

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 November 6, 2013

1. WELL API NO:
30-015-42946

2. Well Name:
EMERALD PWU 20 #009H

3. Well Number:
009H

HYDRAULIC FRACTURING FLUID
DISCLOSURE

☒ Original
☐ Amendment

4. Surface Hole Location:
Unit:D Lot:D Section:20 Township:19S Range:29E
Feet from:940 N/S Line:N
Feet from:195 E/W Line:W

5. Bottom Hole Location:
Unit:D Lot:D Section:20 Township:19S Range:29E
Feet from:940 N/S Line:N
Feet from:195 E/W Line:W

6. latitude: 32.651032988 longitude: -104.10498092

7. County:
Eddy

8. Operator Name and Address:
DEVON ENERGY PRODUCTION COMPANY, LP
333 W. Sheridan Avenue
Oklahoma City 73102

9. OGRID: 6137 10. Phone Number: 405-228-8588

11. Last Fracture Date: 9/25/2015 Frac Performed by: FTS International Services

12. Production Type:
O

13. Pool Code(s):
55510

14. Gross Fractured Interval:
Confidential

15. True Vertical Depth (TVD):
8,927 ft

16. Total Volume of Fluid Pumped:
30,601,674 gals

17. Total Volume of Re-Use Water Pumped:
N/A

18. Percent of Re-Use Water in Fluid Pumped:
Not Disclosed

19. 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%	76.7929717%
Hydrochloric Acid (HCl)	FTSI	Acid	Hydrogen Chloride	7647-01-0	37%	0.2695774%
			Water	7732-18-5	63%	0.4580102%
CI-150	FTSI	Acid Corrosion Inhibitor	Isopropanol	67-63-0	30%	0.0003859%
			Dimethylformamide	68-12-2	10%	0.0001286%
			Organic amine resin salt	Proprietary	30%	0.0003859%
			Quaternary ammonium compound	Proprietary	10%	0.0001286%
			Aromatic aldehyde	Proprietary	10%	0.0001286%
			Ethylene Glycol	107-21-1	30%	0.0003859%
			Water	7732-18-5	5%	6.43E-05%
			Fatty Acid	Proprietary	0.1%	1.3E-06%
			Fatty Acid Salt	Proprietary	0.1%	1.3E-06%
			Aliphatic alcohol	Proprietary	0.1%	1.3E-06%
			Alkylene Oxide Block Polymer	Proprietary	10%	0.0001286%
			Diethylene glycol	111-46-6	1%	1.29E-05%
NE-100	FTSI	Non-emulsifier	2-Butoxyethanol	111-76-2	10%	0.0074957%
			2-Propanol	67-63-0	10%	0.0074957%
			Dodecylbenzenesulfonic acid	27176-87-0	5%	0.0037478%
			Water	7732-18-5	90%	0.0674611%
			Sulfuric Acid	7664-93-9	0.01%	1.05E-05%
			Sulfur Dioxide	7446-09-5	0%	1E-06%
			Benzene, C10-16 Alkyl Derivatives	68648-87-3	0.04%	3.15E-05%
FE-200L	FTSI	Iron Control	Unsulphonated Matter	Proprietary	0.03%	2.1E-05%
			Tetrasodium EDTA	64-02-8	41%	0.0006958%
			Sodium Hydroxide	1310-73-2	2%	3.39E-05%
			Trisodium Nitrotriacetic acid	5064-31-3	2%	3.39E-05%
			Ethylenediaminetriacetic acid, trisodium salt	19019-43-3	0.8%	1.36E-05%
			Water	7732-18-5	60%	0.0010183%
			Sodium formate	141-53-7	0.6%	1.02E-05%
			Sodium glycolate	2836-32-0	1.5%	2.55E-05%
FRW-200	FTSI	Friction reducer	Iminodiacetate disodium salt	17593-73-6	0.2%	3.4E-06%
			Petroleum distillate hydrotreated light	64742-47-8	26%	0.0006669%
			Acrylamide P/W acrylic acid, ammonium salt	26100-47-0	25%	0.0006413%
			Water	7732-18-5	48%	0.0012312%
			Sorbitan Monooleate	1338-43-8	3%	7.7E-05%
			Alcohols (C12-C14), ethoxylated	68439-50-9	4%	0.0001026%
			Alcohols (C12-C16), ethoxylated	68551-12-2	4%	0.0001026%
			Alcohols (C10-C16), ethoxylated	68002-97-1	4%	0.0001026%
			Acrylamide	79-06-1	0.1%	2.6E-06%
			Dewaxed heavy paraffinic	64742-65-0	1.5%	3.35E-05%
			Ammonium Acrylate	10604-69-0	0.5%	1.28E-05%
			Ammonium Chloride	12125-02-9	12%	0.0003078%
			Polyethylene glycol monooleate	9004-96-0	3%	7.7E-05%
			Alkylloxypolyethyleneoxyethanol	84133-50-6	1%	2.57E-05%
			Sorbitol Tetraoleate	61723-83-9	2%	5.13E-05%
			Copolymer of acrylamide and sodium acrylate	25987-30-8	33%	0.0008465%
			Surfactant	Proprietary	7%	0.0001796%
			Hydrotreated heavy paraffinic	64742-54-7	5%	0.0001263%
CS POLYBREAK 210	FTSI	Polymer breaker	Isopropanol	67-63-0	0.3%	7.7E-06%
			Sodium chlorite	7759-19-2	5%	0.0001239%
			Water	7732-18-5	95%	0.0023358%
			Sodium Hydroxide	1310-73-2	0%	0%
HVG-1 4.0	FTSI	Water gelling agent	Guar gum	9000-70-0	50%	0.1104087%
			Raffinates, Sorption Process	64741-85-1	55%	0.1214495%
			Quartz	14808-60-7	4%	0.0088327%
			Isotridecanol, ethoxylated	9043-30-5	2%	0.0044163%
APB-1	FTSI	Gel breaker	Ammonium Persulfate	7727-54-0	100%	0.001696%
LTB-1	FTSI	Breaker	Ammonium Persulfate	7727-54-0	84%	0.0053526%
			Cured acrylic resin	25085-19-2	22%	0.0014019%
			Talc	14807-96-6	0.6%	3.82E-05%
BXL-2	FTSI	Borate crosslinker	Sodium metaborate	10555-76-7	25%	0.0156917%
			Boric acid	10043-35-3	15%	0.009415%
			Potassium hydroxide	1310-58-3	12%	0.007532%
			Water	7732-18-5	75%	0.0470751%
BXL-3	FTSI	Crosslinker	proprietary (borate) Salt	1319-33-1	40%	0.0221951%
			Hydrated aluminium-magnesium silicate (palgorskite)	12174-11-7	5%	0.0027744%
			calcium carbonate	1317-65-3	5%	0.0027744%
			polyanionic cellulose	9004-32-4	1%	0.0005549%
			modified polyacrylate	trade secret	1%	0.0005549%
			magnesium	16389-88-1	1%	0.0005549%
			water	7732-18-5	50%	0.0277439%
			potassium formate	590-29-4	35%	0.0194207%
			crystalline silica, quartz	14808-60-7	0.05%	2.77E-05%
			sodium chloride	7647-14-5	0.01%	2.8E-06%
B-10	FTSI	High pH buffer	Potassium carbonate	584-08-7	48%	0.0186839%
			Potassium hydroxide	1310-58-3	20%	0.007785%
			Water	7732-18-5	55%	0.0214087%
20/40 White	FTSI	proppant	Silica, Quartz	14808-60-7	100%	21.9275586%

20. 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: Rebecca Deal

Date: 3/2/2016

E-mail Address: rebecca.deal@dm.com

Title: Regulatory Professional

NMOC does not require the reporting of information beyond MSDS data as described in 29 CFR 1910.1200. NMOC does not require the reporting or disclosure of proprietary, trade secret or confidential business information.