	Er	Oil Co	te of New Mexic rals and Natural Inservation Divis OS. St Francis D	Resources sion	WELL API NO.     30-025-42173      Well Name:     RAPTOR WEST 3 STA	ATE #004H
HYDRAULIC F DISCLOSURE	RACTURING	Sai	0 S. St Francis D nta Fe, NM 8750		Feet from: 250 N/S Feet from: 330 E/W	mship:19S Range:34E Line:S Kline:E
⊠ Original   ☐ Amendment					5. Bottom Hole Location: Unit:P Lot:P Section:3 Tow Feet from:250 N/S Feet from:330 E/M 6. latitude: lo 32.6827916344356	/ Line:E mship:19S Range:34E Line:S / Line:E -ngitude: -103.54070741141
601 N MARIENFE SUITE 508	SMAN PERMIAN, L	rc		9. OGRID:	7. County: Lea 155615 10. Phon	e Number:
13. Pool Code(s): 55610 15. True Vertical Depth (TVD): 10,715 ft		NABORS COMP CO.	PLETION & PRODUCTION SE	14. Gross I	O Fractured Interval: 10,924 ft to 14,995 ft olume of Fluid Pumped: 33,312,664 gals	
17. Total Volume of Re-Use Wate N/A 19. <b>HYDRAULIC FLUID</b> Trade Name	COMPOSITION Supplier	Purpose	Ingredients	18. Percen (CAS #) Chemical Abst	t of Re-Use Water in Fluid Pumped: Not Disclosed  tract   Maximum Ingredient   Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)
WATER NM SPECIFIC 20/40 MESH SAND	NADEL & GUSSMAN NABORS COMPLETION AND PRODUCTION	WATER SAND-BULK-NEW MEXICO	WATER  CRYSTALLINE SILICA, QUARTZ ALUMINUM OXIDE TITANIUM OXIDE	7732-18-5 14808-60-7 1344-28-1	100% 99.9% 1.1% 0.1%	9.080589 0.099999 0.009099
MOMENTIVE BLACK ULTRA 20/40	NABORS COMPLETION AND PRODUCTION SERVICES	PROPPANTS- MANUFACTURED- MOMENTIVE	IRON OXIDE QUARTZ (SIO2) FURFURYL ALCOHOL	1309-37-1 14808-60-7 98-00-0	0.1% 100% 1%	0.009099 3.122189 0.031229
SG-100	NABORS COMPLETION AND PRODUCTION SERVICES NABORS	GELLING AGENTS SAND-BULK-NEW	PETROLEUM DISTILLATES GUAR GUM SURFACTANT CRYSTALLINE SILICA,	64742-47-8 9000-30-0 68439-51-0 14808-60-7	60% 50% 2% 99.9%	0.218179 0.181819 0.007279 0.333039
KL-11	COMPLETIONS AND PRODUCTION SERVICES NABORS COMPLETION	MEXICO  CROSS-LINKERS	QUARTZ ALUMINUM OXIDE IRON OXIDE TITANIUM OXIDE WATER	1344-28-1 1309-37-1 13463-67-7 7732-18-5	1.1% 0.1% 0.1% 75%	0.00367 <sup>4</sup> 0.00033 <sup>4</sup> 0.00033 <sup>4</sup> 0.880 <sup>4</sup>
HCL ACID (12.5% - 18.0%	AND PRODUCTION SERVICES NABORS COMPLETION AND	BULK ACID	POTASSIUM METABORATE ETHYLENE GLYCOL POTASSIUM HYDROXIDE 20 BAUME HYDROCHLORIC ACID	107-21-1 1310-58-3 7647-01-0	30% 10% 5% 100%	0.03216' 0.01072' 0.00536' 0.06068'
HCL ACID (12.5%-18.0%	PRODUCTION SERVICES NABORS COMPLETION AND PRODUCTION	BULK ACID	WATER	7732-18-5	100%	0.059481
SUPER STIM-340 E	SERVICES NABORS COMPLETION AND PRODUCTION	SURFACTANTS & FOAMERS	NON-HAZARDOUS MIXTURE	PROPRIETARY	100%	0.0469
KLSTA-1	SERVICES NABORS COMPLETION AND PRODUCTION SERVICES	CROSS-LINKERS	WATER SODIUM THIOSULFATE	7732-18-5 7772-98-7	70% 30%	0.02644 <sup>1</sup> 0.01133 <sup>1</sup>
VFR-6W	NABORS PRODUCTION AND COMPLETION SERVICES NABORS	CLAY CONTROL ADDITIVES	PROPRIETARY  ETHYLENE GLYCOL  ANIONIC WATER-SOLUBLE	PROPRIETARY  107-21-1  PROPRIETARY	40% 25% 100%	0.01956′ 0.01223′ 0.02339′
SUPER TSC 2 LTS	COMPLETION AND PRODUCTION SERVICES NABORS COMPLETION	PARAFFIN & SCALE ADDITIVES	METHANOL  AMINO METHYLENE	67-56-1 68649-44-5	100%	0.01729 <sup>1</sup> 0.00469 <sup>1</sup>
AQUCAR DB 20	AND PRODUCTION SERVICES NABORS COMPLETION AND	BIOCIDES	PHOSPHONIC ACID SALT  POLYETHYLENE GLYCOL 2,2-DIBROMO-3-NITRILO- PROPIONAMIDE (DBNPA)	25322-68-3 10222-01-2	54.5% 20%	0.01178 <sup>1</sup> 0.00432 <sup>1</sup>
SUPER GREEN SOLV-M	PRODUCTION SERVICES NABORS COMPLETION AND PRODUCTION	PARAFFIN & SCALE ADDITIVES	SODIUM BROMIDE DIBROMOACETONITRILE ALIPHATIC HYDROCARBONS DODECANE TETRADECANE	7647-15-6 3252-43-5 PROPRIETARY PROPRIETARY PROPRIETARY	4% 3% 95% 14% 11%	0.00087' 0.00065' 0.00983' 0.00145' 0.00114'
XP-F0114-5	NABORS COMPLETION AND	PARAFFIN & SCALE ADDITIVES	TRIDECANE UNDECANE GLYCOL ETHERS ETHOXYLATED NONYLPHENOL	PROPRIETARY PROPRIETARY 111-76-2 68412-54-4	9% 8% 40% 30%	0.00093 <sup>1</sup> 0.00083 <sup>1</sup> 0.0035 <sup>1</sup> 0.00263 <sup>1</sup>
DB-2	PRODUCTION SERVICES	GEL BREAKERS	1,2-ETHANEDIAMINE, POLYMER WITH METHYLOXIRANE AND OXIRANE ISOPROPYL ALCOHOL AMMONIUM PERSULFATE	26316-40-5 67-63-0 7727-54-0	20% 20% 100%	0.00175 <sup>4</sup> 0.00175 <sup>4</sup> 0.00785 <sup>4</sup>
ACID INHIBITOR 3M (AI-	COMPLETION AND PRODUCTION SERVICES NABORS COMPLETION	ACID CORROSION	SILLICA, CRYSTALLINE QUARTZ ETHYLENE GLYCOL N,N-DIMETHYLFORMAMIDE	7631-86-9 107-21-1 68-12-2	10% 40% 20%	0.00079 <sup>1</sup> 0.00163 <sup>1</sup> 0.00082 <sup>1</sup>
	AND PRODUCTION SERVICES		Z-BUTOXYETHANOL CINNAMALDEHYDE ETHOXYLATED NONYPHENOL 1-DECANOL ISOPROPYL ALCOHOL	111-76-2 104-55-2 68412-54-4 112-30-1 67-63-0	7% 6% 5% 5% 2.5%	0.00029 0.00025 0.00025 0.00026 0.00021
C-100L	NABORS COMPLETION AND	IRON CONTROL ADDITIVES	TRIETHYL PHOSPHATE 1-OCTANOL CITRIC ACID ANHYDROUS	78-40-0 111-87-5	2.5% 2.5% 50%	0.0001° 0.0001° 0.00221°
DB BREAKER	PRODUCTION SERVICES NABORS COMPLETION AND PRODUCTION	GEL BREAKERS	AMMONIUM PERSULFATE	7727-54-0	100%	0.000589
SUPER OW 4	NABORS COMPLETION AND PRODUCTION SERVICES	SURFACTANTS & FOAMERS	2-BUTOXYETHANOL FATTY AMIDE, SODIUM SALT GLYCERIN	111-76-2 PROPRIETARY 56-81-5	15% 15% 5%	0.000159 0.000159 5E-059
EB-20L  OTHER INGREDIENTS	NABORS COMPLETION AND PRODUCTION SERVICES NABORS	GEL BREAKERS OTHER	HEMICELLULASE ENZYME WATER	PROPRIETARY 7732-18-5	1%	5E-059 0.04899
	COMPLETION AND PRODUCTION SERVICES	INGREDIENTS	DI WATER COPOLYMER WATER WATER CRYSTALLINE SILICA (IN THE FORM OF QUARTZ)	7732-18-5 PROPRIETARY 7732-18-5 7732-18-5 14808-60-7	90% 100% 100% 40% 2%	0.04221 0.02339 0.01038 0.00936 0.00727
			ORGANOPHYLIC CLAY WATER ISOPARAFFINIC SOLVENT PROPRIETARY PROPRIETARY	68953-58-2 7732-18-5 64742-47-8 PROPRIETARY PROPRIETARY	2% 32% 26% 100% 10%	0.00727' 0.00692' 0.00608' 0.00478' 0.00469'
			PROPRIETARY COMPONENTS BELOW REPORTABLE LEVE;S PROPRIETARY WATER VINYLIDENE CHLORIDE-	2687-96-9 7732-18-5 25038-72-6	5% 50% 25%	0.00359 0.002359 0.002219 0.001969
			METHYL ACRYLATE COPOLYMER PROPRIETARY WATER ETHYLENE GLYCOL ETHOXYLATED ALCOHOLS	PROPRIETARY 7732-18-5 107-21-1	100% 25% 4% 4%	0.001069 0.001029 0.000949 0.000949
			PROPRIETARY	PROPRIETARY	90%	0.000879
			SURFACTANT BLEND TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED	PROPRIETARY 72480-70-7	3% 13%	0.000539
			TAR BASES, QUINOLINE DERIVS, BENZYL	72480-70-7 73003-80-2		0.00079 0.000539 0.000229 0.000229 4E-059 2E-059
Signature:         Signed E           Date:         8/6/2015           E-mail Address:         spresleye	electronically anaguss.com	Printed Name: Sarah F	TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED MONOBROMO-3-NITRILOPROPIONAMIDE 2,2-DIBROMOMALONAMIDE POLYETHYLENE-GLYCOL 2-PROPENAMIDE AS RESIDUAL PROPRIETARY PROPRIETARY PROPRIETARY PROPRIETARY is true and complete to the best of my pressey	72480-70-7 73003-80-2 73003-80-2 25322-68-3 79-06-1 PROPRIETARY PROPRIETARY PROPRIETARY knowledge and belief.	13% 1% 1% 1%	0.000539 0.000229 0.000229 4E-059 2E-059 09
Signature:         Signed E           Date:         8/6/2015           E-mail Address:         spresleye	electronically anaguss.com	Printed Name: Sarah F	TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED MONOBROMO-3-NITRILOPROPIONAMIDE 2,2-DIBROMOMALONAMIDE POLYETHYLENE-GLYCOL 2-PROPENAMIDE AS RESIDUAL PROPRIETARY PROPRIETARY PROPRIETARY PROPRIETARY is true and complete to the best of my pressey	72480-70-7 73003-80-2 73003-80-2 25322-68-3 79-06-1 PROPRIETARY PROPRIETARY PROPRIETARY knowledge and belief.	13%  1%  1%  1%  1%  0.1%  2%  0.1%  0.1%  Title: Regulatory Analyst	0.000539 0.000229 0.000229 4E-059 2E-059 09
Signature:         Signed E           Date:         8/6/2015           E-mail Address:         spresleye	electronically anaguss.com	Printed Name: Sarah F	TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED MONOBROMO-3-NITRILOPROPIONAMIDE 2,2-DIBROMOMALONAMIDE POLYETHYLENE-GLYCOL 2-PROPENAMIDE AS RESIDUAL PROPRIETARY PROPRIETARY PROPRIETARY PROPRIETARY is true and complete to the best of my pressey	72480-70-7 73003-80-2 73003-80-2 25322-68-3 79-06-1 PROPRIETARY PROPRIETARY PROPRIETARY knowledge and belief.	13%  1%  1%  1%  1%  0.1%  2%  0.1%  0.1%  Title: Regulatory Analyst	0.000539 0.000229 0.000229 4E-059 2E-059 09
Signature:         Signed E           Date:         8/6/2015           E-mail Address:         spresleye	electronically anaguss.com	Printed Name: Sarah F	TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED MONOBROMO-3-NITRILOPROPIONAMIDE 2,2-DIBROMOMALONAMIDE POLYETHYLENE-GLYCOL 2-PROPENAMIDE AS RESIDUAL PROPRIETARY PROPRIETARY PROPRIETARY PROPRIETARY is true and complete to the best of my pressey	72480-70-7 73003-80-2 73003-80-2 25322-68-3 79-06-1 PROPRIETARY PROPRIETARY PROPRIETARY knowledge and belief.	13%  1%  1%  1%  1%  0.1%  2%  0.1%  0.1%  Title: Regulatory Analyst	0.00053 <sup>4</sup> 0.00022 <sup>4</sup> 4E-05 <sup>5</sup> 2E-05 <sup>6</sup> 0 <sup>9</sup> 0 <sup>9</sup>
Signature:         Signed E           Date:         8/6/2015           E-mail Address:         spresleys	electronically anaguss.com	Printed Name: Sarah F	TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED MONOBROMO-3-NITRILOPROPIONAMIDE 2,2-DIBROMOMALONAMIDE POLYETHYLENE-GLYCOL 2-PROPENAMIDE AS RESIDUAL PROPRIETARY PROPRIETARY PROPRIETARY PROPRIETARY is true and complete to the best of my pressey	72480-70-7 73003-80-2 73003-80-2 25322-68-3 79-06-1 PROPRIETARY PROPRIETARY PROPRIETARY knowledge and belief.	13%  1%  1%  1%  1%  0.1%  2%  0.1%  0.1%  Title: Regulatory Analyst	0.00053 <sup>1</sup> 0.00022 <sup>1</sup> 0.00022 <sup>1</sup> 4E-05 <sup>1</sup> 2E-05 <sup>1</sup> 0 <sup>1</sup> 0 <sup>1</sup>
Signature:         Signed E           Date:         8/6/2015           E-mail Address:         spresleys	electronically anaguss.com	Printed Name: Sarah F	TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED MONOBROMO-3-NITRILOPROPIONAMIDE 2,2-DIBROMOMALONAMIDE POLYETHYLENE-GLYCOL 2-PROPENAMIDE AS RESIDUAL PROPRIETARY PROPRIETARY PROPRIETARY PROPRIETARY is true and complete to the best of my pressey	72480-70-7 73003-80-2 73003-80-2 25322-68-3 79-06-1 PROPRIETARY PROPRIETARY PROPRIETARY knowledge and belief.	13%  1%  1%  1%  1%  0.1%  2%  0.1%  0.1%  Title: Regulatory Analyst	0.00053 0.00022 0.00022 4E-05 2E-05 0
Signature:         Signed E           Date:         8/6/2015           E-mail Address:         spresleys	electronically @naguss.com	Printed Name: Sarah F	TAR BASES, QUINOLINE DERIVS, BENZYL CHLORIDE-QUATERNIZED MONOBROMO-3-NITRILOPROPIONAMIDE 2,2-DIBROMOMALONAMIDE POLYETHYLENE-GLYCOL 2-PROPENAMIDE AS RESIDUAL PROPRIETARY PROPRIETARY PROPRIETARY PROPRIETARY is true and complete to the best of my pressey	72480-70-7 73003-80-2 73003-80-2 25322-68-3 79-06-1 PROPRIETARY PROPRIETARY PROPRIETARY knowledge and belief.	13%  1%  1%  1%  1%  0.1%  2%  0.1%  0.1%  Title: Regulatory Analyst	0.00053 0.00022 0.00022 4E-05 2E-05 0
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