

**Well Schematic/As Is / April, 1998**  
**Paramount Berkley Arrowhead O15**

<b>Well Name:</b>	Paramount Berkley Arrowhead O15	<b>Surface Coordinates:</b>
<b>Latitude:</b>	60 ° 24' 53.694"	<b>Downhole Coordinates:</b>
<b>Longitude:</b>	123 ° 02' 31.174"	<b>AFE NO.:</b> 13577
<b>Vertical Test Total Depth:</b>	1930m	<b>Plug Back Depth:</b> 903 m
<b>Well Type:</b>	Exploration	<b>D&amp;C Cost Estimate:</b>
<b>Primary Target:</b>	Nahanni	<b>D&amp;A Cost Estimate:</b>
<b>Tight Hole Status:</b>	YES	<b>Date:</b> April 28, 1998

**All depths are in mKB unless otherwise specified**

**Surface Hole:** (surface – 500 )

Hole Size: 444 mm  
 Surveys: ¼ @ 463  
 Mud Type: Air to 442, gel/chem to 500

Casing: 339.7 mm, 81.1 kg/m, K55  
 Landed at 499.9 m KB

Cement: Lead: 31 T 0:1:0 Class "G" + 1% CaCl<sub>2</sub>  
 Tail: 27 T Expandomix + 2% CaCl<sub>2</sub>  
 8 m<sup>3</sup> returns

Problems: Fluid & gas flowing up around conductor, had to mud up

**Intermediate Hole:** (500 – 1455 m)

Hole Size: 311 mm  
 Surveys: This section originally kicked out to 15° so was plugged back and re-drilled  
 To keep vertical  
 First Leg: 500 – 1560 m KB  
 (partial plug back) Drilled with foam and air hammer to 867 m, well watered out. Drill with  
 Cutter D to 1560 m MD.  
 Problems: Totco surveys indicated 7°, directional survey read 15°,  
 Decision was made to plug back and redrill  
 Plug #1: 1195 – 1350 m w/ 16 T 0:1:0 High Density G + 1% CFR + 1% LTR

Casing: 244.5 mm, 64.74 kg/m, L80 landed at 1196 m

Cement: Lead: 21 T LW14 + 2% CaCl<sub>2</sub> + 2% LWA + 2% SMS  
 Tail: 29 T 0:1:0 G + 0.4% CFL3 + 1% CFLH + 2% SPC 2  
 5 m<sup>3</sup> returns

**Intermediate Re-Drill**

Plug #2 (to top up plug #1 that did not set properly (1100 – 1250 m)  
 With 7 T 0:1:0 high density G + 1% CFR + 0.6% LTR

Hole Size: 216 mm  
 Mud Type: Cutter D to 1455 m (to get away from old wellbore  
 Started blowing well dry to drill with air (road bans were put on and had to  
 suspend drilling)

Suspension Plugs: Plug #1: 1255 – 1455 m with 4 T thermal  
 Plug #2 996 – 1196 m with 3.5 T thermal  
 (Note: thermal blend was used because it was already mixed and in the area)  
 Drillable bridge plug set at 903 m

1455 m