Submit within 45 days of well completion

Revised November 9, 2010

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

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

1. WELL API NO.	30-015-41602
2. Well Name	PLU PALMILLO 15 FEDERAL #003H
3. Well Number	003H
4. Surface Hole Location: Unit B Lot - Lot B Section 15 Township 19S Range 31E Feet from 845 N/S Line N Feet from 1980 E/W Line E	
5. Bottom Hole Location: Unit B Lot - Lot B Section 15 Township 19S Range 31E Feet from 845 N/S Line N Feet from 1980 E/W Line E	
6. Ground Level Elevation	3,611'
7. API Operator Name	CHESAPEAKE OPERATING, INC.
8. OGRID	147179
9. Pool Name	LOS MEDANOS;WOLFCAMP
10. Pool Number	123. 3000440124/ZZB
11. Ground Level Elevation	3,611
12. Electronic Submittal	Yes
13. Primary Contact Email	
14. Phone Number	405-228-8588

15. Operator Name and Address:
CHESAPEAKE OPERATING, INC.
6100 N. Western Avenue
Oklahoma City 73118

16. Date Fracture Began: 07/10/2012 Fac Performed by: Baker Hughes

17. Field Contact 1:

18. Field Contact 2:

19. Total Water Used (bbls):

20. Total Proppant Used (lbs):

21. Total Number of Fracture Water Pumped:

22. Percent of Fracture Water Pumped: Not Applicable

23. Number of Stages: 15

HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:

Trade Name	Supplier	Purpose	Ingredients	CAS # (Chemical Abstract Service Number)	Maximum Ingredient Concentration in Additive (% by weight)	Maximum Ingredient Concentration in Total Fluid (% by weight)
Water	Operator	Carrier	Water	7732-18-5	100%	87.5750%
SAND, White, 30/50	Baker Hughes	Proppant	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0264%
Super LC, 30/50	Baker Hughes	Proppant	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	3.4808%
HCL 10.1 - 15%	Baker Hughes	Acidizing	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0852%
NFC-12	Baker Hughes	Surface Tension Reducer	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0377%
GX-4	Baker Hughes	Gelling Agent	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0812%
BF-5L, 300 gal tote	Baker Hughes	Buffer	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0456%
ClayCare, tote	Baker Hughes	Clay Control	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0470%
KCl-5 K	Baker Hughes	Crosslinker	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0725%
WaterFerm CRA, 265 gallon tote	Baker Hughes	Friction Reducer	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0540%
BE-9, 350 tote	Baker Hughes	Crosslinker	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0825%
Parasorb 5000, bag	Baker Hughes	Paraffin Inhibitor	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0158%
Scalechek LP, 55 gal drum	Baker Hughes	Activator	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0126%
Enzyme G1	Baker Hughes	Breaker	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0164%
GBR-5	Baker Hughes	Breaker	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0061%
SSI-W,DP	Baker Hughes	Gelling Agent	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0035%
Parabor 200L	Baker Hughes	Iron control	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0087%
High Perm CRB	Baker Hughes	Breaker	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0027%
CI-27	Baker Hughes	Corrosion Inhibitor	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0016%
NE-12	Baker Hughes	Gelling Agent	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0006%
NE-35, 330 gl tote	Baker Hughes	Non-emulsifier	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0007%
Clay Master-5C	Baker Hughes	Clay Control	Mineral oil and Non-MSDS ingredients Listed Below	NA	0%	0.0062%
Ingredients shown above are subject to 29 CFR 1910.1200(i) and Appendix D			Quartz, Silica	14808-60-7	100%	6.5042%
			Bentonite, Sodium Calcium Magnesium Potassium Iron Aluminum Silicate	14855-65-7	10%	3.3587%
			Sodium Tetraborate, Decahydrate	1303-96-4	5%	0.1710%
			Ethanol	64-17-5	1%	0.0342%
			Cocamidopropyl Betaine	70851-07-9	15%	0.1027%
			Guar Gum	9000-30-0	100%	0.3424%
			Sodium Chloride	7647-14-5	30%	0.0513%
			Potassium Carbonate	584-08-7	60%	0.0924%
			Glutaraldehyde	111-30-8	30%	0.0462%
			Isopropanol	67-63-0	60%	0.0924%
			1-Propanaminium acid, 3-(dimethylamino)-, polymer with (chloroethenyl)-2-propenoic polymer with methylbenzene, sodium salt	51447-65-6	50%	0.0171%
			Potassium Hydroxide	1310-58-3	30%	0.0462%
			Citric Acid	77-92-9	60%	0.0924%
			Organic Phosphonate	Proprietary	30%	0.0462%
			Hydrotreated Light Distillate	64742-47-8	30%	0.0513%
			Sodium Metasilicate Nonahydrate	13517-24-3	60%	0.0924%
			Methanol (Methyl Alcohol)	67-56-1	30%	0.0462%
			Potassium Formate	590-29-4	30%	0.0462%
			Potassium Chloride	7447-40-7	5%	0.0077%
			Ammonium Acetate	631-61-8	10%	0.0154%
			Ammonium Persulfate	7727-54-0	100%	0.0171%
			Methanol	67-56-1	30%	0.0051%
			Poly (Oxyethylene) Nonylphenyl Ether, Branched	9016-45-9	50%	0.0085%
			Formic Acid	64-18-6	20%	0.0034%
			Methyl Oil	8042-47-5	75%	0.0043%
			Citric Acid	77-92-9	60%	0.0034%
			2-Butoxyethanol	111-76-2	15%	0.0026%
			Acetic acid and ethenyl ester, polymer with ethenol	25213-78-4	10%	0.0017%
			Sodium Hydroxide	1310-73-2	15%	0.0026%
			Polyoxyethylene sorbitan monooleate	9005-65-6	5%	0.0010%
			Cocamidopropyl Betaine	70851-07-9	5%	0.0009%
			Ammonium Nitrate	6484-52-2	30%	0.0051%
			Hydrotreated Light Distillate	64742-47-8	10%	0.0018%
			Magnesium Nitrate, Hexahydrate	13446-18-9	5%	0.0009%
			Ethylene Glycol	107-21-1	5%	0.0010%
			Cocamidopropyl Betaine	70851-07-9	5%	0.0009%
			Calcium Chloride	10043-52-4	2%	0.0003%
			Methanol Acetic Acid Polymer	25038-72-6	20%	0.0003%
			Acrylic Polymers	26590-05-6	30%	0.0005%
			Ammonium Persulfate	7727-54-0	100%	0.0171%
			Potassium Formate	590-29-4	30%	0.0051%
			Talc Acid	77-92-9	30%	0.0051%
			Sodium Chloride Salt	7647-14-5	30%	0.0051%
			Sodium Bicarbonate	144-55-8	5%	0.0009%
			Cocamidopropyl Betaine	70851-07-9	1%	0.0002%
			Sodium Chloride	7647-14-5	30%	0.0051%
			Hydrotreated Light Distillate	64742-47-8	30%	0.0051%
			Ammonium Chloride	12125-02-9	10%	0.0017%
			Hydrotreated Light Distillate	64742-47-8	30%	0.0051%
			Ammonium Nitrate	6484-52-2	30%	0.0051%
			Ammonium Chloride	12125-02-9	1%	0.0002%
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			Hydrotreated Light Distillate	64742-47-8	10%	0.0018%
			Ammonium Nitrate	6484-52-2	30%	0.0051