



# ALIGNED BOREHOLE PROFILE LOG

# Baker Atlas

FILE NO:	COMPANY		SIERRA GEOTHERMAL POWER, INC.	
APR NO:	WELL		ALUM 25-29	
27-008-80074	FIELD		ALUM	
	COUNTY		ESMERALDA	
			STATE NEVADA	
Ver. 3.87	LOCATION:		OTHER SERVICES	
	2235.18' FSL & 938.11' PML SW/C		HDL ZDL/CN XUAC STAY/CBIL	
TITE HOLE	SEC 29	TWP 1N	RGE 38.5E	
PERMANENT DATUM	G.L.	ELEVATION	ELEVATIONS:	
LOG MEASURED FROM	K.B.	18.0 FT	KB	4919.57 FT
DRILL MEAS. FROM	K.B.		DF	4903.57 FT
			OL	
DATE	15-NOV-2008			
RUN	TWP	1	2	
SERVICE ORDER	5728995			
DEPTH DRILLER	2300 FT			
DEPTH LOGGER	2289 FT			
BOTTOM LOGGED INTERVAL	2285 FT			
TOP LOGGED INTERVAL	571 FT			
CASING DRILLER	16.0 IN		0	571 FT
CASING LOGGER	571 FT			
BIT SIZE	14.75 IN			
TYPE OF FLUID IN HOLE	LSND			
DENSITY	VISCOSITY	9.0 LB/G	54 S	
PH	FLUID LOSS	9.0	10.0 CS	
SOURCE OF SAMPLE	FLOWLINE			
RM AT MEAS. TEMP.	2.53 OHM		0	61 DEGF
RMF AT MEAS. TEMP.	2.36 OHM		0	60 DEGF
RMC AT MEAS. TEMP.	2.80 OHM		0	63 DEGF
SOURCE OF RMF	RMC	MEASURED	MEASURED	
RM AT BHT	1.08 OHM		0	152 DEGF
TIME SINCE CIRCULATION	9.5 HOURS			
MAX. RECORDED TEMP.	180 DEGF			
EQUIP. NO.	LOCATION	IN-4232	FALLON, NV	
RECORDED BY	VERCI/MAK			
WITNESSED BY	JERRY HAMBLIN			

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

## REMARKS

RUN 1 TRIP 2 : CCVD COMPUTED USING 10.75' CASING (BVOL, CVOL UNITS IN CUBIC FEET)

THANKS FOR USING BAKER ATLAS  
CREW: LAPOINT / HAYCOCK  
RIG: ENSIGN 561

### EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	2	PWR ADAPT	4430KB	10161076	FREE
1	2	SNVL	3844XD	10201370	FREE
1	2	TIRM	3881XB	10203010	FREE
1	2	WYS	3514XB	10200359	FREE
1	2	GR	1328KB	10203000	FREE
1	2	CAP SUB	1022PA	10565885	FREE
1	2	STAR	1038EA / 4238MA	10402331 / 10488937	R-ARM
1	2	IST	3822XA	10348282	FREE

1	2	KICK	58392A	10398278	FREE
1	2	ORT	4401XB	10165246	CENT
1	2	CBL	1671EB / 1671MB	183626 / 187248	CENT

## MAIN LOG 5"/100FT SCALE

ECLIPS 6.01 Feb 21, 2008

Wed Nov 18 16:44:48 2009

Updates: 1

Perplt /main/62

Cplot

Plt\_Cpp /main/16

Fileview 5.42

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/575995/k837m04.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 568.625 ft BOTTOM DEPTH: 2293.300 ft

#### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
TENSION	FILTER ( )	medium (1)		TOP	BOTTOM
GR	FILTER ( )	medium (1)		"	"

#### BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	10.750	1in	TOP	BOTTOM
BIT SIZE	BIT SIZE	14.750	1in	"	"

### CURVE DESCRIPTION REPORT

CURVE NAME	CURVE ALIAS	CREATION DATE	CURVE DESCRIPTION
F1:AZDDQH	AZDD.H	Nov 15 18:52:31 2009	AZIMUTH OF REFERENCE PAD
F1:BCVD		Nov 15 18:52:31 2009	BOREHOLE CUMULATIVE VOLUME.
F1:BIT	BIT	Nov 15 18:52:31 2009	BIT SIZE
F1:BRAD	BRAD_1L	Nov 15 18:52:31 2009	BIT RADIUS
F1:CALDDH	CALD.H	Nov 15 18:52:31 2009	BOREHOLE CALIPER FROM MULTI-ARM TOOL
F1:CCVD		Nov 15 18:52:31 2009	CEMENT CUMULATIVE VOLUME.
F1:CRAD	CRAD_L	Nov 15 18:52:31 2009	CASING RADIUS
F1:DEVDDQH	DEVDDQH	Nov 15 18:52:31 2009	DEVIATION
F1:DFLG	DFLG	Nov 15 18:52:31 2009	DEAD CROSS-SECTIONAL AREA FLAG.
F1:GR	GR	Nov 15 18:52:31 2009	GAMMA RAY
F1:MAXD		Nov 15 18:52:31 2009	MAXIMUM CALIPER DIAMETER.
F1:MIND		Nov 15 18:52:31 2009	MINIMUM CALIPER DIAMETER.
F1:MNR1	MNR1	Nov 15 18:52:31 2009	MINIMUM RADIUS 1.
F1:MNR2	MNR2	Nov 15 18:52:31 2009	MINIMUM RADIUS 2.
F1:MKR1	MKR1	Nov 15 18:52:31 2009	MAXIMUM RADIUS 1.
F1:MKR2	MKR2	Nov 15 18:52:31 2009	MAXIMUM RADIUS 2.
F1:RBDDQH	RBDD.H	Nov 15 18:52:31 2009	RELATIVE BEARING (RELATIVE TO HIGH SIDE OF BOREHOLE)
F1:TEN	TEN	Nov 15 18:52:31 2009	DIFFERENTIAL TENSION

### CURVE MEASURE POINT OFFSET

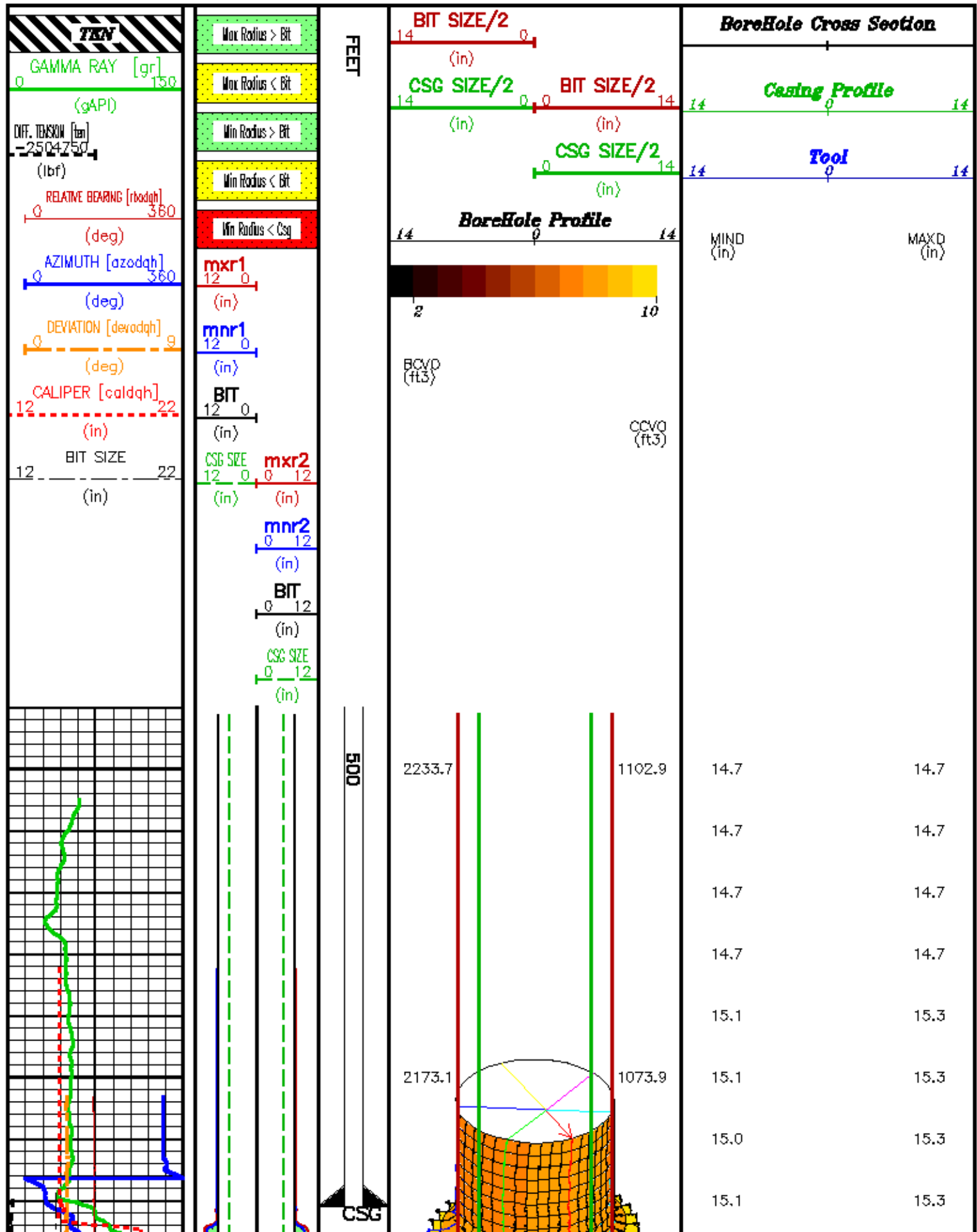
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AZDDQH	15.29	CRAD	36.15	MNR1	36.15	RBDDQH	15.29
BIT	0.00	DEVDDQH	15.29	MNR2	36.15	TEN	0.00
BRAD	36.15	DFLG	36.15	MKR1	36.15		
CALDDH	36.15	GR	85.00	MKR2	36.15		

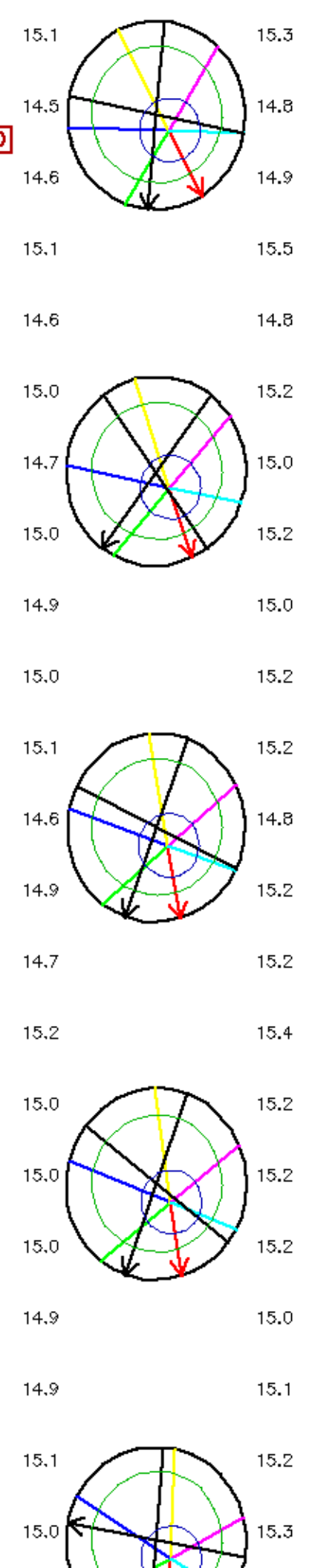
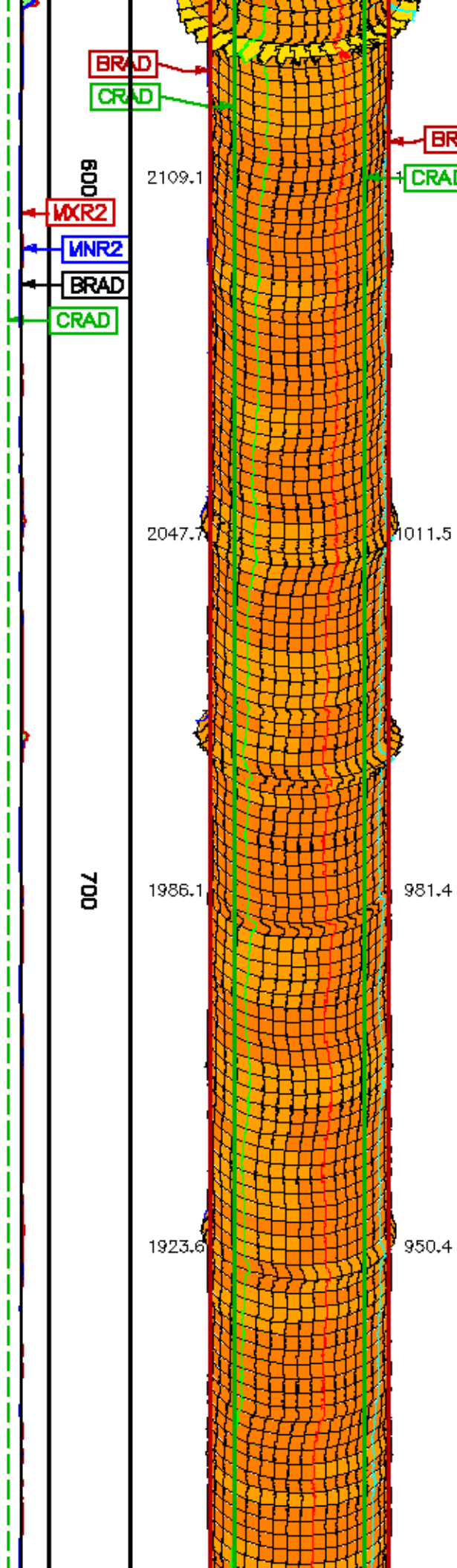
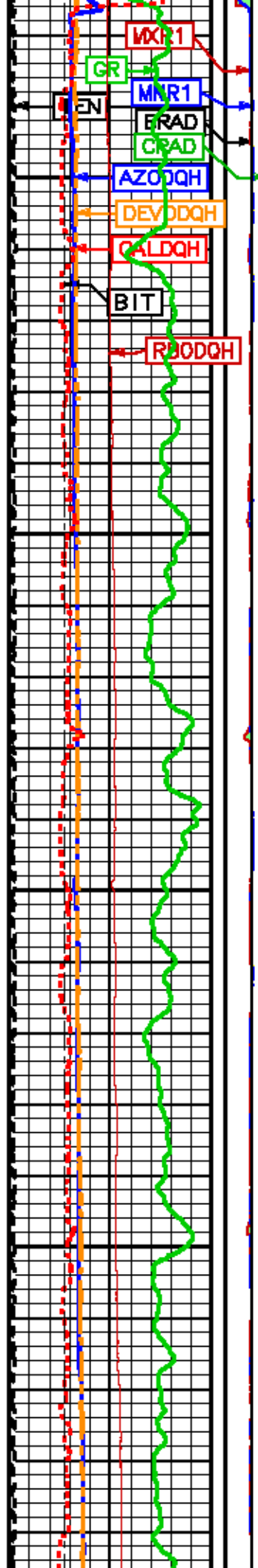
Presentation : cput:/data/575995/bhp\_align-wcol.pdf [5"/100' Scale]

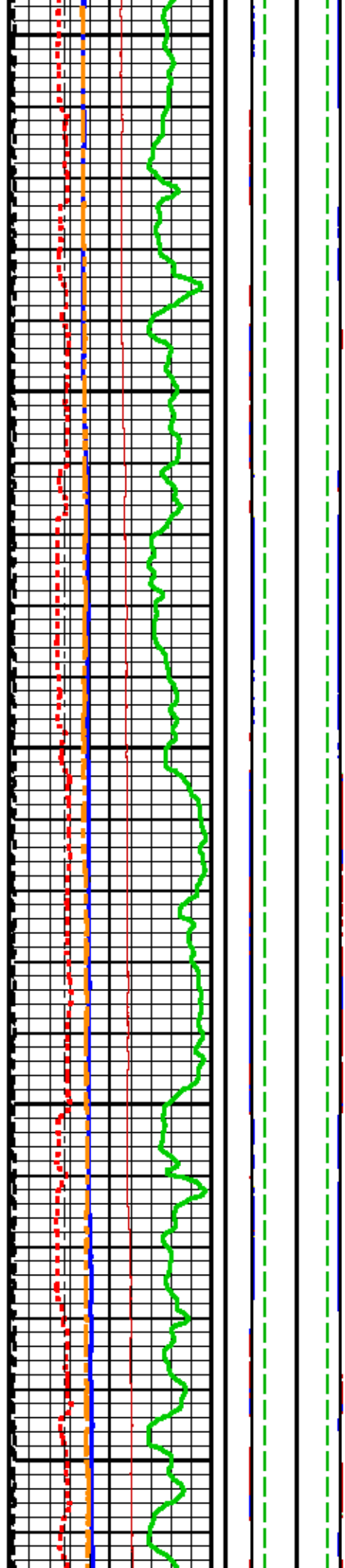
Plot Interval : 491.25 - 2310 Feet

Data File 1 : F1 : cput:/data/575995/k837m04.yff

Created On : Nov 15 18:52:31 2008  
 Company : SIERRA GEOTHERMAL POWER, INC.  
 Well : ALUM 25-28  
 Field : ALUM  
 File Interval : 481.25 - 2283.25 Feet  
 Det : k837m







B00

900

1000

1862.0

1801.3

1741.8

1678.8

1618.8

920.4

891.2

863.1

831.7

803.2

14.6

14.7

15.0

14.7

14.8

15.0

15.0

14.5

14.5

14.6

14.7

15.1

15.0

15.1

15.1

15.2

15.0

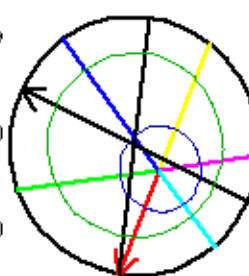
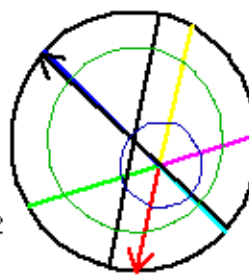
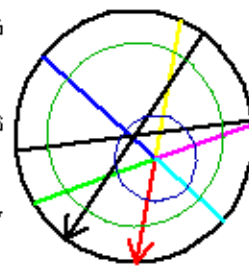
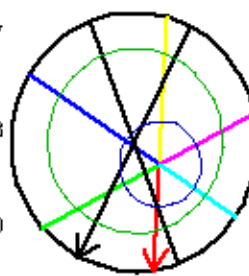
14.5

14.9

15.0

15.0

14.7



14.6

14.8

15.1

14.9

14.9

15.1

15.1

14.6

14.6

14.7

14.8

15.3

15.2

15.3

15.2

15.3

15.0

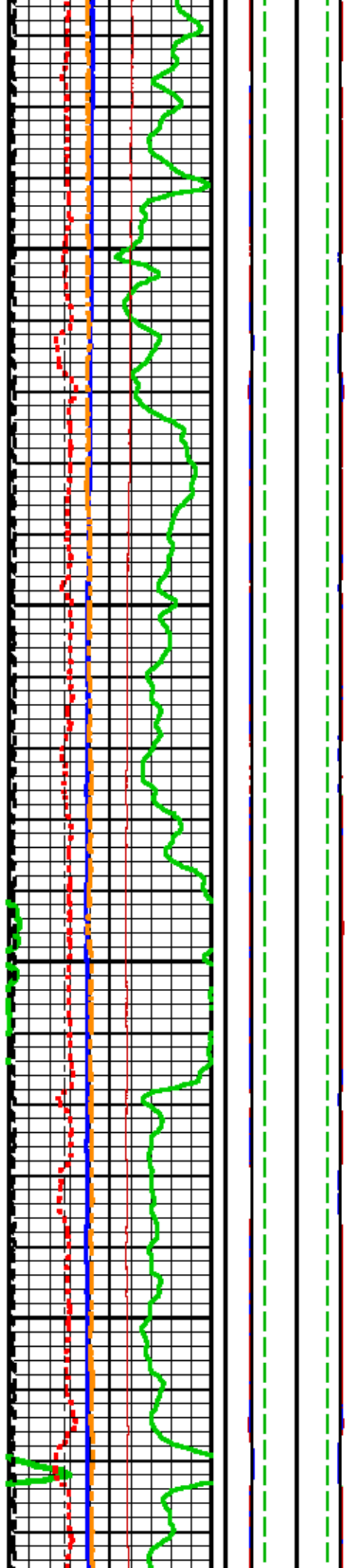
14.6

15.0

15.2

15.1

14.8



1100

1200

1556.6

1493.9

1430.8

1368.1

772.5

741.4

709.7

678.5

14.9

15.0

14.9

14.9

15.2

15.2

15.1

15.0

15.2

15.1

14.8

15.0

15.0

15.0

15.0

14.7

14.7

15.1

15.0

14.9

14.4

15.1

15.2

15.2

15.3

15.2

15.4

15.8

15.4

15.3

15.4

15.4

15.0

15.4

15.4

15.3

15.4

14.9

14.7

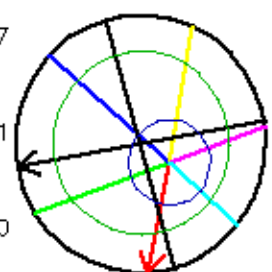
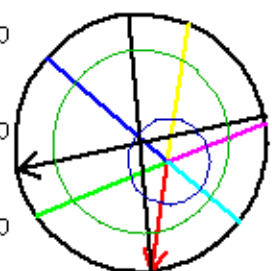
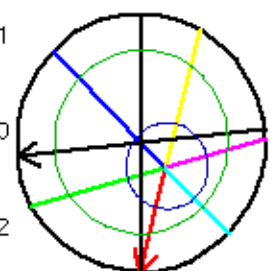
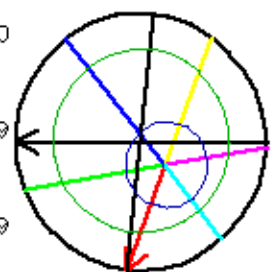
15.3

15.3

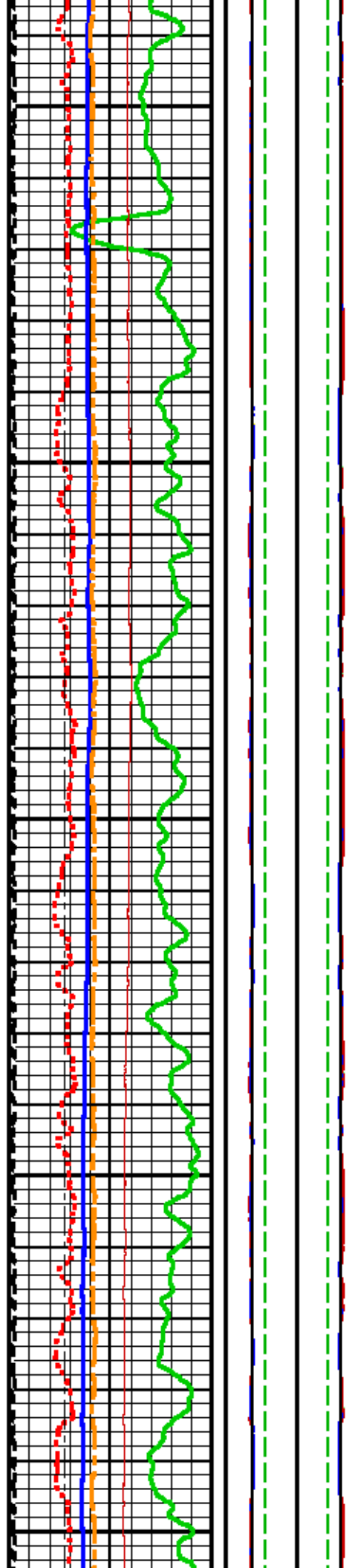
15.2

14.5

15.5







1300

1400

1305.9

1243.6

1180.3

1118.3

1056.5

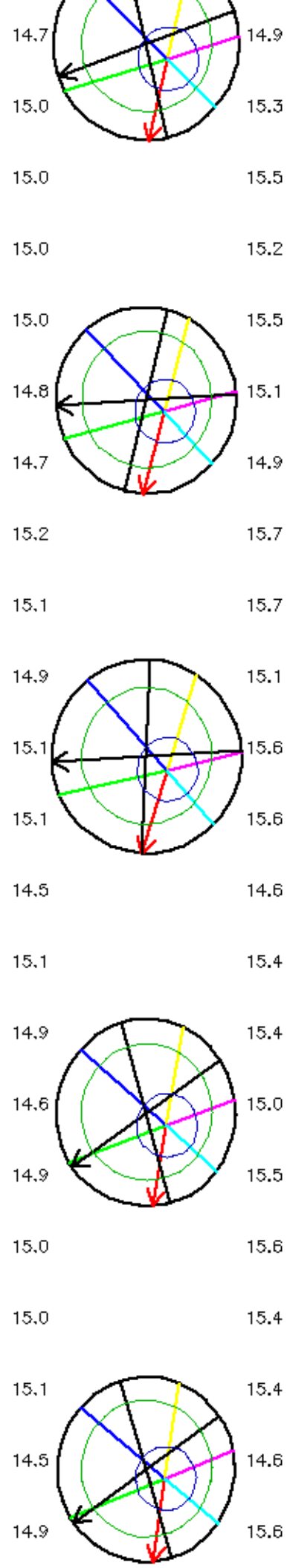
647.8

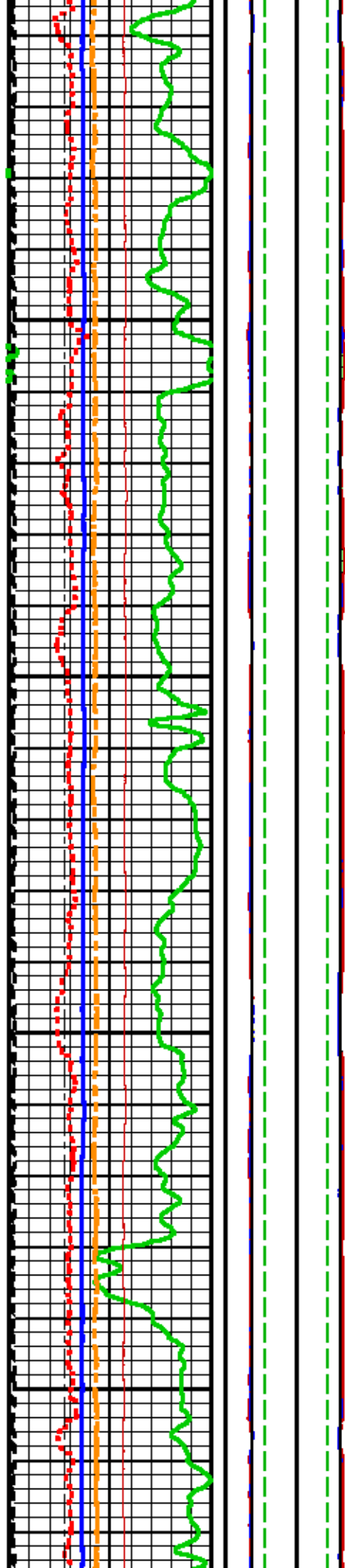
617.1

585.3

554.9

524.5





1500

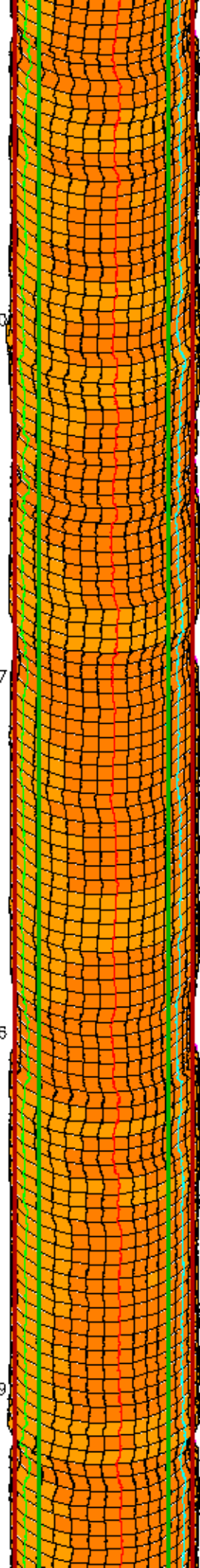
1600

993.0

929.7

866.6

802.9



492.6

460.8

429.2

397.0

14.6

15.2

14.9

15.3

15.0

15.0

14.7

15.0

15.3

14.9

14.9

15.0

15.2

14.9

14.6

14.9

15.0

15.2

14.9

15.1

15.2

15.0

14.7

15.5

15.7

15.5

15.8

15.8

14.7

15.8

15.9

15.5

15.7

15.6

15.7

15.7

14.6

15.7

15.8

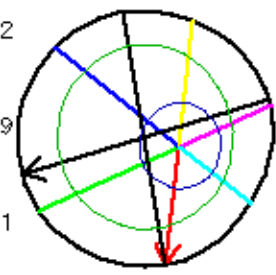
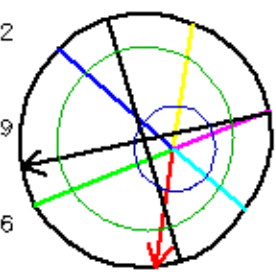
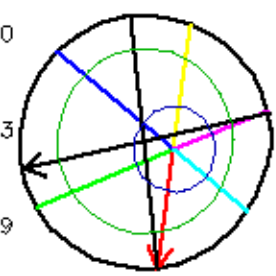
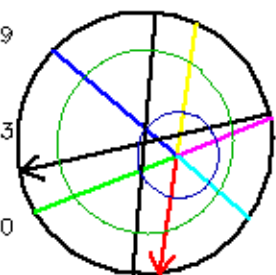
15.5

15.7

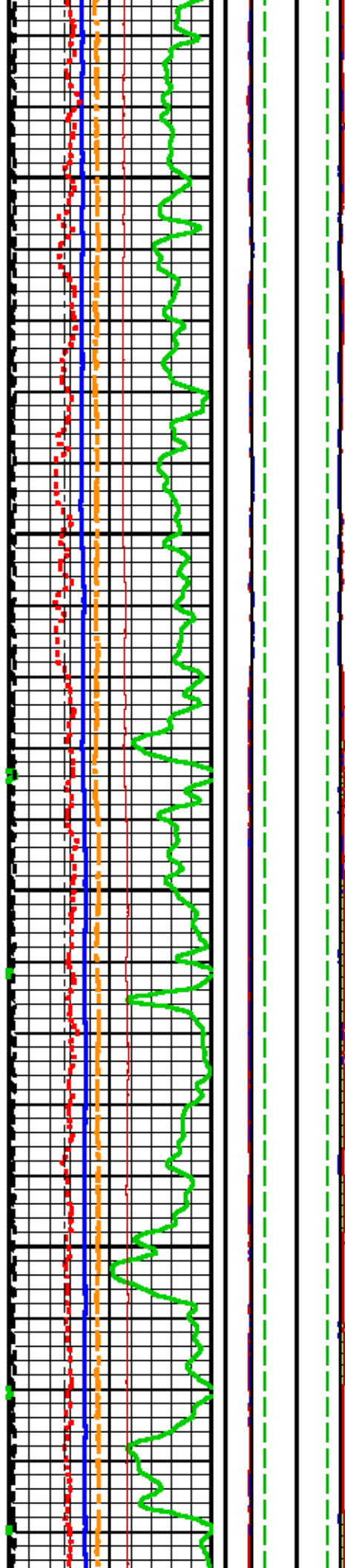
15.6

15.7

15.7







1700

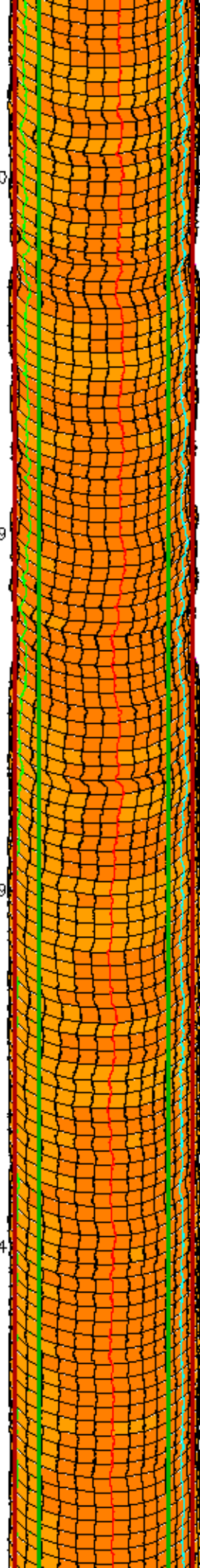
1800

739.0

676.9

613.9

549.4

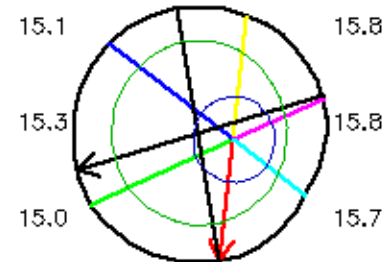


364.6

334.0

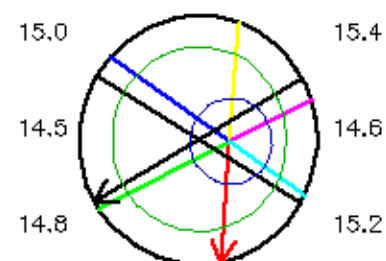
302.6

269.5



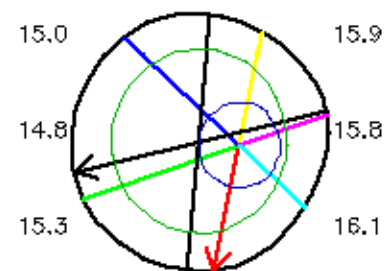
14.5 15.0

15.3 15.8



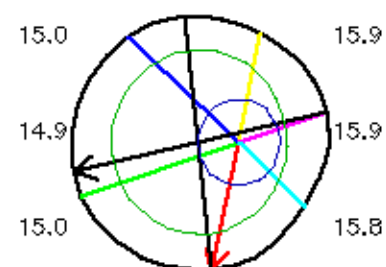
14.5 14.7

14.9 15.7



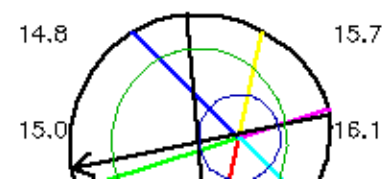
14.9 16.0

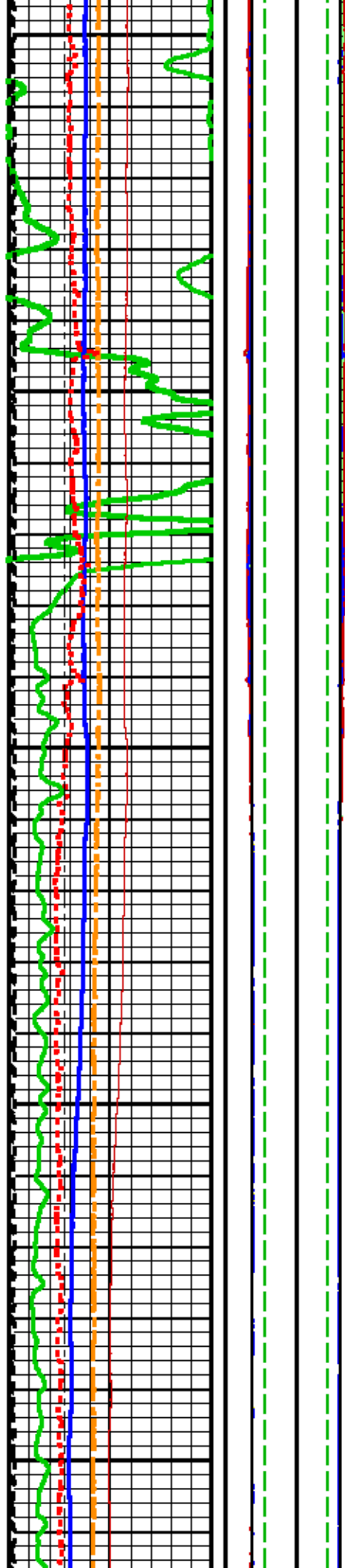
15.5 16.0



14.8 15.7

15.0 15.8





1900

2000

2100

485.5

419.7

353.4

294.4

235.4

237.2

202.9

168.1

140.6

113.2

15.0

14.8

15.0

15.1

15.2

15.0

15.0

15.3

15.6

15.5

14.9

14.8

14.4

14.5

14.4

14.5

14.6

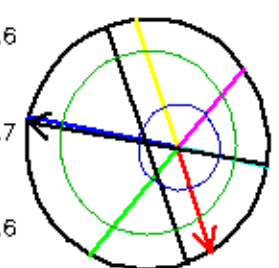
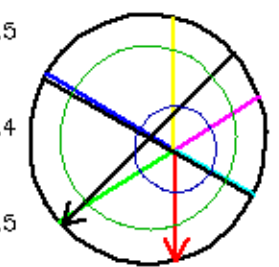
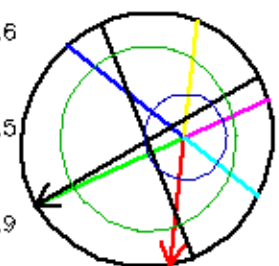
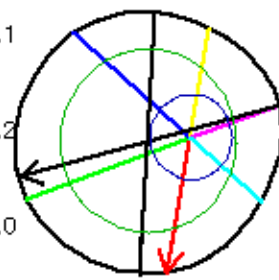
14.5

14.6

14.7

14.6

14.6



16.2

16.2

16.1

16.3

16.4

16.1

16.1

16.3

16.3

15.9

15.5

15.1

14.6

14.6

14.5

14.7

14.7

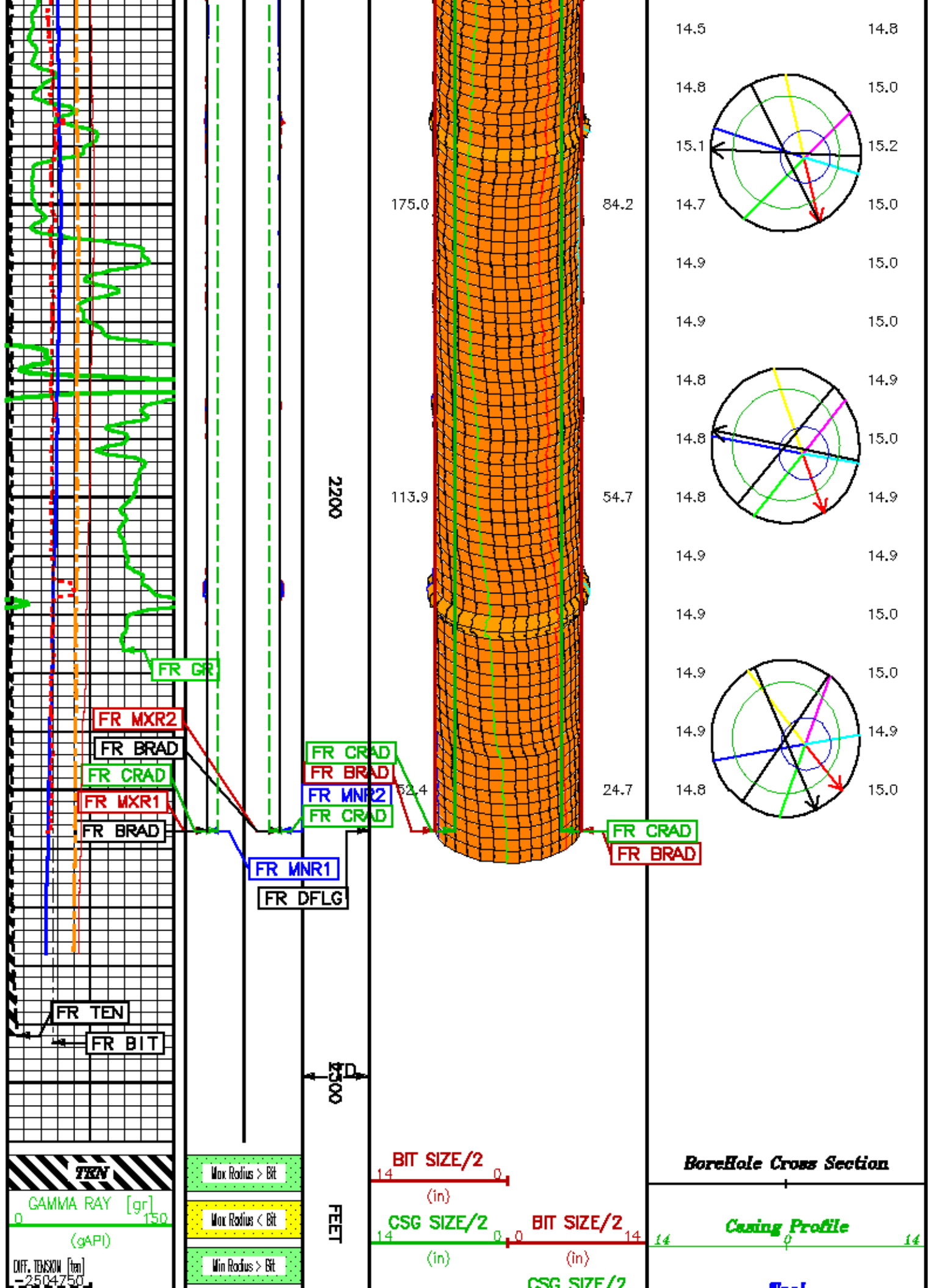
14.6

14.7



14.8

14.9

14.9



(lbf) RELATIVE BEARING [rbadqh] 0 360 (deg) AZIMUTH [azodqh] 0 360 (deg) DEVIATION [devodqh] 0 9 (deg) CALIPER [caldqh] 12 22 (in) BIT SIZE 12 22 (in)	Min Radius < Bit Min Radius < Csq	BoreHole Profile 14 0 14 2 10 BCVD (ft3) CCVD (ft3)	14 0 14 MIND (in) MAXD (in)
	mxr1 12 0 (in) mnr1 12 0 (in) BIT 12 0 (in) CSG SIZE 12 0 (in) mxr2 0 12 (in) mnr2 0 12 (in) BIT 0 12 (in) CSG SIZE 0 12 (in)		

 Baker Atlas 	COMPANY <u>SIERRA GEOTHERMAL POWER, INC.</u> WELL <u>ALUM 25-29</u> FIELD <u>ALUM</u> COUNTY <u>ESMERALDA</u> STATE <u>NEVADA</u>	FILE NO: API NO: <u>27-009-90074</u>
	LOCATION: <u>2235.18' FSL &amp; 938.11' FWL</u> <u>SW/C</u> SEC <u>29</u> TWP <u>1N</u> RGE <u>38.5E</u>	ELEVATIONS: KB <u>4919.57 FT</u> DF GL <u>4903.57 FT</u> DATE <u>15-NOV-2009</u>