

Computer Inventory FORMATION LOG

WILLIAMS, JOHNS

R. W. Mine #3 Head
 CNE/NE/SW, 28-260-134
 Pratt County, Kansas
 Elevation: 1946 derrick floor

8 5/8" casing
 5 1/2" casing
 Comm: 10/20/51

845'
 4616'

Note: All measurements are from the top of the rotary bushing which is two feet above the derrick floor.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
0 - 185	Sand	Drillers log 0 - 3500'
185 - 420	Shale, shells and red bed	
420 - 820	Red beds	
820 - 845	anhydrite	Stone Corral
845 - 1850	Shale & salt	
1850 - 3395	Limestone & shale	
3395 - 3487	Limestone	
3487 - 3500	Limestone & shale	
3500 - 3519	Limestone, white to tan, finely crystalline.	Sample log 3500 to T.D.
3519 - 3534	Limestone, white to tan, finely crystalline, oolitic & oolitic, porous.	
3534 - 3550	Limestone, gray-tan, sub-crystalline.	
3550 - 3553	Shale, gray & green	
3553 - 3566	Limestone, as above, trace gray, opaque chert.	
3566 - 3576	Limestone, white to tan, chalky, oolitic, porous.	No show
3576 - 3582	Limestone, as above, little or no porosity.	
3582 - 3590	Shale, gray	
3590 - 3604	Limestone, light gray to tan, finely crystalline to sub-crystalline, some brown sucrose.	
3604 - 3609	Shale, soft, black, brown streak.	Hoebner
3609 - 3614	Limestone, dark brown to dark gray, dense to finely crystalline.	Leavenworth
3614 - 3619	Shale, gray & light green	Sayderville
3619 - 3630	Limestone, white to light tan, finely crystalline, clean.	Toronto
3630 - 3664	Shale, gray, green-gray, and brown, some gray siltstone.	Top Douglas 3630
3664 - 3699	Sand, silver gray, angular, micaceous sub-medium.	
3699 - 3713	Streaks sand, as above with brown & green shale.	
3713 - 3771	Shale, as above	
3771 - 3777	Limestone, dark brown to gray dense to crystalline, oolitic.	Brown Lansing
3777 - 3792	Shale, gray, trace brown	
3792 - 3795	Limestone, tan to brown, dense	
3795 - 3798	Shale, gray	
3798 - 3815	Limestone, tan to light gray-brown, sub-crystalline to finely crystalline, oolitic.	Top Lansing 3798

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3815 - 3819	Shale, gray	
3819 - 3830	Limestone, gray, dense to sub-crystalline, trace gray opaque chert	
3830 - 3837	Limestone, as above, oolitic, trace oolitic porosity	Possible trace odor & stain No free oil.
3837 - 3841	Limestone, gray dense, trace opalescent chert.	
3841 - 3848	Limestone, as above, streaks gray shale	
3848 - 3857	Limestone, gray, dense to finely crystalline, vugular and oolitic porosity.	Trace stain.
3857 - 3872	Limestone, dirty brown-gray, sub-crystalline to finely crystalline, increase in chert, gray opaque.	
3872 - 3874	Shale, gray	
3874 - 3884	Limestone, as above	
3884 - 3886	Shale, gray	
3886 - 3893	Limestone, as above	
3893 - 3911	Limestone, gray to brown, finely oolitic, trace of oolite, some porosity.	Some dark brown oil stain
3911 - 3918	Limestone, as above, some chert, gray-opaque.	
3918 - 3926	Limestone, light tan sub-crystalline to massive, trace porosity, some chert, as above.	Spotted stain
3926 - 3932	Limestone, as above, no porosity.	
3932 - 3936	Limestone, dark dirty gray, mottled, oolitic, much chert, gray opaque, trace porosity.	No show
3936 - 3944	Limestone, as above, no oolitic.	
3944 - 3947	Shale, gray and dark brown	
3947 - 3950	Limestone, gray and sub-crystalline coarsely oolitic, possibly some porosity.	Fair show oil.
3950 - 3955	Limestone, as above, very oolitic and porous.	Fair odor and show free oil, good saturation.
3955 - 3964	Limestone, gray, tan, dense	
3964 - 3968	Shale, gray	
3968 - 3973	Limestone, as above, oolitic and oolitic, some porosity.	No odor, fair show free oil
3973 - 3981	Limestone, gray, dense	
3981 - 3987	Shale, gray	
3987 - 3990	Limestone, as above, some oolite	Some stain
3990 - 3997	Limestone, gray dense	
3997 - 4002	Limestone, tan, sub-crystalline, oolitic and oolitic, porous.	Trace free oil, possible trace odor, good stain.
4002 - 4015	Limestone, light tan, dense, oolitic, some chert, gray, opaque.	
4015 - 4021	Limestone, tan, finely crystalline some oolitic & vugular porosity.	Trace odor, free oil, fair stain, trace dead oil.
4021 - 4025	Limestone, tan, finely crystalline.	
4025 - 4030	Limestone, tan, sub-crystalline, oolitic, streaks of gray shale.	
4030 - 4036	Limestone, tan, sub-crystalline, oolitic and oolitic, porous.	No odor, trace free oil, good dark stain.
4036 - 4067	Limestone, gray, blue-gray, brown dense.	

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4067 - 4070	Shale, gray and brown	
4070 - 4073	Limestone, gray, sub-crystalline	
4073 - 4083	Limestone, gray, sub-crystalline, oolitic, chert gray and rust, oolitic, opaque, possibly some porosity.	No show
4083 - 4091	Limestone, as above, no oolites.	
4091 - 4093	Shale, gray and brown	
4093 - 4109	Limestone, white to blue-gray, sub-crystalline to dense, some oolites, some chert, gray opaque.	
4109 - 4111	Shale, gray and brown	
4111 - 4117	Limestone, as above	Base Kansas City 4117
4117 - 4131	Shale, green-gray, micaceous some chert, gray & brown translucent.	Marmaton
4131 - 4146	Shale, green-gray, purple-maroon.	
4146 - 4150	Limestone, as above	
4150 - 4156	Shale, as above	
4156 - 4170	Limestone, brown, dense	
4170 - 4189	Shale, dark gray to dark brown, streaks limestone, gray, sub-crystalline, some chert, gray to orange, translucent, to opaque.	
4189 - 4196	Increase in chert, white translucent, gray, opaque.	
4196 - 4203	Shale, limestone and chert, as above	
4203 - 4209	Some limestone, white to gray, finely crystalline, oolitic, considerable chert, white, gray, opaque and opalescent, salmon, opaque and translucent.	
4209 - 4238	Shale, gray & brown, red limestone, some chert, as above .	
4238 - 4250	Some limestone, red, much purple shale, some pyrite, much chert, red jasperoid red oolitic, gray opaque.	Possibly Conglomerate
4250 - 4280	Chert, white and gray, opaque to translucent, brown opaque, much white devitrified	Top Mississippi 4250, much free oil, odor & stain
4280 - 4290	Chert, as above, possible increase in brown & green shale.	Oil show, as above
4290 - 4321	More white vitreous chert, considerable semi-devitrified.	Less oil show than above
4321 - 4359	Shale, green-gray and purple variegated some limestone red and green dense, trace green oolitic chert. Increase in olive-green dense limestone at bottom.	Kinderhook
4359 - 4376	Chert, amber, brown & gray vitreous, translucent to opaque.	Top Viola 4359, no show
4376 - 4400	Shale, gray-green, and gray silty, micaceous, trace red sub-crystalline limestone, some brown shale.	
4400 - 4408	Increase in limestone, red and brown-green dense.	
4408 - 4432	Chert, amber, translucent, white & gray opaque, lacy, some devitrified.	Fair brown stain. Possible trace free oil.
4432 - 4437	Limestone, white to buff crystalline, trace sand grains to very sandy.	

(4) Formation log; Mine #3 Road

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4437 - 4439	Green shale	Top Simpson 4437
4439 - 4446	Sand, gray, medium, angular, calcareous.	Trace odor & free oil.
4446 - 4452	Sandy green shale	
4452 - 4463	Sand, gray, medium, angular, some porosity, some dirty brown fossiliferous limestone at bottom.	Trace odor and free oil, looks like it carries water
4463 - 4466	Sandy green shale	
4466 - 4472	Sand, gray to brown, medium, angular, porous, some very calcareous sand.	Fair stain, trace free oil. Appears to carry water.
4472 - 4510	Shale, green & green-gray streaks gray calcareous shaly sand, some thin dolomite streaks at bottom, dark brown resinous, sandy, finely crystalline.	
4510 - 4515	Darker green shale	
4515 - 4517	Some dolomite, tan to brown, sub-crystalline to finely sacrose, much chert, white, brown, dirty translucent, some very oolitic.	Top Arbuckle 4515, no odor or stain
4517 - 4530	Dolomite, as above, less chert	
4530 - 4548	Dolomite, gray, buff and brown, sacrose, sandy, some vugular and oolitic porosity, some chert, white, gray, oolitic.	No show
4548 - 4550	Streaks light green shale	
4550 - 4555	Dolomite, buff to brown, finely crystalline to crystalline, vugular porosity, very little sand or chert.	
4555 - 4561	Dolomite, light brown, tight, finely crystalline to sacrose.	
4561 - 4563	Streaks of light green shale	
4563 - 4575	Dolomite, buff to gray, crystalline, rhombohedral, tripolitic cement, some very sandy.	
4575 - 4576	Light green shale	
4576 - 4586	Dolomite, gray-brown, sub-crystalline, sandy, some vugular porosity.	No show
4586 - 4606	Dolomite, buff to brown, crystalline, rhombohedral to massive, very little, if any, sand; trace chert.	
4606 - 4607	Light green sandy shale	
4607 - 4617	Dolomite, tan to buff, coarsely crystalline, very little sand, considerable chert, rather to white translucent	
4617 - 4618	Light green shale	
4618 - 4623	Dolomite as above	

(5) Formation log; Mine #3 Seed

DRILL STAM TESTS:

- (1) 4250 - 70; open 1 hour, gas in 7 min.
Recovered 2000' oil and muddy oil
S.N.F. 1360#
- (2) 4356-78; open 45 minutes
Recovered 20' mud, very slight trace oil
S.N.F. 20#

COMPLETION DATA:

Perforated 64 holes 4296-08
Made 8 gal. oil and 2 gal. water per hour
500 gallons acid
made 3/4 b.o.p.h., little or no water; slight increase in gas
Hydrafrac (Dowell)
Flowed 18 barrels oil per hour

Hydrafrac

(Samples examined and log compiled by Wendell S. Johns)

T I M E L O G

WENEELL S. JOHNS

R. W. Rine Drilling Co. #3 Reed
 CW $\frac{1}{2}$ /NE/SW; 28-26S-13W;
 Pratt County, Kansas
 Elevation: 1946 derrick floor.

Note: All measurements are from the top of the rotary bushing which is two feet above the derrick floor.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3500 - 10	2-3-2-2-3-3-3-3-2-2	New OWS @ 3487
20	2-2-2-3-2-2-2-2-2-1	
30	1-1-1-1-1-1-1-1-1-1	
40	1-1-1-1-2-2-3-2-3-2	
50	3-2-2-3-2-3-2-2-2-2	
60	1-1-1-2-2-2-2-3-1-1	
70	2-2-2-2-2-2-2-2-2-2	
80	1-1-1-1-1-1-2-1-1-2	
90	2-3-2-2-2-2-2-2-2-2	
90 - 3600	3-2-2-3-4-2-3-3-2-3	
3600 - 10	4-3-5-2-3-2-2-2-2-1	Heebner 3604
20	1-3-5-6-2-2-2-2-2-2	
30	2-3-3-3-2-2-3-3-3-3	
40	2-2-2-2-2-2-2-2-3-2	
50	2-2-2-2-2-2-2-2-2-2	
60	2-2-2-2-2-1-2-3-3-4	
70	3-3-2-2-1-1-1-3-1-1	
80	1-1-1-1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	
90	1-1-2-1-1-1-1-1-1-1	
90 - 3700	1-1-2-1-1-1-1-1-1-2	
3700 - 10	3-2-2-3-1-3-2-1-2-2	
20	2-2-1-3-4-3-3-3-3-3	
30	3-3-2-2-2-2-2-3-2-3	
40	4-3-3-3-3-3-3-3-3-4	
50	4-4-3-3-4-4-3-4-4-4	
60	3-3-3-3-3-4-4-4-3-3	
70	4-3-3-3-3-3-4-3-4-4	
80	3-3-3-4-6-5-6-5-6-5	Brown Lansing 377f
90	6-6-5-5-6-7-4-5-5-5	
90 - 3800	4-4-7-6-5-6-6-5-6-5	
3800 - 10	5-6-6-7-6-7-6-7-7-7	Lansing 3798
20	7-7-7-5-9-7-8-6-4-6	
30	7-6-6-4-7-5-4-3-2-3	Trip 3825
40	1-2-2-1-2-2-2-4-3-4	
50	4-6-7-6-6-4-2-2-1-2	
60	1-2-1-1-2-1-2-3-4-3	
70	3-4-5-4-5-5-7-7-6-4	
80	4-7-5-5-5-5-4-4-7-8	
90	9-5-7-6-5-6-7-7-6-6	
90 - 3900	8-7-6-3-3-4-3-4-4-4	
3900 - 10	4-5-4-4-5-5-5-5-3-4	
20	5-6-7-6-8-6-4-5-5-4	
30	5-6-5-5-5-3-5-10-11-12	
40	10-10-5-5-8-8-10-4-5-7	
50	6-7-6-6-4-3-3-3-5-4	Trip 3937

(2) Time log - Rine #3 Reed.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3950 - 60	1-1-1-1-1-7-5-5-5-5	
70	4-4-5-5-4-4-3-4-3-4	
80	4-3-3-4-4-5-3-5-4-5	
90	3-4-4-5-4-4-5-3-2-3	
90 - 4000	5-6-7-6-5-4-2-1-1-1	
4000 - 10	2-2-4-4-5-3-4-6-4-5	
20	4-6-5-4-5-3-3-5-7-3	
30	3-4-5-4-8-7-9-8-9-9	
40	6-4-4-4-4-4-6-7-4-5	
50	7-4-6-5-6-6-6-6-8-8	
60	6-6-9-5-5-8-7-9-10-8	
70	6-7-7-9-8-7-9-10-9-9	
80	9-7-9-6-7-4-3-3-4-4	Trip 4075
90	4-5-5-6-5-5-5-7-6-6	
90 - 4100	5-6-7-5-5-5-6-6-6-6	
4100 - 10	6-7-6-6-7-7-6-6-7-7	
20	7-6-7-7-7-6-7-7-6-7	
30	5-7-6-5-4-4-4-5-6-6	
40	6-7-6-6-7-8-6-5-5-6	
50	6-5-5-5-6-6-7-7-9-9	
60	7-7-7-9-8-9-6-7-8-8	
70	9-4-4-3-4-7-7-7-7-5	Trip 4161
80	3-2-3-3-4-3-3-3-5-4	
90	6-5-5-6-6-6-7-8-6	
90 - 4200	7-6-6-5-6-7-9-9-7-9	
4200 - 10	8-8-9-6-7-7-6-7-7-8	Circ. 1 hr. 4195
20	8-8-11-9-9-9-8-9-9-8	
30	8-9-8-9-9-9-9-10-10-7	
40	10-11-11-10-10-11-5-7-6-4	Trip 4236
50	4-5-8-4-5-4-3-4-4-4	Mississippi 4250
60	2-2-1-1-1-1-2-2-1-1	
70	2-1-3-2-3-2-3-3-3-3	Circ. 4270, 1½ hrs.; DST 4250-70
80	2-3-3-4-4-5-4-3-2-3	New bit 4270
90	3-3-4-2-2-3-3-2-3-1	
90 - 4300	1-2-3-3-3-2-2-3-3-3	
4300 - 10	3-2-3-3-3-3-4-4-3-4	
20	2-3-3-3-3-3-3-4-5	Kinderhook 4319; trip 4320
30	3-6-13-10-5-10-9-11-11-12	
40	12-8-8-8-8-10-10-12-11-12	
50	11-11-10-11-12-11-11-11-10-8	
60	8-10-12-12-12-10-10-8-6-4	Viola 4359
70	5-3-4-4-4-3-3-3-3-4	
80	3-3-4-6-6-6-9-17-7-7	Circ. 4378, 1½ hrs; DST 4356-78
90	8-10-9-9-9-9-6-10-10-10	New bit 4378
90 - 4400	10-11-10-11-9-9-9-10-10-10	
4400 - 10	10-10-10-8-9-10-11-11-6-5	
20	5-5-4-4-4-5-3-3-5-4	
30	4-4-6-5-5-5-5-4-4-4	
40	5-4-8-11-12-13-6-9-8-7	Simpson 4437; Circ. 1½ hrs @ 4436
50	5-3-5-6-6-8-5-5-5-5	Trip 4436

(3) Time log - Rine #3 Reed.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
4450 - 60	4-4-6-7-9-9-11-11-13-13	
70	13-13-11-7-7-7-4-5-4-4	
80	5-5-10-8-7-13-10-10-10-10	Circ. 4478, 1½ hrs.
90	11-12-12-12-14-12-12-12-12-12	
90 - 4500	11-12-13-11-13-12-11-11-11-11	
4500 - 10	9-8-11-11-11-11-8-10-9-11	
20	13-9-9-8-7-3-3-5-10-11	Arbuckle 4515
30	12-7-9-7-10-6-8-8-6-7	
40	11-15-16-10-10-10-17-15-10-10	
50	10-10-11-11-10-6-7-6-6-7	Trip 4545
60	7-8-8-7-7-8-6-7-8-7	
70	7-11-7-7-6-6-6-8-7-11	
80	8-5-6-6-6-7-8-8-8-6-	
90	8-7-7-8-8-7-9-9-10-8	
90 - 4600	11-10-8-9-10-10-9-8-7-8	
4600- 10	11-7-9-9-7-7-7-10-11-10	
20	10-10-10-10-10-10-7-6-9-8	
23	9-7-10	
	Total depth 4623 (11/2/51)	
	Ran laterolog (Schlumberger)	

(Time log condensed by Wendell S. Johns)