

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 February 15, 2012					
		1. WELL API NO: 30-015-41119					
		2. Well Name: LOGAN 2C STATE #005					
		3. Well Number: 005					
HYDRAULIC FRACTURING FLUID DISCLOSURE ☒ Original ☐ Amendment		4. Surface Hole Location: Unit:C Lot:C Section:2 Township:18S Range:27E Feet from:430 N/S Line:N Feet from:2300 E/W Line:W					
		5. Bottom Hole Location: Unit:C Lot:C Section:2 Township:18S Range:27E Feet from:430 N/S Line:N Feet from:2300 E/W Line:W					
		6. Latitude: 32.7821923595727 Longitude: -104.250346856645					
		7. County: Eddy					
8. Operator Name and Address: LIME ROCK RESOURCES II-A, L.P. 1111 Bagby Street Suite 4600 Houston 77002				9. OGRID: 277558		10. Phone Number: 713-292-9517	
11. Last Fracture Date: 4/15/2013 Frac Performed by: BAKER				12. Production Type: O			
13. Pool Code(s): 96836				14. Gross Fractured Interval: 3,130 ft to 4,560 ft			
15. True Vertical Depth (TVD): 4,851 ft				16. Total Volume of Fluid Pumped: 6,088 bbls			
17. 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)	
HCL 5.1-7.5%	BAKER	ACIDIZING	Hydrochloric acid	7647-01-0	7.5%	0.2748%	
Activator 330	BAKER	ACTIVATOR	ALCOHOLS, C12-14-Secondary Methanol	84133-50-6 67-56-1	70% 50%	0.02075% 0.01482%	
X-Cide 207	BAKER	Biocide	2-Methyl-4-Isothiazolin-3-One	2682-20-4	5%	0.00016%	
			5-Chloro-2-Methyl-4-Isothiazolin-3-One	26172-55-4	10%	0.00032%	
			Crystalline Silica: Cristobalite	14464-46-1	1%	3E-05%	
			Crystalline Silica: Quartz (SiO2)	14808-60-7	1%	3E-05%	
			Diatomaceous Earth, Calcined	91053-39-3	60%	0.00191%	
			Magnesium Chloride	7786-30-3	5%	0.00016%	
			Magnesium Nitrate	10377-60-3	10%	0.00032%	
			GBW-5	BAKER	BREAKER	AMMONIUM PHOSPHATE	7727-54-0
Enzyme G-1	BAKER	BREAKER	Hemicellulase Enzyme Concentrate	9025-56-3	3%	0.00105%	
ClayCare, tote	BAKERF	Clay Control	Choline Chloride	67-48-1	75%	0.05611%	
CI-27	BAKER	Corrosion Inhibitor	Fatty Acids	Trade Secret	30%	0.00084%	
			Methanol	67-56-1	60%	0.00169%	
			Olefin	Trade Secret	5%	0.00014%	
			Polyoxyalkylenes	Trade Secret	30%	0.00084%	
			Propargyl Alcohol	107-19-7	10%	0.00028%	
XLW-10A	BAKER	Crosslinker	Ethylene Glycol	107-21-1	30%	0.03426%	
			Sodium Hydroxide	1310-73-2	10%	0.01142%	
			Sodium Tetraborate	1330-43-4	30%	0.03426%	
			Guar Gum	9000-30-0	60%	0.23939%	
GW-4LDF	BAKER	Gelling Agent	Paraffinic Petroleum Distillates	64742-55-8	60%	0.23939%	
			Petroleum Distillatef	64742-47-8	60%	0.23939%	
			2-Mercaptoethanol	60-24-2	100%	0.01392%	
Ferotrol 280L	BAKER	Iron Control	Ammonium Hydroxide	1336-21-6	5%	0.0007%	
			Cupric Chloride	7447-39-4	5%	0.0007%	
			Mixture of Surfactants	Trade Secret	50%	0.03461%	
NE-35,330 GL TOTE	BAKER	Non-emulsifier	Propylene Glycol	57-55-6	30%	0.02077%	
			Crystalline Silica (Quartz)	14808-60-7	100%	12.02219%	
SiberProp, 16/30	BAKER	Proppant	Quartz (SiO2)	14808-60-7	100%	2.25062%	
TECHNI-HIB 756	BAKER	SALT INHIBITOR	Hydrochloric acid	7647-01-0	5%	0.00747%	
			PHOSPHORIC ACID	7664-38-2	2%	0.00299%	
			Crystalline Silica (Quartz)	14808-60-7	1%	0.00061%	
ScaleSorb 7 (50 lb)	BAKER	Scale Inhibitor	Diotomaceous Earch, Calcined	91053-39-3	100%	0.06064%	
			Organo Phosphorus Salt	Trade Secret	30%	0.01819%	
			Sodium Chloride	7647-14-5	10%	0.00606%	
18. 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: Mike Pippin Title: Consultant							
Date: 5/15/2013							
E-mail Address: mike@pippinllc.com							
NMOCDD does not require the reporting of information beyond MSDS data as described in 29 CFR 1910.1200. NMOCDD does not require the reporting or disclosure of proprietary, trade secret or confidential business information.							