



Client: Origin
 Well: Amungee NW-1H
 STAGE 11

Basin/Field: Northern Territory
 State:

County/Parish:
 Case:
 Disclosure Type: Post-Job
 Well Completed: 9/7/2016
 Date Prepared: 9/13/2016 2:12 PM
 Report ID: RPT-44489

Fluid Description(s)		
Hybrid	198,198 Gal	Contains: Water, Surfactant F112, Hydrochloric Acid, Breaker J481, Gelling Agent J580, Crosslinker J604, Friction Reducer J609W, Scale Inhibitor L065, Clay Control Agent L071, Bactericide M275, Propping Agent S020, Fluid Loss Additive S100, Activator U028

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	Mass (kg)	Volume (L)	Volume Fraction
-	Water (Including Mix Water Supplied by Client)*	87.31552%	745,038.24	745,037.40	94.30837%
57-13-6	Urea	0.00031%	2.65	3.08	0.00039%
64-02-8	Tetrasodium ethylenediaminetetraacetate	0.00001%	0.09	0.06	0.00001%
67-48-1	2-hydroxy-N,N,N-trimethylethanaminium chloride	0.14028%	1,196.97	1,088.15	0.13774%
67-63-0	Propan-2-ol	0.00016%	1.37	1.74	0.00022%
79-06-1	2-Propenamid (impurity)	0.00002%	0.17	0.16	0.00002%
107-21-1	Ethylene Glycol	0.03720%	317.42	357.05	0.04520%
110-17-8	Fumaric acid	0.00125%	10.67	6.52	0.00083%
111-46-6	2,2'-oxydiethanol (impurity)	0.00010%	0.85	0.52	0.00007%
540-97-6	Dodecamethylcyclhexasiloxane	0.00001%	0.09	0.04	0.00001%
541-02-6	Decamethyl cyclopentasiloxane	0.00001%	0.09	0.04	0.00001%
556-67-2	Octamethylcyclotetrasiloxane	0.00001%	0.09	0.04	0.00001%
1310-73-2	Sodium hydroxide (impurity)	0.02388%	203.76	95.66	0.01211%
1319-33-1	Boronatrocacite	0.04753%	405.56	190.40	0.02410%
1330-43-4	Sodium tetraborate	0.00400%	34.13	14.42	0.00183%
2682-20-4	2-methyl-2h-isothiazol-3-one	0.00010%	0.85	0.68	0.00009%
7447-40-7	Potassium chloride (impurity)	0.00003%	0.26	0.13	0.00002%
7631-86-9	Non-crystalline silica (impurity)	0.00060%	5.12	2.13	0.00027%
7647-01-0	Hydrochloric acid	0.07561%	645.16	537.63	0.06805%
7647-14-5	Sodium chloride	0.00183%	15.61	7.21	0.00091%
7704-73-6	Monosodium fumarate	0.00125%	10.67	5.10	0.00065%
7757-82-6	Sodium sulfate	0.00007%	0.60	0.30	0.00004%
7758-98-7	Copper(II) sulfate	0.00001%	0.09	0.04	0.00001%
7783-20-2	Ammonium sulfate	0.00637%	54.35	53.82	0.00681%
7786-30-3	Magnesium chloride	0.00032%	2.73	1.18	0.00015%
7789-38-0	Sodium bromate	0.01751%	149.41	44.75	0.00566%
9000-30-0	Guar gum	0.21234%	1,811.84	2,588.33	0.32764%
10043-35-3	Boric acid	0.00125%	10.67	7.46	0.00094%
10043-52-4	Calcium Chloride	0.00092%	7.85	5.49	0.00069%
10377-60-3	Magnesium nitrate	0.00064%	5.46	6.14	0.00078%
14464-46-1	Cristobalite	0.00006%	0.51	0.20	0.00002%
14808-60-7	Quartz, Crystalline silica	12.08176%	103,090.19	39,650.03	5.01898%
26172-55-4	5-chloro-2-methyl-2h-isothiazolol-3-one	0.00034%	2.90	2.32	0.00029%
31726-34-8	Polyethylene glycol monohexyl ether	0.01977%	168.69	165.06	0.02089%
38193-60-1	Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer	0.00470%	40.10	30.09	0.00381%
61789-77-3	Dicoco dimethyl quaternary ammonium chloride	0.00082%	7.00	7.00	0.00089%
63148-62-9	Dimethyl siloxanes and silicones	0.00001%	0.09	0.09	0.00001%
67762-90-7	Siloxanes and silicones, dimethyl, reaction products with silica	0.00001%	0.09	0.11	0.00001%
91053-39-3	Diatomaceous earth, calcined	0.00321%	27.39	58.28	0.00738%
129898-01-7	2-Propenoic acid, polymer with sodium phosphinate	0.00905%	77.22	29.70	0.00376%
136793-29-8	Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate	0.00050%	4.27	2.19	0.00028%
595585-15-2	Diutan	0.00006%	0.51	0.60	0.00008%
		100%			100%

* 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.

* The evaluation of attached document is performed based on the composition of the identified products to the extent that such compositional information was known to GRC-Chemicals as of the date of the document was produced. Any new updates will not be reflected in this document.