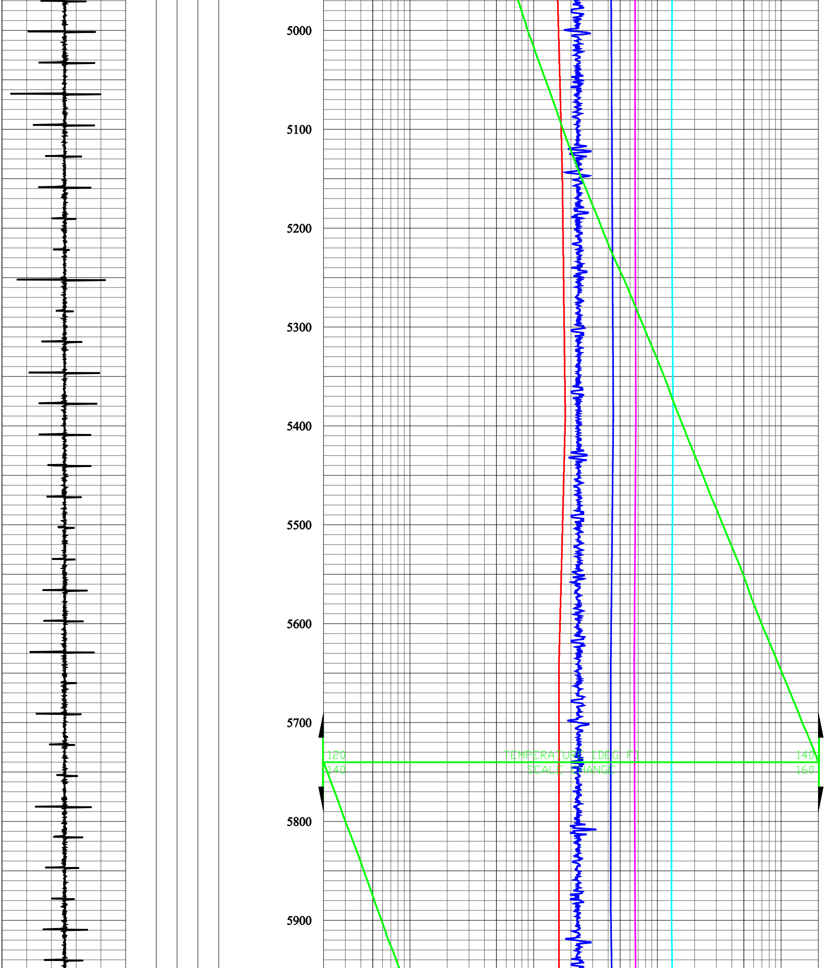
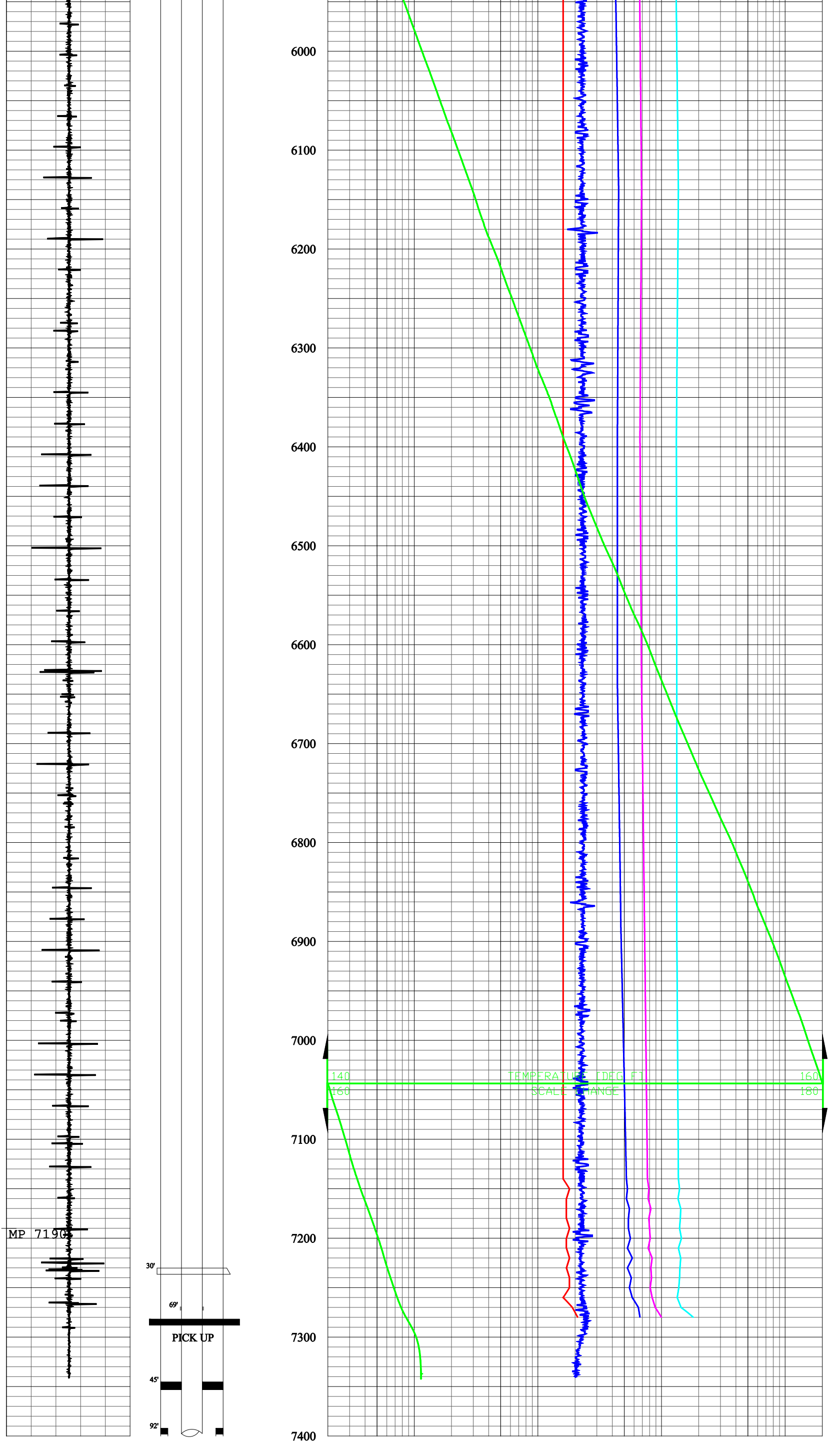
SIZE	WT(#)	FROM	TO	SIZE	WT(#)	FROM	TO
13.375"	48	SURFACE	659'				
8.625"	36	SURFACE	7412'				
6.625"	28	7398'	7912'				
2.875"	6.5	SURFACE	7398'				

STR.	PIPE DIA.	PERFORATIONS
A	6.625"	WSO: 7521'-7523' WSO: 7357'-7359'
		7540'-7545', 7568'-7572', 7613'-7676', 7691'-7761', 7798'-7808',
		7822'-7854', 7860'-7912'.
		PACKERS: 7345.2'-7353.1', 7392'-7398'.
		GAS LIFT MANDRELS: 7230.1'-7236.4'.
		SLIDING SLEEVES: 7269.5'-7272.6'.
		NO-GO: 7304.7'.
		COLLARS: 2943'.

TOOL DIAGRAM



```
    Audio Data:  C:\data\NOISE.txt
---------------------------------------------------------------------------------------------------
   DEPTH |   200HZ |   600HZ |  1000HZ |  2000HZ |  COMMENTS |
---------------------------------------------------------------------------------------------------
     100 |   13.90 |    6.70 |    4.20 |    1.50 |  TRUCK #1125 RIG WORK BELOW AND SURFACE EXHAUST PIPE ON |
     200 |   14.00 |    6.70 |    4.10 |    1.50 |  FLOWLINE LEAKING |
     220 |   13.90 |    6.60 |    4.10 |    1.40 |
     240 |   13.80 |    6.60 |    4.10 |    1.50 |
     260 |   13.60 |    6.60 |    4.10 |    1.50 |
     280 |   13.90 |    6.60 |    4.10 |    1.50 |
     300 |   13.90 |    6.60 |    4.10 |    1.40 |
     320 |   13.50 |    6.60 |    4.00 |    1.40 |
     340 |   13.60 |    6.50 |    4.00 |    1.40 |
     360 |   13.60 |    6.60 |    4.10 |    1.40 |
     380 |   13.50 |    6.60 |    4.10 |    1.40 |
     400 |   13.50 |    6.50 |    4.00 |    1.40 |
     600 |   13.50 |    6.60 |    4.00 |    1.40 |
     620 |   13.50 |    6.60 |    4.10 |    1.50 |
     640 |   13.60 |    6.60 |    4.10 |    1.50 |
     660 |   13.70 |    6.60 |    4.10 |    1.40 |
     680 |   13.40 |    6.60 |    4.10 |    1.50 |
     700 |   13.60 |    6.70 |    4.30 |    1.70 |
     720 |   13.50 |    6.60 |    4.10 |    1.40 |
     740 |   13.50 |    6.70 |    4.10 |    1.40 |
     760 |   13.80 |    6.90 |    4.20 |    1.40 |
     780 |   13.40 |    6.60 |    4.10 |    1.40 |
     800 |   13.50 |    6.60 |    4.10 |    1.40 |
     820 |   13.50 |    6.60 |    4.10 |    1.40 |
     840 |   13.60 |    6.60 |    4.10 |    1.40 |
     860 |   13.70 |    6.60 |    4.10 |    1.40 |
     880 |   13.70 |    6.60 |    4.10 |    1.40 |
     900 |   13.80 |    6.80 |    4.40 |    1.70 |
    1050 |   13.70 |    6.60 |    4.10 |    1.50 |
    1300 |   13.80 |    6.70 |    4.10 |    1.40 |
    1550 |   13.60 |    6.60 |    4.10 |    1.40 |
    1570 |   13.50 |    6.60 |    4.10 |    1.40 |
    1590 |   13.70 |    6.70 |    4.10 |    1.50 |
    1610 |   13.50 |    6.60 |    4.10 |    1.40 |
    1630 |   13.60 |    6.60 |    4.10 |    1.40 |
    1650 |   13.60 |    6.60 |    4.10 |    1.40 |
    1670 |   13.80 |    6.80 |    4.20 |    1.50 |
    1690 |   13.60 |    6.60 |    4.10 |    1.40 |
    1710 |   13.70 |    6.60 |    4.10 |    1.50 |
    1730 |   13.60 |    6.60 |    4.10 |    1.40 |
    1750 |   13.70 |    6.70 |    4.20 |    1.50 |
    1900 |   13.50 |    6.60 |    4.10 |    1.40 |
    2150 |   13.50 |    6.60 |    4.10 |    1.40 |
    2400 |   13.60 |    6.60 |    4.10 |    1.50 |
    2650 |   13.30 |    6.60 |    4.10 |    1.50 |
    2680 |   13.30 |    6.60 |    4.10 |    1.50 |
    2700 |   13.40 |    6.60 |    4.10 |    1.50 |
    2720 |   13.40 |    6.80 |    4.40 |    1.60 |
    2740 |   13.30 |    6.60 |    4.10 |    1.50 |
    2760 |   13.30 |    6.60 |    4.10 |    1.50 |
    2780 |   13.40 |    6.70 |    4.30 |    1.70 |
    2800 |   13.40 |    6.60 |    4.10 |    1.50 |
    2820 |   13.30 |    6.60 |    4.10 |    1.50 |
    2840 |   13.40 |    6.60 |    4.10 |    1.50 |
    2860 |   13.50 |    6.60 |    4.20 |    1.50 |
    2880 |   13.60 |    6.60 |    4.20 |    1.50 |
    2900 |   13.40 |    6.60 |    4.10 |    1.50 |
    2920 |   13.40 |    6.70 |    4.20 |    1.50 |
    2940 |   13.60 |    6.60 |    4.20 |    1.50 |
    2960 |   13.40 |    6.60 |    4.20 |    1.60 |
    2980 |   13.40 |    6.60 |    4.10 |    1.40 |
    3000 |   13.30 |    6.60 |    4.10 |    1.40 |
    3020 |   13.90 |    6.70 |    4.20 |    1.50 |
    3040 |   13.30 |    6.60 |    4.10 |    1.50 |
    3060 |   13.40 |    6.60 |    4.10 |    1.50 |
    3080 |   13.50 |    6.80 |    4.40 |    1.70 |
    3100 |   13.60 |    7.00 |    4.70 |    2.20 |
    3120 |   13.40 |    6.60 |    4.20 |    1.50 |
    3140 |   13.50 |    6.60 |    4.20 |    1.60 |
    3160 |   13.40 |    6.60 |    4.10 |    1.40 |
    3180 |   13.30 |    6.60 |    4.10 |    1.50 |
    3200 |   13.40 |    6.60 |    4.20 |    1.50 |
```

3390	13.30	6.80	4.40	1.70
3640	13.20	6.70	4.30	1.60
3890	13.20	6.90	4.70	2.20
4140	13.20	6.60	4.30	1.60
4390	13.10	6.70	4.30	1.90
4640	13.00	6.60	4.20	1.70
4890	13.20	6.60	4.20	1.50
5140	13.00	6.60	4.30	1.70
5390	13.40	6.70	4.40	1.80
5640	13.00	6.50	4.20	1.60
5890	13.00	6.60	4.20	1.60
6140	13.70	6.90	4.50	1.60
6390	13.20	6.70	4.40	1.60
6640	13.30	6.90	4.40	1.60
6890	13.30	7.30	4.70	1.60
7140	13.70	7.70	5.20	1.60
7150	14.00	7.90	5.30	1.80
7160	13.60	7.80	5.20	1.70
7170	14.30	8.20	5.50	1.70
7180	14.20	7.90	5.40	1.70
7190	14.00	8.00	5.40	1.80
7200	14.50	8.10	5.60	1.70
7210	13.70	7.80	5.30	1.70
7220	14.30	8.40	5.80	1.80
7230	14.10	8.20	5.30	1.70
7240	14.00	8.30	5.70	1.80
7250	13.80	8.10	5.50	1.80
7260	13.40	8.40	5.80	1.60
7270	14.40	8.90	6.50	1.90
7280	18.10	10.00	6.70	2.10