



**DRILLING FLUID SUMMARY**

**FOR : CENTRAL PETROLEUM**

**WELL : SURPRISE # 1 RE-ENTRY H**

**AMADEUS BASIN**

**NORTHERN TERRITORY**

Prepared by : Warren Mills  
Andre Skujins

Date : December 2011

Operator : Central Petroleum  
Well : Surprise # 1 Re-Entry H  
Rig : Hunt Energy Rig 3  
Spud : 22<sup>nd</sup> December 2011



## CONTENTS

1. Summary of Operations
2. Observations, Recommendations and Well Analysis
3. Material Costs & Consumption Analysis
4. Fluid Properties Summary
5. Daily Mud Reports

Operator : Central Petroleum  
Well : Surprise # 1 Re-Entry H  
Rig : Hunt Energy Rig 3  
Spud : 22<sup>nd</sup> December 2011



## 1. SUMMARY OF OPERATIONS

Surprise 1 Re-Entry H is located in Central Australia in Permit EP-115 within the Amadeus Basin. It is situated on the South-west part of the Northern Territory 400 km west of Alice Springs. The well is an extension of the just drilled Surprise # 1 ST1. This section commenced on the 22<sup>nd</sup> December 2011.

The drill water was carted from the local water well CTP JOW High Flow and had the following properties:-

pH : 7.5  
Pf/mf : 0.0 / 0.22  
Cl : 1300 mg/l  
Ca : 660 mg/l

**HOLE SIZE : 6" Horizontal Section**  
**MUD TYPE : KCl Brine**

All Mud tanks were dumped and cleaned. Sufficient fresh KCl based (3.5%) brine was made in the surface system so as to be able to displace the hole prior to drilling the horizontal section.

After running in with a directional assembly, the casing shoe was drilled out. The hole was displaced to the KCl brine and the old drilling fluid dumped to the sump.

After drilling 1 m of new formation, an FIT was conducted to an equivalent mud weight of 11.5 ppg. Drilling then continued horizontally. Sodium sulphite was added to maintain corrosion control in the saline environment and 5 bbls Xtra-Sweep pills were pumped prior to every connection, with some extra cuttings being returned with these sweeps. Surface volume was increased with further 3% KCl brine additions.

The Mud Engineer was released at this stage.

Operator : Central Petroleum  
Well : Surprise # 1 Re-Entry H  
Rig : Hunt Energy Rig 3  
Spud : 22<sup>nd</sup> December 2011



## **2. OBSERVATIONS, RECOMMENDATIONS AND WELL ANALYSIS**

Surprise 1 Re-entry H was drilled horizontally for a mud cost of \$8,916.60. The Mud engineer was released soon after drilling of this section had commenced.

A 3% KCl brine was the major component of the drilling fluid. Salt was also added for weight control.



### 3. INTERVAL COSTS

Product	Cost	Unit Size	6-1/8" Production Hole		
			Used	Cost	%Cost
AMC Xtra-Sweep	\$ 122.65	12 lb	2	\$245.30	2.8%
Flossy Salt	\$ 7.50	25 kg	252	\$1,890.00	21.2%
Liquipol	\$ 105.00	25 lt	1	\$105.00	1.2%
Potassium Chloride	\$ 33.60	25 kg	133	\$4,468.80	50.1%
Soda Ash	\$ 24.10	25 kg	5	\$120.50	1.4%
Sodium Sulphite	\$ 42.60	25 kg	18	\$766.80	8.6%
Xanbore	\$ 188.60	25 kg	7	\$1,320.20	14.8%
Totals :				<b>\$8,916.60</b>	<b>100.0%</b>



## 4. FLUID PROPERTIES SUMMARY

Date								Gels		Filtrate		Solids											
	Mud Type	Temp	Depth	Weight	Vis	PV	YP	10 sec	10 min	API	Cake	Solids	Water	Sand	MBT	pH	Pf	Mf	Cl-	Ca++	SO3=	K+	KCl
22-Dec-11	3% KCl Brine	29	2430	8.50	27	1	1	1	1	NC			100.0			8.5	0.03	0.20	17,200	40	80	17,325	3.3
22-Dec-11	3% KCl Brine	38	2453	8.50	27	1	1	1	1	NC			100.0			9.0	0.03	0.20	17,000	60	80	17,860	3.4

