

Submit within 45 days of well completion

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Revised February 15, 2012

1. WELL API NO:
30-039-22293

2. Well Name:
JICARILLA B #004E

3. Well Number:
004E

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:P Lot:P Section:21 Township:26N Range:05W
Feet from:940 N/S Line:S
Feet from:880 E/W Line:E

5. Bottom Hole Location:
Unit:P Lot:P Section:21 Township:26N Range:05W
Feet from:940 N/S Line:S
Feet from:880 E/W Line:E

6. latitude: 36.46752389473 longitude: - 107.35838136092

7. County: Rio Arriba

8. Operator Name and Address:
ENERVEST OPERATING L.L.C.
1001 Fannin Street
Suite 800
Houston 77002

9. OGRID:
143199

10. Phone Number:
713-659-3500

11. Last Fracture Date: 3/14/2013 Frac Performed by: Baker Hughes

12. Production Type:
G

13. Pool Code(s):
72319

14. Gross Fractured Interval:
5,090 ft to 5,318 ft

15. True Vertical Depth (TVD):
7,495 ft

16. Total Volume of Fluid Pumped:
849 bbls

17. HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:

Trade Name	Supplier	Purpose	Ingredients	(CAS #) Chemical Abstract Service #	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)
Water	Operator	Carrier	Water	7732-18-5	100%	65.64112%
HCl, 10.1-15%	Baker Hughes	Acidizing	Hydrochloric Acid	7647-01-0	15%	0.24007%
			Water	7732-18-5	85%	1.36039%
Superset-W, 55 gal drum	Baker Hughes	Activator	Methanol	67-56-1	50%	0.06616%
			Poly (Oxyethylene) Nonylphenol Ether	9016-45-9	50%	0.06616%
Alpha 1427	Baker Hughes	Biocide	Didecyl Dimethyl Ammonium Chloride	7173-51-5	10%	0.00599%
			Ethanol	64-17-5	5%	0.00299%
			Glutaraldehyde	111-30-8	30%	0.01796%
			Quaternary Ammonium Compound	68424-85-1	5%	0.00299%
GBW-5	Baker Hughes	Breaker	Ammonium Phosphate	7727-54-0	100%	0.00883%
Enzyme G-VI	Baker Hughes	Breaker	Hemicellulase Enzyme Concentrate	9025-56-3	0.03%	1E-05%
High Perm CRB	Baker Hughes	Breaker	Water	7732-18-5	99.98%	0.0368%
			Ammonium Persulphate	7727-54-0	60%	0.0053%
			Crystalline Silica Quartz	14808-60-7	30%	0.00265%
BF-7L	Baker Hughes	Buffer	Potassium Carbonate	584-08-7	60%	0.16667%
			Potassium Hydroxide	1310-58-3	1%	0.00278%
			Water	7732-18-5	60%	0.16667%
CI-27	Baker Hughes	Corrosion Inhibitor	Fatty Acids	Trade Secret	30%	0.00148%
			Methanol	67-56-1	60%	0.00295%
			Olefin	Trade Secret	5%	0.00025%
			Polyoxyalkylenes	Trade Secret	30%	0.00148%
			Propargyl Alcohol	107-19-7	10%	0.00049%
CorrSorb 3600, 25 lb pail	Baker Hughes	Corrosion Inhibitor	Acid Phosphate Ester	9046-01-9	5.47%	0.00181%
			Crystalline Silica Quartz	14808-60-7	1%	0.00033%
			Diatomaceous Earth, Calcined	91503-39-3	80%	0.02649%
			Quaternary Ammonium Chloride	61789-71	15.06%	0.00499%
XLW-32, 260 gal. tote	Baker Hughes	Crosslinker	Boric Acid (H3BO3)	10043-35-3	30%	0.0225%
			Methanol	67-56-1	60%	0.045%
			Methyl Borate	121-43-7	30%	0.0225%
BioSealers MR	Baker Hughes	Degradable Sealers	Non-Hazardous Ingredient	Trade Secret	100%	0.01302%
FAW-22, 260 gal tote	Baker Hughes	Foamer	Alkyl Sulfate	Trade Secret	1%	0.00553%
			Ammonium Alkyl Ether Sulfate	Trade Secret	10%	0.01842%
			Isopropanol	67-63-0	30%	0.05527%
			Sodium Sulfonate	68439-57-6	30%	0.05527%
FRW-20	Baker Hughes	Friction Reducer	Petroleum Distillates	64742-47-8	30%	0.00059%
GW-3LDF	Baker Hughes	Gelling Agent	1-Butoxy-2-Propanol	5131-66-8	5%	0.01954%
			Crystalline Silica, Quartz (SiO2)	14808-60-7	5%	0.01954%
			Guar Gum	9000-30-0	60%	0.23448%
			Isotridecanol, ethoxylated	9043-30-5	5%	0.01954%
			Paraffinic Petroleum Distillate	64742-47-8	30%	0.11724%
			Petroleum Distillates	64742-47-8	30%	0.11724%
Ferrotrol 300L	Baker Hughes	Iron Control	Citric Acid	77-92-9	60%	0.00557%
Nitrogen	Baker Hughes	Nitrogen	Liquid Nitrogen	7727-37-9	100%	12.41534%
Sand, Brown, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100%	14.11818%
Super LC, 20/40	Baker Hughes	Proppant	Hexamethylenetetramine	1009-7-0	0.01%	0.00045%
			P/F Resin	9003-35-4	5%	0.22515%
			Silicon Dioxide (Silica Sand)	14808-60-7	97%	4.36789%
ScaleSorb 3, (25# pail)	Baker Hughes	Scale Inhibitor	Amino Alkyl Phosphonic Acid	Trade Secret	30%	0.00993%
			Crystalline Silica: Quartz (SiO2)	14808-60-7	1%	0.00033%
			Diatomaceous Earth, Calcined	91053-39-3	100%	0.03311%
			Phosphonic Acid	13598-36-2	1%	0.00033%
GaFlo G, 330 gal tote	Baker Hughes	Surfactant	Methanol	67-56-1	30%	0.01968%
			Mixture of Surfactants	Trade Secret	60%	0.03936%
			Water	7732-18-5	50%	0.0328%
Non-MSDS Ingredients			2-Butoxy-1-Propanol	15821-83-7	0%	0.0003126%
			Aliphatic Hydrocarbon	Trade Secret	0%	0.0004546%
			Cured Acrylic Resin	Trade Secret	0%	0.0026488%
			Ethoxylated Alcohol	NP-R2429_2	0%	0.0018422%
			Ethylene Glycol	107-21-1	0%	0.0021534%
			Fatty Amide Derivative	70851-08-0	0%	0.0018422%
			Formaldehyde	50-00-0	0%	0.0018668%
			Modified Thiourea	68527-49-1	0%	0.0005411%
			Polymer	Trade Secret	0%	3.9E-05%
			Oxalkylated Alcohol	Trade Secret	0%	0.0003642%
			Phosphoric Acid	7664-38-2	0%	1.76E-05%
			Polyglycol Ester	Trade Secret	0%	2.15E-05%
			Polyol Ester	Trade Secret	0%	0.0001192%
			Polyoxyalkylenes	78330-21-9	0%	0.0019448%
			Sodium Chloride	7647-14-5	0%	0.0018422%
			Sodium Sulfate	7757-82-6	0%	4.97E-05%
			Thioglycolic Acid	68-11-1	0%	0.0005462%
			Vinyl Copolymer	Trade Secret	0%	0.1161535%
			Water	7732-18-5	0%	0.1161535%

18. I, as Operator, hereby certify that the information shown on this disclosure form is true and complete to the best of my knowledge and belief

Signature: Signed Electronically

Printed Name: Ronnie Young

Title: Regulatory Director

Date: 5/15/2013

E-mail Address: ryoung@enervest.net

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