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.
30-045-35686

2. Well Name:
HELSINKI COM #091

3. Well Number:
091

## HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ Original

☐ Amendment

4. Surface Hole Location:
Unit:O Lot:O Section:9 Township:23N Range:10W
Feet from:1100 N/S Line:S
Feet from:1650 E/W Line:E

5. Bottom Hole Location:
Unit:O Lot:O Section:9 Township:23N Range:10W
Feet from:1100 N/S Line:S
Feet from:1650 E/W Line:E

6. latitude: 36.23703 longitude: -107.89842

7. County:
San Juan

8. Operator Name and Address:
DUGAN PRODUCTION CORP
P O Box 420
Farmington 87401

9. OGRID: 6515

10. Phone Number: 505-325-1821

11. Last Fracture Date: 9/14/2017 Frac Performed by: Halliburton

12. Production Type:
G

13. Pool Code(s):
71629

14. Gross Fractured Interval:
853 ft to 875 ft

15. True Vertical Depth (TVD):
1,085 ft

16. Total Volume of Fluid Pumped:
24,870 gals

17. Total Volume of Re-Use Water Pumped:
0 gals

18. Percent of Re-Use Water in Fluid Pumped:
%

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) |
|---|---|---|---|---|---|---|
| 2% KCL Water | Operator | Base Fluid | Water | 7732-18-5 | 98% | 58.84379% |
| BC-140 | Halliburton | Crosslinker | Listed Below | Listed Below | 0% | 0% |
| Cla-Web (TM) | Halliburton | Additive | Listed Below | Listed Below | 0% | 0% |
| GBW-30 Breaker | Halliburton | Breaker | Listed Below | Listed Below | 0% | 0% |
| LOSURF-300D | Halliburton | Non-ionic Surfactant | Listed Below | Listed Below | 0% | 0% |
| Nitrogen Liquefied | Halliburton | Fluid | Listed Below | Listed Below | 0% | 0% |
| OPTIFLO-HTE | Halliburton | Breaker | Listed Below | Listed Below | 0% | 0% |
| Sand-Premium White-20/40, Bulk | Halliburton | Proppant | Listed Below | Listed Below | 0% | 0% |
| WG-35 Gelling Agent | Halliburton | Gelling Agent | Listed Below | Listed Below | 0% | 0% |
| Corrosorb 3600 | Baker Hughes | Scale Inhibitor | Listed Below | Listed Below | 0% | 0% |
| Scalesorb 3 | Baker Hughes | Scale Inhibitor | Listed Below | Listed Below | 0% | 0% |
| Ingredients | Listed Above | Listed Above | 1,2,4 Trimethylbenzene | 95-63-6 | 1% | 0.00026% |
| | | | Acid phosphate ester | Trade Secret | 10% | 0.01146% |
| | | | Amine salts | Proprietary | 0.1% | 6E-05% |
| | | | Amino alkyl phosphonic acid | Trade Secret | 30% | 0.03437% |
| | | | C.I. Pigment Red 5 | 6410-41-9 | 1% | 7E-05% |
| | | | Crystalline Silica | 14808-60-7 | 1% | 0.00115% |
| | | | Crystalline silica, quartz | 14808-60-7 | 100% | 31.36283% |
| | | | Crystalline silica: Quartz (SIO2) | 14808-60-7 | 1% | 0.00115% |
| | | | Cured acrylic resin | Proprietary | 30% | 0.00213% |
| | | | Diatomaceous earth, calcined | 91053-39-3 | 100% | 0.11456% |
| | | | Enzyme | Proprietary | 5% | 0.00034% |
| | | | Ethanol | 64-17-5 | 60% | 0.01551% |
| | | | Ethylene glycol | 107-21-1 | 30% | 0.03866% |
| | | | Guar gum | 9000-30-0 | 100% | 0.13203% |
| | | | Heavy aromatic petroleum naphtha | 64742-94-5 | 30% | 0.00775% |
| | | | Hemicellulase enzyme | 9012-54-8 | 30% | 0.00352% |
| | | | Hydroxyalkylammonium chloride | Proprietary | 60% | 0.01889% |
| | | | Lactose | 63-42-3 | 100% | 0.01174% |
| | | | Monoethanolamine borate | 26038-87-9 | 60% | 0.07733% |
| | | | Naphthalene | 91-20-3 | 5% | 0.00129% |
| | | | Nitrogen | 7727-37-9 | 100% | 8.02857% |
| | | | Oxylated phenolic resin | Proprietary | 30% | 0.01034% |
| | | | Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-,branched | 127087-87-0 | 5% | 0.00129% |
| | | | Potassium chloride | 7447-40-7 | 2% | 1.20089% |
| | | | Quaternary amine | Proprietary | 5% | 0.00192% |
| | | | Quaternary ammonium chloride | Trade Secret | 30% | 0.03437% |
| | | | Sodium chloride | 7647-14-5 | 5% | 0.00157% |
| | | | Walnut hulls | CAS Not Assigned | 100% | 0.00687% |
| | | | Water | 7732-18-5 | 60% | 0.09622% |

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: Tyra M Feil Title: ENGINEERING ASSISTANT

Date: 11/14/2017

E-mail Address: tyrafeil@duganproduction.com

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