

OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

RECEIVED

AUG 18 1970



File in triplicate for Patented and Federal lands.  
File in quadruplicate for State lands.

COLO.

5. LEASE DESIGNATION AND SERIAL NO.  
OIL & GAS CONS. COMM.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

State

9. WELL NO.

#1

10. FIELD AND POOL, OR WILDCAT

South Liberty Adobe

11. SEC., T., R., M., OR BLOCK AND SURVEY  
OR AREA

NW NW 15-8N-54W  
Same as #4.

12. COUNTY OR PARISH

Logan

13. STATE

Colorado

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
Toltek Drilling Company

3. ADDRESS OF OPERATOR  
340 Denver Club Bldg., Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface NW NW Section 15; T 8 N; R 54 W

At top prod. interval reported below

At total depth

14. PERMIT NO. 70-244 ✓ DATE ISSUED 6/3/70 ✓

15. DATE SPUDDED 6/3/70 16. DATE T.D. REACHED 6/9/70 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, RKB, RT, GR, ETC.) 4334' GR. 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5264' Dr., 5265' Log. 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY 23. INTERVALS DRILLED BY Rotary 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) 25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN Schlumberger IES 27. WAS WELL CORED Yes

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	24	81' KB	12"	80 sx	0

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED		

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)

  

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

  

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED *[Signature]* TITLE Executive Vice President DATE 8/10/70

**37. SUMMARY OF POROUS ZONES:**  
 SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			<p>No DST.</p> <p>See attached well report for detail of formation tops, cores, and well history.</p>

**38. GEOLOGIC MARKERS**

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

COFO 1017 8 1/2 CORRECTION  
 100 18 1810  
 1800000



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COLO. OIL & GAS CONS. COMM.

WELL DATA

OPERATOR: Toltex Drilling Company

WELL NAME: No. 1 State

LOCATION: NW $\frac{1}{4}$  NW $\frac{1}{4}$  of Section 15, T 8 N, R 94 W, Logan County, Colorado

FIELD: South Liberty

STATUS: Dry and abandoned

ELEVATION: 4334' Ground  
4344' Kelly Bushing  
(All depths used in report are from Kelly Bushing)

CONTRACTOR: Toltex Drilling Company, Rig No. 1

SPUD DATE: June 3, 1970

CASING: Set 81' of 8 5/8" surface casing at 91' KB, cemented to surface with 80 sacks.

TOTAL DEPTH: 5264' Driller  
5269' Schlumberger

LOGS RUN: Schlumberger IES - 91' - 5265'

DRILL STEM TESTS: None

CORES: Core No. 1 5212' - 5220' (corrected)  
Cut 8' - Recovered 6'  
(See Part III for details)

BIT RECORD:

<u>NO.</u>	<u>SIZE</u>	<u>MAKE</u>	<u>TYPE</u>	<u>IN</u>	<u>OUT</u>	<u>FOOTAGE</u>	<u>HOURS</u>
1	7 7/8"	Smith	DTJ	81	3424	3343	23 1/2
2	7 7/8"	Smith	DT	3424	4667	1243	18 1/4
3	7 7/8"	Smith	DT	4667	5211	544	22 3/4
4	7 7/8"	ACC	Diam.	5211	5219	8	1 1/2
5	7 7/8"	Smith	V2	5219	5264	45	8

BEST IMAGE AVAILABLE

WELL HISTORY

- 6/3/70 Rigged up and spudded. Drilled 12 1/4" hole to 93'. Set 81' of 8 5/8" surface casing at 91' KB, cemented to surface with 80 sacks. Plug down at 2:00 P.M. Drilled 7 7/8" hole to 1100' with water. The drift is 1/2" at 1017'.
- 6/4/70 Drilled 7 7/8" hole to 3424'. Added 2 sacks Magcophos. Pulled Bit No. 1 at 3424'. The drift is 1" at 1548', 1/2" at 1955', 2 1/4" at 2410', 1 3/4" at 2900' and 3/4" at 3424'.
- 6/5/70 Drilled 7 7/8" hole to 4667'. Pulled Bit No. 2 at 4667'. The drift is 2 1/2" at 3953' and 2 3/4" at 4423'. The strapped drill pipe and the board differ less than 1'. Mudded up with 47 sacks gel, 3 sacks caustic, 3 sacks soda ash, 20 sacks Tamathin and 55# Magconate. At 5:00 P.M., the mud weight is 9.6, the funnel viscosity is 34 and the water loss is 6.2.
- 6/6/70 Drilled 7 7/8" hole to 4865'. The drift is 4" at 4739'. Reduced weight to straighten hole. At 8:15 A.M., the mud weight is 9.8, the funnel viscosity is 41 and the water loss is 6.2. Mud pump broke down. Moved in and worked on stand by pump.
- 6/7/70 Worked 16 hours on pump. Drilled 7 7/8" hole to 5115'. Top of "D" Sand at 5112'. The drift is 2" at 5211'. Added 12 sacks gel.
- 6/8/70 Drilled 7 7/8" hole to 5211' and cored with 6 1/8" diamond head to 5219'. At 2:30 P.M., the mud weight is 9.8, the funnel viscosity is 51 and the water loss is 6.2. While coring at 5217', lost circulation. Upon regaining returns, cored to 5219' and again lost circulation. Pulled core and went into hole with Bit No. 5. In regaining circulation, added 15 sacks gel, 18 sacks hulls, 5 sacks fiber and 5 sacks chips.
- 6/9/70 Reamed core hole and drilled 7 7/8" hole to TD 5264'. Added 72 sacks gel, 10 sacks hulls, 10 sacks fiber, 10 sacks chips and 2 sacks soda ash. At 2:30 A.M., the mud weight is 9.4 and the funnel viscosity is 45. By 5:00 A.M., the funnel viscosity is 87. Ran Schlumberger IES which was sufficient to demonstrate that neither a porosity log nor a DST were warranted. From Frank Piro, Colorado Oil and Gas Commission, received permission to plug with 15 sacks at bottom and 10 sacks at top of surface casing. Rig released at 3:00 P.M.

BEST IMAGE  
AVAILABLE

III

LITHOLOGY

Note: Samples not lagged back.

- 5100-5110 Shale, gray to dark gray; mudstone, gray and brown.  
 "D" Sand
- 5110-5120 Shale and mudstone, as above; trace sandstone, light gray, fine grain, some good porosity, moderately hard, clean, trace very faint fluorescence, no stain.
- 5120-5125 Sandstone, light gray, fine to medium grain, poor to fair porosity, clean, friable to moderately hard, no show; sandstone, gray, fine to medium grain, tight, clay filled, carbonaceous laminae, moderately hard, no show; sandstone, gray, fine grain, tight, hard, no show; trace siltstone, dark gray, very hard.
- 5125-5130 Sandstone, light gray, fine grain, tight, hard, pyritic, no show; sandstone, buff, fine grain, tight, hard, glauconitic, no show.
- 5130-5135 Siltstone, gray, very hard, trace glauconite; sandstone, light gray, fine grain, tight, clay filled, no show.
- 5135-5140 Sandstone, buff, very fine grain, quartzitic, trace glauconite, no show.
- 5140-5145 Sandstone, as above, no show; sandstone, light gray, fine grain, tight, clay filled, carbonaceous laminae, slightly glauconitic, no show.
- 5145-5150 Sandstone, light gray, very fine grain, tight, moderately hard, very carbonaceous, no show.
- 5150-5160 Sandstone, white, very fine grain, tight, no show (Little sand in sample).
- 5160-5210 Shale, gray to dark gray.  
 "J" Sand
- Core No. 1 5212'-5220' Cut 8' - Recovered 6' (Lost circulation) (Adjusted to Schlumberger Measurements)

Coring time in minutes per foot:

5212-13 - 22	5216-17 - 6
5213-14 - 23	5217-18 - 6
5214-15 - 18	5218-19 - 6
5215-16 - 7	5219-20 - 8

BEST IMAGE  
 AVAILABLE

CORE DESCRIPTION

- 5212-5214 (2') Shale, gray, hard, ring tail.
- 5214-5217.5 (3.5') Sandstone, light gray, very fine grain, tight, very hard, heavily reworked with shale, no odor, very scattered spots of bleeding oil.
- 5217.5-5218 (0.5') Sandstone, as above, badly fragmented, some faint odor, no stain.
- 5218-5220 (2') Lost.
- SAMPLES:
- 5220-5230 Trace sandstone, light gray, fine grain, tight, hard, no show. (Sample badly contaminated with surface sand and lost circulation material).
- 5230-5235 Trace sandstone, light gray, fine grain, tight to low porosity, moderately friable, good fluorescence, spotty stain (Contaminated as above).
- 5235-5240 Sandstone, light gray to buff, fine grain to semi-quartzitic, tight, moderately hard to very hard, sideritic, slightly pyritic, good fluorescence, spotty to even stain; trace sandstone, as before, clay filled, tight, no show.
- 5240-5245 Sandstone, light gray to buff, low porosity, hard, sideritic, trace pyrite and glauconite, good fluorescence, spotty stain.
- 5245-5250 Sandstone, light gray to buff, fine grain, low porosity, friable to hard, scattered siderite, some carbonaceous laminae, good fluorescence, spotty stain.
- 5250-5255 Sandstone, white, fine grain, tight clay filled, carbonaceous laminae, trace glauconite, no show; sandstone, as above, with more even stain.
- 5255-5260 Sandstone, clay filled, as above, no show.
- 5260-5264 Sandstone, clay filled, as above, no show; trace sandstone, light gray, fine to medium grain, fair porosity, friable, clean, no show.
- 5264 Circulated 20 Minutes
- Shale, gray to dark gray; cavings of various sandstones from above.

BEST IMAGE  
AVAILABLE

*Ph. Duggan*

15-8N-54W

MUD RECORD:

<u>DATE</u>	<u>GEL</u>	<u>CAUSTIC</u>	<u>ASH</u>	<u>TANNATHIN</u>	<u>MAGCONATE</u>	<u>HULLS</u>	<u>FIBER</u>	<u>CHIPS</u>
6/5/70	47 sk.	3 sk.	3 sk.	20 sk.	55#			
6/8/70	15 sk.					18 sk.	5 sk.	5 sk.
6/9/70	72 sk.		2 sk.			10 sk.	10 sk.	10 sk.
<hr/>								
TOTAL	134 sk.	3 sk.	5 sk.	20 sk.	55#	28 sk.	15 sk.	15 sk.

FORMATION TOPS: (Adjusted to Schlumberger measurements)      Elevation: 4334' GR  
 4344' KB

Niobrara	4401	(- 57)
Fort Hays	4642	(-298)
Carlile	4679	(-335)
Greenhorn	4864	(-520)
Bentonite	5021	(-677)
"J" Sand	5113	(-769)
"J" Sand	5215	(-871)
Total Depth	5264' Driller	5265' Schlumberger

BLOT IMAGE  
 AVAILABLE