

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																																																																																																																																																																																																																																																																																																																																																																																			
HYDRAULIC FRACTURING FLUID DISCLOSURE <input checked="" type="checkbox"/> Original <input type="checkbox"/> Amendment		1. WELL API NO: 30-025-43482 2. Well Name: MAS FEDERAL #004H 3. Well Number: 004H																																																																																																																																																																																																																																																																																																																																																																																			
4. Surface Hole Location: Unit: C Lot: C Section: 34 Township: 20S Range: 34E Feet from: 190 N/S Line: N Feet from: 2440 E/W Line: W 5. Bottom Hole Location: Unit: N Lot: N Section: 34 Township: 20S Range: 34E Feet from: 224 N/S Line: S Feet from: 1949 E/W Line: W 6. Latitude: 32.536323 longitude: -103.548749 7. County: Lea																																																																																																																																																																																																																																																																																																																																																																																					
8. Operator Name and Address: COG OPERATING LLC One Concho Center 600 W. Illinois Ave Midland 79701	9. OGRID: 229137	10. Phone Number: 432-685-4332																																																																																																																																																																																																																																																																																																																																																																																			
11. Last Fracture Date: 1/16/2017 Frac Performed by: Halliburton	12. Production Type: O																																																																																																																																																																																																																																																																																																																																																																																				
13. Pool Code(s): 98201	14. Gross Fractured Interval: 11,468 ft to 15,860 ft																																																																																																																																																																																																																																																																																																																																																																																				
15. True Vertical Depth (TVD): 11,371 ft	16. Total Volume of Fluid Pumped: 9,169,956 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:																																																																																																																																																																																																																																																																																																																																																																																					
<table border="1"> <thead> <tr> <th>Trade Name</th> <th>Supplier</th> <th>Purpose</th> <th>Ingredients</th> <th>(CAS #) Chemical Abstract Service #</th> <th>Maximum Ingredient Concentration in Additive (% by mass)</th> <th>Maximum Ingredient Concentration in HF Fluid (% by mass)</th> </tr> </thead> <tbody> <tr><td>Fresh Water</td><td>Operator</td><td>Base Fluid</td><td>Water</td><td>7732-18-5</td><td>100%</td><td>89.33157%</td></tr> <tr><td>Cla-Web(TM)</td><td>Halliburton</td><td>Additive</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>DCA-23002</td><td>Halliburton</td><td>Friction Reducer</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>FDP-S1007-11</td><td>Halliburton</td><td>Surfactant</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>FE-1A ACIDIZING COMPOSITION</td><td>Halliburton</td><td>Additive</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>FE-2A</td><td>Halliburton</td><td>Additive</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>HAI-OS ACID INHIBITOR</td><td>Halliburton</td><td>Corrosion Inhibitor</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>HYDROCHLORIC ACID</td><td>Halliburton</td><td>Solvent</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>NA</td><td>Halliburton</td><td></td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>OptiKleen-WF(TM)</td><td>Halliburton</td><td>Concentrate</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>Scalechek(R) SCP-2 Scale Inhibitor</td><td>Halliburton</td><td>Scale Preventer</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>Parasorb</td><td>Baker Hughes</td><td>Corrosion Inhibitor</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>Scaletrol</td><td>Baker Hughes</td><td>Scale Inhibitor</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>ACS 100</td><td>BRENTAG</td><td>Biocide</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>ACS 200</td><td>BRENTAG SOUTHWEST, Inc</td><td>Biocide</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>ACS 300</td><td>Occidental Chemical Corporation</td><td>Biocide</td><td>Listed Below</td><td>Listed Below</td><td>0%</td><td>0%</td></tr> <tr><td>MSDS and Non-MSDS Ingredients are listed below the</td><td></td><td></td><td></td><td></td><td>0%</td><td>0%</td></tr> <tr><td>Ingredients</td><td>Listed Above</td><td>Listed Above</td><td>Acetic acid</td><td>64-19-7</td><td>60%</td><td>0.00267%</td></tr> <tr><td></td><td></td><td></td><td>Acetic anhydride</td><td>108-24-7</td><td>100%</td><td>0.00444%</td></tr> <tr><td></td><td></td><td></td><td>Acrylamide acrylate copolymer</td><td>9003-06-9</td><td>60%</td><td>0.05032%</td></tr> <tr><td></td><td></td><td></td><td>Acrylonitrile</td><td>107-13-1</td><td>0.1%</td><td>8E-05%</td></tr> <tr><td></td><td></td><td></td><td>Amine salts</td><td>Proprietary</td><td>0.1%</td><td>0.0001%</td></tr> <tr><td></td><td></td><td></td><td>Calcium chloride (CaCl2)</td><td>10043-52-4</td><td>5%</td><td>0.00133%</td></tr> <tr><td></td><td></td><td></td><td>Citric acid</td><td>77-92-9</td><td>60%</td><td>0.00277%</td></tr> <tr><td></td><td></td><td></td><td>Citrus, extract</td><td>94266-47-4</td><td>10%</td><td>0.00443%</td></tr> <tr><td></td><td></td><td></td><td>Crystalline silica: Quartz (SiO2)</td><td>14808-60-7</td><td>1%</td><td>7E-05%</td></tr> <tr><td></td><td></td><td></td><td>Diatomaceous earth, calcined</td><td>91053-39-3</td><td>60%</td><td>0.0042%</td></tr> <tr><td></td><td></td><td></td><td>Ethoxylated alcohols</td><td>Proprietary</td><td>30%</td><td>0.00243%</td></tr> <tr><td></td><td></td><td></td><td>Ethoxylated fatty acid</td><td>Proprietary</td><td>10%</td><td>0.00443%</td></tr> <tr><td></td><td></td><td></td><td>Ethylene glycol</td><td>107-21-1</td><td>30%</td><td>0.00798%</td></tr> <tr><td></td><td></td><td></td><td>Fatty acids, tall oil</td><td>Proprietary</td><td>30%</td><td>0.00022%</td></tr> <tr><td></td><td></td><td></td><td>Glassy calcium magnesium phosphate</td><td>65997-17-3</td><td>100%</td><td>0.02234%</td></tr> <tr><td></td><td></td><td></td><td>Glycol</td><td>Proprietary</td><td>5%</td><td>0.00443%</td></tr> <tr><td></td><td></td><td></td><td>Hydrochloric acid</td><td>7647-01-0</td><td>60%</td><td>0.10954%</td></tr> <tr><td></td><td></td><td></td><td>Hydrogen Chloride</td><td>7647-01-0</td><td>15%</td><td>0.00054%</td></tr> <tr><td></td><td></td><td></td><td>Hydroxyalkylammonium chloride</td><td>Proprietary</td><td>60%</td><td>0.0295%</td></tr> <tr><td></td><td></td><td></td><td>Isopropanol</td><td>67-63-0</td><td>30%</td><td>0.01329%</td></tr> <tr><td></td><td></td><td></td><td>Methanol</td><td>67-56-1</td><td>60%</td><td>0.00044%</td></tr> <tr><td></td><td></td><td></td><td>Mineral Oil</td><td>8042-47-5</td><td>30%</td><td>0.0021%</td></tr> <tr><td></td><td></td><td></td><td>NFIDB:NA</td><td>CAS Not Assigned</td><td>100%</td><td>10.22024%</td></tr> <tr><td></td><td></td><td></td><td>Olefins</td><td>Proprietary</td><td>5%</td><td>9E-05%</td></tr> <tr><td></td><td></td><td></td><td>Organic salt</td><td>Proprietary</td><td>0.1%</td><td>4E-05%</td></tr> <tr><td></td><td></td><td></td><td>Propargyl alcohol</td><td>107-19-7</td><td>10%</td><td>7E-05%</td></tr> <tr><td></td><td></td><td></td><td>Quaternary amine</td><td>Proprietary</td><td>5%</td><td>0.003%</td></tr> <tr><td></td><td></td><td></td><td>Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide</td><td>68527-49-1</td><td>30%</td><td>0.00022%</td></tr> <tr><td></td><td></td><td></td><td>Sodium chloride</td><td>7647-14-5</td><td>100%</td><td>0.08632%</td></tr> <tr><td></td><td></td><td></td><td>Sodium Chloride</td><td>7647-14-5</td><td>10%</td><td>0.00064%</td></tr> <tr><td></td><td></td><td></td><td>Sodium Chlorite</td><td>7758-19-2</td><td>35%</td><td>0.00175%</td></tr> <tr><td></td><td></td><td></td><td>Sodium Hydroxide</td><td>001310-73-2</td><td>2%</td><td>8E-05%</td></tr> <tr><td></td><td></td><td></td><td>Sodium Hypochlorite</td><td>007681-52-9</td><td>13%</td><td>0.00051%</td></tr> <tr><td></td><td></td><td></td><td>Sodium perborate tetrahydrate</td><td>10486-00-7</td><td>100%</td><td>0.01007%</td></tr> <tr><td></td><td></td><td></td><td>Water</td><td>7732-18-5</td><td>100%</td><td>0.25541%</td></tr> </tbody> </table>	Trade Name	Supplier	Purpose	Ingredients	(CAS #) Chemical Abstract Service #	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)	Fresh Water	Operator	Base Fluid	Water	7732-18-5	100%	89.33157%	Cla-Web(TM)	Halliburton	Additive	Listed Below	Listed Below	0%	0%	DCA-23002	Halliburton	Friction Reducer	Listed Below	Listed Below	0%	0%	FDP-S1007-11	Halliburton	Surfactant	Listed Below	Listed Below	0%	0%	FE-1A ACIDIZING COMPOSITION	Halliburton	Additive	Listed Below	Listed Below	0%	0%	FE-2A	Halliburton	Additive	Listed Below	Listed Below	0%	0%	HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Listed Below	Listed Below	0%	0%	HYDROCHLORIC ACID	Halliburton	Solvent	Listed Below	Listed Below	0%	0%	NA	Halliburton		Listed Below	Listed Below	0%	0%	OptiKleen-WF(TM)	Halliburton	Concentrate	Listed Below	Listed Below	0%	0%	Scalechek(R) SCP-2 Scale Inhibitor	Halliburton	Scale Preventer	Listed Below	Listed Below	0%	0%	Parasorb	Baker Hughes	Corrosion Inhibitor	Listed Below	Listed Below	0%	0%	Scaletrol	Baker Hughes	Scale Inhibitor	Listed Below	Listed Below	0%	0%	ACS 100	BRENTAG	Biocide	Listed Below	Listed Below	0%	0%	ACS 200	BRENTAG SOUTHWEST, Inc	Biocide	Listed Below	Listed Below	0%	0%	ACS 300	Occidental Chemical Corporation	Biocide	Listed Below	Listed Below	0%	0%	MSDS and Non-MSDS Ingredients are listed below the					0%	0%	Ingredients	Listed Above	Listed Above	Acetic acid	64-19-7	60%	0.00267%				Acetic anhydride	108-24-7	100%	0.00444%				Acrylamide acrylate copolymer	9003-06-9	60%	0.05032%				Acrylonitrile	107-13-1	0.1%	8E-05%				Amine salts	Proprietary	0.1%	0.0001%				Calcium chloride (CaCl2)	10043-52-4	5%	0.00133%				Citric acid	77-92-9	60%	0.00277%				Citrus, extract	94266-47-4	10%	0.00443%				Crystalline silica: Quartz (SiO2)	14808-60-7	1%	7E-05%				Diatomaceous earth, calcined	91053-39-3	60%	0.0042%				Ethoxylated alcohols	Proprietary	30%	0.00243%				Ethoxylated fatty acid	Proprietary	10%	0.00443%				Ethylene glycol	107-21-1	30%	0.00798%				Fatty acids, tall oil	Proprietary	30%	0.00022%				Glassy calcium magnesium phosphate	65997-17-3	100%	0.02234%				Glycol	Proprietary	5%	0.00443%				Hydrochloric acid	7647-01-0	60%	0.10954%				Hydrogen Chloride	7647-01-0	15%	0.00054%				Hydroxyalkylammonium chloride	Proprietary	60%	0.0295%				Isopropanol	67-63-0	30%	0.01329%				Methanol	67-56-1	60%	0.00044%				Mineral Oil	8042-47-5	30%	0.0021%				NFIDB:NA	CAS Not Assigned	100%	10.22024%				Olefins	Proprietary	5%	9E-05%				Organic salt	Proprietary	0.1%	4E-05%				Propargyl alcohol	107-19-7	10%	7E-05%				Quaternary amine	Proprietary	5%	0.003%				Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.00022%				Sodium chloride	7647-14-5	100%	0.08632%				Sodium Chloride	7647-14-5	10%	0.00064%				Sodium Chlorite	7758-19-2	35%	0.00175%				Sodium Hydroxide	001310-73-2	2%	8E-05%				Sodium Hypochlorite	007681-52-9	13%	0.00051%				Sodium perborate tetrahydrate	10486-00-7	100%	0.01007%				Water	7732-18-5	100%	0.25541%	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: <u>Signed Electronically</u> Printed Name: <u>Stormi Davis</u> Title: <u>Regulatory Analyst</u> Date: <u>5/3/2017</u> E-mail Address: <u>sdavis@conchoresources.com</u>	
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			Hydrogen Chloride	7647-01-0	15%	0.00054%																																																																																																																																																																																																																																																																																																																																																																															
			Hydroxyalkylammonium chloride	Proprietary	60%	0.0295%																																																																																																																																																																																																																																																																																																																																																																															
			Isopropanol	67-63-0	30%	0.01329%																																																																																																																																																																																																																																																																																																																																																																															
			Methanol	67-56-1	60%	0.00044%																																																																																																																																																																																																																																																																																																																																																																															
			Mineral Oil	8042-47-5	30%	0.0021%																																																																																																																																																																																																																																																																																																																																																																															
			NFIDB:NA	CAS Not Assigned	100%	10.22024%																																																																																																																																																																																																																																																																																																																																																																															
			Olefins	Proprietary	5%	9E-05%																																																																																																																																																																																																																																																																																																																																																																															
			Organic salt	Proprietary	0.1%	4E-05%																																																																																																																																																																																																																																																																																																																																																																															
			Propargyl alcohol	107-19-7	10%	7E-05%																																																																																																																																																																																																																																																																																																																																																																															
			Quaternary amine	Proprietary	5%	0.003%																																																																																																																																																																																																																																																																																																																																																																															
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30%	0.00022%																																																																																																																																																																																																																																																																																																																																																																															
			Sodium chloride	7647-14-5	100%	0.08632%																																																																																																																																																																																																																																																																																																																																																																															
			Sodium Chloride	7647-14-5	10%	0.00064%																																																																																																																																																																																																																																																																																																																																																																															
			Sodium Chlorite	7758-19-2	35%	0.00175%																																																																																																																																																																																																																																																																																																																																																																															
			Sodium Hydroxide	001310-73-2	2%	8E-05%																																																																																																																																																																																																																																																																																																																																																																															
			Sodium Hypochlorite	007681-52-9	13%	0.00051%																																																																																																																																																																																																																																																																																																																																																																															
			Sodium perborate tetrahydrate	10486-00-7	100%	0.01007%																																																																																																																																																																																																																																																																																																																																																																															
			Water	7732-18-5	100%	0.25541%																																																																																																																																																																																																																																																																																																																																																																															

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.