

IN.E.S. COPY

## WELL RE-COMPLETION PROGRAM

PARAMOUNT et al CAMERON B-08

AREA 60° 10' 117° 30'

**AFE NUMBER:**

**WID:**

1732

**UWI:**

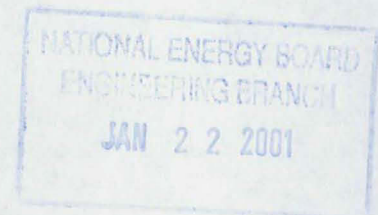
300B086010117300

**File:**

9211-P33-4-1

Prepared By: Dave Block

January 10, 2001



## WELL INFORMATION:

Well Name: Paramount et al Cameron B-08  
Area: 60° 10' N, 117° 30' W  
UWI: 300B086010117300  
ADW: 1397  
Spud Date: Jan 19, 1989  
Rig Release Date: Feb 9, 1989  
Well Status: Suspended Sulphur Point gas well.

KB Elevation: 789.90 m  
Ground Elevation: 786.21 m  
PBSD: 1537 mKB  
TD: 1560 mKB

Surface Hole: 311 mm to 392 mKB  
Surface Casing: 244.5 mm, 53.6 kg/m, J55, LT&C set at 391.7 mKB.  
Cemented with 31 t class 'G' cement plus 3% CaCl<sub>2</sub>. Cement returns to surface.

Main Hole: 222 mm to 1560 mKB  
Production Casing: 139.7 mm, 20.8 kg/m, J-55, casing landed at 1559.95 mKB.  
Cemented in two stages with 6.5 t class 'G' + 0.75% T-10 + 0.2% R-5 and 39.5 t 0:1:8 cement + 0.75% T-10. Stage tool at 1347 mKb and Baker ECP at 1346.5 mKB.

Cores: None.

DST's #1: Slave Point 1353 - 1370 mKB  
PF: 10 mins PFP: N/A  
ISI: 60 mins ISIP: N/A  
VO: N/A FPF: N/A  
FSI: N/A FSIP: N/A

PF: WAB steady throughout. NGTS.  
VO: Dead on VO.  
REC: 60 m inhibitor and water cut drilling mud.  
REM: Misrun, tool plugged on preflow.

#2: Keg River 1512 - 1522 mKB  
PF: 9 mins PFP: 10388 KPa  
ISI: 28 mins ISIP: 10388 KPa  
VO: 60 mins FPF: 10388 KPa  
FSI: 114 mins FSIP: 10466 KPa

PF: WAB to FAB in 5 minutes. Steady.  
VO: FAB after 10 minutes, declining. NGTS.  
REC: 156 m drilling mud on test 2 & 3 combined.  
REM: Misrun, tool plugged during test.

**#3: Sulphur Point 1410 - 1420 mKB**

PF: 13 mins      PFP: 1043 KPa  
ISI: 28 mins      ISIP: 9733 KPa  
VO: 58ins      FPF: 1491 KPa  
FSI: 121 mins      FSIP: 9672 KPa

PF: SAB after 3 minutes. GTS in 7 minutes.  
VO: VSGB throughout. Final rate =  $8500 \text{ } 10^3 \text{ m}^3/\text{day}$ .  
REC: 156 m drilling mud on test 2 & 3 combined.

Existing Producing Zones: Keg River: 1512.0 - 1521.5 mKB  
Estimated BHP: 10560 kPa  
H<sub>2</sub>S Content: 1 - 2%.

Existing Producing Zones: Sulphur Point: 1403.0 - 1406.0 & 1408.0 - 1409.0 & 1412.0 - 1421.0 mKB  
Estimated BHP: 9600 kPa  
H<sub>2</sub>S Content: 1 - 2%.

Proposed Producing Zones: Slave Point: 1353.5 - 1355.5 & 1358.0 - 1360.5 mKB  
Estimated BHP: 11150 kPa  
H<sub>2</sub>S Content: 1 - 2%.

## **PROJECT OVERVIEW:**

To remove production string from well. To set a packer with plug in place above the Sulphur Point. To perforate and stimulate the Slave Point. To run production string with second packer. To test the Slave Point. To suspend the well as per section 218 of the Canada Oil & Gas Drilling Regulations.

## **SAFETY      REFER TO THE AREA “EMERGENCY RESPONSE PLAN”**

All operations are to be carried out in accordance with government regulations and recognized safety procedures. Operations are to be conducted in a manner that results in the greatest degree of protection possible for the public, on-site personnel and the environment.

Service Rig Manager and Wellsite Supervisor are to have valid PITS “Well Service Blowout Prevention” and “H2S alert” certificate on site.

## ***THIS WELL IS EXPECTED TO ENCOUNTER H<sub>2</sub>S.***

**Continually monitor annulus pressures and bleed off if necessary.**

## **BOP EQUIPMENT**

Use a 179 mm 21 mPa BOP complete with blind rams, pipe rams, and annular to meet NEB requirements. Function test and pressure test BOPs to 21 mPa.

Ensure rams will close on both 73 mm tubing.

## **COMPLETION PROCEDURE**

1. Move in and RUSR c/w pump and clean tank. Rig up safety equipment.
2. Stump test BOP. Kill the well as required with 3% KCl water. Remove tubing bonnet and install BOPs. Function test BOP's.
3. Pull the 'RZG' plug from the 'R' on bottom at 1404 mKB.
4. Unset Guibreson UNI-V retrievable packer (landed in 7000 daN compression). Pull and stand tubing.

5. Rerun the tubing with a Cardium 'NFT' on-off connector, a Cardium 'DGP' packer, and tailpipe on bottom as per attached proposed bottom hole diagram. Install and test an 'FSG' plug in the on-off connector 'F' profile prior to running. Set the packer at approximately 1388 mKB with tubing bottom at approximately 1398 mKB. Pressure test the annulus to 14 MPa for 15 minutes. Release from the on-off connector. Pressure test the casing, packer, and plug to 14 MPa for 15 minutes. Circulate one sack of sand onto the packer. Pull and stand the tubing.
6. Run in hole with a 101 mm HSC casing gun loaded with 32 gram charges loaded at 17 spm and 60° phasing. Perforate the Slave Point formation from 1353.5 - 1355.5 & 1358.0 - 1360.5 mKB.
7. Re-run tubing with a selective acidizing tool on bottom set up with a one meter spacing. Perform a 4.5 m<sup>3</sup> 15% HCl acid wash/squeeze on the Slave Point using the selective tool to deliver 1 m<sup>3</sup>/m of interval. Reset packer above perforations and swab/flow on cleanup to recover spent acid.
8. Pull and recover the selective tool. Re-run the tubing with the remaining bottom hole equipment as per the attached diagram. Wash sand and debris off of the on-off connector. Latch on to the on-off connector. Space out to set the packer in 5000 daN compression. Displace the annulus to inhibited water topped off with diesel. Pressure test the packer and casing to 14 MPa for 15 minutes. Pressure test the tubing and plug to 14 MPa for 15 minutes.
9. Remove the BOP's and install and test the wellhead.
10. Rig in a wireline unit and shift open the lower sliding sleeve. Swab/flow the Slave Point on cleanup to establish flow.
11. Release the service rig.
12. Rig in a test unit complete with flare system. Test the Slave Point as per instructions from the Calgary office. Hang recorders as required in the 'F' nipple below the sliding sleeve.
13. When buildup is complete pull recorders from the 'F' nipple. Shift the sliding sleeve closed. Pressure test the tubing to 14 MPa for 15 minutes. Set an 'FSG' plug in the 'F' nipple at 50 mKB. Pressure test the plug to 14 MPa for 15 minutes.
14. Chain and lock the wellhead.

## PERSONNEL & EMERGENCY CONTACTS

An 0800 hour status morning report and daily cost summary will be faxed in to Paramount Resources Ltd. office at 266-6032, by the company representative

	OFFICE	CELLULAR	RESIDENCE	BUS. FAX
<b>COMPLETION</b>				
Dave Block	206-3834	804-8089	253-8976	266-6032(office) 253-8976(home)
Phil Christie	290-3627	861-8476	290-1574	266-6032
<b>GEOLOGIST</b>				
Cam Fehr	290-3600	818-2147	247-7677	266-6032
<b>COMPLETION SUPERVISOR</b>				
TBD				
<b>Reservoir Engineer</b>				
Terry Stasiuk	290-3609		242-2341	266-6032
<b>LAND OCCUPANT</b>				
CROWN				

<b>NEB</b>	<b>Chris Knoechel</b> , Calgary (403) 299-3866 – Residence (403) 241-0047
	Rick Fisher      Calgary (403) 299-2798
	Terry Baker      Calgary (403) 299-2792 - Residence (403) 239-5032

### EMERGENCY PHONE NUMBERS

<b>RCMP:</b>	<b>(867) 874-6555</b>	<b>Hay River, N.W.T.</b>
<b>HOSPITAL:</b>	<b>(867) 874-6831</b>	<b>Hay River, N.W.T.</b>
<b>AMBULANCE:</b>	<b>(867) 873-2222</b>	<b>Yellowknife, N.W.T.</b>
<b>AIR AMBULANCE:</b>	<b>1-800-661-3822</b>	<b>Northern Dispatch</b>

## SUPPLIES AND SERVICES

SERVICE	COMPANY / CONTACT/LOCATION	PHONE
SERVICE RIG	Bonus Resources Services Corp. Rig 10 or 152	(403) 263-6777
CAMP	Beaver Enterprises Ltd.	(867)770-4571
WELL SITE TRAILER	Dene Oilfield Construction	(867)874-4066
SATELLITE		
KILL FLUID		
WELLHEAD	AJ Industries( ABB Vetco Gray)	(403) 262-8900
BOND & TEMP. LOG	Computalog – Cased Hole Grande Prairie	(403) 298-3857 (780) 539-6400
SLICKLINE, TESTING & RECORDERS	Solid Production Services Ltd. Rainbow Lake (Allan Murray)	(403) 237-6050 (780) 956-3960
STIMULATION	BJ; Grande Prairie	(780) 539-5210
COIL TUBING	BJ; Grande Prairie	(780) 539-5210
TUBING	NUSCO ; Calgary	(403)-266-3449
PACKERS, BP, PROFILES	Cardium Oil Tools Ken Soderberg	(403) 296-9600
SAFETY	IROC through Dene Oilfield	(403) 346-9710 IROC (867)874-4066 DENE
First Aid	IROC through Dene Oilfield	(403) 346-9710 IROC (867)874-4066 DENE
SNUBBING	Live Well Services; Larry MacPherson	1-800-232-7219
TANK RENTAL		

**NOTE:**Services that are "Field Bid" must have a minimum of two (2) bids and company selected shown on Daily Cost Log.



## **GENERAL**

Full co-operation by field personnel is to be maintained with the NEB and other government agencies.

Under no circumstances will the possession and use of alcoholic beverages or illegal drugs be permitted on the wellsite or campsite.

Any accidents involving personnel are to be reported immediately to the Calgary Drilling Department. Access to the lease is to be restricted to authorized personnel only.

Safety meetings to discuss program are to be held prior to commencing well completion, perforating, stimulation and testing.

Material Transfers **MUST** be filled out on all tangible materials such as tubing. Note on the daily report when movement occurs. Tallies should be with "threads on" for inventory purposes.

Purchase order numbers are not used by Paramount.

Field tickets are to be completed in detail with the **Well Name and Number, A.F.E. No., and AFE Sub Item Number (i.e.: 22737-324 for Stimulation)** and details of the service work. Tickets are to be signed by the company representative and entered on daily cost log. (Note: Do not include GST on cost log)

All field tickets and copies of rental sheets must be submitted to the Calgary office weekly

**Invoices are to be mailed to:**

**PARAMOUNT RESOURCES LIMITED**  
#4700, 888-3<sup>rd</sup> Street S.W.  
Calgary, Alberta  
T2P 5C5

**ATTENTION: ACCOUNTS PAYABLE**

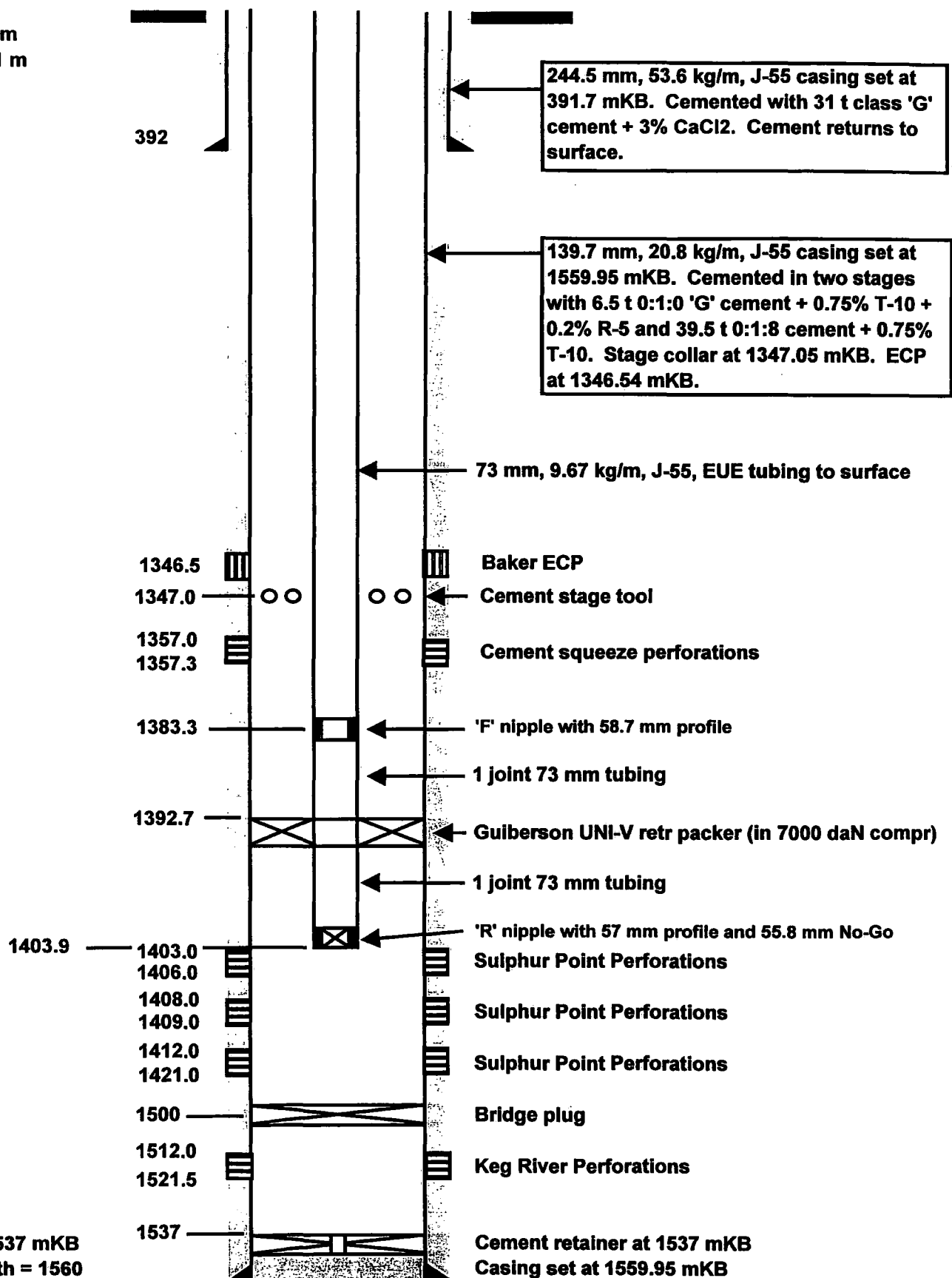


# PARAMOUNT ET AL CAMERON B-08

60° 10' N, 117° 30' W

Existing Bottom Hole Diagram (Jan 1, 2001)

KB: 789.9 m  
GL: 786.21 m



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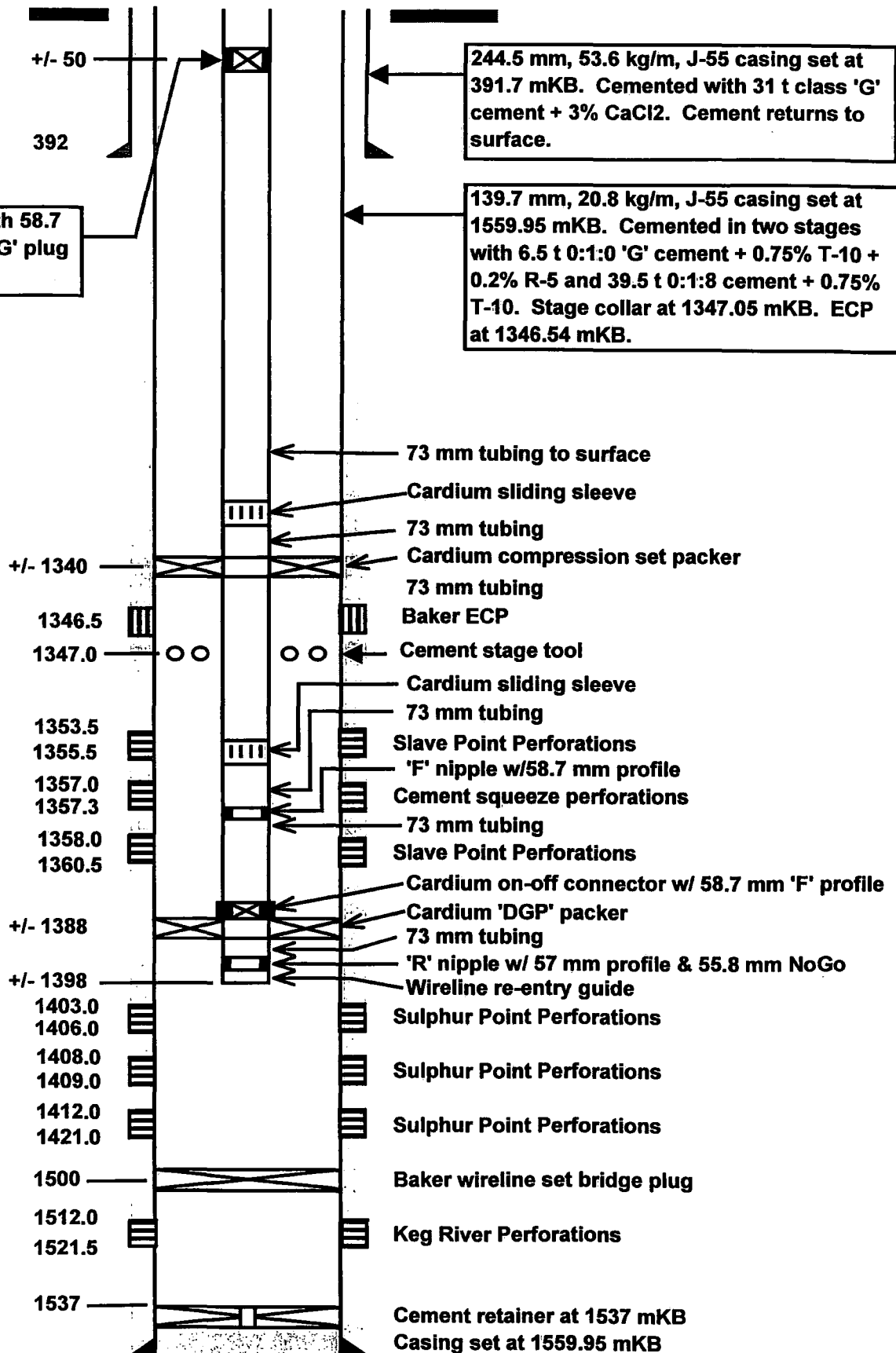
## Proposed Bottom Hole Diagram

KB: 789.9 m  
GL: 786.21 m

73 mm 'F' nipple with 58.7 mm profile with 'FSG' plug in place.

244.5 mm, 53.6 kg/m, J-55 casing set at 391.7 mKB. Cemented with 31 t class 'G' cement + 3% CaCl<sub>2</sub>. Cement returns to surface.

139.7 mm, 20.8 kg/m, J-55 casing set at 1559.95 mKB. Cemented in two stages with 6.5 t 0:1:0 'G' cement + 0.75% T-10 + 0.2% R-5 and 39.5 t 0:1:8 cement + 0.75% T-10. Stage collar at 1347.05 mKB. ECP at 1346.54 mKB.



PBTD = 1537 mKB  
Total Depth = 1560

## **WELL RE-COMPLETION PROGRAM**

**PARAMOUNT et al CAMERON B-08**

**AREA 60° 10' 117° 30'**

**AFE NUMBER:**

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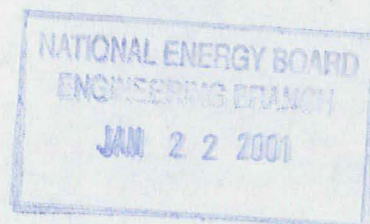
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**9211-P33-4-1**

Prepared By: Dave Block

January 10, 2001



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ADW: 1397  
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Well Status: Suspended Sulphur Point gas well.

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PBTD: 1537 mKB  
TD: 1560 mKB

Surface Hole: 311 mm to 392 mKB  
Surface Casing: 244.5 mm, 53.6 kg/m, J55, LT&C set at 391.7 mKB.  
Cemented with 31 t class 'G' cement plus 3% CaCl<sub>2</sub>. Cement returns to surface.

Main Hole: 222 mm to 1560 mKB  
Production Casing: 139.7 mm, 20.8 kg/m, J-55, casing landed at 1559.95 mKB.  
Cemented in two stages with 6.5 t class 'G' + 0.75% T-10 + 0.2% R-5 and 39.5 t 0:1:8 cement + 0.75% T-10. Stage tool at 1347 mKb and Baker ECP at 1346.5 mKB.

Cores: None.

DST's #1: Slave Point 1353 - 1370 mKB  
PF: 10 mins PFP: N/A  
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**Continually monitor annulus pressures and bleed off if necessary.**

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Ensure rams will close on both 73 mm tubing.

## **COMPLETION PROCEDURE**

1. Move in and RUSR c/w pump and clean tank. Rig up safety equipment.
2. Stump test BOP. Kill the well as required with 3% KCl water. Remove tubing bonnet and install BOPs. Function test BOP's.
3. Pull the 'RZG' plug from the 'R' on bottom at 1404 mKB.
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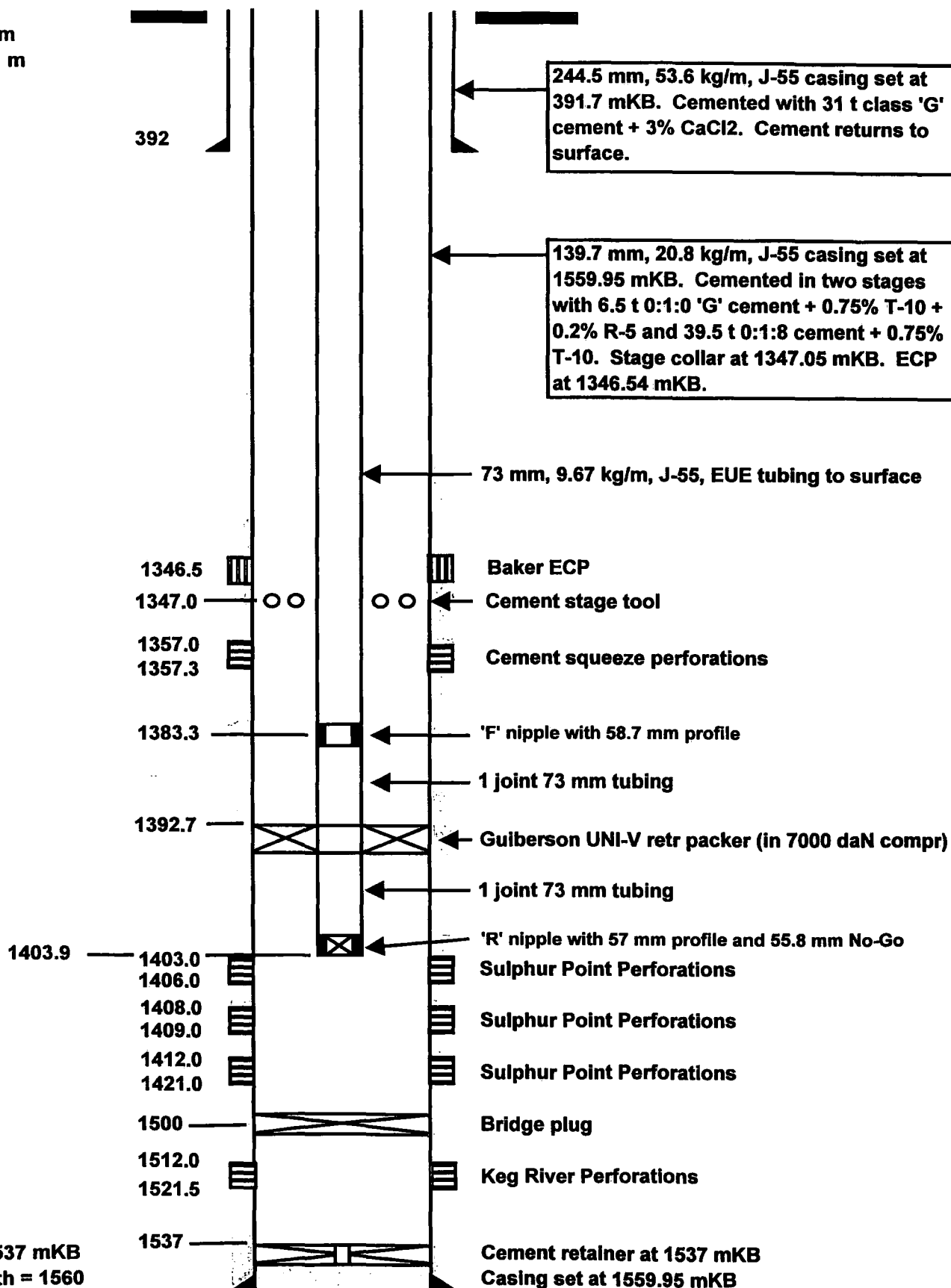
**ATTENTION: ACCOUNTS PAYABLE**

# PARAMOUNT ET AL CAMERON B-08

60° 10' N, 117° 30' W

Existing Bottom Hole Diagram (Jan 1, 2001)

KB: 789.9 m  
GL: 786.21 m



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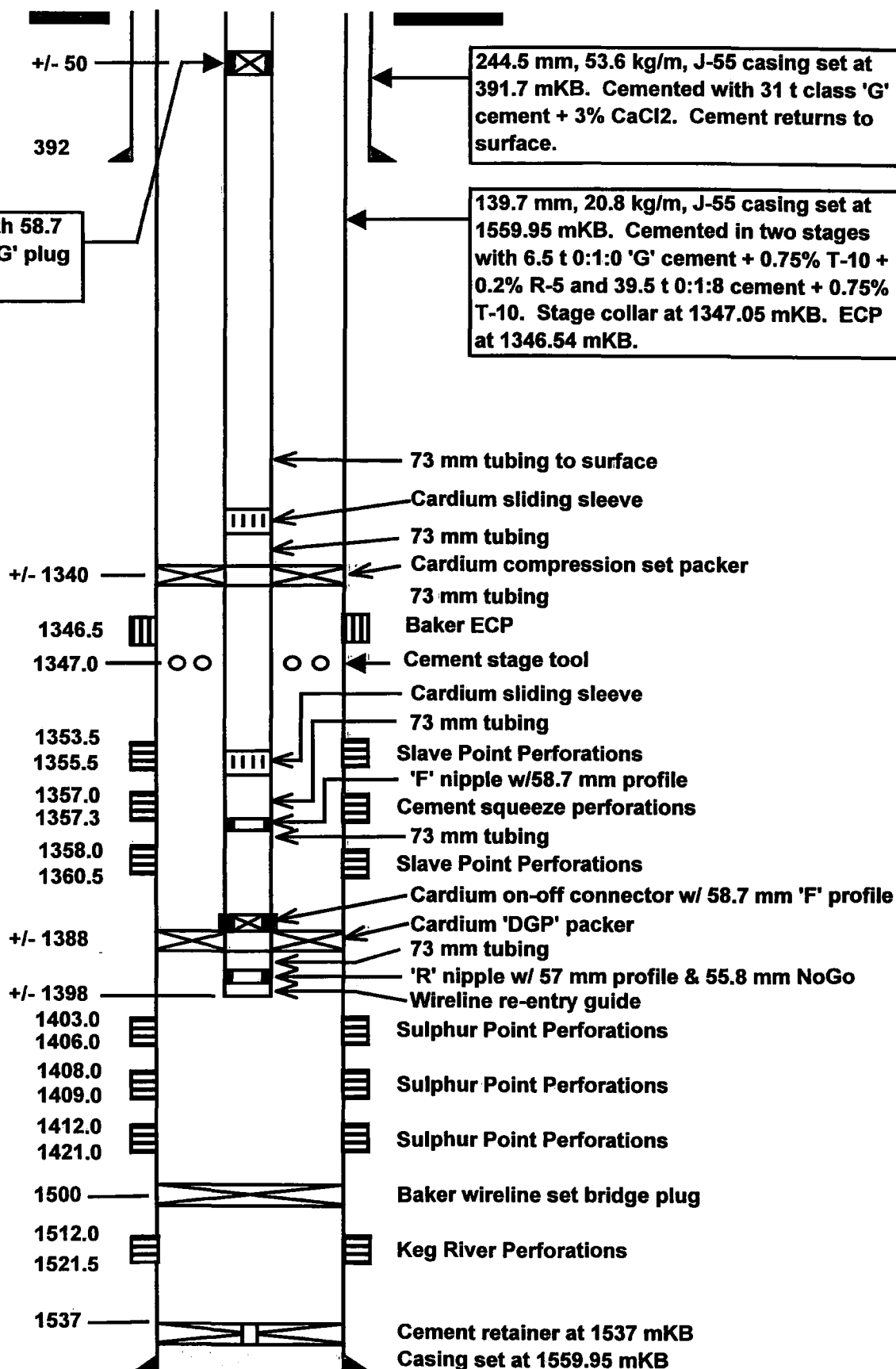
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PBTD = 1537 mKB  
Total Depth = 1560