

Client: Northern Petroleum
 Nederland B.V.
 Well: Brakel 01
 Country: Netherlands
 Disclosure Type: Post-Job
 Date Prepared: 3/8/2012 11:40 AM
 Report ID: RPT-2403

Fluid Name & Volume	Additive	Additive Description	Concentration	Volume
WF120 45,900 L	J561	Gelling Agent	2.40 Kg / M3	110.2 Kg
	F103	Surfactant	1.00 L / M3	45.9 L
	J218	Breaker	0.03 Kg / M3	1.4 Kg
	J569	Breaker	0.40 Kg / M3	18.4 Kg
	M117	Clay Control Agent	20.00 Kg / M3	918.0 Kg
	M275	Bactericide	0.05 Kg / M3	2.3 Kg
	U066	Mutual Solvent	4.50 L / M3	206.6 L

Fluid Name & Volume	Additive	Additive Description	Concentration	Volume
YF135EC 266,400 L	J561	Gelling Agent	3.60 Kg / M3	959.0 Kg
	F103	Surfactant	1.00 L / M3	266.4 L
	J218	Breaker	0.03 Kg / M3	8.0 Kg
	J569	Breaker	0.40 Kg / M3	106.6 Kg
	J480	Buffer	0.60 Kg / M3	159.8 Kg
	J517M	Crosslinker	1.60 Kg / M3	426.2 Kg
	M002	Additive	1.20 Kg / M3	319.7 Kg
	M117	Clay Control Agent	20.00 Kg / M3	5,328.0 Kg
	M275	Bactericide	0.05 Kg / M3	13.3 Kg
	U066	Mutual Solvent	6.70 L / M3	1,784.9 L
	S300	Propping Agent	varied concentrations	111,005.0 Kg

The total volume listed in the tables above represents the summation of water and additives. Water is supplied by client.
 † Proprietary Technology

CAS Number	Chemical Name	Mass Fraction
-	Water (Including Mix Water Supplied by Client)*	71.50658 %
66402-68-4	Ceramic materials and wares, chemicals	26.06822 %
7447-40-7	Potassium chloride	1.46680 %
111-76-2	2-butoxyethanol	0.44070 %
9000-30-0	Guar gum	0.25109 %
10043-35-3	Boric acid	0.10010 %
1310-73-2	Sodium hydroxide	0.07507 %
Proprietary	Aliphatic acid salt	0.03754 %
7727-54-0	Diammonium peroxodisulphate	0.03154 %
Proprietary	Ethoxylated alcohol linear	0.02640 %
67-63-0	Propan-2-ol	0.01980 %
10377-60-3	Magnesium nitrate	0.00037 %
55965-84-9	5-Chloro-2-Methyl-2H-Isithiazol-3-One and 2-Methyl-2H-Isithiazol-3-One (3:1)	0.00026 %

* Mix water is supplied by the client. Schlumberger has performed no analysis of the water and cannot provide a breakdown of components that may have been added to the water by third-parties.

Client: Northern Petroleum
 Nederland B.V.
 Well: Andel 06
 Country: Netherlands
 Disclosure Type: Post-Job
 Date Prepared: 3/8/2012 11:52 AM
 Report ID: RPT-2404

Fluid Name & Volume	Additive	Additive Description	Concentration	Volume
WF120 42,000 L	J561	Gelling Agent	2.40 Kg / M3	100.8 Kg
	F103	Surfactant	1.00 L / M3	42.0 L
	J218	Breaker	0.10 Kg / M3	4.2 Kg
	J569	Breaker	0.50 Kg / M3	21.0 Kg
	M117	Clay Control Agent	20.00 Kg / M3	840.0 Kg
	M275	Bactericide	0.04 Kg / M3	1.7 Kg
	U066	Mutual Solvent	4.50 L / M3	189.0 L

Fluid Name & Volume	Additive	Additive Description	Concentration	Volume
YF130HTD 34,600 L	J561	Gelling Agent	3.60 Kg / M3	124.6 Kg
	F103	Surfactant	1.00 L / M3	34.6 L
	J218	Breaker	0.10 Kg / M3	3.5 Kg
	J569	Breaker	0.50 Kg / M3	17.3 Kg
	J480	Buffer	2.60 Kg / M3	90.0 Kg
	L010	Crosslinker	0.60 Kg / M3	20.8 Kg
	M002	Additive	1.20 Kg / M3	41.5 Kg
	M117	Clay Control Agent	20.00 Kg / M3	692.0 Kg
	M275	Bactericide	0.04 Kg / M3	1.4 Kg
	U066	Mutual Solvent	6.70 L / M3	231.8 L

Fluid Name & Volume	Additive	Additive Description	Concentration	Volume
YF135HTD 118,900 L	J561	Gelling Agent	4.20 Kg / M3	499.4 Kg
	F103	Surfactant	1.00 L / M3	118.9 L
	J218	Breaker	0.10 Kg / M3	11.9 Kg
	J569	Breaker	0.50 Kg / M3	59.5 Kg
	J480	Buffer	2.60 Kg / M3	309.1 Kg
	L010	Crosslinker	0.60 Kg / M3	71.3 Kg
	M002	Additive	1.20 Kg / M3	142.7 Kg
	M117	Clay Control Agent	20.00 Kg / M3	2,378.0 Kg
	M275	Bactericide	0.04 Kg / M3	4.8 Kg
	U066	Mutual Solvent	7.8 L / M3	927.4 L
	S300	Propping Agent	varied concentrations	40,005.0 Kg

The total volume listed in the tables above represents the summation of water and additives. Water is supplied by client.

CAS Number	Chemical Name	Mass Fraction
-	Water (Including Mix Water Supplied by Client)*	80.27493 %
66402-68-4	Ceramic materials and wares, chemicals	16.87668 %
7447-40-7	Potassium chloride	1.64949 %
111-76-2	2-butoxyethanol	0.53416 %
9000-30-0	Guar gum	0.30574 %
Proprietary	Aliphatic acid salt	0.16837 %
1310-73-2	Sodium hydroxide	0.07771 %
7727-54-0	Diammonium peroxodisulphate	0.04948 %
10043-35-3	Boric acid	0.03885 %
Proprietary	Ethoxylated alcohol linear	0.02969 %
67-63-0	Propan-2-ol	0.02227 %
10377-60-3	Magnesium nitrate	0.00033 %
55965-84-9	5-Chloro-2-Methyl-2H-Isithiazol-3-One and 2-Methyl-2H-Isithiazol-3-One (3:1)	0.00023 %

* Mix water is supplied by the client. Schlumberger has performed no analysis of the water and cannot provide a breakdown of components that may have been added to the water by third-parties.