

OCT -6 1964  
COGCC

**Complete the  
Attachment Checklist**

Oper OGCC

Survey Plat		
Directional Survey		
Surface Equipment Diagram		
Technical Information Page		
Other		

## 15. Well Classification

☐ Dry      ☐ Oil      ☒ Gas  
☐ Coalbed  
☐ Stratigraphic      ☐ Disposal  
☐ Enhanced Recovery  
☐ Gas Storage      ☐ Observation  
☐ Other:

18. Was a Mud Log Run? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		19. Elevations	
** One copy of all electric and mud log runs must be submitted. **		GR 3635	KB 3644
20. List Electric Logs Run: AIT GR LDT CNI CAL MI DSI			

20. List Electric Logs Run: AIT GR LDT CNL CAL ML DSI

Submit contractor's cement job summary for each string cemented.

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Print Name: Russell Branting

Signed: Russell Brantz Title: Sr. Petroleum Engineer Date: 10/05/04

Title: Sr. Petroleum Engineer Date: 10/05/04



**WESTERN GAS RESOURCES, INC.  
COMPOSITE REPORT**



**SCHLACHTER 10-22**  
**NWSE, Sec. 22-T9N-R43W**  
**Phillips County, CO**  
**SPUD Date: 07-04-04**

**AFE: 604382**  
**Property #: 82-030-006**  
**Drilling Contractor: Encore #232**  
**API #: 05-095-06073**

- 07-03-04      Move rig 234 in & spot loads. Ground extremely soft. Use 4wd 8 tired tractor to pull in rig & equipment and spot same.
- 07-04-04      Rigging up rig , callibrate & install Pason System, Mix Spud Mud. Drilling F/ 9' - 136'. Stop drilling & clear rig floor for lighting & heavy rain. Drilling F/ 136' - 227'. Survey @ 227' - 3/4°. Drilling F/ 227' - 455'. Circ. & Condition. Survey @ 455' - misrun. Trip out. Rig up & run 10 jts 7" , 20#, ST&C , J-55 casing 441.83' total , Land @ 449.83'. Circulate to cement casing. Cement 7" casing, pump 12bbl H2O flush followed with 205 sx class G neat W/ 3% kcl 1/4 lb/sx flow seal. 1.18 cf/sx yeild 15.2 ppg slurry , Displace w/ 17bbl H2O , 2 bbls cement returned to pit good returns entire job. Waiting on cement. Extremely muddy conditions pull cements & water truck in and out of location.
- 07-05-04      Wait on Cement. Install head & nipple up B.O.P. Attempt BOP test , everything leaking. Tighten well head & all flanges. Test annular, casing, choke line, kill line & inside choke valves all to 950psi f/ 30min. Lost 150 psi. Pick up BHA & trip in to 423' taqgged cement. Drilling plug cement & shoe top of cement 423'. Drilling F/ 455' - 593' (61.33' / hr). Repair Hydraulic hose. Drilling F/ 593' - 784' ( 84.89' / hr.) Bit capable of drilling 180' to 200' per hr. if crews & drillers get used to P-rates & make hole. Muddy conditions pulling water truck in & out of location till 1500 hrs to fill rig tank & pits.
- 07-06-04      Drilling F/ 784' - 970' ( 93' / hr. ). Repair wireline. Survey @ 970' 3/4°. Drilling F/ 970' - 1003' ( 132' / hr. ). Repair shale shaker. Drilling F/ 1003' - 1536' ( 133.25' / hr. ) Survey @ 1500' 1 3/4°. Drilling F/ 1536' - 1893' ( 54.92' / hr. ). Circulate F/ trip ( Pump strokes down to 44 spm press @ 1200psi drilling @ 15' - 20' per hr....) Trip out of hole. Change out motor & unplug 3 jets & trip in hole. Repair hydraulic hose. Trip in hole.
- 07-07-04      Trip in hole. Drilling F/ 1893' - 2013'. Survey @ 2000' - 3 °. Clean tanks, flush hole & mud up system. Drilling F/ 2013' - 2375'. Circulate & Condition Hole. BOP drill & funtion annular. Trip out for core barrel & core pipe. Rig service. Pick up core barrel & trip in hole with core pipe. Wash 20' to bottom. Start coring @ 2375 first 5' only approxemently 1' of broken pieces recovered first consistant recoveries starting @ 2380'.
- 07-08-04      Cut & recover core F/ 2423' - 2472' 93' recovered. Circulate & Condition. Trip out of hole W/ core pipe lay down core barrel. Pick up Mud Motor & PDC trip in w/ Drill Pipe. Ream 6 1/8" hole F/ 2375' - 2472'. Drilling F 2472' - 2500' ( 28' / hr. ) Survey @ 2500' ( survey tool stck in pipe , work free ) Survey 3° Drilling F/ 2500' - 2845' (76.67' / hr. ).
- 07-09-04      Drilling F/ 2845' - 2945'. Repair Swivil. Circulate & Condition. Safety meeting, funtion BOP & air kill switches. Short trip 26 singles to 2100'. Circulate & Condition. Trip out F/ logs. Rig uo Schlumberger & Log Well. Run # 1 Pex - AIT ( TD to surface ) Run # 2 DSI ( TD to surface ) Loggers TD 2946'. Run # 3 FMI ( TD to surface ). Rig up & run 4 1/2" casing Run 74 jts 11.6# j-55 ST&C casing. Run 2935.27' Land @ 2943.77' RKB. Severe thunderstorm pull Schlumberger out with 8 Tire 4WD tractor.
- 07-10-04      Finish running 4 1/2" casing 74 jts 11.6# J-55 ST&C casing Run 2935.27' Land @ 2943.77'. Circulate & wait on BJ Services, spilled liquid stone pre mixed cement loading in Brighton yard , load 152 sx Class G powder to cement casing. Circulate & chain up & pull BJ Services trucks into location & set up & spot with 4WD tractor. Rig up to cement job. Cement 4 1/2' casing , pump 20 bbl H2O flush, 24bbls mud clean , 10 bbls H2O spacer. Cement with 152 sx class G cement , 10 % salt . 5 lbs / sx celloflake 1 % CD-32 , 6 % FL-25 , 2 % Bentonite , 14.3 ppg slurry 1.31 cf/sx yeild. 5.87 gal/sx H2O 35 .46 bbl slurry. ND & set csg slips. Finish to ND & clean mud tanks. Rig released @ 1600 hours. RD. Pull BJ Services to road w/ 4WD tractor. Road & loc. not passable w/ 4WD pick up trucks. 1" to 2" of mud w/ standing water.



- 08-04-04 Move in DJR rig # 5 rig up install tubing head & BOP & test BOP to 2600 psi. Spot 2 500 bbl Frac tanks 60bbls concentrate KCL in each tank fill with H2O to make 3% KCL. Pick up slotted collar, 1 jt. tbgr, R nipple, 1jt. Tbg, F nipple & 86 jts tbg to roll hole with 3% KCL to PBD. Repair hose on power tongs. Continue to pick up tubing, tag @ 2896'. Displace Well with 3% KCL. POOH to 1886' & swab well down to perforate. Swab well down to 1886'.
- 08-05-04 POOH to perforate well. Rig up NueX & perforate well 114 total shots Run # 1 2404' to 2424' Run # 2 2386' to 2404'. 38 total feet perforated 3 shots per ft 0.42 hole 27" penetration 120° phase 23gram chg all fired. Run in hole w/ notched collar, 1 jt tbg, r nipple, 1jt tbg, F nipple & 68 jts tbg. Nipple down BOP. Install blast tj, packoff & adapter flange, Land tbg @ 2319'. Swab well down for Niobrara water swab back approx 6 bbls, sample to BJ services. Well making approx .6 bbls in 20 min.
- 08-06-04 Swab well for Niobrara water 15 hours shut in initial fluid level 550' above R nipple 1736'. No pressures recorded Swab well down to R nipple swab back approx 7 bbls fluid. 2 dry runs with swab cups well not making any fluid shut in well for weekend. Check pressures on Harold 4-21 220 psi on tubing, 250 psi on casing. Not able to spot tubing on Ozman Trust or Leeb sack due to muddy conditions from rain last night and today transfer tubing to DJR truck & store in Amhurst County shop yard. Samples of formation water to BJ Services from Harold & Schlachter. Travel home to Casper Wyo. Shut in well for weekend.
- 08-09-04 Travel from Casper Wyoming to Phillips County Colorado to Schlachter 10-22. Record pressures on well Tubing pressure @ 440 psi Casing pressure @ 445psi. Bleed pressure down well unloaded approx 3 to 4 bbls of fluid to pit. RIH with swab line initial fluid level @ 75' above R nipple 2210' swab well down to R nipple well not making enough fluid to recover in 1 hour. Rig Down DJR & release rig. Use DJR truck to move mud tank & pump to Ozman Trust also unload tubing 90 jts @ Ozman Trust. Unload 66 jts @ Leeb sack & transfer 36 jts from Schlachter to Leeb sack.
- 08-14-04 RU BJ Services-Brighton. Held safety mtg. SITP 550 /SICP 555 psi. Test pumps & lines to 4,000 psi. Circulate well w/12 bbl linear fluid. Cool down N2 and CO2. Pumped 2,982 gal stepdown w/linear gel @ 20-5 BPM, broke at 1,455 psi and 17.5 bpm. monitor. ISIP-456 psi. Frac Niobrara w/70 quality binary in 37,464 gal 3% KCL water, 133,980# 16/30 Arizona sd & 3,175 mscf N2 124 tons CO2. Pad 798 gal Vistar linear gel @ 1,760 psi and 18 bpm. Pad 2,982 gal Vistar X-linked @ 1,305 psi and 20 bpm. 1/4 ppg 16/30 sand 378 gals same @ 1,304 psi and 20 bpm. Spacer 3,192 gal same @ 1,272 psi and 20 bpm. 1/2 ppg 16/30 sand 336 gals same @ 1,265 psi and 20 bpm. Pad 3,024 gals same @ 1,346 psi and 20 bpm. 1 ppg 3,570 gals same @ 1,295 psi and 20 bpm. 2 ppg 4,200 gals same @ 1,508 psi and 20 bpm. 3 ppg 5,880 gals same @ 1,535 psi and 20 bpm. Went to 64% quality fluid system. 4 ppg 8,190 gals same @ 2,318 psi and 20 bpm. Extended 4ppg stage due to treating pressure. Flushed csg w/23 bbl 3% KCl water & tbg w/8.5 bbl same. ATP-1,547 psi. MTP-2,381 psi. ATR-19.8 bpm. AFQ-68%. Total load 892 bbl. ISIP-789 psi. 5 min-734 psia 10 min-716 psia 15 min- 705 psia. RD BJ and Protechnics. Protechnics tag: Pad/Sb-124, 0.5 conc, 1-3 ppg/lr-192, 0.425 conc, 3-4 ppg/Sc-46, 0.35 conc. Turn over to Windmill Energy flow back crew & begin flowback @ 1300 on 14/64" choke w/ 590/600 psi.
- 09-02-04 Move in & rig up Cable Wire line to run Pro Technics Spectra Scan Log. Shut in well with 58 psi tbg 240 psi csg. RIH with Spectra Scan toll tag up @ 2713' log out F 2600' - 2100'. Well press @ 325 tbg. 320 csg after 2 1/2 hrs. Travel back to Casper Wyoming.