KOLAR Document ID: 1455916

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1
January 2018
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.: | | | |
|---|--|--|--|--|
| Name: | Spot Description: | | | |
| Address 1: | SecTwpS. R East _ West | | | |
| Address 2: | Feet from North / South Line of Section | | | |
| City: | Feet from East / West Line of Section | | | |
| Contact Person: | Footages Calculated from Nearest Outside Section Corner: | | | |
| Phone: () | □NE □NW □SE □SW | | | |
| CONTRACTOR: License # | GPS Location: Lat:, Long: | | | |
| Name: | (e.g. xx.xxxxxx) (e.gxxx.xxxxxx) | | | |
| Wellsite Geologist: | Datum: NAD27 NAD83 WGS84 | | | |
| Purchaser: | County: | | | |
| Designate Type of Completion: | Lease Name: Well #: | | | |
| New Well Re-Entry Workover | Field Name: | | | |
| | Producing Formation: Kelly Bushing: | | | |
| ☐ Oil ☐ WSW ☐ SWD | | | | |
| ☐ Gas ☐ DH ☐ EOR | Total Vertical Depth: Plug Back Total Depth: | | | |
| ☐ OG ☐ GSW | | | | |
| CM (Coal Bed Methane) | Amount of Surface Pipe Set and Cemented at: Feet | | | |
| Cathodic Other (Core, Expl., etc.): | Multiple Stage Cementing Collar Used? | | | |
| If Workover/Re-entry: Old Well Info as follows: | If yes, show depth set: Feet | | | |
| Operator: | If Alternate II completion, cement circulated from: | | | |
| Well Name: | feet depth to:w/sx cmt. | | | |
| Original Comp. Date: Original Total Depth: | | | | |
| ☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD | Drilling Fluid Management Plan | | | |
| ☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer | (Data must be collected from the Reserve Pit) | | | |
| | Chloride content: ppm Fluid volume: bbls | | | |
| Commingled Permit #: | Dewatering method used: | | | |
| Dual Completion Permit #: | | | | |
| SWD Permit #: | Location of fluid disposal if hauled offsite: | | | |
| EOR Permit #: | Operator Name: | | | |
| GSW Permit #: | Lease Name: License #: | | | |
| | QuarterSecTwpS. R East West | | | |
| Spud Date or Date Reached TD Completion Date or Recompletion Date | County: Permit #: | | | |
| 1100011plotto11 Duto | 1 5111110 11. | | | |

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 | | | | | | | |
|---|--|--|--|--|--|--|--|
| Confidentiality Requested | | | | | | | |
| Date: | | | | | | | |
| Confidential Release Date: | | | | | | | |
| Wireline Log Received Drill Stem Tests Received | | | | | | | |
| Geologist Report / Mud Logs Received | | | | | | | |
| UIC Distribution | | | | | | | |
| ALT I III Approved by: Date: | | | | | | | |

KOLAR Document ID: 1455916

Page Two

| Operator Name: _ | | | | Lease Name: | | | Well #: | |
|--|---|-----------------------|--------------------------------|----------------------|---------------------------------|---|---|-------------------------------|
| Sec Twp. | S. R. | E | ast West | County: | | | | |
| INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. | | | | | | | | |
| Final Radioactivity files must be subm | | | | | | iled to kcc-well-lo | gs@kcc.ks.gov | v. Digital electronic log |
| Drill Stem Tests Ta | | | Yes No | | | on (Top), Depth ar | | Sample |
| Samples Sent to 0 | Geological Surv | /ey | Yes No | Na | me | | Тор | Datum |
| Cores Taken | | | | | | | | |
| | | B | CASING eport all strings set-c | | New Used | ion, etc. | | |
| Purpose of Strir | | Hole illed | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | | |
| | | | | | | | | |
| | | | ADDITIONAL | CEMENTING / SO | UEEZE RECORD | | | |
| Purpose: | | epth T Bottom | ype of Cement | # Sacks Used | Used Type and Percent Additives | | | |
| Perforate Protect Casi Plug Back T | | | | | | | | |
| Plug Off Zor | | | | | | | | |
| Did you perform a Does the volume Was the hydraulic | of the total base f | fluid of the hydrauli | | _ | = | No (If No, sk | ip questions 2 an ip question 3) out Page Three | , |
| Date of first Product Injection: | tion/Injection or R | esumed Production | Producing Meth | nod: | Gas Lift 0 | Other (Explain) | | |
| Estimated Production Per 24 Hours | on | Oil Bbls. | | | | | Gas-Oil Ratio | Gravity |
| DISPOS | SITION OF GAS: | | N | METHOD OF COMP | LETION: | | | DN INTERVAL: Bottom |
| | Sold Used | I on Lease | Open Hole | | | mmingled mit ACO-4) | Тор | BOROTT |
| , | , | | | B.11 B1 | | | | |
| Shots Per Perforation Perforation Bridge Plug Bridge Plug Foot Top Bottom Type Set At | | | | | Acid, | Fracture, Shot, Cer (Amount and Kind | menting Squeeze I of Material Used) | Record |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| TUBING RECORD: | TUBING RECORD: Size: Set At: Packer At: | | | | | | | |
| TODING RECORD: | : Size: | Set | n. | Packer At: | | | | |

| Form | ACO1 - Well Completion |
|-----------|-----------------------------|
| Operator | Mull Drilling Company, Inc. |
| Well Name | HALLER 1-3 |
| Doc ID | 1455916 |

All Electric Logs Run

| CDL/CNL/PE |
|------------|
| DIL |
| MEL |
| SONIC |

| Form | ACO1 - Well Completion |
|-----------|-----------------------------|
| Operator | Mull Drilling Company, Inc. |
| Well Name | HALLER 1-3 |
| Doc ID | 1455916 |

Tops

| Name | Тор | Datum |
|---------------|------|--------|
| Heebner | 4340 | - 1965 |
| Lansing | 4532 | - 2157 |
| Stark | 4858 | - 2483 |
| Cherokee | 5112 | - 2737 |
| Mississippian | 5248 | - 2873 |
| Viola | 5921 | - 3546 |
| Simpson | 6163 | - 3788 |
| Arbuckle | 6178 | - 3803 |

| Form | ACO1 - Well Completion |
|-----------|-----------------------------|
| Operator | Mull Drilling Company, Inc. |
| Well Name | HALLER 1-3 |
| Doc ID | 1455916 |

Casing

| Purpose Of String | Size Hole Drilled | Size Casing Set | Weight | Setting Depth | Type Of Cement | Number of Sacks Used | Type and Percent Additives |
|----------------------|----------------------|-----------------------|--------|------------------|-------------------|----------------------------|----------------------------------|
| Conductor | 17.5 | 13.375 | 48 | 90 | Common | | 3% cc, 2% gel, 1/2# CF |
| Surface | 12.25 | 8.625 | 23 | 606 | 65/35 Poz | 210 | 6% gel, 3% cc, 1/2# CF |
| Surface | 12.25 | 8.625 | 23 | 606 | Common | 125 | 2% gel, 3% cc |
| | | | | | | | |

QUALITY WELL SERVICE, INC. Federal Tax I.D. # 481187368

6996

Home Office 30060 N. Hwy 281, Pratt, KS 67124
Mailing Address P.O. Box 468

Office 620-727-3410 Fax 620-672-3663

Rich's Cell 620-727-3409 Brady's Cell 620-727-6964

| Lease HALLER Well No. -3 Location Backlin Ks. Sto BRd) EN into Contractor Dokis DZI Dokis DZI Dokis DZI Dokis DZI Dokis DZI Dokis DZI Dokis DZI Dokis DZI Dokis Dzi Dokis Dz | | Sec. | Twp. | Range | (| County | State | On Location | Finish | | |
|--|---------------------|--|---|---|-------------|-------------------------|---|-------------------------|----------------------|--|--|
| Lease HALLE Well No. 3 Location Sack (In Ka Cab B R dala) & Warth Contractor Date Original Research Cable Original Research Ca | Date 12-3-/6 | 3 | <u> </u> | 216 | C | lark | 145 | | | | |
| Contractor I Shirt PTIs 1 Type Job 1338 Hole Size 7712 | Lease HALLER | v | | 1-3 | Location | on Buckl | inkes to B | Rd 1.2 E | Uinto | | |
| Hole Size 71/2 T.D. G2 votu are nerely requested to reint cementing aquipment and turnish commenter and helper to assist owner or contractor to do work as listed. Csg. 13/3 LH3" Dapth 90 Charge M. L. M. Q. Q. L. L. Q. Q. L. L | | | | | | | | | | | |
| Hole Size 17/12. Osg. 13-3/8 HB P Depth 90 Charge MULL 1710. Co. Talk. Total Size 17/12. Depth Sireet Total Size 17/12. Cement Lot in Csg. Shoe Joint The above was done to satisfaction and supervision of owner agent or confractor. Meas Line Displace Shoe Joint The above was done to satisfaction and supervision of owner agent or confractor. Meas Line EQUIPMENT Z/ (A) 3/ (C) Z P C Common Size Bulktik No. Displace Shoe Joint The above was done to satisfaction and supervision of owner agent or confractor. Common Size Common Size Pumptik Size EQUIPMENT Z/ (A) 3/ (C) Z P C Common Size Dollar Size EQUIPMENT Z/ (A) 3/ (C) Z P C Common Size Dollar Size EQUIPMENT Z/ (A) 3/ (C) Z P C Common Size Dollar Size EQUIPMENT Z/ (A) 3/ (C) Z P C Common Size Dollar Size EQUIPMENT Z/ (A) 3/ (C) Z P C C Common Size Dollar Size EQUIPMENT Z/ (A) 3/ (C) Z P C C C C C C C C C C C C C C C C C C | Type Job 133/8 | | | | | To Quality We | ell Service, Inc. | cementina equinmen | t and furnish | | |
| Tog. Size Depth Street Tog. Size Depth City State The above was done to satisfaction and supervision of owner agent or contractor. Cement Left in Csg. Shoe Joint The above was done to satisfaction and supervision of owner agent or contractor. Common EQUIPMENT Pumptrix B No Bulktrix No Bulk | | | | | | cementer an | cementer and helper to assist owner or contractor to do work as listed. | | | | |
| Size | Csg. 133/8 48 | 3 ¹ | Depth | 90' | | To MULL DE la Co. LUC. | | | | | |
| Cement Left in Csg. Shoe Joint The above was done to satisfaction and supervision of owner agent or contractor. Meas Line EQUIPMENT Z/ 61 3/ ((1/2 " CF. Common 50) Pumptrk B No F Common 50 Bulktrk ID No F Common | Tbg. Size | | Depth | | | Street | | | | | |
| Meas Line Displace 1.5 0 b b Cement Amount Ordered 50 sx Comment | Tool | | Depth | | | City | | State | | | |
| EQUIPMENT Z/6L 3/ (L 1/2 CF) Pumptrk 8 No | Cement Left in Csg. | | Shoe Jo | oint | | The above wa | s done to satisfaction ar | nd supervision of owner | agent or contractor. | | |
| Pumptrk S No Splits Common 150 Bulktrk No Splits Poz. Mix Bulktrk No Gel. 3 Calcium S JOB SERVICES & REMARKS Hulls Rat Hole Salt Mouse Hole Flowseal 75 Centralizers Baskets Mud CLR 48 D/V or Port Collar CFL-117 or CD110 CAF 38 Exp 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | Meas Line | w | <u> </u> | e 11.5 35 | <u>ls</u> | Cement Amo | ount Ordered /50 | SX Common | • | | |
| Bulktrk No. Bulktrk No. Gel. 3 Poz. Mix Bulktrk No. Gel. 3 Pickup No. Calcium 5 JOB SERVICES & REMARKS Hulls Rat Hole Salt Mouse Hole Centralizers Baskets DV or Port Collar CFL-117 or CD110 CAF 38 LAD 2 STATE CSS CSS on Botton Handling [SB HAD 12 STATE MIX FORM ISD STATE Guide Shoe Centralizer STATE OSS Baskets AFU Inserts Float Shoe Charles State AFU Inserts Float Shoe Charles State CRIC CMT TO Pt LAN SO Pumptrk Charge 33/8 Cod. Mileage 100 Tax Signature Fff A Adding Total Charge Total Charge | | EQUIPN | MENT | T | | 21/6/ | . 3/ CC 1/2" | CF. | | | |
| Bulktrk No. Bulktrk No. JOB SERVICES & REMARKS Hulls Rat Hole Salt Mouse Hole Centralizers Baskets DV or Port Collar CFL-117 or CD110 CAF 38 FLOAT EQUIPMENT Guide Shoe CFL-117 or CD110 CAF 38 FLOAT EQUIPMENT Guide Shoe CFL-117 or CD110 CAF 38 FLOAT EQUIPMENT START DISC CENTRAL CFL AFT | Pumptrk () ~ | Telat | | | | Common / | 50 | | | | |
| Pickup No. JOB SERVICES & REMARKS Hulls Rat Hole Mouse Hole Centralizers Baskets Mud CLR 48 DV or Port Collar CFL-117 or CD110 CAF 38 EACH CAS CAS ON BATTON Handling 158 Handling 158 Handling 158 FLOAT EQUIPMENT START MAKE PART SO COMMENT START MAKE PART SO CONTROL START MAKE PART SO CONTROL AFU Inserts PLA JOHN FOR CAS ISO* Latch Down CAS CAS ISO* Pumptrk Charge 1348 CSO. Mileage 10.0 Tax Discount Total Charge Total Charge | BUIKTIK 1 | 73 | | | | | | | | | |
| Salt Mouse Hole Salt Mouse Hole Centralizers Baskets Div or Port Collar CFL-117 or CD110 CAF 38 Sand STATE CSS CSS on Botton Handling ISB How Is I was park (in Mileage 5D) FLOAT EQUIPMENT STATE MISS PARK CENTRALIZER SANT DISD Baskets AFU Inserts Float Shoe Chock of the Collar Company Chock of the Collar Company | Buiktrk | | | | | Gel. 3 | | | | | |
| Rat Hole Salt Mouse Hole Centralizers Baskets D/V or Port Collar CFL-117 or CD110 CAF 38 D/V or Port Collar CFL-117 or CD110 CAF 38 Sand STATE CS CS on Botton Handling 158 Hook of the Collar CENTRAL CS CS on Botton Guide Shoe Z'I CEL 3'I CL I' L' CF STATE MIX Pum 150 or Compton Baskets AFU Inserts Float Shoe Check CAM TO PH CHECK CAM TO PH Mileage 100 Pumptrk Charge 133/8 Cod. Mileage 100 Tax Discount Total Charge | Ріскир [. | ······································ | | | | Calcium 5 | | | | | |
| Mouse Hole Centralizers Baskets D/V or Port Collar CFL-117 or CD110 CAF 38 D/A 2 A S 133/8 48 C C S CT 1 90 Sand STATE CLS CLS IN BOTTON FLOAT EQUIPMENT STATE MISS PART SO Guide Shoe Z'I GE 3'I CL 12' CF Centralizer STATE DISC Baskets AFU Inserts Float Shoe Charles Sh | JOB SE | RVICES | & REMA | RKS | | Hulls | | | | | |
| Centralizers Baskets DV or Port Collar CFL-117 or CD110 CAF 38 STATE CLS CSS on Bottom Handling ISB Hook of the sec of Bernic Ciec Mileage SD Pump 10 Bhls His Centralizer STATE Mix Pom 150 or Compa Guide Shoe Circlet 3'! CC 12' F Centralizer STATE DISP Baskets AFU Inserts Play down Float Shoe Close Valc on CSS 150' Latch Down Circlet CM TO Pit LMU 50 Pumptrk Charge I 33/B Cood, Mileage I 00 Tax Discount Total Charge | Rat Hole | | | | | Salt | | | | | |
| Baskets DV or Port Collar CFL-117 or CD110 CAF 38 Sand STATA CAS CAS ON BOTTON Handling (5B) Hardling (5B) Hardling (5B) Handling (5B) FLOAT EQUIPMENT STATE MIX FORM ISO OF CONTESS Guide Shoe C'I CEL 3'I CL I' CF STATE DASP Baskets AFU Inserts Pland Down Charles To CAS ISO' Latch Down CAC CAS ISO' Pumptrk Charge (33/4) Cod. Mileage (0) Tax Discount Tax Discount Total Charge | Mouse Hole | | | | | Flowseal 75 | | | | | |
| DV or Port Collar CFL-117 or CD110 CAF 38 Land and State 133/8 48 cq set) 90 Sand State Cus cus or Batton Handling ISB Hardling ISB Handling ISB Handling ISB Handling ISB Handling ISB Rand O Bhis Handling ISB Rand O Bhis Handling ISB Billed Shoe Centralizer STATE DISP Baskets AFU Inserts Float Shoe Charled Order Collar Shoe Discount Tax Discount Total Charge | | ······································ | ···· | | | Kol-Seal . | | | | | |
| Signature All All All All All All All All All Al | | ··· | ····· | | | Mud CLR 48 | | | | | |
| Handling 158 Horizon to acceptable (in) Pump 10 Bhis Hero START Mix Pump 150 or Compens Guide Shoe Centralizer START DISO Baskets AFU Inserts Float Shoe Choc Volk on as 150° Latch Down GOOD acceptable of the Start o | D/V or Port Collar | | - It | | , | CFL-117 or CD110 CAF 38 | | | | | |
| HOOK of Carl Brick (IRC Mileage 50) Pump 10 3hls H20 START Mix Pump 150 31 Common Guide Shoe Z'IGEL 3'I.CL 12' F Centralizer START DISQ Baskets AFU Inserts Play down Float Shoe Choc Vol K on CSS 150' Latch Down GOOD CIRCHED TO PIT Pumptrk Charge 133/8 Cod, Mileage 100 Tax Discount Signature Afrika Afrika | Kon 2 #15 13 | 18 46 | 3°cc, | SET) 90 |) | | | | | | |
| FLOAT EQUIPMENT STATE MIX PUMI ISO SI COMPENS Guide Shoe Centralizer STATE DISO Baskets AFU Inserts Float Shoe Chock Polic on CS ISO* Latch Down GOOD CIRCHES STATE Pumptrk Charge 33/6 Cond. Mileage 000 Tax Discount Signature Float Shoft Afface Total Charge | STATICUS CSS | , | | 7 | | Handling (| 58 | | | | |
| STATE MIX PUM 150 St COMPEN Guide Shoe ZIGEL 3'I.CL 12' CF Centralizer STATE DISP Baskets AFU Inserts Float Shoe Close VALC on CSS 150' Latch Down GOOD CIZE THE YOR STATE STATE STATE Pumptrk Charge 133/8 Cod, Mileage 100 Tax Discount Signature Mile Addian Total Charge | | 8 | Becok | <u>CIRC</u> | | Mileage 5 | 0 | | | | |
| Centralizer STATE DISP Baskets AFU Inserts Play down Float Shoe Latch Down STATICE STATICE STATICES CICC CMT TO PIT Pumptrk Charge 133/8 Cond, Mileage 100 Tax Discount Total Charge | | | 1 | y see a | | | FLOAT EQUIPMI | ENT | | | |
| Centralizer STATE DISP Baskets AFU Inserts Play down Float Shoe Latch Down STATICE STATICE STATICES CICC CMT TO PIT Pumptrk Charge 133/8 Cond, Mileage 100 Tax Discount Total Charge | 519K 91/5/1/ |) M) | 150 | De (Omber | ž . | | | | | | |
| AFU Inserts Play down Float Shoe Latch Down GOOD CIRC There TO Pit LMV 50 Pumptrk Charge 133/8 Cood, Mileage 100 Tax Discount X Signature Plak Addian AFU Inserts Float Shoe Float Shoe Latch Down AFU Inserts Float Shoe Discount Total Charge | 21/EL 3/166 12 | C. CL | | | | | | | | | |
| Float Shoe Chose Value on CSS 150° Latch Down SERVICE SARVISOR CICL CMT TO PIT Pumptrk Charge 133/3 Cond, Mileage 100 Tax Discount Signature Mile Many State Total Charge | | | | | | Baskets | | | | | |
| Latch Down SERVICE SURVISOR CICL CMT TO P.+ Pumptrk Charge 133/8 Cond, Mileage 100 Tax Discount Total Charge | 4.5 Chy Fotal | ···· | | | AFU Inserts | | | | | | |
| SERVICE SUPERIOR CICC CMT TO PIX Pumptrk Charge 133/8 Cood, Mileage 100 Tax Discount X Signature Place Place Total Charge | Mas doys | | w- , | | | | | | | | |
| Pumptrk Charge 133/g Cond, Pumptrk Charge 133/g Cond, Mileage 100 Tax Discount X Signature flick of Africa. Total Charge | <u> </u> | 3 15 | <u>2*</u> | | | | | | | | |
| Pumptrk Charge 133/g Cood, Mileage 100 Tax Discount X Signature fluid Addition Total Charge | DODO CIRCHNES TOB | | | | | | | | | | |
| Mileage 100 Tax PEOCE CRIT ACTIVE Discount X Signature And Addition Total Charge | CACC CMI 10 | | į | | | | | | | | |
| PEOLE CHI REPIRO Tax Discount Signature And Adding Total Charge | | ************************************** | | | | | | | | | |
| Signature The Soldier Total Charge | 1 MANK YOU | | | | | | | | | | |
| Signature The Soldier Total Charge | MEDIE COU HEAIN | | | | | | | | | | |
| | | | | | | | | | | | |
| | Signature / / / | <u>bel/10</u> | <u> 22 - </u> | | | | | Total Charge | Taylor Printing In- | | |

QUALITY WELL SERVICE, INC. Federal Tax I.D. # 481187368

6998

Federal Tax I.D. # 481187368
Home Office 30060 N. Hwy 281, Pratt, KS 67124
Mailing Address P.O. Box 468

Office 620-727-3410 Fax 620-672-3663

Rich's Cell 620-727-3409 Brady's Cell 620-727-6964

| | Sec. | Twp. | Range | C | County | State | On Location | Finish | |
|--------------------------|---------------|-------------|--|---------------------------|------------------------------|--|-------------------------|----------------------|--|
| Date 12-4-13 | 3 | 305 | 210 | -CI | 4/ Y | Ks | | | |
| Lease Haller | <u> </u> | /ell No. | 1-3 | Location | n Puck | 11. K. S Ho | BPU 1.2 8 | E Ninto | |
| Contractor Dike (|) b | <u> 2a</u> | * 1 | | Owner | | | | |
| Type Job 75/2 | 4 | • | | | To Quality W | ell Service, Inc. | cementing equipmen | t and furnish | |
| Hole Size 1214 T.D. 607 | | | You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. | | | | | | |
| Csg. 372 23 Depth 636 | | | | Charge Mull Dala: Co. Inc | | | | | |
| Tbg. Size | | Depth | | | Street | | | | |
| <u>Tool</u> | | Depth | | | City | entre de la companya | State | | |
| Cement Left in Csg. | | Shoe Jo | oint 42 27 | | The above wa | s done to satisfaction ar | nd supervision of owner | agent or contractor. | |
| Meas Line | | Displace | o Burtili | | | ount Ordered ZIO | 5 65/35 670 | EL 3116 | |
| | EQUIPN | MENT | | | 1/2" CF | 125 Sx Com | MON 21.626 3 | 1/4 | |
| | charp | | | | Common ; | 262 | | | |
| | EZEIL | | | | Poz. Mix | 74 | | | |
| | W/ | | | | Gel. | 13 | | | |
| Pickup No. | מונו | | | | Calcium | 12 | | | |
| JOB SE | RVICES | & REMA | RKS | | Hulls | | | | |
| Rat Hole | | | | | Salt | | | | |
| Mouse Hole | | | | | Flowseal /55 | | | | |
| Centralizers | | | | | Kol-Seal | | | | |
| Baskets Top of 4" | 1.74 | | | | Mud CLR 48 | | | | |
| D/V or Port Collar | | | | | CFL-117 or | CD110 CAF 38 | | | |
| Dn 14313 85/8 | 3 Z Z ' | 150 S | er 606' | | Sand | | | | |
| STATE CO. CSC. | χ1 β <i>э</i> | 4+5m | | | Handling | 361 | | | |
| Asst 45 to Es | 5 # B | rcolc I | <u>Circulia</u> | | Mileage . | 50 | | | |
| SHET PING 13 | 1 666 F | ۍ ۱۱۷ع | | | 85/8 FLOAT EQUIPMENT | | | | |
| STAGWILL B | mo | 210 5 | 65/35 | | Guide Shoe | | | | |
| 61. (EL31.CL 1/2) | <u> </u> | | | | Centralizer BAFFIC PLOTE IEA | | | | |
| SINCT MIX 1 PS | $n\rho Ii$ | 2554 | Common | | Baskets / EA | | | | |
| 21. BEL 31. CL | 1 | | | | AFUINSETS 378 Wasses Plx 1EA | | | | |
| SHUT DOWN Y | SE 2 | 15 11/11/62 | 11/25 | Float Shoe | | | | | |
| STAG ONSO | | | | | Latch Down | | | | |
| Pomo 36 Bhly total | | | | | SELVICE SUPERVISOR | | | | |
| Close Value on esg 500 # | | | | | LMV 50 | | | | |
| Ano Cia Ano Jos | | | | | Pumptrk Charge Sue FACE | | | | |
| CHI CUIT TO P | ۱,4 | | | | Mileage / | 20 | | | |
| Tharryon | | nu Ci | MAAN | | | | Tax | | |
| UNDO KIN | VYYΩ | DCC | K STIM | | | | Discount | | |
| X Signature | | | | | | | Total Charge | | |



Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Total Depth: 5215'

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

Operation:

Uploading recovery & pressures

DATE

December

10 2018

DST #1

Formation: Morrow Sand

Time On: 09:48 12/10

Test Interval: 5150 -

5215'

Time Off: 12:00 12/10

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Electronic Volume Estimate:

0'

1st Open N/A 1st Close N/A 2nd Open N/A 2nd Close N/A

Recorder data not available. Please check back later.



SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

Operation:

Uploading recovery & pressures

DATE

December

10

2018

DST #1 Formation: Morrow Test Interval: 5150 - Total Depth: 5215' Sand 5215'

Time On: 09:48 12/10 Time Off: 12:00 12/10

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Recovered

Foot BBLS Description of Fluid Gas % Oil % Water % Mud %

Total Recovered: 0 ft
Total Barrels Recovered: 0

Reversed Out NO

| | | NO |
|------------------------------|-----|-----|
| | | |
| Initial Hydrostatic Pressure | 0 | PSI |
| Initial Flow | 0 | PSI |
| Initial Closed in Pressure | 0 | PSI |
| Final Flow Pressure | 0 | PSI |
| Final Closed in Pressure | 0 | PSI |
| Final Hydrostatic Pressure | 0 | PSI |
| Temperature | 0 | °F |
| | | |
| Pressure Change Initial | 0.0 | % |
| Close / Final Close | | |



SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

Operation:

Uploading recovery & pressures

DATE

December

10

2018

DST #1 Formation: Morrow Test Interval: 5150 - Total Depth: 5215' Sand 5215'

Time On: 09:48 12/10 Time Off: 12:00 12/10

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

BUCKET MEASUREMENT:

1st Open: N/A 1st Close: N/A 2nd Open: N/A 2nd Close: N/A

REMARKS:

Hit bridge 11 1/2 stands in. Think something to do with the bottom of the casing. Going back in with bit.



Operation:

Uploading recovery & pressures

Company: Mull Drilling

Company, Inc

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE

December

10

2018

DST #1 Formation: Morrow Test Interval: 5150 -Total Depth: 5215'

Sand 5215'

Time On: 09:48 12/10 Time Off: 12:00 12/10

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Down Hole Makeup

Heads Up: 18.98 FT Packer 1: 5144.5 FT

Drill Pipe: 5135.41 FT Packer 2: 5150 FT

ID-3 1/2

Top Recorder: 5133.42 FT Weight Pipe: FT

Bottom Recorder: 5188 FT ID-2 7/8

Well Bore Size: 7 7/8 Collars: FT

1" ID-2 1/4 **Surface Choke:**

Bottom Choke: Test Tool: 34.57 FT 5/8"

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 65

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: 1 FT

Drill Pipe: (in anchor): 31 FT

ID-3 1/2

Change Over: 1 FT

Perforations: (below): 28 FT

4 1/2-FH



Company: Mull Drilling Company, Inc

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Total Depth: 5215'

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

Operation:

Uploading recovery & pressures

> **DATE** December

10

2018

DST #1

Formation: Morrow Sand

Test Interval: 5150 -

5215'

Time On: 09:48 12/10

Time Off: 12:00 12/10

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Mud Properties

Mud Type: Chemical Weight: 9.4 Viscosity: 55 Filtrate: 8.0 Chlorides: 7,700 ppm



Operation:

Uploading recovery & pressures

DATE

December

10

2018

DST #1

Formation: Morrow Sand

Test Interval: 5150 - 5215'

Total Depth: 5215'

SEC: 3 TWN: 30S RNG: 21W

Drilling Contractor: Duke Drilling

County: CLARK State: Kansas

Company, Inc - Rig 1

Elevation: 2363 GL

Job Number: 284

Field Name: Wildcat Pool: WILDCAT

Time On: 09:48 12/10

Time Off: 12:00 12/10

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Gas Volume Report

1st Open

2nd Open

| Time Orifice PSI MCF/D | Time | Orifice | PSI | MCF/D |
|------------------------|------|---------|-----|-------|
|------------------------|------|---------|-----|-------|



Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December 10

2018

DST #2 Formation: Morrow sand

Test Interval: 5150 -

Total Depth: 5215'

5215'

Time On: 14:18 12/10

Time Off: 22:53 12/10

Time On Bottom: 16:45 12/10 Time Off Bottom: 20:20 12/10

Electronic Volume Estimate: N/A

1st Open Minutes: 5 **Current Reading:** 104" at 5 min

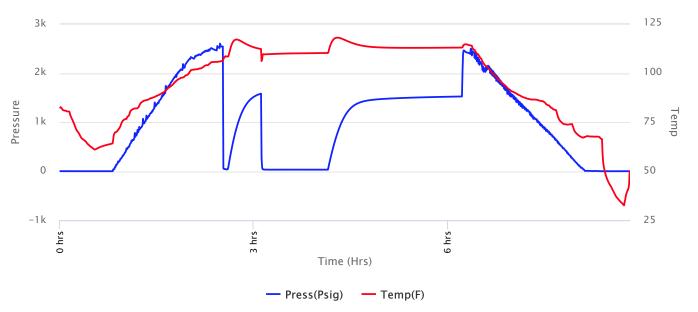
Max Reading: 104"

1st Close Minutes: 30 **Current Reading:** 0" at 30 min Max Reading: 0"

2nd Open Minutes: 60 **Current Reading:** Gg" at 60 min Max Reading: Gts"

2nd Close Minutes: 120 **Current Reading:** 0" at 120 min Max Reading: 0"

Inside Recorder





Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December 10 2018

DST #2 Formation: Morrow Test Interval: 5150 -Total Depth: 5215' 5215' sand

> Time Off: 22:53 12/10 Time On: 14:18 12/10

Time On Bottom: 16:45 12/10 Time Off Bottom: 20:20 12/10

Recovered

| <u>Foot</u> | <u>BBLS</u> | Description of Fluid | <u>Gas %</u> | <u>Oil %</u> | Water % | Mud % |
|-------------|-------------|----------------------|--------------|--------------|---------|-------|
| 5103 | 72.61569 | G | 100 | 0 | 0 | 0 |
| 57 | 0.81111 | HMCG | 0 | 0 | 0 | 100 |

Total Recovered: 5160 ft

Total Barrels Recovered: 73.4268

| Reversed Out |
|--------------|
| NO |
| |

| Initial Hydrostatic Pressure | 2462 | PSI |
|------------------------------|----------|-----|
| Initial Flow | 53 to 41 | PSI |
| Initial Closed in Pressure | 1579 | PSI |
| Final Flow Pressure | 38 to 31 | PSI |
| Final Closed in Pressure | 1521 | PSI |
| Final Hydrostatic Pressure | 2457 | PSI |
| Temperature | 118 | °F |
| | | |
| Pressure Change Initial | 3.7 | % |
| Close / Final Close | | |

50 BBL Recovery Gas Oil Water Mud 98.9% 0% 0% 1.1%

Recovery at a glance



Operation: Uploading recovery & pressures

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT

County: CLARK State: Kansas

Job Number: 284

SEC: 3 TWN: 30S RNG: 21W

Drilling Contractor: Duke Drilling

DATE

December

10

2018

DST #2 Formation: Morrow Test Interval: 5150 -Total Depth: 5215' sand 5215'

Time On: 14:18 12/10 Time Off: 22:53 12/10

Time On Bottom: 16:45 12/10 Time Off Bottom: 20:20 12/10

BUCKET MEASUREMENT:

1st Open: 1/4" Bob in 1 min

1st Close: Nobb

2nd Open: Bob instantly

2nd Close: Nobb

REMARKS:

2" blow line had leak at the rig connection while gauging gas. Would of had better reading if no leak.

Tool Sample: 0% Gas 0% Oil 0% Water 100% Mud



pressures

Company: Mull Drilling Company, Inc

Operation:
Uploading recovery &

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE
December
10

2018

DST #2 Formation: Morrow Test Interval: 5150 - Total Depth: 5215' sand 5215'

Time On: 14:18 12/10 Time Off: 22:53 12/10

Time On Bottom: 16:45 12/10 Time Off Bottom: 20:20 12/10

Down Hole Makeup

Heads Up: 18.98 FT **Packer 1:** 5144.5 FT

Drill Pipe: 5135.41 FT **Packer 2:** 5150 FT

ID-3 1/2 **Top Recorder:** 5133.42 FT

Weight Pipe: FT Bottom Recorder: 5188 FT

ID-2 7/8

Collars: FT Well Bore Size: 7 7/8

ID-2 1/4 Surface Choke: 1"

Test Tool: 34.57 FT Bottom Choke: 5/8"

ID-3 1/2-FH

Jars Safety Joint

Total Anchor: 65

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: 1 FT

Drill Pipe: (in anchor): 31 FT

ID-3 1/2

Change Over: 1 FT

Perforations: (below): 28 FT

4 1/2-FH



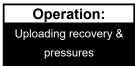
Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284



DATE
December
10
2018

DST #2 Formation: Morrow Test Interval: 5150 - Total Depth: 5215' sand 5215'

Time On: 14:18 12/10 Time Off: 22:53 12/10

Time On Bottom: 16:45 12/10 Time Off Bottom: 20:20 12/10

Mud Properties

Mud Type: Chemical Weight: 9.4 Viscosity: 55 Filtrate: 8.0 Chlorides: 7700 ppm



Operation:
Uploading recovery & pressures

Company: Mull Drilling

Company, Inc

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE
December
10
2018

DST #2 Formation: Morrow sand

Test Interval: 5150 -

Total Depth: 5215'

5215'

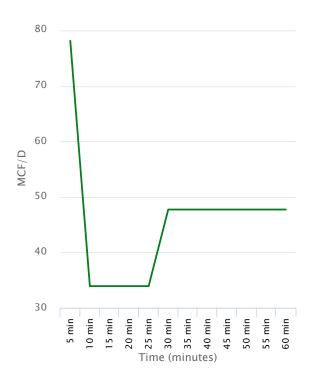
Time On: 14:18 12/10 Time Off: 22:53 12/10

Time On Bottom: 16:45 12/10 Time Off Bottom: 20:20 12/10

Gas Volume Report

| 1st Open | | | |
|----------|--------------|--|-------|
| Time | Time Orifice | | MCF/D |

| 2nd Open | | | | |
|----------|---------|-----|-------|--|
| Time | Orifice | PSI | MCF/D | |
| 5 | 0.50 | 5.0 | 78.1 | |
| 10 | 0.50 | 1.0 | 33.9 | |
| 15 | 0.50 | 1.0 | 33.9 | |
| 20 | 0.50 | 1.0 | 33.9 | |
| 25 | 0.50 | 1.0 | 33.9 | |
| 30 | 0.50 | 2.0 | 47.7 | |
| 35 | 0.50 | 2.0 | 47.7 | |
| 40 | 0.50 | 2.0 | 47.7 | |
| 45 | 0.50 | 2.0 | 47.7 | |
| 50 | 0.50 | 2.0 | 47.7 | |
| 55 | 0.50 | 2.0 | 47.7 | |
| 60 | 0.50 | 2.0 | 47.7 | |





Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

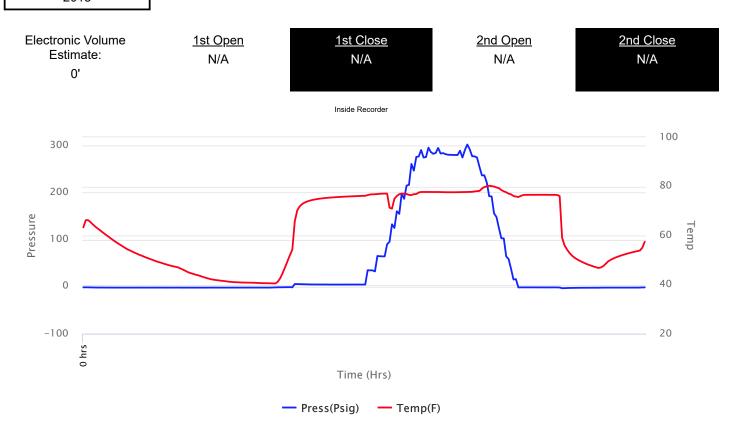
Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December 11 2018

DST #3 Test Interval: 5228 -Total Depth: 5240' Formation: Mississippi 5240'

> Time On: 09:51 12/11 Time Off: 11:45 12/11

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01





Operation: Uploading recovery & pressures

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December 11

2018

DST #3 Formation: Mississippi Test Interval: 5228 -

Total Depth: 5240'

5240'

Time On: 09:51 12/11

Time Off: 11:45 12/11

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Recovered

Foot BBLS Description of Fluid

Gas %

Oil %

Water %

Mud %

Total Recovered: 0 ft Total Barrels Recovered: 0 Initial Hydrostatic Pressure 0 Initial Flow 0 **Initial Closed in Pressure** Final Flow Pressure **Final Closed in Pressure**

0 0 0 Final Hydrostatic Pressure 0 Temperature 0

Pressure Change Initial Close / Final Close Reversed Out NO

PSI

PSI

PSI

PSI

°F

PSI PSI

0.0

%



Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Total Depth: 5240'

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE

December

11

2018

DST #3

Formation: Mississippi Test Interval: 5228 -

5240'

Time On: 09:51 12/11 Time Off: 11:45 12/11

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

BUCKET MEASUREMENT:

REMARKS:

hits same bridge as dst 1, about 630ft in hole. putting bit on to break through it then try again with tool.



Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December 11

2018

Time On: 09:51 12/11

Test Interval: 5228 -

Total Depth: 5240'

5240'

Formation:

Mississippi

Time Off: 11:45 12/11

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Down Hole Makeup

Heads Up: 35.13 FT

DST #3

Packer 1: 5222.5 FT

Drill Pipe: 5229.56 FT Packer 2: 5228 FT

5/8"

ID-3 1/2

Top Recorder: 5211.42 FT

Weight Pipe: FT

5233 FT

ID-2 7/8

Bottom Recorder:

FT

Well Bore Size: 7 7/8

Collars: ID-2 1/4

Surface Choke:

Bottom Choke:

Test Tool: 34.57 FT 1"

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 12

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/2

Change Over: FT

Perforations: (below): 8 FT

4 1/2-FH



Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

Operation:
Uploading recovery & pressures

DATEDecember

11 2018 **DST #3**

Formation: Mississippi

Test Interval: 5228 -

5240'

28 - Total Depth: 5240'

Time On: 09:51 12/11

Time Off: 11:45 12/11

Mud Properties

Mud Type: Chemical Weight: 9.2 Viscosity: 64 Filtrate: 6.8 Chlorides: 5400 ppm



Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284



DATE
December
11
2018

DST #3

Formation: Mississippi

Test Interval: 5228 -

5240'

228 - Total Depth: 5240'

Time On: 09:51 12/11 Time Off: 11:45 12/11

Time On Bottom: 00:00 01/01 Time Off Bottom: 00:00 01/01

Gas Volume Report

| | 1st Op | en | | |
|------|---------|-----|-------|---|
| Time | Orifice | PSI | MCF/D | 7 |

| 2nd Open | | | |
|----------|---------|-----|-------|
| Time | Orifice | PSI | MCF/D |



Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December

11 2018 **DST #4**

Formation: Mississippi Test Interval: 5228 -

Total Depth: 5240'

5240'

Time On: 12:18 12/11

Time Off: 20:35 12/11

Time On Bottom: 14:43 12/11 Time Off Bottom: 18:18 12/11

Electronic Volume Estimate:

591'

1st Open Minutes: 5 **Current Reading:** 15.8" at 5 min

Max Reading: 15.8"

1st Close Minutes: 30 **Current Reading:** 0" at 30 min

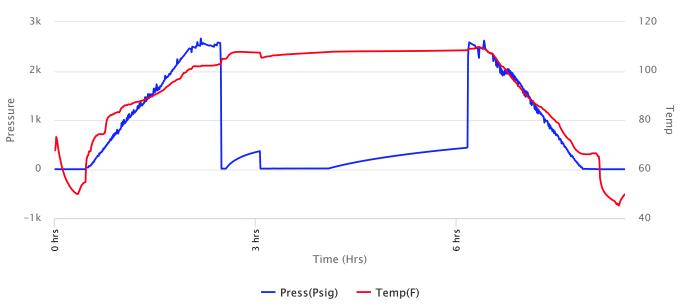
Max Reading: 0" Max Reading: 27.5"

2nd Open Minutes: 60 **Current Reading:**

27.5" at 60 min

2nd Close Minutes: 120 **Current Reading:** 0" at 120 min Max Reading: 0"

Inside Recorder





Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December 11 2018

DST #4 Formation: Mississippi Test Interval: 5228 -

Total Depth: 5240'

5240'

Time Off: 20:35 12/11 Time On: 12:18 12/11

Time On Bottom: 14:43 12/11 Time Off Bottom: 18:18 12/11

Recovered

<u>Foot</u> **BBLS** Description of Fluid 746 G 10.61558 SLOCM 10 0.1423

| Gas % | <u>Oil %</u> | Water % | <u>Mud %</u> |
|-------|--------------|---------|--------------|
| 100 | 0 | 0 | 0 |
| 0 | 1 | 0 | 99 |

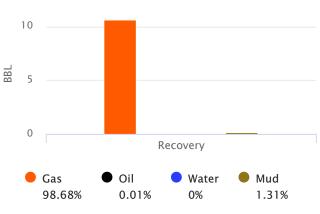
Total Recovered: 756 ft

Total Barrels Recovered: 10.75788

Reversed Out NO

| Initial Hydrostatic Pressure | 2521 | PSI |
|------------------------------|----------|-----|
| Initial Flow | 10 to 11 | PSI |
| Initial Closed in Pressure | 367 | PSI |
| Final Flow Pressure | 10 to 13 | PSI |
| Final Closed in Pressure | 436 | PSI |
| Final Hydrostatic Pressure | 2523 | PSI |
| Temperature | 109 | °F |
| | | |
| Pressure Change Initial | 0.0 | % |
| Close / Final Close | | |

Recovery at a glance





Operation:
Uploading recovery &

pressures

DST #4

Test Interval: 5228 -

Total Depth: 5240'

SEC: 3 TWN: 30S RNG: 21W

Drilling Contractor: Duke Drilling

County: CLARK State: Kansas

Company, Inc - Rig 1

Elevation: 2363 GL

Job Number: 284

Field Name: Wildcat Pool: WILDCAT

5240'

Time On: 12:18 12/11

Formation:

Mississippi

Time Off: 20:35 12/11

Time On Bottom: 14:43 12/11 Time Off Bottom: 18:18 12/11

2018

BUCKET MEASUREMENT:

DATE

December

11

1st Open: 1" Bob in 2 1/2 min

1st Close: Nobb

2nd Open: Bob. Instantly

2nd Close: Nobb

REMARKS:

Tool Sample: 5% Gas 1% Oil 0% Water 94% Mud



Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December

11 2018 **DST #4** Formation: Test Interval: 5228 -Total Depth: 5240' Mississippi

5240'

Time On: 12:18 12/11 Time Off: 20:35 12/11

Time On Bottom: 14:43 12/11 Time Off Bottom: 18:18 12/11

Down Hole Makeup

Heads Up: 35.13 FT Packer 1: 5222.5 FT

Drill Pipe: 5229.56 FT Packer 2: 5228 FT

ID-3 1/2 Top Recorder: 5211.42 FT

Weight Pipe: FT **Bottom Recorder:** 5233 FT

Well Bore Size: 7 7/8

1" ID-2 1/4 **Surface Choke:**

Test Tool: 34.57 FT **Bottom Choke:** 5/8"

ID-3 1/2-FH

ID-2 7/8

Collars:

Jars Safety Joint

Total Anchor: 12

Anchor Makeup

FT

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/2

Change Over: FT

Perforations: (below): 8 FT

4 1/2-FH



Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284



DATE December

11 2018 DST #4

Formation: Mississippi Test Interval: 5228 -

5240'

Total Depth: 5240'

Time On: 12:18 12/11

Time Off: 20:35 12/11

Time On Bottom: 14:43 12/11 Time Off Bottom: 18:18 12/11

Mud Properties

Mud Type: Chemical Viscosity: 64 Chlorides: 5400 ppm Weight: 9.2 Filtrate: 6.8



Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE

December 12

2018

DST #5

Formation: Mississippi Test Interval: 5250 -

Total Depth: 5305'

5305'

Time On: 10:00 12/12 Time Off: 18:34 12/12

Time On Bottom: 12:40 12/12 Time Off Bottom: 16:15 12/12

Electronic Volume Estimate:

291'

1st Open Minutes: 5 **Current Reading:**

7.1" at 5 min Max Reading: 7.1"

1st Close Minutes: 30 **Current Reading:** 0" at 30 min

Max Reading: .1"

2nd Open Minutes: 60 **Current Reading:**

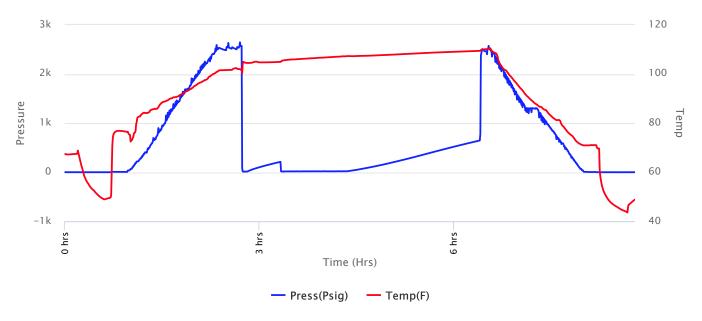
13.8" at 60 min

Max Reading: 13.8"

2nd Close Minutes: 120 **Current Reading:** 0" at 120 min

Max Reading: 0"







Operation: Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December 12 2018

DST #5 Formation: Test Interval: 5250 -Total Depth: 5305' 5305' Mississippi

Time Off: 18:34 12/12 Time On: 10:00 12/12

Time On Bottom: 12:40 12/12 Time Off Bottom: 16:15 12/12

Recovered

| <u>Foot</u> | <u>BBLS</u> | Description of Fluid |
|-------------|-------------|----------------------|
| 358 | 5.09434 | G |
| 20 | 0.2846 | SLOCM |

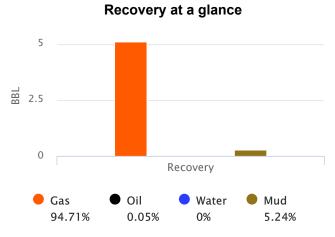
| <u>Gas %</u> | <u>Oil %</u> | <u>Water %</u> | <u>Mud %</u> |
|--------------|--------------|----------------|--------------|
| 100 | 0 | 0 | 0 |
| 0 | 1 | 0 | 99 |

Total Recovered: 378 ft

Total Barrels Recovered: 5.37894

| Reversed | Out |
|----------|-----|
| NO | |

| Initial Hydrostatic Pressure | 2510 | PSI |
|------------------------------|----------|-----|
| Initial Flow | 12 to 12 | PSI |
| Initial Closed in Pressure | 210 | PSI |
| Final Flow Pressure | 15 to 16 | PSI |
| Final Closed in Pressure | 645 | PSI |
| Final Hydrostatic Pressure | 2493 | PSI |
| Temperature | 110 | °F |
| | | |
| Pressure Change Initial | 0.0 | % |
| Close / Final Close | | |





Operation:
Uploading recovery & pressures

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Total Depth: 5305'

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE

December

12

2018

DST #5

Formation: Mississippi

Time On: 10:00 12/12

Test Interval: 5250 -

5305'

Time Off: 18:34 12/12

Time On Bottom: 12:40 12/12 Time Off Bottom: 16:15 12/12

BUCKET MEASUREMENT:

1st Open: 1/2" built to 7"
1st Close: Built to wsb
2nd Open: 5" Bob in 43 min

2nd Close: Nobb

REMARKS:

Tool Sample: 5% Gas 5% Oil 0% Water 90% Mud



Operation: Uploading recovery & pressures

County: CLARK State: Kansas

SEC: 3 TWN: 30S RNG: 21W

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December

12 2018 **DST #5**

Formation: Mississippi Test Interval: 5250 -

Total Depth: 5305'

5305'

Time On: 10:00 12/12

Time Off: 18:34 12/12

Time On Bottom: 12:40 12/12 Time Off Bottom: 16:15 12/12

Down Hole Makeup

Heads Up: 11.68 FT Packer 1: 5245 FT

Drill Pipe: 5229.11 FT Packer 2: 5250 FT

5/8"

ID-3 1/2

Top Recorder: 5234.42 FT

Weight Pipe: FT

Bottom Recorder: 5289 FT

ID-2 7/8

FT

Well Bore Size: 7 7/8

Collars: ID-2 1/4

Surface Choke:

Bottom Choke:

Test Tool: 33.57 FT 1"

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 55

Anchor Makeup

Packer Sub:

1 FT

Perforations: (top):

Drill Pipe: (in anchor):

4 1/2-FH

3 FT

Change Over: 1 FT

32 FT

ID-3 1/2

Change Over:

1 FT

Perforations: (below):

17 FT

4 1/2-FH



Uploading recovery &

pressures

Company: Mull Drilling Company, Inc

Lease: Haller #1-3 Operation:

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE December

12 2018 **DST #5** Formation: Test Interval: 5250 -Total Depth: 5305' 5305'

Mississippi

Time On: 10:00 12/12 Time Off: 18:34 12/12

Time On Bottom: 12:40 12/12 Time Off Bottom: 16:15 12/12

Mud Properties

Mud Type: Chemical Viscosity: 64 Chlorides: 8400 ppm Weight: 9.2 Filtrate: 6.0



Operation:
Uploading recovery & pressures

State: Kansas
Drilling Contractor: Duke Drilling
Company, Inc - Rig 1
Flevation: 2363 GI

SEC: 3 TWN: 30S RNG: 21W

Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

County: CLARK

DATE December 16 DST #6 Formation: Simpson Test Interval: 6070 - Total Depth: 6123' sand 6123'

Time On: 11:35 12/16 Time Off: 18:33 12/16

Time On Bottom: 14:32 12/16 Time Off Bottom: 16:07 12/16

Electronic Volume Estimate:

2018

2'

1st Open Minutes: 5 Current Reading: .1" at 5 min

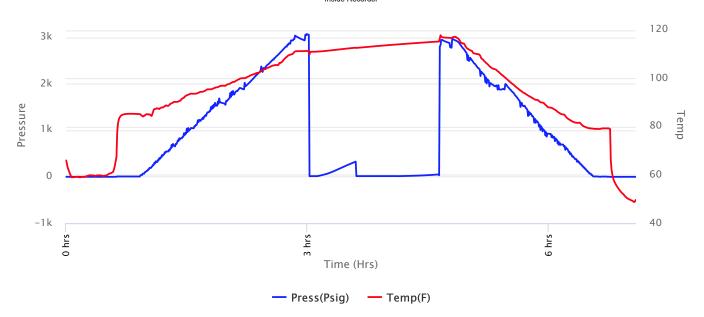
Max Reading: .1"

Minutes: 30 Current Reading: 0" at 30 min Max Reading: 0"

1st Close

2nd Open Minutes: 30 Current Reading: 0" at 30 min Max Reading: 0" 2nd Close Minutes: 30 Current Reading: 0" at 30 min Max Reading: 0"

Inside Recorder





Operation:
Uploading recovery & pressures

SEC: 3 TWN: 30S RNG: 21W County: CLARK

County: CLARk State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE
December
16
2018

DST #6 Formation: Simpson Test Interval: 6070 - Total Depth: 6123' sand 6123'

Time On: 11:35 12/16 Time Off: 18:33 12/16

Time On Bottom: 14:32 12/16 Time Off Bottom: 16:07 12/16

Recovered

Total Barrels Recovered: 0.02846

Close / Final Close

 Foot
 BBLS
 Description of Fluid
 Gas %
 Oil %
 Water %
 Mud %

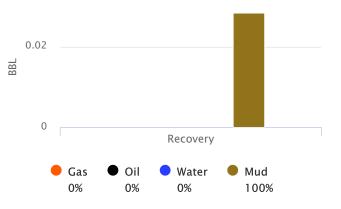
 2
 0.02846
 M
 0
 0
 0
 100

Reversed Out

Total Recovered: 2 ft

| o.a. | NO | |
|------------------------------|----------|-----|
| | | |
| Initial Hydrostatic Pressure | 2953 | PSI |
| Initial Flow | 12 to 13 | PSI |
| Initial Closed in Pressure | 327 | PSI |
| Final Flow Pressure | 13 to 14 | PSI |
| Final Closed in Pressure | 50 | PSI |
| Final Hydrostatic Pressure | 2941 | PSI |
| Temperature | 116 | °F |
| | | |
| Pressure Change Initial | 84.8 | % |

Recovery at a glance





Operation:
Uploading recovery & pressures

State: Kansas
Drilling Contractor: Duke Drilling

SEC: 3 TWN: 30S RNG: 21W

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

County: CLARK

DATE

December

16

2018

DST #6 Formation: Simpson Test Interval: 6070 - Total Depth: 6123' sand 6123'

Time On: 11:35 12/16 Time Off: 18:33 12/16

Time On Bottom: 14:32 12/16 Time Off Bottom: 16:07 12/16

BUCKET MEASUREMENT:

1st Open: Wsb no build

1st Close: Nobb

2nd Open: No blow no build

2nd Close: Nobb

REMARKS:

Tool Sample: 0% Gas 0% Oil 0% Water 100% Mud



Operation:
Uploading recovery & pressures

Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284

DATE
December
16

2018

DST #6 Formation: Simpson Test Interval: 6070 - Total Depth: 6123' sand 6123'

Time On: 11:35 12/16 Time Off: 18:33 12/16

Time On Bottom: 14:32 12/16 Time Off Bottom: 16:07 12/16

Down Hole Makeup

Heads Up: 12.23 FT **Packer 1:** 6065 FT

Drill Pipe: 6049.66 FT **Packer 2:** 6070 FT

ID-3 1/2 Top Recorder: 6054.42 FT

Weight Pipe: FT

ID-2 7/8 Bottom Recorder: 6108 FT

Collars: FT Well Bore Size: 7 7/8

ID-2 1/4 Surface Choke: 1"

Test Tool: 33.57 FT Bottom Choke: 5/8"

ID-3 1/2-FH

Jars Safety Joint

Total Anchor: 53

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 3 FT

4 1/2-FH

Change Over: 1 FT

Drill Pipe: (in anchor): 31.5 FT

ID-3 1/2

Change Over: .5 FT

Perforations: (below): 16 FT

4 1/2-FH



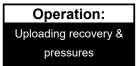
Lease: Haller #1-3

SEC: 3 TWN: 30S RNG: 21W

County: CLARK State: Kansas

Drilling Contractor: Duke Drilling

Company, Inc - Rig 1 Elevation: 2363 GL Field Name: Wildcat Pool: WILDCAT Job Number: 284



DATE
December
16
2018

DST #6 Formation: Simpson Test Interval: 6070 - Total Depth: 6123' sand 6123'

Time On: 11:35 12/16 Time Off: 18:33 12/16

Time On Bottom: 14:32 12/16 Time Off Bottom: 16:07 12/16

Mud Properties

Mud Type: Chemical Weight: 9.3 Viscosity: 62 Filtrate: 8.4 Chlorides: 5400 ppm

KEVIN L. KESSLER CONSULTING PETROLEUM GEOLOGIST (316) 522 - 7338 **ELEVATION OPERATOR:** MULL DRILLING CO. INC. LEASE : HALLER KB: 2375 WELL #: 1-3 LOCATION: 1867' FSL & 1890' FWL GL: 2363' SEC: 03 TWP: 30 S RGE: 21 W MEASURMENTS FROM: COUNTY: CLARK STATE : KANSAS KB CONTRACTOR: DUKE DRILLING RIG # 1 CASING RECORD: SURFACE: COMM: 12 - 03 - 2018 COMP: 12 - 17 - 2018 8 5/8" @ 606' LTD: 6219' RTD: 6220' PRODUCTION: GEOLOGICAL SUPERVISION FROM: 4100' TO: RTD NONE SAMPLES SAVED FROM: 4100' TO: RTD SAMPLE DATUM TOP LOG DATUM COMP. FORMATION: **ELECTRICAL SURVEYS:** DIL 4340 HEEBNER 4340 - 1965 - 1965 CNL/CDL 4532 -21574532 LANSING - 2157 MICRO 4858 STARK - 2483 4858 - 2483 SONIC CHEROKEE 5112 - 2737 5112 - 2737 MISSISSIPPI 5248 - 2873 5248 - 2873 - 3546 5921 VIOLA 5921 - 3546 SIMPSON 6163 - 3788 6163 - 3788 ARBUCKLE - 3803 6178 6178 - 3803 REFERENCE WELL FOR STRUCTURAL COMPARISON: 4100 -LST: CRM - TAN FXTAL SUBCHKY - DNSE SLI FOSS ARENACEOUS IN PART NO VIS. POR. NSO SHALE: GRAY - GREEN RED - BRN SILTY NO VIS. POR. NSO LST: CRM - GRAY FXTAL SUBCHKY -CHKY ARENACEOUS IN PART MINO OOLITES NO VIS. POR. NSO 4150 -LST: CRM - GRAY A. A. MINOR OOLITES NO VIS. POR. NSO 4200 -MUDICHECK @ 4200 LST: CRM - GRAY - TAN FXTAL SUBCHKY - DNSE AREN. IN PRT. SLI FOSS RARE OOLITES NO VIS. POR. NSO W LST: A. A. W/ ABUNDANT GRAY - DRK GRAY CALC SHALE NO VIS. POR. NSO 4250 -LST: CRM - TAN FXTAL SUBCHKY - DNSE SLI FOSS. NO VIS. POR. NSO MUD CHECK @ 4300 VIS WT LST: CRM - GRAY FXTAL SUBCHKY -DNSE SLI FOSS. MINOR OOLITES NO VIS. POR. NSO 4300 SHALE: BLACK CARB. W/ FR. AMT GRAY -DRK GRAY SHALE NO VIS. POR. NSO IEEBNER 4340 (1965 SHALE: BLACK CARB. W/ FR AMT DNSE MOTTLED LST. NO VIS. POR. NSO 4350 LST: WHT - CRM FXTAL SUBCHKY -DNSE SLI FOSS. MINOR GRAY CHERT NO VIS. POR. NSO SHALE: GRAY - BRN SILTY - SANDY NO VIS. POR. NSO 4400 -MUDICHECK @ 4100' W LST: CRM - GRAY FAXTAL DNSE HARD SLI FOSS, NO VIS. POR. NSO SHALE: GRAY - BRN SILTY NO VIS. POR. LST: CRM - WHT FXTAL DNSE HARD BLOCKY SLI FOSS NO VIS. POR. NSO 4450 SHALE: GRAY - BRN SILTY NO VIS. POR. SHALE: A. A. NO VIS. POR. NSO 4500 MUD CHECK @ 500 WI LST: CRM - GRAY FXTAL SUBCHKY -DNSE SLI FOSS FLAGGY W/ ABUND GRAY CALC. SHALE NO VIS. POR. NSO LST: WHT - CRM FXTAL SUBCHKT - DNSE SLI FOSS MINOR OOLITES NO VIS. POR. 4550 LST: A.A. OOLITIC IN PART. FEW PCS W/ FRINTRPRT. POR. NSO SHALE: GRAY CALC, NO VIS. POR. NSO LST: CRM - WHT - GRAY FXTAL FOSS IN PART MOST DISE RARE OOLITE NO VIS. POR. NSO 4600 -MUD CHECK @ 60'0' WI LST: CRM - GRAY FXTAL MOST DNSE W/ INTERBEDDED GRAY SILTY SHALE NO VIS. POR. NSO 4650 -LST: CRM - TAN FXTAL SUBCHKY - DNSE RARE FOSS. NO VIS. POR. NSO LST: CRM - WHT - GRAY FXTAL SUBCHKY - CHKY FOSS. IN PART MINOR OOLITES FR INTRPART POR, NSO 4700 -MUD CHECK @ 4700' VIS WI LST: A. A. NO VIS. POR NSO LST: CRM - GRAY FXTAL SUBCHKY -DNSE FOSS IN PART FR AMT TO ABUNDANT GRAY - GREEN SILTY SHALE NO VIS. POR. NSO 4750 -LST: CRM - TAN FXTAL SUBCHKY -MOSTLY DNSE SLI FOSS, NO VIS. POR. SHALE: GRAY - DRK GRAY NO VIS. POR. NSO 4800 -MUD CHECK @ 4 800 VIS WT LST: CRM - GRAY - WHT FXTAL MOSTLY DNSE FOSS. IN PART RARE OOLITES NO VIS. POR. NSO LST: A. A. NO VIS. POR. NSO 4850 -SHALE: BLACK CARB. NO VIS. POR. NSO LST: CRM - TAN FXTAL SUBCHKY - DNSE RARE FOSS. NO VIS. POR. NSO 4900 -MUD CHECK @ 4900 SHALE: BLACK CARB, NO VIS. POR, NSO W 9.4 LST: CRM - GRAY FXTAL DNSE BLOCKY NO VIS. POR. NSO LST: A. A. W/ ABUND. INTERBEDDED GRAY - DRK GRAY SHALE NO VIS. POR. 4950 LST: GRAY DNSE BLOCKY MICRITIC IN PART RARE FOSS. NO VIS. POR. NSO SHALE: GRAY - DRK GRAY - BLACK CARB. FISSILE IN PART NO VIS. POR. 5000 -LST: CRM - GRAY - DRK GRAY FXTAL MUD CHECK @ 5000 DNSE BLOCKY SLI FOSS. NO VIS. POR. 9.3 WIT LST: WHT - CRM FXTAL SUBCHKY -DNSE SLI FOSS. FR. AMY GRAY - DRK GRAY SHALE NO VIS. POR. NSO LST: DNSE BLOCKY W/ FR. AMY GRAY SHALE NO VIS. POR. NSO 5050 LST: CRM - GRAY FXTAL SUBCHKY -MOSTLY DNSE RARE FOSS NO VIS. POR. LST: CRM - GRAY FXTAL DNSE HARD SLI FOSS NO VIS. POR. NSO SHALE: BLACK CARB. NO VIS. POR. NSO 5100 -MUD CHECK @ 5100 LST: CRM - TAN FXTAL DNSE HARD SLI YY COLITIC TIGHT NO VIS. POR. NSO LST: CRM - GRAY FXTAL DNSE HARD BRITTLE W/ FR AMT GRAY -DRK GRAY -BLACK CARB. SHALE NO VIS. POR. NSO #1 (5150 -DGE AT BAS FACE CASIN MISRUN: HIT BR DGE OF SUR 5150 -LST: A. A. W/ ABUNDANT INTERBEDDED #2 (5150 -215 GRAY - DRK GRAY SHALE NO VIS. POR. 57 HGCM GTS GA: 78.1 MCF 5 MIN 53 - 4 1# **IFP** 1579# 38 - 31# D: 1521# A. A. NO VIS. POR. NSO # 5200 MUD CHECK @ \$200 LST: A. A. W/ INTERBEDDED GRAY - DRK GRAY SHALE FR AMT. - ABUND TIGHT -SUBFRIABLE QTZ. SAND FN - MED WIT GRAINED SUBANGULAR GRAINS, SSFO FNT ODOR FR AMT BRN - DRK BRN #3 (5228 -240 SUBSAT STN FR INTRGRAN POR. 45 MISRUN: HIT BRIDGE AT BA OF SUI FACE CASING #4 (5228 -5240 \ REC 746 GIP 10' SOCM %0 10 - 11# CHERT: WHT - GRAY TRIPOLITIC IN ST PART SSFO NO ODOR SCATT SPTY -# SUBSAT, DRK BRN STN PR. VUGGY & 10 - 13# FFF FRAC. POR. 10 UNIT H. W. 5248 (287 5250 -LST: CRM - GRAY FXTAL SUBCHKY -MOSTLY DISE DOLOMITIC IN PART FR AMT FRESH WHT - GRAY CHERT NO VIS. POR. NSO #5 (5250 -5305) REC 358 GIF LST: CRM - WHT FXTAL CHKY -20" SOCM 1% O SUBCHKY OOLITIC IN PARTISLI FOSS. # 12 - 12# SSFO VRY FNT ODOR SPTY YELLOW 210# FLUOR FRICHLIK FILLED INTRPART, POR. VRY LT BRN SPTY STN. 10 UNIT H. W. FF 15 - 16# 5300 -MUD CHECK @ 5300 LST: WHT - CRM FXTAL SUBCHKY -DNSE MINOR OOLITES A. A. SHOW DEMINISHING 93 WIT LST: WHT - CRM FXTAL SUBCHKY -DNSE SLI OOLITIC RARE FOSS. NO VIS. POR. NSO 5350 -LST: CRM - WHT - TAN FXTAL SUBCHKY -DNSE SLI COLITIC RARE FOSS NO VIS. POR. NSO LST: CRM - TAN - WHT FXTAL MOST DNSE MINOR OOLITES SLI FOSS NO VIS. POR. NSO 5400 -MUD CHECK @ 5400 VI5 W 9.4 LST: A. A. NO VIS. POR. NSO LST: CRM - TAN - WHT FXTAL RARE OOLITE SLI FOSS NO VIS. POR. NSO 5450 LST: WHT - CRM FXTAL SUBCHKY -DNSE SLI DOLOMITIC SUCROSIC IN PART NO VIS. POR. NSO LST: WHT - CRM - GRAY FXTAL SUBCHKY - DNSE SUCROSIC IN PART SLI DOLOMITIC RARE FOSS, NO VIS. POR. NSO 5500 -DICHECK @ 5500" 9.4 W LST: A. A. NO VIS. POR. NSO LST: CRM - TAN FXTAL MOST DNSE DOLOMITIC IN PART NO VIS. POR. NSO 5550 -LST: A. A. RARE FOSS. DOLOMITIC IN PART NO VIS. POR. NSO LST: CRM - GRAY FXTAL SUBCHKY -DNSE FOSS IN PART FR AMT FUSULINIDS MINOR CHERT NO VIS. POR. 5600 -DICHECK @ 5600" LST: CRM - GRAY FXTAL SUBCHKY -DNSE FOSS IN PART MINOR GRAY - TAN 56 CHERT NO VIS. POR. NSO W 95 LST: A. A. FEW FUSULINIDS MINOR GRAY CHERT NO VIS. POR. NSO 5650 -LST: CRM - GRAY FXTAL SUBCHKY -MOSTLY DISE SLI FOSS MINOR CHERT NO VIS. POR. NSO LST: CRM - GRAY - TAN FXTAL MOSTLY DNSE HARD BLOCKY NO VIS. POR. NSO 5700 -DICHECK @ 5700" : 60 W 9.3 LST: CRM - TAN FXTAL DNSE BLOCKY RARE FOSS NO VIS. POR. NSO 5750 -LST: A. A. NO VIS. POR. NSO LST: CRM - TAN FXTAL SUBCHKY -DNSE SLI FOSS MINOR CHERT NO VIS. POR. NSO 5800 -ML DICHECK @ 5800" 91 W LST: A. A. NO VIS. POR. NSO LST: CRM - GRAY FXTAL MOST DNSE SLI OOLITIC NO VIS. POR. NSO 5850 -LST: CRM - GRAY FXTAL MOST DNSE MINOR OOLITES BECOMMING VERY CHERTY NO VIS. POR. NSO LST: CRM - GRAY FXTAL SUBCHKY -MOSTLY DISE OOLITIC IN PART FR. AMT GRAY FRESH CHERT NO VIS. POR. NSO 5900 -M DICHECK @ 5900" LST: A. A. NO VIS. POR. NSO 9.4 W SHALE: GRAY - DRK GRAY NO VIS. POR. NSO LST: WHT - CRM - GRAY FXTAL DNSE CHERTY W/ GRAY SPECKLED CHERT NO VIS. POR. NSO 5950 -LST: WHT - CRM FXTAL SUBCHKY -DNSE CHERTY IN PART NO VIS. POR. LST: WHT - CRM FXTAL DNSE HARD DOLOMITIC SUCROSIC IN PART W/ ABUND GRAY - WHT CHERT, NO VIS. POR. NSO 6000 -D CHECK @ 6000" 9.4 LST: DOLOMITIC A. A. NO VIS. POR. NSO LST: CRM - GRAY FXTAL DNSE HERD BLOCKY FEW PCS SUCROSIC MINOR CHERT NO VIS, POR, NSO 6050 -LST: A. A. NO VIS. POR. NSO 61231 #6(6070-2' MUD 12 - 13# **IFF** ISIP: 32/# FFP: 13 - 1/# 50# LST: DNSE SLI DOLOMITIC MINOR DS CHERT NO VIS. POR. NSO 6100 -D CHECK @ 6100 SHALE: GRAY - GREEN SILTY NO VIS. POR. NSO W 93 DOLOMITE: TAN - BRN FXTAL SUCROSIC FALLS APART UPON TOUCH SSFO DULL YELLOW FLUOR, MED BRN STN 5 UNIT SAND: QTZ. FN - MED GRN. SUBANG. -WELL ROUNDED SUBFRIABLE - TITE CLUST.TRC. SPTY LT BRN STN YELLOW SHALE: GRAY - GREEN SOFT MARL NO VIS. POR. NSO 6150 -SHALE: A. A. NO VIS. POR, NSO SIMPSON 6163 (- 3/88) SAND: FN - MED GRN. QTZ. WELL ROUNDED WELL SORTED GRAINS SUBFRIABLE - TITE CLUSTERS FR INTRGRAN, POR, FEW W/LT BRN FLAKY DEAD STN NSFO NO ODOR NO FLUOR. ARBUCKLE 6178 NO GAS KICK DOLOMITE: WHT - CRM FXTAL -MICROXTAL VERY DNSE MINOR AMT. SUCROSIC DULL YELLOW MINERAL FLUOR: NO VIS. POR. NSO 12 UNIT H. W. 6200 -DICHECK @ 6200" DOLOMITE: WHT - CRM FXTAL DNSE W 9 HARD BLOCKY MINOR SUCROSIC DULL YELLOW MINERAL FLUOR, NSFO NO ODOR NO VIS. POR. NSO NO H. W. DOLOMITE: A. A. NO VIS. POR. NSO COMMENTS: DUE TO NEGATIVE DST RESULTS THIS WELL WAS PLUGGED AND ABANDONED KEVIN L. KESSLER