

### Kansas Corporation Commission Oil & Gas Conservation Division

152797

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

# WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

| OPERATOR: License #  | API No. 15   |
|--|--|
| Name:  | Spot Description:  |
| Address 1:   | SecTwpS. R   |
| Address 2:   | Feet from North / South Line of Section  |
| City: State: Zip:+   | Feet from East / West Line of Section  |
| Contact Person:  | Footages Calculated from Nearest Outside Section Corner:   |
| Phone: ()  | □NE □NW □SE □SW  |
| CONTRACTOR: License #  | County:  |
| Name:  | Lease Name: Well #:  |
| Wellsite Geologist:  | Field Name:  |
| Purchaser:   | Producing Formation:   |
| Designate Type of Completion:  | Elevation: Ground: Kelly Bushing:  |
| New Well Re-Entry Workover   | Total Depth: Plug Back Total Depth:  |
| Oil WSW SWD SIOW Gas D&A ENHR SIGW OG GSW Temp. Abd. CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.): | Amount of Surface Pipe Set and Cemented at: Feet  Multiple Stage Cementing Collar Used? Yes No  If yes, show depth set: Feet  If Alternate II completion, cement circulated from: sx cmt |
| Operator:  |  |
| Well Name:   | Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)   |
| Original Comp. Date: Original Total Depth:  Deepening Re-perf. Conv. to ENHR Conv. to SWD  Conv. to GSW        | Chloride content: ppm Fluid volume: bbls  Dewatering method used:  |
| Plug Back: Plug Back Total Depth   | Location of fluid disposal if hauled offsite:  |
| Commingled Permit #:   | Operator Name:   |
| Dual Completion Permit #:  | Lease Name: License #:   |
| SWD Permit #:  | Quarter Sec TwpS. R  |
| ENHR Permit #:   | County: Permit #:  |
| GSW Permit #:  | . 5  |
| Spud Date or Date Reached TD Completion Date or Recompletion Date  Recompletion Date                           |  |

#### **AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

**Submitted Electronically** 

| KCC Office Use ONLY                |  |  |  |  |  |  |
|------------------------------------|--|--|--|--|--|--|
| Letter of Confidentiality Received |  |  |  |  |  |  |
| Date:                              |  |  |  |  |  |  |
| Confidential Release Date:         |  |  |  |  |  |  |
| Wireline Log Received              |  |  |  |  |  |  |
| Geologist Report Received          |  |  |  |  |  |  |
| UIC Distribution                   |  |  |  |  |  |  |
| ALT I II Approved by: Date:        |  |  |  |  |  |  |

Side Two



| Operator Name:  |  |                                  |                                | Lease N               | lame:     |                  |  | Well #:                             |           |                          |
|---|--|----------------------------------|--------------------------------|-----------------------|-----------|------------------|--|-------------------------------------|-----------|--------------------------|
| Sec Twp   | S. R   | East                             | ] West                         | County:               |           |                  |  |                                     |           |                          |
| INSTRUCTIONS: Sh<br>time tool open and clo<br>recovery, and flow rat<br>line Logs surveyed. A | osed, flowing and shu<br>es if gas to surface te | t-in pressures<br>st, along with | s, whether s<br>final chart(s  | hut-in press          | ure reach | ed static level, | hydrostatic pres                         | ssures, bottom h                    | nole temp | erature, fluid           |
| Drill Stem Tests Taker (Attach Additional   |  | Yes                              | ☐ No                           |                       | Log       | g Formation      | n (Top), Depth a                         | nd Datum                            |           | Sample                   |
| Samples Sent to Geo   | logical Survey                                   | Yes                              | No                             |                       | Name      |                  |  | Тор                                 |           | Datum                    |
| Cores Taken<br>Electric Log Run<br>Electric Log Submitte<br>(If no, Submit Cop)               | d Electronically                                 | ☐ Yes<br>☐ Yes<br>☐ Yes          | No No No                       |                       |           |                  |  |                                     |           |                          |
| List All E. Logs Run:   |  |                                  |                                |                       |           |                  |  |                                     |           |                          |
|   |  | Report a                         |                                | RECORD                | New       | Used             | on, etc.                                 |                                     |           |                          |
| Purpose of String   | Size Hole<br>Drilled                             | Size C<br>Set (In                | asing                          | Weig<br>Lbs. /        | ht        | Setting<br>Depth | Type of<br>Cement                        | # Sacks<br>Used                     | , ,,      | and Percent<br>additives |
|   |  |                                  |                                |                       |           |                  |  |                                     |           |                          |
|   |  | <u> </u><br>                     | DDITIONAL                      | CEMENTIN              | IG / SQUE | EZE RECORD       |  |                                     |           |                          |
| Purpose:  Perforate Protect Casing Plug Back TD Plug Off Zone                                 | Depth<br>Top Bottom                              | Type of 0                        | Cement                         | # Sacks               | Used      |                  | Type and                                 | Percent Additives                   |           |                          |
|   |  |                                  |                                |                       |           |                  |  |                                     |           |                          |
| Shots Per Foot  | PERFORATI<br>Specify                             | ON RECORD -<br>Footage of Each   | Bridge Plug<br>n Interval Peri | s Set/Type<br>forated |           |                  | cture, Shot, Ceme<br>mount and Kind of N | nt Squeeze Record<br>Material Used) | d<br>     | Depth                    |
|   |  |                                  |                                |                       |           |                  |  |                                     |           |                          |
|   |  |                                  |                                |                       |           |                  |  |                                     |           |                          |
| TUBING RECORD:  | Size:  | Set At:                          |                                | Packer At:            |           | Liner Run:       |  |                                     |           |                          |
|   |  |                                  |                                |                       |           |                  | Yes N                                    | 0                                   |           |                          |
| Date of First, Resumed  | Production, SWD or EN                            | IHR. Pr                          | oducing Meth                   | nod:                  | g 🗌 G     | as Lift C        | Other (Explain)                          |                                     |           |                          |
| Estimated Production<br>Per 24 Hours  | Oil  | Bbls.                            | Gas                            | Mcf                   | Water     | BI               | ols.                                     | Gas-Oil Ratio                       |           | Gravity                  |
| DISPOSITI   | ON OF GAS:                                       |                                  | N                              | METHOD OF             | COMPLET   | TION:            |  | PRODUCTIO                           | ON INTER  | VAL:                     |
| Vented Solo   | Used on Lease                                    |                                  | n Hole                         | Perf.                 | Dually (  |                  | nmingled<br>mit ACO-4)                   |                                     |           |                          |
| (11 verneu, 3u  | 10./   | Othe                             | r (Specify)                    |                       |           |                  | I —                                      |                                     |           |                          |

#255989

# CONSOLIDATED OF MALE Springs, LLC

### CEMENT FIELD TICKET AND TREATMENT REPORT

| ustomer  | 001  | Ctate Carre                                      | 7  | A                   | <del></del>  |
|--|--|--|--|---------------------|--|
| ob Type  | G & J  | State, County                                    | Chautauqua , Kansas  | Cement Type         | CLASS A  |
| ustomer Acct#  | Long String                                  | Section  |  | Excess (%)          | 30   |
| /ell No.   | 7001   | TWP  |  | Density             | 13.7   |
| ailing Address   | Brant 13-1                                   | RGE  |  | Water Required      |  |
| ty & State   |  | Formation  |  | Yeild               | 1.26   |
| p Code   |  | Hole Size  | 5 3/4  | Slurry Weight       |  |
|  |  | Hole Depth                                       | 803'   | Slurry Volume       |  |
| ontact   |  | Casing Size                                      | 2 7/8INCH,   | Displacement        |  |
| nail   |  | Casing Depth                                     | 794'   | Displacement PSI    | <del>†                                      </del> |
| eli .  |  | Drill Pipe                                       | 134  | MIX PSI             |  |
| spatch Location  | BARTLESVILLE                                 | Tubing   | <del>                                     </del>   | Rate                | <del> </del>                                       |
|  | Cement Pump Charges and Mileage              | Quantity   | <del>-</del>   |                     | 4bpm   |
| 5401   | CEMENT PUMP (2 HOUR MAX)                     |  | Unit   | Price per Unit      |  |
| 5406   | EQUIPMENT MILEAGE (ONE-WAY)                  | 30   | 2 HRS MAX  | \$1,030.00          | \$ 1,  |
| 5407   | MIN. BULK DELIVERY (WITHIN 50 MILES)         |  | PER MILE   | \$4.00              | \$   |
| 0  | WHITE BOOK BELIVERY (AMILIA 20 MILES)        | 1  | PER LOAD   | \$350.00            | \$   |
| 0  |  | <del> </del>                                     | 0  | \$0.00              | \$   |
| 0  |  | <del> </del>                                     | 0  | \$0.00              | \$   |
| ŏ  |  | <del>  -</del>                                   | 0  | \$0.00              | \$   |
| ő  |  | <del></del>                                      | 0  | \$0.00              | \$   |
| 5402   | FOOTAGE                                      | <del> </del>                                     | 0  | \$0.00              | \$   |
| J-10Z  | FOOTAGE                                      | 794  | PER FOOT   | 0.22                | \$   |
|  |  |  |  | QUIPMENT TOTAL      | \$ 1,6   |
|  | Cement, Chemicals and Water                  |  |  |                     |  |
| 1131   | 60/40 POZMIX CEMENT W/ NO ADDITVES (40% POZ) | 110  | 0  | _ \$12.55           | \$ 1,3   |
| 1107A  | PHENOSEAL                                    | 40   | 0  | \$1.29              | \$   |
| 1110A  | KOL SEAL (50 # SK)                           | 550  | ō  | \$0.46              | \$ 2   |
| 1111   | GRANULATED SALT (50#) SELL 8Y#               | 200  | Ö  | \$0.37              | \$   |
| 1118B  | PREMIUM GEL/BENTONITE (50#)                  | 350  | Ö  | \$0.21              | 9 69   |
| 0  |  |  | 0  | \$0.00              | \$   |
| 0  |  | <del> </del>                                     | 0  | \$0.00              | \$   |
| 0  |  | <del>                                     </del> | 0  | \$0.00              |  |
| 0  |  |  | 0  |                     | \$   |
| 0  |  | 1  | 0  | \$0.00              | \$   |
| Ö  |  | <del> </del>                                     | 0  | \$0.00              | \$   |
|  |  | <u> </u>   |  | \$0.00              | \$   |
| la   | 82.4.  | ,  |  | CHEMICAL TOTAL      | \$ 1,8   |
|  | Nater Transport                              |  |  |                     |  |
| . 0  |  |  | 0  | \$0.00              | \$   |
| 0  |  |  | 0  | \$0.00              | \$   |
| 0  |  |  | 0  | \$0.00              | \$   |
|  |  |  | TI   | RANSPORT TOTAL      | \$   |
| <u> C</u>  | Sement Floating Equipment (TAXABLE)          |  |  |                     |  |
|  | Sement Basket                                |  |  |                     |  |
| 0  |  |  | 0  | \$0.00              | \$   |
|  | Centralizer                                  |  |  |                     |  |
| 0  |  |  | 0  | \$0.00              | \$   |
| 0 1  |  |  | 0  |                     | \$   |
|  | loat Shoe                                    |  |  |                     | <u>*</u>   |
| 0  |  |  | 0  | \$0.00              | \$   |
| F  | ioat Collars                                 | <del> </del>                                     |  |                     | <u> </u>   |
| 0  |  | 7  | 0  | \$0.00              | \$   |
|  | Guide Shoes                                  |  |  | <u> </u>            | 4  |
| 0  |  |  | 0  | \$0.00              | \$   |
| 8  | affle and Flapper Plates                     | ·····  |  |                     | 7.17   |
| 0 1  | - Carlotte - Man                             | <del></del>                                      | 0  |                     |  |
|  | acker Shoes                                  |  |  | \$0.00              | \$   |
| 0  |  |  | 0 1  | - CC CC             | •  |
|  | V Tools                                      | <u>·</u>   | U  |                     | \$   |
| 0 T  | T. IVOID                                     |  |  |                     |  |
|  | all Valves, Swedges, Clamps, Misc.           |  | 0  |                     | \$   |
| 0  | All Adiad America Cignina Wiler              | · · · · · · · · · · · · · · · · · · ·            |  |                     |  |
| 0  | ·  |  | 0  |                     | \$   |
| 0  |  |  | 0  |                     | \$   |
|  | ugs and Ball Seelers                         |  | 0  | \$0.00              | \$   |
| 4402   |  | <del></del>                                      | <u> </u>   | ****                |  |
|  | 2 7/8 Rubber Plug                            | 2  |  | \$28.00             | \$ <u>5</u>  |
| 0 1  | ownhole Tools                                | · · ····   |  |                     |  |
|  | - <u> </u>                                   |  | CEMENT EL CATIVO EQ  | \$0.00              |  |
| The state of the s | RIVER NAME                                   |  | CEMENT FLOATING EQ   | UIPMENT TOTAL S     | 5  |
|  | rk Sanders                                   |  | 8.30%  | SUB TOTAL SALES TAX | 3,56   |
| 398  | Bryan Scullawl                               |  | 0.30%  | TOTAL               | 45<br>3,72   |
| 518  | Harrison Ford                                | /  | 15%  | (-DISCOUNT)         | 5,720  |
|  |  | /  |  | UNTED TOTAL         |  |
|  |  | A = A  | DISCO  | OWIED IOINT         | <b>\$</b> 3,162.                                   |
| 1  |  | 7 /  |  | =                   |  |
|  |  | . 47   | and the second s |                     |  |
|  |  |  |  |                     |  |
| AUTHORIZATION  |  | TITLE  |  |                     |  |

| Customer          | G&J          | State, County | Chautauqua , Kansas | Cement Type      | CLASS A |
|-------------------|--------------|---------------|---------------------|------------------|---------|
| Customer Acct #   | Long String  | Section       | 0                   | Excess (%)       | 30      |
| Well No.          | 0            | TWP           | <del> </del>        | Density          | 13.7    |
| Mailing Address   | Brant 13-1   | RGE           | 0                   | Water Required   | 13.7    |
| City & State      | 0            | Formation     |                     | Yeild            | 1,26    |
| Zip Code          | 0            | Hole Size     | 5 3/4               | Slurry Weight    | 0       |
| Contact           | 0            | Hole Depth    | 803'                | Siurry Volume    | 0       |
| Email             | 0            | Casing Size   | 2 7/8INCH,          | Displacement     | 4.6     |
| Cell              | 0            | Casing Depth  | 794'                | Displacement PSI | 300     |
| Office            | 0            | Drill Pipe    |                     | MIX PSI          | 200     |
| Dispatch Location | BARTLESVILLE | Tubing        |                     | Rate             | 4bpm    |

|                                | w/ 2% Gel, 2# Salt, 5# Kol Seal, .40# Pheno. Flushed pump and | a lines, dropped 2 plugs and displaced 4.0001 |   |
|--------------------------------|---|---|---|
| to set. Shut in and washed up. |   | · · · · · · · · · · · · · · · · · · ·         |   |
|                                |   |   |   |
| Claudender                     |   |   |   |
| Circulated cement to surface   |   |   |   |
| Had own water                  |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                | · · · · · · · · · · · · · · · · · · ·                         |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   | • |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |
|                                |   |   |   |

CUSTOMER or AGENT(PLEASE PRINT)\_



#25/216

| Customer                              | G & J Well Service   | T            | <del></del> -                                    |                   |              |                                       |  |
|---------------------------------------|--|--------------|--|-------------------|--------------|---------------------------------------|--|
| Customer Acct #                       | 3081   | Stage        | <u> </u>   |                   | 11           |                                       |  |
| Well No.                              |  | County       |  | Chautauqua C      | ounty. Ka    | nsas                                  |  |
| Mailing Address                       | Brant #13-1  | Section      | 15   |                   |              |                                       |  |
|                                       |  | TWP          | ·  |                   |              |                                       |  |
| City & State                          |  | RGE          |  | 34                |              |                                       |  |
| Zip Code                              |  | Formation    | <del>                                     </del> | 13                | <u> </u>     |                                       |  |
| Dispatch Location                     | Bartlesville   |              | <del></del>                                      | Ways              | ide          |                                       |  |
| Code                                  |  | Perfs        |  | 748-7             | 58           |                                       |  |
| 5303                                  | Vehicles, Equipment and Mileage  | Quantity     | Unit   | Price per Unit    | 1            |                                       |  |
| 5306                                  | ACID PUMP CHARGE (1500 GALLON)   | 1            | 2 HRS MAX  | 840.00            | \$           | 940                                   |  |
| 5311                                  | EQUIPMENT MILEAGE (LOADED MILE)  | 35           | PER MILE   | 4.00              | \$           | 840.<br>140.                          |  |
|                                       | BALL INJECTOR  | 1            | PER JOB  | 100.00            | \$           | 100.                                  |  |
|                                       |  |              |  |                   | \$           |                                       |  |
|                                       | · · · · · · · · · · · · · · · · · · ·  |              |  |                   | \$           |                                       |  |
|                                       | The state of the s | <del>-</del> |  |                   | \$           | -                                     |  |
|                                       |  | <del> </del> | <b></b>  | ļ                 | \$           |                                       |  |
|                                       |  |              |  | <del> </del> -    | \$           |                                       |  |
|                                       |  | +            | <del></del>                                      | <del> </del>      | \$           | _                                     |  |
|                                       |  |              |  |                   | \$           |                                       |  |
|                                       |  |              | EO!  | L<br>UIPMENT TOTA | \$           |                                       |  |
| C                                     | hemical Treatment and Water  | T            | EQ   | OPMENT TOTA       | L \$         | 1,080.0                               |  |
| 3107                                  | 15% HCL ACID (CHARGE FOR INHIBITOR IN ADDITION)  | 250          | PER GALLON                                       | 2.40              | +            | · · · · · · · · · · · · · · · · · · · |  |
| 3175B<br>3166                         | STIMFLO (FBA)  | 0.5          | PER GALLON                                       | 65.00             | \$           | 600.0                                 |  |
| 3171                                  | ACID INHIBITOR (AI-260)  | 0.5          | PER GALLON                                       | 50.00             | \$           | 32.5                                  |  |
| 0                                     | IRON CONTROL (SP-950)  | 1            | PER GALLON                                       | 40.00             | \$           | 25.0                                  |  |
| 0                                     |  |              | 0.0  | 0.00              | \$           | 40.0                                  |  |
| 0                                     |  |              | 0.0  | 0.00              | \$           |                                       |  |
| 0                                     |  |              | 0.0  | 0.00              | \$           |                                       |  |
| 0                                     |  | <u> </u>     | 0.0  | 0.00              | \$           |                                       |  |
| 0                                     |  |              | 0.0  | 0.00              | \$           |                                       |  |
| 0                                     |  |              | 0.0  | 0.00              | \$           | _                                     |  |
| 0                                     |  |              | 0.0  | 0.00              | \$           | _                                     |  |
| 0                                     |  |              | 0.0  | 0.00              | \$           |                                       |  |
|                                       |  | ·            |  | 0.00              | \$           |                                       |  |
| W                                     | ater and Chemical Transport  |              | CH   | EMICAL TOTAL      | \$           | 697.50                                |  |
| 0                                     |  |              |  | 20.00             |              |                                       |  |
| 0                                     |  | ·            | 0.0  | \$0.00            | \$           |                                       |  |
| 0                                     |  |              | 0.0  | \$0.00<br>\$0.00  | \$           |                                       |  |
| 0                                     |  |              | 0.0  | \$0.00            | \$           |                                       |  |
| 0                                     |  |              | 0.0  | \$0.00            | \$           |                                       |  |
| 1=:                                   |  |              | TRAN   | SPORT TOTAL       | \$           |                                       |  |
| 5604 Fra                              | c Valves   |              |  |                   | Ψ            |                                       |  |
| 3604                                  | 2 INCH FRAC VALVE  | 1            | PER WELL   | \$100.00          | \$           | 100.00                                |  |
| . Inne                                |  | _            | FRAC   | VALVE TOTAL       | \$           | 100.00                                |  |
|                                       | cellaneous Costs   |              |  |                   | 20°50        | 100.00                                |  |
| 4326<br>0                             | BALL SEALERS, 7/8 INCH, RCN (SG 1.3)   | 30           | PER UNIT   | \$3.00            | \$           | 90.00                                 |  |
| 0                                     |  |              | 0  | \$0.00            | \$           | - 30.00                               |  |
| <del></del>                           | · · · · · · · · · · · · · · · · · · ·  |              | 0  | \$0.00            | \$           |                                       |  |
| · · · · · · · · · · · · · · · · · · · |  |              | M  | ISC. TOTAL        | \$           | 90.00                                 |  |
| DISCOUNT                              |  |              |  | SUB TOTAL         |              | 1,967.50                              |  |
| D IF PAID WITHIN 30 DAYS              | )  | 10%          | MATERIA  | LS DISCOUNT[      |              | 196.75                                |  |
|                                       | ,  |              |  | SALES TAX [       |              | (0.1)                                 |  |
|                                       |  |              | DIECOL   | NTED TOTAL        | \$           | 1,777.47                              |  |
|                                       |  |              | กเลยบบ   | MIED IOIAL [      | <del>*</del> |                                       |  |
|                                       |  |              |  |                   |              |                                       |  |
|                                       |  |              |  |                   |              |                                       |  |
|                                       | To Junely  |              |  | 1                 |              |                                       |  |

I acknowledge that the payment terms, unless specifically amended in writing on the front of this form or in the customer's account records at our office, and conditions of service on the back of this form are in effect for services identified on this form



| r   |  |  |  |  |                           |  |   |                |                  |
|---|--|--|--|--|---------------------------|--|---|----------------|------------------|
| Customer  | G&J  | Weil Service   | 7  | County   | Chautaur                  | jua County, Kansas                               | leura   |                |                  |
| Customer Acct #   |  |  |  | Section  | Chadaa                    | 15   | <del></del>   | _ <b></b> _    | 1 OF 1           |
| Well No.  | Bra  | ant #13-1  | 7  | TWP  | +                         |  | Formation   |                | Wayside          |
| Mailing Address   |  | ,  | 7  | RANGE  | <del> </del> -            | 348  | TVD Perfs   |                | 748-758          |
| City and State  |  |  | <b>-</b>   | TOTAGE   |                           | 13E  | MD Perfs  |                |                  |
| Zip Code  | 1  |  | ╡  | On Location  | <del></del>               |  | <del>-</del> 7  |                |                  |
| Dispatch Location   | Ra   | rtlesville   | _  | Officocation   |                           |  | _   |                |                  |
| 142-41 0.000  |  | i desville   | <u>-</u>   | _ <del></del> _  | ┸                         |  |   |                |                  |
| WELL DATA   | <del></del>  |  |  |  |                           |  | DRIVER  |                | DRIVER           |
| TVD OF PERF   |  | TMENT THROUGH TUBING IN                                    |  | PLUG DEPTH (F  | n                         | 6/   | 6 Tam S   | <del>-  </del> | DRIVER           |
| TAD OF PERF   |  | MD OF PERF   |  | PACKER DEPTH (F  | n                         |  | 7 Donnie T  |                | <del></del>      |
| <del></del>   | CASING WEIGHT  | THE TO TOP PERF(FI)  | ID (INCHES)  | DISPL COEF (BBL/F)   | YOLUME (BBLS              | )  | Chancy W  |                | <del> </del>     |
| TUBING SIZE (N)   | TUBBIO WEIGHT  |  |  | <u> </u>   |                           |  |   |                | - <del> </del> - |
|   | Interior steroits  | AD TO BOTTOM OF TURING                                     | ( 10 (NICHES)  | DISPL COEF (BSL/FT   | VOLUME (BBLS)             | )  |   |                |                  |
| <del></del>   | 0  | <del> </del>   |  | <u> </u>   |                           |  |   |                |                  |
|   |  | <u> </u>   | DEPLACEME  | NT TO TOP PERF (BBLS)  | <u> </u>                  |  |   |                |                  |
|   |  | OUEWOAL D  |  |  |                           |  |   |                | T                |
|   | i  | CHEMICALS<br>15% HCL ACID [CHARGE FO                       | R INHIBITOR IN ADDRESS   |  |                           |  |   |                |                  |
|   | †  | STIMFLO  |  | <del> </del>   | J                         | <del> </del>                                     |   |                |                  |
|   |  | ACID INHIBIT   |  | 1  |                           | <del> </del>                                     | ļ   |                |                  |
|   |  | IRON CONTRI  |  | 1  |                           | <del> </del>                                     | <del> </del>  | <u> </u>       |                  |
|   |  | 0  |  |  |                           | <del> </del>                                     |   | <del> </del>   | 1                |
|   |  |  |  | - 0  |                           | <del>                                     </del> |   | <del></del>    | <del>- </del>    |
| 1   |  |  |  | † <del></del> -  |                           | <del> </del>                                     |   | <del> </del>   | <del>-</del>     |
|   |  |  |  | <u> </u>   |                           |  |   | 1              | <u> </u>         |
| ET ANALYSIS (Opti   | onal)  |  |  |  |                           |  |   |                |                  |
| FLUID WEIGHT  |  |  |  | MAX PRESSURE   |                           | ISDP   |   | FRAC GRAI      |                  |
| N'DROSTATIC HEIGHT  |  | ĺ  |  | PRESSURE 1   |                           | 5 MIN SIP  |   | FLUID EFF (%   | <del></del>      |
| FLUID SG  |  |  |  | PRESSURE 2   |                           | 10 MIN SIP                                       | 1 = 0.5 = 7.7 (7.5)   |                |                  |
| HYDROSTATIC PRESS   |  |  |  | PRESSURE 3   |                           | 1  |   | - ONGO FERM    | "l               |
|   |  |  |  | 7,122207,12.0  |                           | 15 MN SIP  |   | 1              |                  |
|   | veise ·  |  |  |  |                           | I IS MIN SIP                                     |   | <u></u>        | .l, ,            |
| MAX PRESSURE  | ENTIAL PRESSURE  | BREAKDOWN  |  | ISIP   | 5 MIN                     | 10 MW  | 15 MIN  | 30 MM          |                  |
| NAX PRESSURE  | MITIAL PRESSURE  | BREAKDOWN I  |  |  | <b>5 MIN</b> 270          |  | <b>15 加約</b><br>220   | <del></del>    |                  |
| NAX PRESSURE  |  | 1100   |  | <b>ISIP</b><br>330   | <del></del>               | 10 MR 230  | 220   | <del></del>    |                  |
| NAX PRESSURE  | 31 BBLS<br>0 LBS   | 1100<br>MAX TR   | EATING PRESSURE  | 1SIP<br>330<br>400 PSI   | <del></del>               | 10 Mm<br>230                                     | 220<br>FOAM QUALITY   |                |                  |
| WAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN  | 1100<br>MAX TR<br>MIN TRI                                  |  | <b>ISIP</b><br>330   | <del></del>               | 10 MIN 230                                       | 220<br>FOAM QUALITY<br>OF FOAM PUMPED   |                |                  |
| UMMARY OTAL FLUID PUMPED PROPPANT PUMPED MAX RATE MIN RATE  | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN                           | 1100<br>MAX TR<br>MIN TRI                                  | EATING PRESSURE<br>EATING PRESSURE<br>EATING PRESSURE  | 150P<br>330<br>400 PSI<br>16 PSI<br>365  | <del></del>               | 10 MIN 230                                       | 220<br>FOAM QUALITY   |                |                  |
| WAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN  | MAX TR<br>MIN TR<br>AVE TR                                 | EATING PRESSURE<br>EATING PRESSURE<br>EATING PRESSURE<br>FLUID WEIGHT  | 150P<br>330<br>400 PSI<br>10 PSI<br>385<br>8.34  | <del></del>               | 10 MIN 230                                       | 220<br>FOAM QUALITY<br>OF FOAM PUMPED   |                |                  |
| UMMARY OTAL FLUID PUMPED PROPPANT PUMPED MAX RATE MIN RATE  | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN                           | MAX TR<br>MIN TR<br>AVE TRI                                | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT  | 330<br>400 PSI<br>10 PSI<br>365<br>6.34<br>0.00  | <del></del>               | 10 Mm 230 AMCUNT                                 | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM Balloff Pressure                                   | 2,300          | -                |
| UMMARY OTAL FLUID PUMPED PROPPANT PUMPED MAX RATE MIN RATE  | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN                           | MAX TR<br>MIN TR<br>AVE TRI                                | EATING PRESSURE<br>EATING PRESSURE<br>EATING PRESSURE<br>FLUID WEIGHT  | 150P<br>330<br>400 PSI<br>10 PSI<br>385<br>8.34  | <del></del>               | 10 MM 230 AMOUNT                                 | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM Balloff Pressure OF BALLS PUMPED                   | 2,300          | -                |
| UMMARY OTAL FLUID PUMPED PROPPANT PUMPED MAX RATE MIN RATE AVERAGE RATE   | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3                    | MAX TR<br>MIN TR<br>AVE TR<br>HYE<br>HYE                   | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT                      | 330<br>400 PSI<br>10 PSI<br>365<br>8 34<br>0.00<br>0.00<br>#DIV/OI                                       | 270                       | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | -                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE                              | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3                    | MAX TR<br>MIN TR<br>AVE TR<br>HYE<br>HYI                   | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT                      | #SIP 330 400 PSI 10 PSI 365 8.34 0.00 0.00 #DIV/0I  PRESSURE   | 270                       | 10 MM 230 AMOUNT                                 | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | -                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE  [AGE  1                     | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3                    | MAX TR MIN TR AVE TR HYE HYI  DESIGN Spot                  | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid      | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10            | 270<br>RATE<br>2-2.5      | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   [AGE  1  2                 | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   TAGE  1 2 3                | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3                    | MAX TR MIN TR AVE TR HYE HYI  DESIGN Spot                  | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid      | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10            | 270<br>RATE<br>2-2.5      | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   [AGE  1  2  3  4           | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5                  | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6                | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7              | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6                | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7              | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7              | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MIN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7              | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7              | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7              | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7 8            | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7 8 8 13 14    | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7 8 8 13 14 15 | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED PROPPANT PUMPED MAX RATE MIN RATE AVERAGE RAYE  1 2 3 4 5 6 7 8 8 13 14 15 16   | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |
| MAX PRESSURE  UMMARY  OTAL FLUID PUMPED  PROPPANT PUMPED  MAX RATE  MIN RATE  AVERAGE RATE   1 2 3 4 5 6 7 8 8 13 14 15 | 31 BBLS<br>0 LBS<br>3.7 BBL/MIN<br>2 BBL/MIN<br>3.3<br>CLEAN BBLS<br>1 | MAX TR MIN TR AVE TR HYE HYI  DESIGN   F Spot Acid Balloff | EATING PRESSURE EATING PRESSURE EATING PRESSURE FLUID WEIGHT DROSTATIC HEIGHT DROSTATIC PRESS FRAC GRADIENT FLUID TYPE Acid Acid | 83P<br>330<br>400 PSI<br>10 PSI<br>365<br>8.34<br>0.00<br>0.00<br>#DIV/OI<br>PRESSURE<br>0-10<br>350-380 | 270  RATE  2-2.5  3.5-3.7 | 10 MRN 230 AMOUNT                                | FOAM QUALITY OF FOAM PUMPED TYPE OF FOAM  Baltoff Pressure OF BALLS PUMPED IALL ACTION SEEN | 2,300          | ]                |

Rigged up Spotted 50 gal hcl displaced then let sit 5 min broke well down ran 200 gal hcl with 30 ball sealers displaced balled well off surged balls then flushed with 25 bbl water and watched pressure for 15 min and shut in

## McPherson Drilling LLC Drillers Log

 Rig Number:
 2
 S. 15
 T. 34
 R.13 E

 API No. -15 019-27284
 County:
 CQ

 Elev.
 762
 Location:
 NE NE SW SW

Operator: G & J OIL CO., INC

Address: PO BOX 188

**CANEY, KS 67333** 

Well No: **13-01** 

Lease Name:

BRANT

Footage Location: 1001 ft. from the

SOUTH Line

4213 ft. from the

EAST Line

Drilling Contractor:

McPherson Drilling LLC

Spud date: Date Completed:

Type Cement:

Sacks:

1/16/2013 1/19/2013 Geologist: Total Depth:

803'

 Casing Record
 Rig Time:

 Surface
 Production

 Size Hole:
 11"
 6 1/4"

 Size Casing:
 7"

Weight: 23#
Setting Depth: 42

42 Port

8

N/C DRILLER:

N/C

ER: MAC

|                   | , |
|-------------------|---|
|                   |   |
|                   | 1 |
|                   |   |
|                   |   |
|                   |   |
| Comments:         |   |
| Start injecting @ |   |
|                   |   |

Gas Tests:

|            |     |             |                | Well Log | )    |           |     |      |
|------------|-----|-------------|----------------|----------|------|-----------|-----|------|
| Formation  | Тор | Btm. H      | IRS. Formation | Тор      | Btm. | Formation | Тор | Btm. |
| soil/clay  | . 0 | 5           |                |          |      |           |     |      |
| shale      | 5   | 38          |                |          |      |           |     |      |
| lime       | 38  | 40          |                |          |      |           |     |      |
| shale      | 40  | 43          |                |          |      |           |     |      |
| sand       | 43  | 58          |                |          |      |           |     |      |
| shale      | 58  | 96          |                |          |      |           |     |      |
| lime wet   | 96  | 117         |                |          |      |           |     |      |
| sand shale | 117 | 142         |                |          |      |           |     |      |
| sand       | 142 | 204         |                |          |      |           |     |      |
| sand shale | 204 | 218         |                |          |      |           |     |      |
| sand       | 218 | 224         |                |          |      |           |     |      |
| shale      | 224 | 280         |                |          |      |           |     |      |
| sand       | 280 | 365         |                |          |      |           |     |      |
| shale      | 365 | 380         |                |          |      |           |     |      |
| lime       | 380 | 388         |                |          |      |           |     |      |
| shale      | 388 | <b>4</b> 17 |                |          |      | <i>i</i>  |     |      |
| lime       | 417 | 459         |                |          |      |           |     |      |
| sand wet   | 459 | 471         | İ              |          |      |           |     |      |
| shale      | 471 | 716         |                |          |      |           |     |      |
| lime       | 716 | 736         |                |          |      |           |     | •    |
| oil sand   | 736 | 767         |                |          |      |           |     |      |
| shale      | 767 | 803 TE      | )              |          |      |           |     |      |
|            |     |             |                |          |      |           |     |      |
|            |     |             |                |          |      |           |     |      |
|            |     |             |                |          | _    |           |     |      |