



**Weatherford**

**HOLE VOLUME  
CALIPER  
LOG (TVD)**

COMPANY **KINDER MORGAN C02 Co. L.P**  
 WELL **YG-1**  
 FIELD **McELMO DOME**  
 PROVINCE/COUNTY **MONTEZUMA**  
 COUNTRY/STATE **U.S.A. / COLORADO**  
 LOCATION **SHL: 1796' FNL & 1915' FEL**

SEC **TWP** **RGE** **Other Services**  
 14 **37N** **18W**  
 API Number **05-033-06697**  
 Permit Number

Permanent Datum GL, Elevation 6661 feet  
 Log Measured From KB  
 Drilling Measured From KB

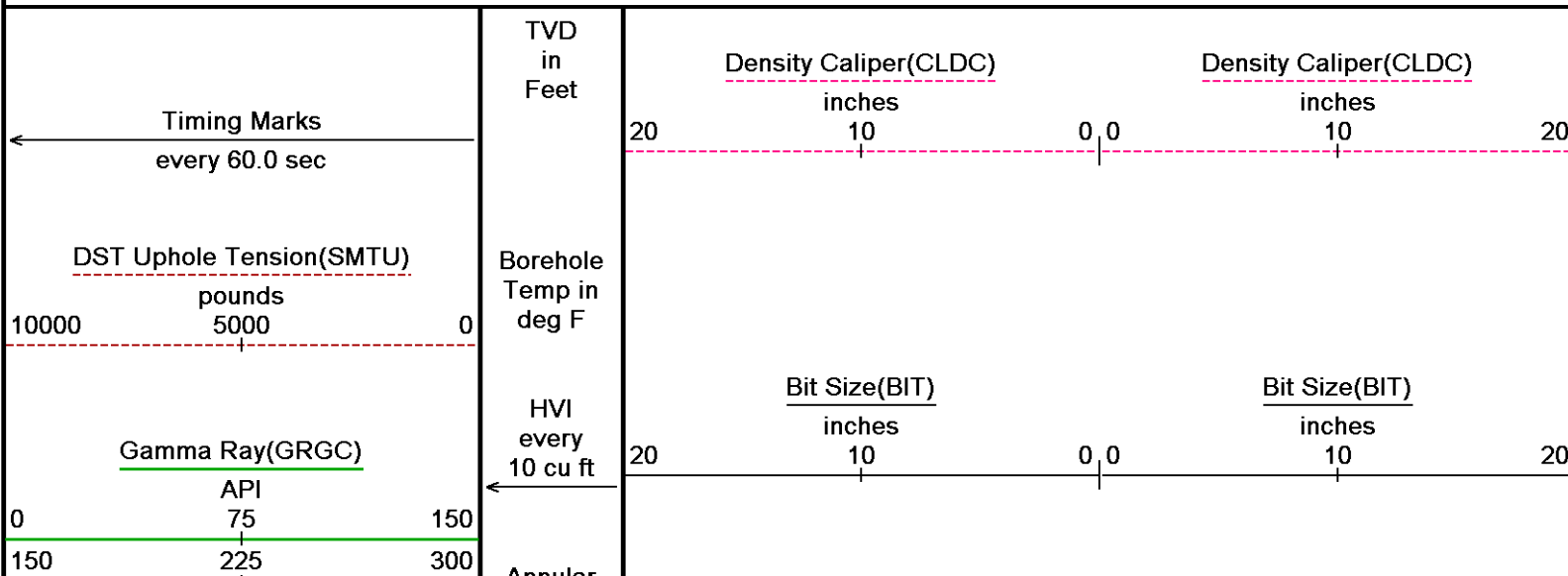
Elevations: **feet**  
 KB **6686.00**  
 DF **6686.00**  
 GL **6661.00**

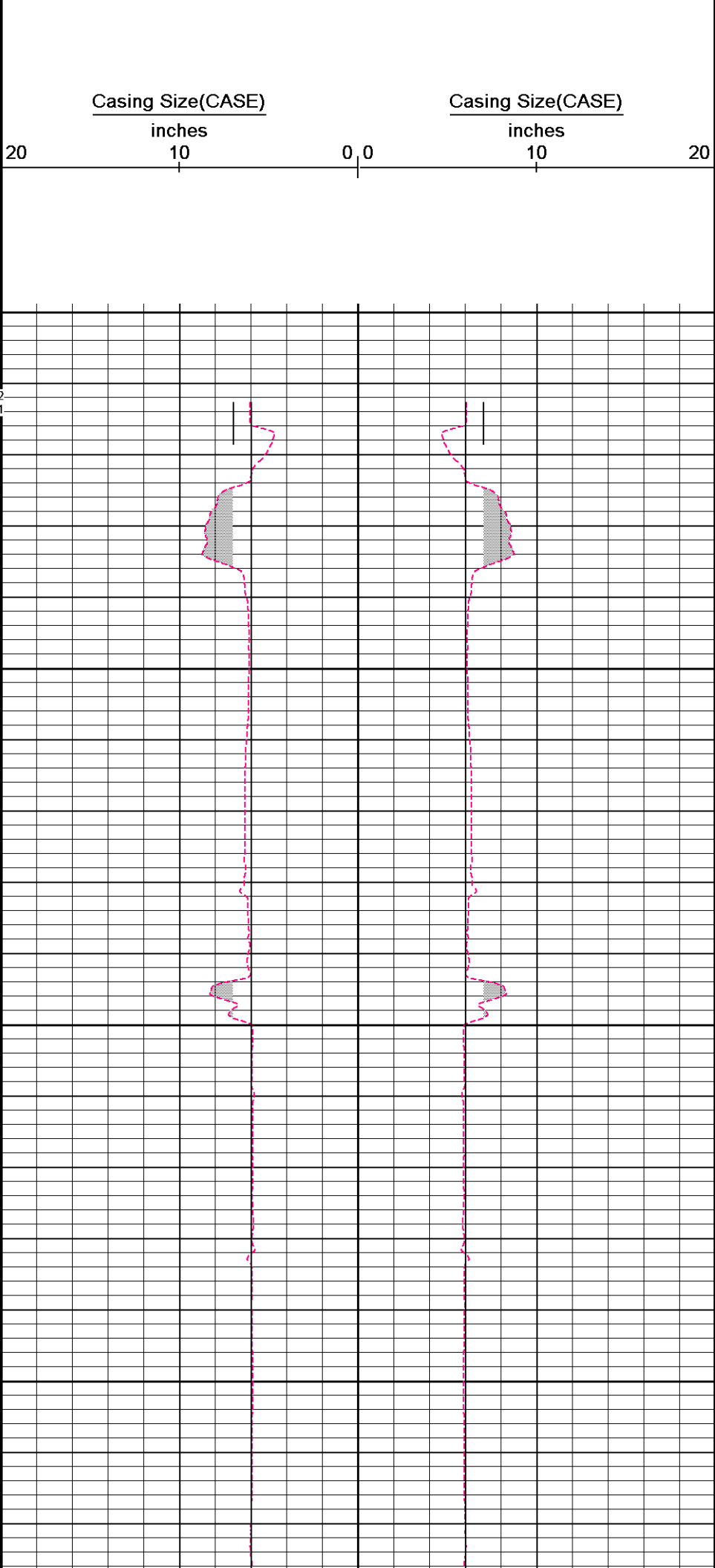
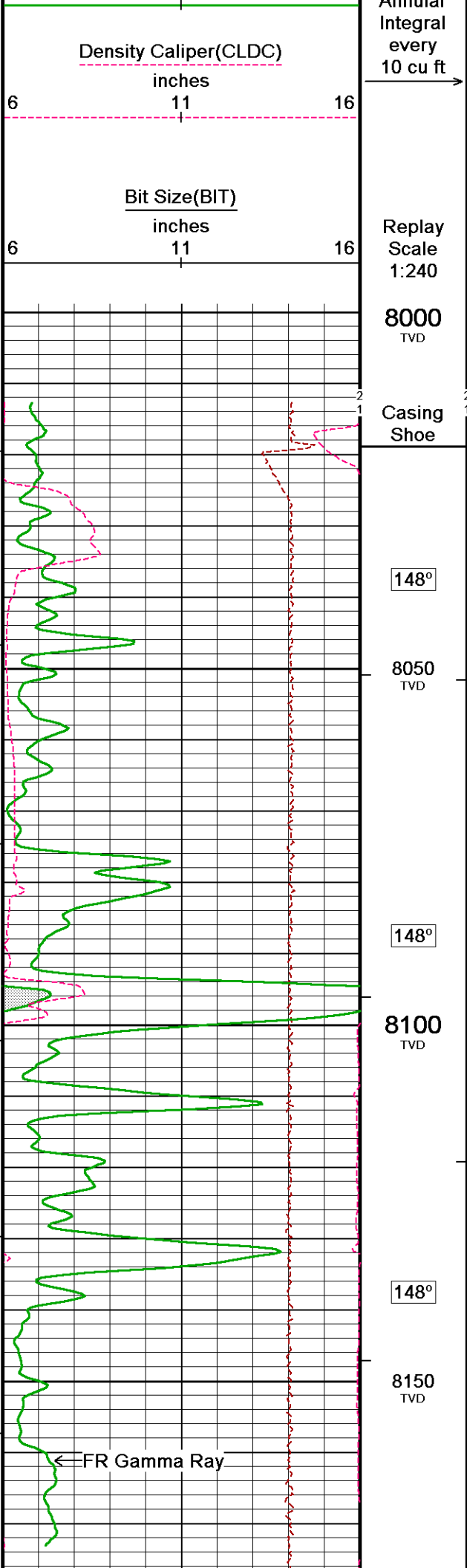
Date	29-SEP-2012		
Run Number	1		
Depth Driller	8200.00	feet	
Depth Logger	8200.00	feet	
First Reading	8197.00	feet	
Last Reading	8026.00	feet	
Casing Driller	8045.00	feet	
Casing Logger	8026.00	feet	
Bit Size	6.000	inches	
Hole Fluid Type	H2O		
Density / Viscosity	8.30 g/c3		
PH / Fluid Loss	8.70		
Sample Source	PIT		
Rm @ Measured Temp	4.71 @ 62.0	ohm-m	
Rmf @ Measured Temp	3.76 @ 62.0	ohm-m	
Rmc @ Measured Temp	5.65 @ 61.0	ohm-m	
Source Rmf / Rmc	CAL	CAL	
Rm @ BHT	2.02 @148.0	ohm-m	
Time Since Circulation	8 HOURS		
Max Recorded Temp	148.00	deg F	
Equipment Name	COMPACT		
Equipment / Base	13038	GJ/CO	
Recorded By	M.RICHINS		
Witnessed By	E.NUCKOLS		
COMPANY REP	D.RYAN		GEOLOGIST

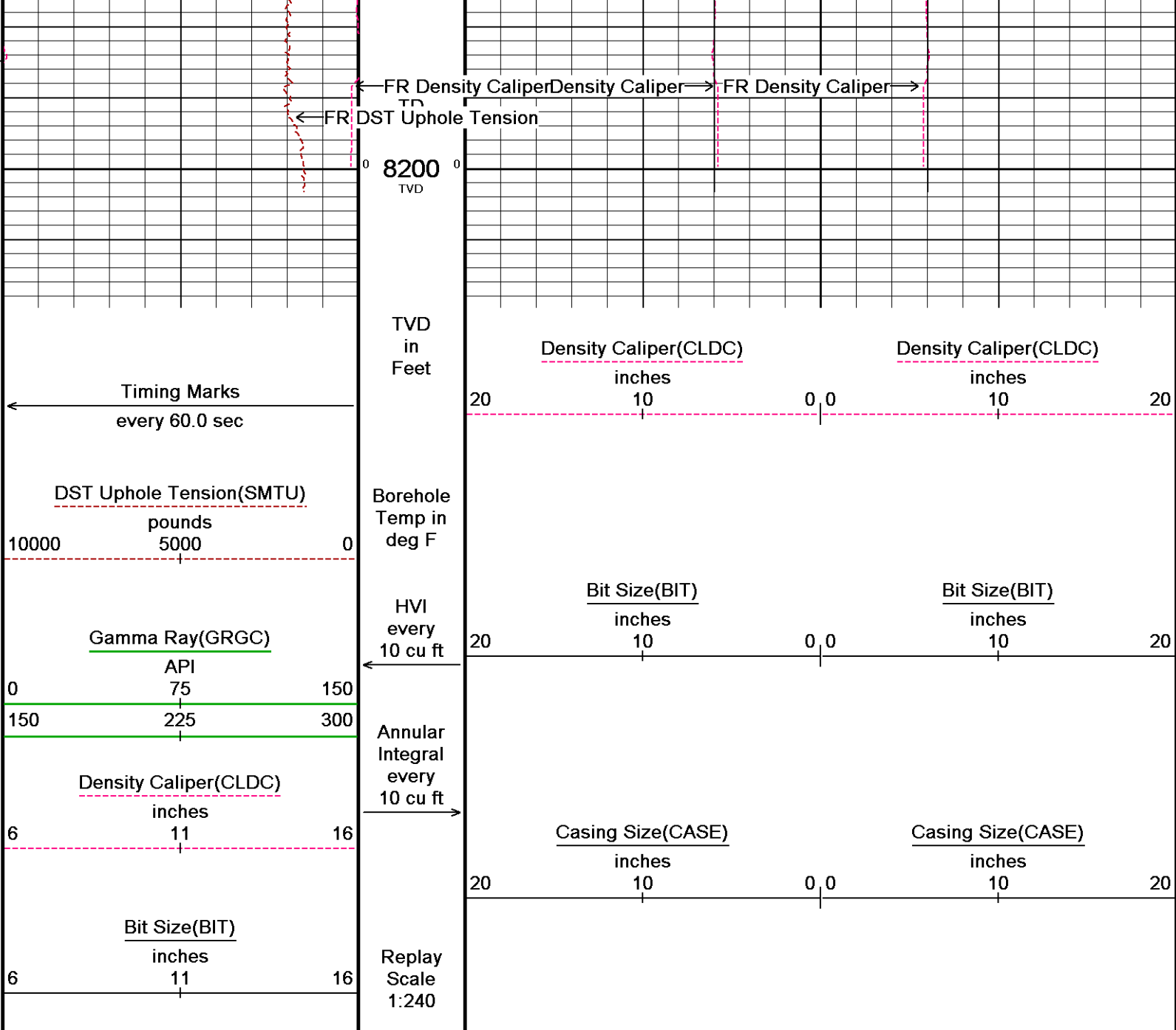
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.

**POROSITY MAIN TVD**

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 30-SEP-2012 19:42  
 Filename: C:\LOGS\Kinder Morgan\YG-1 123\Porosity Main.dta Recorded on 30-SEP-2012 09:03  
 System Versions: Processed with 13.02.6600 Plotted with 13.03.7779







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↑ POROSITY MAIN TVD ↑

**BEFORE SURVEY CALIBRATION**  
 C:\LOGS\Kinder Morgan\YG-1 123\Porosity MAIN.dta

General Constants All 000 Last Edited on 30-SEP-2012,12:02

General Parameters  
 Mud Resistivity 4.710 ohm-metres  
 Mud Resistivity Temperature 67.000 degrees F  
 Water Level 3860.000 feet  
 Density/Neutron Processing Water Level Switch

Hole/Annular Volume and Differential Caliper Parameters  
 HVOL Method Single Caliper  
 HVOL Caliper 1 Density Caliper  
 HVOL Caliper 2 N/A  
 Annular Volume Diameter 3.500 inches

Caliper for Differential Caliper	None
Rwa Parameters	
Porosity used	N/A
Resistivity used	N/A
RWA Constant A	N/A
RWA Constant M	N/A

High Resolution Temperature Calibration MCG-D.J 417			Field Calibration on 27-SEP-2012,18:30
	Measured	Calibrated(Deg F)	
Lower	25.00	25.00	
Upper	150.00	150.00	

High Resolution Temperature Constants MCG-D.J 417			Last Edited on 25-JUN-2012,10:27
Pre-filter Length	11		

Gamma Calibration MCG-D.J 417			Field Calibration on 27-SEP-2012 18:29
	Measured	Calibrated (API)	
Background	88	56	
Calibrator (Gross)	917	583	
Calibrator (Net)	829	527	

Gamma Constants MCG-D.J 417			Last Edited on 27-SEP-2012,18:22
Gamma Calibrator Number	GRC-174		
Mud Density	1.00	gm/cc	
Caliper Source for Processing	Density Caliper		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	

Caliper Calibration MPD-D.A 460			Base Calibration on 21-SEP-2012 17:33	Field Calibration on 29-SEP-2012 22:54
Base Calibration				
Reading No	Measured	Calibrator Size (in)		
1	19011	3.98		
2	27874	5.96		
3	35560	7.97		
4	43991	9.84		
5	53242	11.91		
6	N/A	N/A		
Field Calibration				
	Measured Caliper (in)	Actual Caliper (in)		
	5.18	5.96		

### DOWNHOLE EQUIPMENT

C:\LOGS\Kinder Morgan\YG-1 123\Porosity MAIN.dta

3/8" Triple Cone Cable Head (MCB C A)  
 MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

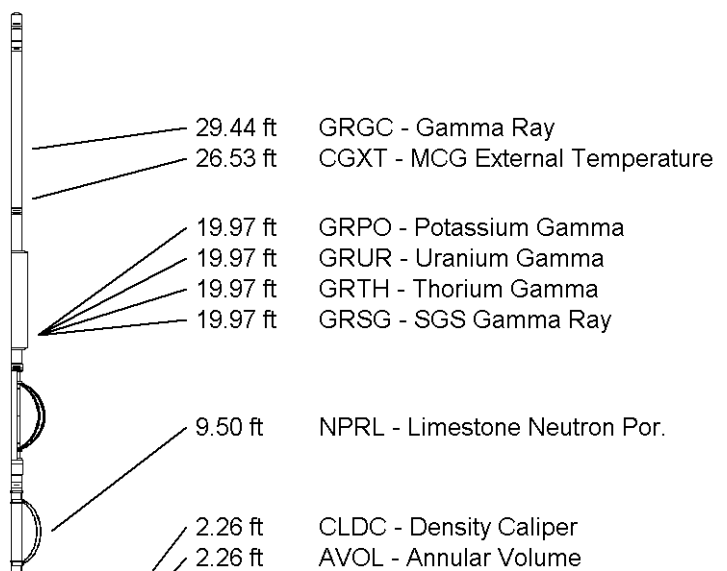
Compact Comms Gamma  
 MCG-D.J 417 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Spectral Gamma Ray Sub  
 SGS-E.J 135 LG: 7.78 ft WT: 105.8 lb OD: 3.54 in

MIS-D.B Compact Inline Bowspring sub  
 MIS-D.B 657 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron  
 MDN-B.A 296 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper  
 MPD-D.A 460 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in



Total Length: 38.39 ft Weight: 359.4 lb



2.26 ft HVOL - Hole Volume  
0.33 ft DPRL - Limestone Density Por.  
0.33 ft DCOR - Density Correction  
0.27 ft PDPE - PE  
Tool Zero (2.21ft from bottom)  
All measurements relative to tool zero.

COMPANY	KINDER MORGAN C02 Co. L.P
WELL	YG-1
FIELD	McELMO DOME
PROVINCE/COUNTY	MONTEZUMA
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6686.00	feet	First Reading	8197.00	feet
Elevation Drill Floor	6686.00	feet	Depth Driller	8200.00	feet
Elevation Ground Level	6661.00	feet	Depth Logger	8200.00	feet



**Weatherford**<sup>®</sup>

HOLE VOLUME  
CALIPER  
LOG (TVD)