

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. 30-015-41269				
		2. Well Name: RDX FEDERAL 21 #041				
		3. Well Number: 041				
HYDRAULIC FRACTURING FLUID DISCLOSURE ☒ Original ☐ Amendment		4. Surface Hole Location: Unit:M Lot:M Section:21 Township:26S Range:30E Feet from:600 N/S Line:S Feet from:990 E/W Line:W				
		5. Bottom Hole Location: Unit:M Lot:M Section:21 Township:26S Range:30E Feet from:600 N/S Line:S Feet from:990 E/W Line:W				
		6. Iatitute: 32.0223025868916 Longitude: - 103.891654439048				
		7. County: Eddy				
8. Operator Name and Address: RKI EXPLORATION & PRODUCTION, LLC 210 PARK AVENUE SUITE 900 OKLAHOMA CITY 73102		9. OGRID: 246289	10. Phone Number: 405-996-5774			
11. Last Fracture Date: 1/18/2014 Frac Performed by: RKI EXPLORATION & PRODUCTION		12. Production Type: O				
13. Pool Code(s): 8090		14. Gross Fractured Interval: Confidential				
15. True Vertical Depth (TVD): 7,459 ft		16. Total Volume of Fluid Pumped: 564,357 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		Carrier / Base Fluid		7732-18-5	100%	83.44873%
Sand		Proppant	Silicon Dioxide	14808-60-7	100%	9.99482%
Super DC/LC TLC/THS Opti RCS	Sandtrol	Proppant	Silicon Dioxide	14808-60-7	97%	3.91821%
			P/F Novolak Resin	9003-35-4	5%	0.20197%
B-15	Water Science Tech	Biocide	Hexamethylenetetramine	1009-7-0	1%	0.04039%
			Tetrakis (hydroxymethyl) phosphonium sulfate	55566-30-8	20%	0.00132%
AGA-380	Chemplex, L.C.	Acid Gellant	Water	7732-18-5	80%	0.00529%
			Acetic Acid	64-19-7	1%	1E-05%
			Sodium Bisulfite(Trade Secret)	7631-90-5	64%	0.00058%
FR-620	Chemplex	Friction Reducer	Petroleum Distillate	64742-47-8	35%	0.00032%
			Polyacrylamide derivatives	Mixture	35%	0.00237%
CS-14	Chemplex, L.C.	Clay Control	Petroleum Distillate	64742-47-8	30%	0.00203%
			Non-hazardous salts (Choline)	Proprietary	66%	0.02561%
15% Hydrochloric Acid	Reagent	Scale Dissolver	Water	7732-18-5	45%	0.01746%
			37% Hydrochloric Acid	7647-01-0	15%	0.26225%
I-122	Chemplex,L.C.	Acid Corrosion Inhibitor	Water	7732-18-5	85%	1.48609%
			Methanol	67-56-1	70%	0.00112%
			Propargyl alcohol	107-19-7	8%	0.00022%
			Alcohol Ethoxylate Surfactants	Trade Secret	30%	0.00084%
			n-olefins	Trade Secret	10%	0.00028%
			thiourea-formaldehyde copolymer	68527-49-1	30%	0.00084%
SG-15G	PFP Technology	Polymer	Guar Gum	9000-30-0	50%	0.20055%
			Petroleum Distillate (Mineral Oil)	64742-47-8	55%	0.22061%
			Bentonite Clay	14808-60-7	2%	0.00802%
			Surfactant	68439-51-0	2%	0.00802%
XL-335	ASK	Crosslinker	Ethylene Glycol	107-21-1	25%	0.02783%
			Potassium Hydroxide	1310-58-3	25%	0.02783%
			Proprietary	Proprietary	25%	0.02783%
			Proprietary	Proprietary	15%	0.0167%
			Proprietary	Proprietary	10%	0.01113%
GB-2	Fritz Industries, Inc.	Breaker	Ammonium Persulfate	7727-54-0	99.9%	0.00888%
GB-150	Chemplex, L.C.	Breaker	Non-hazardous ingredients	NA	100%	0.02196%
NE-217	Chemplex, L.C.	Non-emulsifier	Methanol	67-56-1	50%	0.00059%
NE-227	CESI	Non-emulsifier	Isopropanol	67-63-0	15%	0.01145%
			Methanol	67-56-1	15%	0.01145%
			Ethoxylated Nonylphenol	9016-45-9	20%	0.01527%
FE-4	Chemplex, L.C.	Iron Control Additive	Citric Acid Anhydrous	77-92-9	55%	0.00529%
			Water	7732-18-5	55%	0.00529%
SI-625	Keltech	Scale Inhibitor	Methanol	67-56-1	19.9%	0.00722%
Superset W	Santrol	Resin Activator	Methanol	67-56-1	50%	0.02308%
			Poly(oxyethylene) nonyphenol ether	9016-45-9	54%	0.02492%
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: Heather Brehm		Title: Regulatory analyst				
Date: 1/27/2014						
E-mail Address: hbrehm@rkixp.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.