

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIP DATE*
(Other instruction on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	5. LEASE DESIGNATION AND SERIAL NO. NM-0525452A
2. NAME OF OPERATOR Black River Corporation	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 620 Commercial Bank Tower, Midland, Texas 79701	7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) A: surface 660' FNL 660' FWL, Section 3	8. FARM OR LEASE NAME Cities 3 Federal
14. PERMIT NO. Approved Jan. 10, 1975	9. WELL NO. #5
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 3750.3 GR	10. FIELD AND POOL, OR WILDCAT Washington Ranch-Delaware
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 3, T-26-S. R-24-E
	12. COUNTY OR PARISH Eddy
	13. STATE New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLAYS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(Other) ☐ (NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

See attached reports:

RECEIVED
JUL 18 1975
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED _____	TITLE Vice President	DATE _____
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(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

BLACK RIVER CORPORATION
Cities 3 Federal #5 Well
Section 3: T-26-S, R-24-E
660' FWL 660' FWL
Wildcat
Serial No. NM-0525452A
Unit Letter "D"
Eddy County, New Mexico

WELL REPORT::::::::::::

March 4, 1975

Ran correlation log. Perforated interval 1686-1692' with 12 shots - 2 shots per ft. - .70 diameter. Bottom of tubing 1693. Swabbed dry. No gas. Shut in for build up. Prepare to treat.

March 5, 1975

Swabbed hole dry. Came out of hole with tubing. Picked up Dowell tension packer and ran in hole with one joint tail pipe below packer. Set bottom of tail pipe at 1700'. Ran swab once with very little fluid. Set packer. Rigged up Dowell acid truck and started acid job - 750 gallons 10% acid. Loaded tubing and started to break down at 3000# pressure - $6\frac{1}{2}$ barrels at $\frac{1}{2}$ barrel per minute @ 1200# pump pressure. Final pump pressure 1400#. Instant shut-in pressure 1000#; 10 minute shut-in pressure 1000#. Recovered 5 barrels load water. Rigged swab and ran 4 times, recovering approximately $\frac{1}{2}$ barrel fluid. Total fluid recovered 12 barrels. Left well open overnight. Prepare to treat again.

March 6, 1975

Went in hole with swab. Found fluid level at 150' from the surface. Swabbed 4 times - very little input from formation. Last run with swab found tract of formation water, gasing slightly. Unseated tension packer. Laid down 99.5' tbg. and set packer. Bottom of tubing at 1600'. Rigged up Dowell pump truck. Used 1500 gallons easy flow acid. Formation took at approximately 3 barrels per minute at 1150# PSI. Established rate of injection and began dropping ball sealers - light ball action. Definite indication that four ball sealers took effect. Pressure rose gradually during treatment. Maximum pressure 1500# PSI. Average pressure 1300# PSI. Instant shut-in pressure 1000# - 10 minute shut-in pressure 950#. Flowed well back 20 minutes. Swabbed well down - input from formation slow. Recovered 22 barrels acid water and load. Left well open overnight.

March 7, 1975

Shut down.

BLACK RIVER CORPORATION
Cities 3 Federal #5 Well
Section 3: T-26-S, R-24-E
660' ENL 660' FWL
Wildcat
Serial No. NM-0525452A
Unit Letter "D"
Eddy County, New Mexico

WELL REPORT:.....

March 8, 1975

Swabbed well down. Pulled out 4' tbg. Bottom of tubing at 1600'. Rigged up Dowell-fractured well with 4000 gallons 3% acid, 2% KCL water. 4000# 20-40 sand-six 1" ball sealers. Job complete at 10 A.M. MST. Shut well in overnight.

March 9, 1975

Opened well to pits. Well flowed back 28 minutes and died. Started swabbing. Fluid input good. Flowed and swabbed back approximately 80 barrels - no trace of sand. Lost swab in hole. Shut down. 50 mile per hour wind. Prepare to recover swab.

March 10, 1975

Recovered 40 bbls. load fluid and 20 bbls. Delaware formation water. Prepare to run tracer survey.

March 11, 1975

Ran tracer survey - indicates that fluid went into the formation approximately 35' below perforation. Prepare to squeeze.

March 12, 1975

Squeeze job successful. Used 75 sacks cement. Pressured up to 1500# PSI and held. Prepare to drill out.

March 13, 1975

Drilled interval from 1608' to 1716' after squeeze job.

March 14, 1975

Jet perforated the interval 1688' to 1690' with 2 perforations per foot. Prepare to acidize and frac Monday.

BLACK RIVER CORPORATION
Cities 3 Federal #5 Well
Section 3: T-26-S, R-24-E
660' FNL 660' FWL
Wilcox
Serial No. NM-C525452A
Unit Letter "D"
Eddy County, New Mexico

March 15, 1975

This A.M. Swabbed well dry - no noticeable fluid input. COOH. Rigged up Vann Tool Company and ran Gamma Ray from surface to 1780'. Located perforations with Gamma Ray. They were on zone. COOH with Vann Survey. Decided to frac well on Monday, March 17. Shut rig down and came to Carlsbad. Set up frac with Dowell for Monday.

March 16, 1975

Shut down.

March 17, 1975

WIH with tubing. Ran 51 jts. tubing and one 4' sub. Bottom of tubing at 1696' - corrected measurement 2' above top perforation. First corrected to 1698' and 1700' steel line measurement. Fractured well with 750 gallons 15% acid, 1500 gallons 3% acid pad and 3500 gallons 3% acid with 5350 lbs. of 20-40 sand. Upon pressuring well with acid began feeding into well immediately. With injection rate of 1 bbl. per minute we had 1500+ PSI. Formation broke - increased injection rate to 6 bbls. per minute at 2100 PSI. Put away acid and pad. Started sand at 3/4 lb. per gallon - increased to 1 lb. per gal. Pressure broke to 1600 PSI. Increased sand to 1 1/2 lb. per gal. In 5 minutes increased sand to 2 lbs. per gallon. At 200 lb. pressure increased to 1800 PSI. Formation broke slightly - pressure dropped to 1700 PSI. Put all sand away. Maximum pressure was 2100 PSI, average pressure 1700 PSI, final pressure 1400 PSI, and ISIP 1000 PSI. Ten minute shut in pressure was 900 PSI. Shut well in overnight. It was a good job.

March 18, 1975

Swabbed hole with 140 bbls. load and 8 bbls. formation water (black sulfur water).

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660' FNL 660' FWL
Wildcat
Serial No. NM-0525452A
Unit Letter "D"
Eddy County, New Mexico

June 3, 1975

Rigged up Chase Unit and pulled rods and pump. C.O.O.H. with tubing (51 joints) 1692.07' plus SW. Picked up Lok Set Bridge Plug W.I.N. set plug @ 1560.26' - 47 joints. Pulled out 2 joints (66.70') bottom of tubing @ 1495' \pm . Displaced hole - 16 barrels sulphur water in hole. Perforated intervals 1463-68', 1479-86' (2 shots per foot). Spotted acid 1495 - 1402. C.O.C.H. with tubing. Shut down to let acid soak overnight.

June 4, 1975

Picked up Tension Set Packer - WIH with same. Ran 41 joints tubing - set packer @ 1360. Swabbed hole dry. Rigged up Western & Nowsco. Acidized well with 1000 gallons $7\frac{1}{2}\%$ acid and 1000 SCF-N2 per barrel of acid. Total 27,000 N2. Spearheaded acid with 1000 SCF-N2. Formation broke at 2500 PSI. Down to 2100 PSI after 8 barrels acid. Dropped 16 ball sealers. Good ball action. Pressured to 3000 PSI. Formation broke again down to 2200 PSI then dropped 10 ball sealers. Good ball action. Pressured to 3500 PSI - formation broke to 1800 PSI. Put acid away. Flushed with 3 barrels KCL water I.S.I.P. 1200 PSI - 5 minute 1200 PSI.

Minimum Pressure	400 PSI
Maximum Pressure	3500 PSI
Average Pressure	2500 PSI

Rate of injection 3 barrels per minute - 3.7 SCF-N2 per minute. Opened well on $3/4$ " choke - well plowed back $1\frac{1}{2}$ hours - returned 14 barrels of fluid - all acid water. Ran swab - 4 runs - well swabbed dry. Ran swab each $\frac{1}{2}$ hour fluid recovered - acid - output slow - approximately 1 barrel per hour. Natural gas to surface. 3:00 P.M. MST.TSTM. Gas increasing slightly with each swabb run. Left well open overnight. Prepare to Frac.

June 5, 1975

This A.M. well flowing a little by small heads. Ran swab and recovered 700' acid water. Well swabbed dry. Tightened master valve. Cleaned parafin off swab. Source of parafin unknown. Ran swab to bottom and recovery nil. Rigged up Western & Nowsco. Frac with 11,420 gal. West Foam & 9600# 20-40 sand. 21 gallons additives. 14 ball sealers.

Minimum Pressure	2950 PSI
Maximum Pressure	3200 PSI
Average Pressure	3100 PSI

Injection rate 3.6 barrels per minute. Liquid 12.1 BPM N2. ISIP - 1500 PSI. ten minute FSIP - 1350 PSI. Job went well - fine ball action. Left well shut in $\frac{1}{2}$ hour. Opened on $1/4$ " choke - 1260 PSI. Well flowing back strongly with 2 hours pressure down to 300 PSI. turning into load water and no sand. $2\frac{1}{2}$ hours pressure @ surface nil. Well flowing by heads returning approximately $2\frac{1}{2}$ barrels per hour of load water. Left well open overnight to clean up.