| Submit within 45 days of well  | completion  | Otata a Chiana Manda a   |  |                          |  | Revised November 6, 2013   |                      |   |  |
|--|---|--|--|--------------------------|--|--|----------------------|---|--|
| -  |   | State of New Mexico  |  |                          |  | 1. WELL API NO.  |                      |   |  |
|  | E   | Energy, Minerals and Natural Resource  |  |                          |  | 30-015-40579   |                      |   |  |
|  |   | Oil Conservation Division<br>1220 S. St Francis Dr.  |  |                          |  | 2. Well Name:<br>CROW FEDERAL #015H  |                      |   |  |
| Santa Fe, NM 87505   |   |  |  |                          |  | 3. Well Number:<br>015H  |                      |   |  |
| HYDRAULIC FRACTURING FLUID   |   |  |  |                          |  |  | le Location:         |   |  |
| DISCLOSURE   |   |  |  |                          |  | Feet from:98   | 8 N                  | ownship:17S Range:31E<br>I/S Line:S<br>:/W Line:W |  |
| ⊠ Original   |   |  |  |                          |  | 5. Bottom Hol  |                      | ownship:17S Range:31E                             |  |
| □ Amendment  |   |  |  |                          |  | Feet from: 988   N/S Line: S     Feet from: 250   E/W Line: W  |                      |   |  |
|  |   |  |  |                          |  | 6. latitude:<br>32   | 2.8445415445175      | longitude:  |  |
|  |   |  |  |                          |  | 7. County:   | d.                   | 103.865371670952                                  |  |
|  |   |  |  |                          |  | EU   | dy                   |   |  |
| Operator Name and Address:     APACHE CORP     303 Veterans Airps     Suite 3000     Midland 79705   |   |  |  |                          | 9. OGRID:  | 873 10. Phone Number: 432-818-1168   |                      |   |  |
| 11. Last Fracture Date: 9/10/2013 Frac Performed by: Pumpco  |   |  |  |                          | 12. Productio<br>O   |  |                      |   |  |
| 13. Pool Code(s):<br>96831   |   |  |  |                          |  | Fross Fractured Interval:<br>6.404 ft to 10.982 ft   |                      |   |  |
| 15. True Vertical Depth (TVD):   |   |  |  |                          |  | 8. Total Volume of Fluid Pumped:   |                      |   |  |
| 6,160 ft 17. Total Volume of Re-Use Water Pumped:  |   |  |  |                          | 2,838,780 gals  18. Percent of Re-Use Water in Fluid Pumped: |  |                      |   |  |
| N/A 19. HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:   |   |  |  |                          | No   | t Disclosed  |                      | 7   |  |
| Trade Name   | Supplier  | Purpose  | Ingredients  | (CAS#) Chem              | nical Abstract   | Maximum In   | gredient             | Maximum Ingredient                                |  |
|  |   | ,  |  | Service #                |  |  | on in Additive (% by | Concentration in HF Fluid (%<br>by mass)          |  |
| Water  | Swire   | Carrier/Base Fluid   | Water  | 7732-18-5                |  | V  | 100%                 | 87.06744%   |  |
| Sand (Proppant)  | TSS   | Proppant   | Silica Substrate   | 14808-60-7               |  | 69   | 100%                 | 8.87775%  |  |
| Hydrochloric Acid (15%)<br>AP-Bio-1  | Reagent<br>Dow Chemical   | Acidizing<br>Biocide   | Hydrochloric Acid<br>Glutaraldehyde  | 7647-01-0                |  | 0  | 15%<br>42.5%         | 0.53294%<br>0.01899%                              |  |
| AF-010-1   | Company   | Biocide  | Quaternary ammonium  | 68424-85-1               | 111-30-8   |  | 7.5%                 | 0.01899%  |  |
|  |   |  | compounds, benzyl-   |                          |  |  | 7.570                | 0.0033370   |  |
|  |   |  | C12-16-alkyldimethyl,  |                          |  |  |                      |   |  |
|  |   |  | chlorides  |                          |  | -  | 404                  | 0.000450/   |  |
| AP-FR-1  | Ashland   | Friction Reducer   | Ethanol<br>Hydrocarbon-aliphatic   | 64-17-5<br>25450-40-01   |  | 1/2  | 1%<br>30%            | 0.00045%<br>0.02562%                              |  |
| AC-CK-1  | Asilialiu   | Filction Reducer   | Fatty alcohol alkoxylate   |                          | Proprietary  |  | 5%                   | 0.02362%  |  |
|  |   |  | Polyacrylate based   | Proprietary              |  |  | 35%                  | 0.02988%  |  |
|  |   |  | copolymer  |                          |  |  |                      | 10.15 -0.15 -15                                   |  |
| Ferriplex 40   | Chemplex  | Iron Control   | Sodium Hydroxide   | 1310-73-2                |  |  | 1%                   | 0.00017%  |  |
| 82.400.000000000000000000000000000000000   |   | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   | Sodium Sulfate   | 7757-82-6                |  |  | 2%                   | 0.00035%  |  |
|  |   |  | Anhydrous<br>Trisodium   | 5064-31-3                |  |  | 40%                  | 0.00698%  |  |
|  |   |  | Nitrilotriacetate  | 3004-31-3                |  |  | 40%                  | 0.00098%  |  |
| Plexbreak 145 Chemplex   |   | Non-Emulsifier   | 2-Butoxyethanol  | 111-76-2                 |  |  | 15%                  | 0.00097%  |  |
|  |   |  | Cocamide Based<br>Surfactant   | Proprietary              |  |  | 10%                  | 0.00064%  |  |
|  |   |  | Diethanolamine   | 111-42-2                 |  | 3  | 3%                   | 0.00019%  |  |
|  |   |  | Methyl Alcohol   | 67-56-1                  |  | 3  | 15%                  | 0.00097%  |  |
| AP-Scale-1   | Blentech  | Scale Inhibitor  | Ethylene Glycol  | 107-21-1                 |  | 3  | 35%                  | 0.0156%   |  |
|  |   |  | Polyacrylate blend   | Proprietary              |  | 8  | 7%                   | 0.00312%  |  |
| Plexhib 256  | Chemplex  | Acid Inhibitor   | Methyl Alcohol   | 67-56-1                  |  | 100  | 60%                  | 0.00346%  |  |
|  |   |  | Propargyl Alcohol  | 107-19-7                 |  |  | 10%                  | 0.00058%  |  |
|  |   |  | Thiourea/Formaldehyde<br>Copolymer   | 68527-49-1               |  |  | 30%                  | 0.00173%  |  |
|  |   |  | Polyethoxylated Alcohol  | 68951-67-7<br>64743-02-8 |  | 0  | 30%                  | 0.00173%  |  |
|  |   |  | Surfactant   |                          |  |  |                      |   |  |
|  |   |  | C-14 to C-16 Alpha<br>Olefins  |                          |  |  | 5%                   | 0.00029%  |  |
| AP-Surf-1A   | Blentech  | Surfactant   | Methanol 67-56-1   |                          |  |  | 25%                  | 0.02106%  |  |
| 100000000000000000000000000000000000000  |   | 25 17 S 18 S 19  | Sulfonate  | Proprietary              |  | 8  | 4%                   | 0.00337%  |  |
|  | 8   |  | Alkyl alkoxylate   | Proprietary              |  | (8)  | 11%                  | 0.00927%  |  |
| Claymax  | Chemplex  | Clay Stabilizer  | Choline Chloride   | 67-48-1                  |  | 8  | 65%                  | 0.11368%  |  |
| Plexset 730  | Chemplex Proppant Alcohol Ethoxylates Proprietary  Methyl Alcohol 57 F6 1 |  |  | 8                        | 60%  | 0.02307%   |                      |   |  |
| 20. I, as Operator, hereby certify   | that the information  | Consolidator   | Methyl Alcohol   | 67-56-1                  | adas t!  | <u> </u>   | 50%                  | 0.01923%  |  |
| The State of the S | A Committee Administration  | A CONTRACTOR OF ACCURACY AND AC | Cold M. B. Alberta N. Cold and | est of my knowl          | eage and belle   | Contract to the Contract of th | aulatory Tach        | <u> </u>  |  |
| Signature: Signed Electronically Printed Name: Fatima Vasquez Title: Regulatory Tech  Date: 11/15/2013   |   |  |  |                          |  |  |                      |   |  |
| 11/13/20   | 13  |  |  |                          |  |  |                      |   |  |

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