

Scout Report sent out

Noted in the NID File

Location map pinned

Approval or Disapproval Letter

Date Completed, P. & A. or operations suspended

9-26-59

Pin changed on location map

Affidavit and Record of A & P

Water Shut-Off Test

Gas-Oil Ratio Test

Well Log Filed

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FILE NOTATIONS

*Rework*

Entered in NID File ✓  
 Entered On S R Sheet \_\_\_\_\_  
 Location Map Pinned ✓  
 Card Indexed ✓  
 IWR for State or Fee Land \_\_\_\_\_

Checked by Chief RDS  
 Copy NID to Field Office \_\_\_\_\_  
 Approval Letter ✓  
 Disapproval Letter \_\_\_\_\_

COMPLETION DATA:

Date Well Completed 3-29-62  
 OW \_\_\_\_\_ WW \_\_\_\_\_ TA \_\_\_\_\_  
 GW \_\_\_\_\_ OS \_\_\_\_\_ PA ✓

Location Inspected 1-10-63  
 Bond released PWB  
 State of Fee Land \_\_\_\_\_

LOGS FILED

Driller's Log 7-2-62  
 Electric Logs (No. ) 1  
 E \_\_\_\_\_ I \_\_\_\_\_ E-I ✓ GR \_\_\_\_\_ GR-N \_\_\_\_\_ Micro \_\_\_\_\_  
 Lat \_\_\_\_\_ Mi-L \_\_\_\_\_ Sonic \_\_\_\_\_ Others \_\_\_\_\_

*Subsequent report of abandonment*

FILE NOTATIONS

Entered in NID File ✓  
 Entered On S R Sheet ✓  
 Location Map Pinned ✓  
 Card Indexed ✓  
 IWR for State or Fee Land \_\_\_\_\_

Checked by Chief ✓  
 Copy NID to Field Office ✓  
 Approval Letter ✓  
 Disapproval Letter \_\_\_\_\_

COMPLETION DATA:

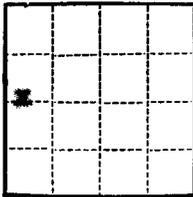
Date Well Completed 7-26-59  
 OW \_\_\_\_\_ WW \_\_\_\_\_ TA \_\_\_\_\_  
 GW \_\_\_\_\_ OS \_\_\_\_\_ PA ✓

Location Inspected \_\_\_\_\_  
 Bond released \_\_\_\_\_  
 State of Fee Land \_\_\_\_\_

LOGS FILED

Driller's Log 1-4-60  
 Electric Logs (No. ) 3  
 E \_\_\_\_\_ I \_\_\_\_\_ E-I ✓ GR \_\_\_\_\_ GR-N ✓ Micro ✓  
 Lat \_\_\_\_\_ Mi-L \_\_\_\_\_ Sonic \_\_\_\_\_ Others \_\_\_\_\_

*5492 JH*



(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake City  
Lease No. 14-08-001-6051  
Unit Raven Ridge

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Vernal, Utah June 12, 19 59

Raven Ridge Unit Core Hole  
Well No. 12-180 is located 1980 ft. from [N] line and 660 ft. from [W] line of sec. 18

18 78 85E 111W (Approximate)  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Raven Ridge Unit Uintah Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft. \*

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

1. Cement 8 / 58", 32#, H-40 casing at 235'. Install and test blowout prevention equipment.
2. Drill to 2000' and diamond core to 4000'.
3. Run electric logs and if indicated, cement 5 1/2" casing and complete well.

	<u>Est. Drilled Depth</u>
Top of Green River	2000
Total Depth	4000

\* Not available, will furnish final location and elevation as soon as survey is made.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Standard Oil Company of California, Western Operations, Inc.

Address P. O. Box 455

Vernal, Utah

By G. V. CHRISTENSEN

Title District Superintendent

USGS-3; CAGO-1; CAG-1; File-1

June 15, 1959

Standard Oil Company of California,  
Western Operations, Inc.  
P. O. Box 455  
Vernal, Utah

Attention: C. V. Chatterton,  
District Superintendent

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Raven Ridge Unit Core Hole 1, which is to be located 1980 feet from the north line and 660 feet from the west line of Section 18, Township 7 South, Range 25 East, S18M, Raven Ridge Unit, Uintah County, Utah.

Please be advised that insofar as this office is concerned approval to drill said well is hereby granted.

Under Rule A-3 of our rules and regulations, if an unexecuted copy of the unit agreement was on file with this office, the approval of this office to drill said well would not be necessary.

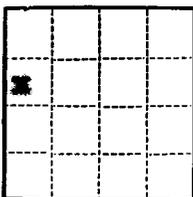
Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FRIGHT  
EXECUTIVE SECRETARY

CBF:cc

cc: Don Russell, Dist. Eng.  
U. S. Geological Survey  
Salt Lake City, Utah



(SUBMIT IN TRIPPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake City

Lease No. 071057-4

Unit Raven Ridge

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL (Supplementary) <input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

----- Vernal, Utah ----- July 9 -----, 1959

Raven Ridge Unit Core Hole  
Well No. 12-188 is located 660 ft. ~~from~~  N line and 660 ft. from  E West 1/2 corner  
 SW 1/4 18 7E 25E S1E1 (Final)  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Raven Ridge Unit Uintah Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 5743 ft. (Final)

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

1. Cement 8-5/8" 28# H-40 casing at about 260' with sufficient cement to fill to surface. Install and test blowout prevention equipment.
2. Drill to 2000', core to 4000' and drill to <sup>T. D.</sup> R. P. of 4500'.
3. Run electric logs and if indicated, cement 5 1/2" casing and complete well

	<u>Net. Drilled Depth</u>
Top of Green River	2000'
Total Depth	4500'

I understand that the plan or program of operations herein proposed is being approved by the Geological Survey before operations may be commenced.

Company Standard Oil Company of California, W. O. I.

Address P. O. Box 455

Vernal, Utah

By G. Y. Chatterton 7/13/59

Title District Superintendent

UBGS - 3; OBGCC - 1; OBG - 1  
File - 1

July 23, 1959

Standard Oil Company of California,  
Western Operations Inc.  
P. O. Box 455  
Vernal, Utah

Attention: C. V. Chatterton,  
District Superintendent

Gentlemen:

This is to acknowledge receipt of your Supplementary Notice of Intention to Drill for Well No. Raven Ridge Unit Core Hole 12-18 G.

Please be advised that insofar as this office is concerned approval to drill said well 660 feet north and 660 feet east of the West Quarter Corner of Section 18, Township 7 South, Range 25 East, S1EM, Uintah County is hereby granted.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FREIGHT  
EXECUTIVE SECRETARY

CBF:co

cc: D. F. Russell, Dist. Eng.  
U. S. Geological Survey  
Federal Building  
Salt Lake City, Utah

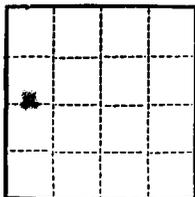
**CONFIDENTIAL**

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake City

Lease No. 971857-A

Unit Harmon Ridge  
Page 2



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....	<input checked="" type="checkbox"/>		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Vernal, Utah ..... September 24, 1959

Well No. 10-180 is located 660 ft. from N line and 660 ft. from E corner of sec. 18

18 (1/4 Sec. and Sec. No.)      7E (Twp.)      R3E (Range)      43M (Meridian)  
Harmon Ridge (Field)      Utah (County or Subdivision)      Utah (State or Territory)

The elevation of the ~~well~~ above sea level is 5734 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

(Cont'd)

- If no commercial shows encountered in above test interval, bridge hole with cement 300' - 200' or higher.
- Fill top 15' of casing with cement with marker post installed in accordance with U. S. G. I. requirements.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Standard Oil Company of California, Western Operations, Inc.

Address P. O. Box 435  
Vernal, Utah

By C. V. Chatterton  
Title District Superintendent

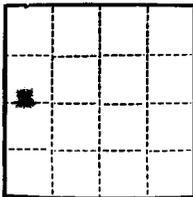
**CONFIDENTIAL**

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake City

Lease No. 671857-A

Unit Seven Blags



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
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NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL	X		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Verona, Utah September 24, 1959

Well No. 10-180 is located 660 ft. from N line and 660 ft. from E from 1/4 cor  
180 of sec. 18  
18 (1/4 Sec. and Sec. No.) 7E (Range) 22N (Meridian)  
Seven Blags (Field) Utah (County or Subdivision) Utah (State or Territory)

The elevation of the well bottom above sea level is 5743 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Present Status: Depth 5150'. 3 5/8" cas. 250'.

The hole was diamond cored from 1945-1980', the balance was drilled. Only one significant show was encountered in the well. This was in a sand interval from 4960-4980', which, on a 2 hr. drill stem test, yielded 1140' oil with 1380' water. Electric logs indicate oil and water are closely associated and we do not consider the sand commercially productive at this location.

Confirming telephone conversation D. F. Russell & R. D. Locke Sept. 21, 1959, we now propose the following program:

1. Bridge hole with 110 cas cement to cover interval 5100-4800'.
2. Bridge hole with cement 2000-2030', using 265 cas cement and sand (15% sand).
3. Make drill stem test of sands in interval 2005-2030'. (Cont'd)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Standard Oil Company of California, Western Operations, Inc.

Address P. O. Box 435

Verona, Utah

By C. V. Clatterton 10/13/59

Title District Superintendent

2000-1; 2000-1; 200-1; File-1.



**STANDARD OIL COMPANY OF CALIFORNIA,  
WESTERN OPERATIONS, INC.**

211 EAST THIRD SOUTH STREET • SALT LAKE CITY • UTAH

EXPLORATION DEPARTMENT  
GREAT BASIN DIVISION  
M. W. WOLF  
DIVISION SUPERINTENDENT

October 13, 1959

STANDARD RAVEN RIDGE  
CORE HOLE #12-18-G  
SECTION 18, T.7S., R.25S.  
UINTAH COUNTY, UTAH

CONFIDENTIAL

State of Utah  
Oil and Gas Conservation Commission  
310 Newhouse Building  
Salt Lake City 11, Utah

Gentlemen:

We would like to have you keep the logs in the enclosed envelope from the subject well confidential for the four-month period which is according to your regulations.

Very truly yours,

  
M. W. Wolf

EWC/ds  
Encls.

*Rec'd*  
**OCT 14 1959**

*Confidential until:  
February 14, 1960*

ABANDONMENT REPORT  
STANDARD OIL COMPANY OF CALIFORNIA

O & G C C  
V

FIELD: Red Wash

PROPERTY: Section 18

WELL NO: 12-18G Raven Ridge

Sec 18 T 7S R 2E SL B. & M.

Following is complete and correct record of all work done on the well since the previous record dated \_\_\_\_\_

PURPOSE OF WORK:

LAND OFFICE: Salt Lake City

LEASE NO. : 071857-A

Drill an exploratory well to penetrate Green River sands.

DATE OF REPORT: December 29, 1959

BY C. V. WATKINSON 12/29/59  
Superintendent, Producing Department

WORK DONE BY: Western Drilling Company

COMMENCED OPERATIONS: July 25, 1959

COMPLETED OPERATIONS: September 26, 1959

DATE WELL LAST PRODUCED: Never produced

DATE RETURNED TO PRODUCTION:

PRODUCTION:

PRIOR TO WORK

AFTER WORK

Oil	.....	.....	B/D	.....	.....	B/D
Water	.....	.....	B/D	.....	.....	B/D
Gas	.....	.....	Mcf/D	.....	.....	Mcf/D
Gravity	.....	.....	°API	.....	.....	°API
Tubing	.....	.....	PSIG	.....	.....	PSIG
Casing	.....	.....	PSIG	.....	.....	PSIG
Method of Production:	Pumping	.....	.....	.....	.....	.....
	Flowing	.....	.....	.....	.....	.....
	Gas Lift	.....	.....	.....	.....	.....

S U M M A R Y

T.D.: 5150'

Cement Bridges: Surface - 285'  
2041 - 2284'  
4846 - 5096'

Casing:  
8 5/8" cmtd 252'

Well plugged and abandoned September 26, 1959

WELL NO: 12-18G

PROPERTY: Raven Ridge

RED WASH FIELD

Cemented 16" conductor at 20' with 15 sacks cement.

Western Drilling Company moved in and rigged up July 25, 1959. Spudded in at 10:00 p.m. July 25, 1959.

Drilled 12 1/4" hole to 254'.

Cemented 254' of 8 5/8" casing at 252' with 125 sacks Ideal construction cement mixed with 2% calcium chloride. Preceded cement with 5 bbl water. Circulated throughout job to mousehole, had 2 bbl good cement returns. 20 min mixing and 10 min pumping to place.

Casing Detail:

All 8 jts. or 254.10' 8 5/8", 28#, H-40, ST&C, new, J&L smls, fitted with Baker guide shoe on bottom and Baker centralizers at 249' and 220'.

July 27, 1959 - waiting on cement.

July 28, to August 2, 1959 - rig repair.

August 2, 1959

2 hrs testing BOP. Repaired minor leaks and then held 1200 psi for 5 min on blind and pipe rams.

Drilled 254' to 1945', 7 7/8" hole

August 5, 1959

Core #1 - 1945 - 2005', Rec 9'7", 7 3/4" hole

1945 - 1955 - Depth of recovered shale uncertain

1955 - 2000' - Shale, olive gr, mott red-brn & gry-grn, calc, waxy

Entire core was evidently highly Bentonitic as removal was externally difficult. Lower 4'7" was recovered after 2 hours of hammering.

Remaining 5' was recovered by washing.

2000 - 2005 - 4'3" shale, olive grn & gry-grn, calc, waxy;

2" shale, grn-gry, v silty

2" ss, lt grn-gry, v fn to fn grn, qtz w/some scattered pink & red chert, sub-angular to sub-rnd'd, poorly sorted. Well cmt'd, calc cmt, argil, NOSCF, fair porosity

Core #2 - 2005 - 2043', 7 3/4" hole, Rec 25'

2005 - 2015 - ss, lt grn-gry, med-crs grn, poorly sorted, ang to sub-rnd, qtz, common scattered pale grn and red chert, v. pyr, overgrowths, massive bedded. Fair porosity, calc, cmt, friable to very fri, some glauconite, mineral floor;

shale, lt-med grn to dk olive grn, calc, silty to v. silty, poorly bedded

2015 - 2024 - Lost intervals interpretive

2024 - 2041 - Shale ss

2041 - 2043 - Lost intervals interpretive

Core #3 - 2043 - 2083', Rec 39', 7 3/4" hole

2043 - 2082 - Shale, med grn, calc, sli pyr, sli silty, dense, mass, no definitive dips, no frags observed

2082 - 2083 - No recovery

Core #4 - 2083 - 2143', Rec 54'9", 7 3/4" hole

2083 - 2138 - Shale, med grn, v. calc, sli silty, pyr, dense, mass, bedded, no frags

2138 - 2143 - No recovery

WELL NO: 12-18G

PROPERTY: Raven Ridge

RED WASH FIELD

Core #5 - 2143 - 2203', Rec 56', 7 3/4" hole

2143 - 2199 - Shale, med grn, some mott brn-red, pyr, vy calc, dense, massively bedded, no fracs, no obvious dips

2199 - 2203 - No recovery

Core #6 - 2203 - 2259', Rec 51', 7 3/4" hole

2203 - 2208 - No recovery

2208 - 2209 - Sh, mot, lt-med gn, cald

2209 - 2214 - Ss, lt-med gn, predom fn-vfn w/some med, qtz w/common blk &amp; brn, fn-crs, rnd cht frgs, fri, calc, clayey, NOSCF, v pr sort, rnd-s rnd, fair p&amp;p

2214 - 2222 - Sh, mot, lt-med gn, calc, v com zones of vfn-med qtz gns, mar blk &amp; red brn cht gns

2222 - 2230 - Sh, aa, 2221 - 25 very poor recovery

2230 - 2231 - Grading to ss

2231 - 2233 - Ss, aa, but v argil &amp; slty, w/biotite &amp; v cse ang cht frag, fair perm, NOSCF

2233 - 2235 - Sh, mott lt-m grn, dnse, well bdd, calc, pt slty

2235 - 2243 - Ss, lt-med grn, calc, argil, vfn-fn gn, fri to mod indurated, mod well sort, s a to s rnd, minor pyr, qtz w/com cht &amp; mic, secondary overgrowths on qtz, fair perm, NOSCF

2243 - 2259 - Sh, aa, Ss, aa, NOSCF

\* NOTE: Correct depth 2262. Cores #1 through #6 have a 3 foot depth error. All depths should read 3 feet lower.

Core #7 - 2262 - 2322', Rec 43', 7 3/4" hole

2262 - 2265 - Ss, med gn, vfn-fn, well sort, fri-mod ind, x-bds in part, dipping 28°, some thn bds of v crs ss, por, calc, sl aly, s rnd, NOSCF

2265 - 2267 - Sh, mot lt med gn, calc, v sdy (fn-v fn qtz gns)

2267 - 2271 - Ss, lt-med gn, calc, v cly, mod ind, v fn-fn qtz w/minor cht(rd-brn) s ang-s rnd, w/sort, NOSCF

2271 - 2274 - Sh, mot, med-dk gn, v slty w/minor snd, sl calc w/some cly ptgs, inclined &amp; irreg bds, poss bent

2274 - 2277 - Intbd ss &amp; sh, aa micro x bds, scours fill much of lost core may be in this int 2272 - 76 1/2.

2277 - 2281 - Sh &amp; sltst, med gn, v cly, dns, lam, w/incl NOSCF, calc

2281 - 2282 - Sh-sltst aa, w/irreg pods &amp; bdg, scours fill cross bds

Ss, v calc, vfn-fn w/some lam of mud gns,

Sh &amp; sltst

2282 - 2295 - Sh-sltst &amp; ss, aa

2295 - 2305 - Ss, med grn, v calc, vfn-med qtz gns, mic(biotite) rare cse gn, abund dk rd brn cht, sh peb to 1", scours fill &amp; slump structures. Fair perm &amp; por, NOSCF

2305 - 2322 - No recovery

Core #8 - 2322 - 2360', Rec 28', 7 3/4" hole

2322 - 2327 - Ss, grn-gy, calc, fn-med qtz gn w/com blk &amp; rd brn cht, fri, s-a to s-rnd, w sort w/occ sh ptg &amp; rare congl strk, fair por &amp; perm, NOSCF

2327 - 2332 - Sltst, gn-gy, calc, aren, argil, mod to windur, w/carb material &amp; pyr, NOSCF

2232 - 2350 - Sh, med grn, calc, poss bent, mass w/intbd minor ss &amp; cong, (aa

2350 - 2360 - No recovery

WELL NO: 12-18G

PROPERTY: Raven Ridge

RED WASH FIELD

- Core #9 - 2360 - 2418', Rec 59 1/2', 7 3/4" hole
- 2360-2364 - Sh, mott med-dk grn w/some lt, lam, scour & fill, some irreg ss bds & v minor congl, calc
- 2364-2371 - Ss, med gy w/tinge grn, calc, pt argil, vfn-fn w/isolated med-cse qtz gns, well ind, slty, minor dk cht, hd, dnse, ti, NOSCF
- 2371-2373 - Bcm v congl w/cht peb to 1", ang to w rnd
- 2373-2374 - Grading to sh, bri grn, mass, dnse, well indur, grn, (sd gns vfn-fn, s-a to rd qtz)
- 2374-2376 - Grading to ss
- 2376-2385 - Ss, lt-med gy w/some grn-gy, sparkly(overgrowths), calc, argil, vfn-fn qtz gn, s-a to s rnd, minor dk brn & blk cht, fair por & perm, NOSCF
- 2385-2387 - Sh ptg, aa & ss aa
- 2387-2390 - Grading to sh, bcm more argil & greener; sh, bri grn, aa
- 2390-2396 - Grading to ss, lt gy  $\phi$  grn-gy, vfn gn, slty, calc, hd, dnse to mod indur, s-a to s-rnd, pure qtz, NOSCF
- 2396-2400 - Grading to ss as from 2392-93; bcm med gn, sparkly, s-a to rnd w/ minor dk gy-blk cht, fair por & perm
- 2400-2418 - Intbd sh-sltst, lt gy to lt & med grn w/highly distorted bdg and ss, gy-lt grn & lt brn, fn-med gn qtz w/minor blk & dk gy cht & v minor grn & red cht, s-a to rnd, sparkly w/abund o'gths, mod & well indur, mass, clac, intbd w/ss

NOTE: Coring discontinued at 2418' after coring 39 minutes with little or no progress, 1 1/2 feet of extra core was recovered-possibly left over from Core #8.

- Core #10 - 2418 - 2479', Rec 60 1/2', 7 3/4" hole
- 2418-2435 - Ss, pale red brn & lt gn, clac, vfn, s-ang-s-rnd qtz w/abd o'gths & minor blk cht, lam, x-lam, mod ind, fair por & perm, NOSCF
- 2435-2465 - Intbd sh, sltst & ss; ss lt gy-lt gy w/tinge gn, calc, slty, cly; sltst same color, calc, slty, cly; sh bri gn, calc, some slty,
- 2465-2469 - Ss, lt gn gy, calc, slty, vfn-fn qtz w/minor dk cht gns, spotty to fairly continuous sat delineated by lams, no flor, micro x-lams, yel to grn yel flor w/carbon CCL4
- 2469-2473 - Sltst, lt gn gy, calc, cly, sdy, dns, ti, reg & irreg lam, ptgs sh aa, grades into subjacent unit
- 2473-2476 - Ss, aa
- 2476-2479 - Intbd sltst & oil sh, sltst, lt gy, v crs, sdy, cly, lam
- Core #11 - 2479 - 2539', Rec 60 1/2', 7 3/4" hole
- 2479-2502 - Ss, lt gy-lt tn gy-lt gn gy, slty, calc, vfn-fn(some thn bds to med) s-ang-s-rnd qtz w/minor dk cht & biotite w/ind, lam, x lam, tr oil sh, fair por & perm, f cont oil sat when present, delin by lam, app dead, will not flor except w/CCL4 2482-84 and 2494-99.
- 2502-2509 - Sh, med gn, calc, slty, lam grades into subjacent unit, bcm lt gy-lt gy gn-lt gn, v calc, slty, dns, ti, w few irreg gn sh lam
- 2509 - 2515 - Ss, lt gy w/tinge gn, dolo-calc, vfn-fn qtz w/minor blk cht, biotite, fair poor sort, poor por & perm, NOSCF
- 2515-2539 - Sh aa, irreg thn sh lam

- Core #12 - 2539 - 2599', Rec 60'
- 2539-2547 - Sh, lt tn-lt gy-lt-gn, olive gn intbd, v calc, slty, lam
- 2547-2548 - Sltst, lt gy w/tinge gn, v calc, sdy, thn bds
- 2548-2550 - Sh, aa
- 2550-2553 - Algal ls, lt tn-lt gy, calc-dolo, v cly, sdy, v irreg bds, dns; congl granule-pbl, lt tn sh aa, frgs in mtx of gn sh aa, w/rnd
- 2553-2561 - Sh, aa, lt gn & olv gn, color pred, v fw slty
- 2561-2582 - Intbd ss & sh, ss-gn gy, calc, slty, cly, predom vfn, pr sort, gdl in minor part-frgs; sh aa, but predom lt gn & lt oik grn
- 2582 - 2599 - Sh, aa but bcm lt gn-pale olv gn, ss lam aa

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RED WASH FIELD

- Core #13 - 2599 - 2659', Rec 60', 7 3/4" hole  
 2599 - 2626 - Sh, aa, med gn-med dk olv gn, fw sty; bcm interlam & intbd w/sh, lt gn & gy, more slty  
 2626 - 2630 - Ss, lt gn gy, slty, calc, vfn-fn s ang-s rnd qtz w/minor blk cht, o'gths, fair sort, 1/2 fair-good por & perm, 1/2 poor-fair, grad contact at top & bottom, NOCSF  
 2630 - 2634 - Sltst, lt tn, calc, dns, mass, fw intbds ss aa, bottom contact grad, NOCSF  
 2634 - 2644 - Sh, aa, lt gn gy-med gn-med dk olv gn, dk olv gn minor; bcm intbd & interlam vfn ss & sltst, lt-med gn, v dns, ti, calc, v irreg bds, NOCSF  
 2644 - 2646 - Ss, lt gn gy, dolo-calc, pt slty, vfn-fn, s-ang- s rnd, qtz, w/o'gths, mass, fair por & perm, v spotty mnr sat & stn, app dead oil, bri yel flor on sat part w/CLL, no flor w/out sat, zones gen crser, not slty, more por & more dolo cem  
 2646 - 2653 - Sh, ss & sltst, sh as 2600 but med gn, mass, v dns & v well ind  
 2653 - 2659 - Sltst, lt tn, calc, cly, v mnr sdy, lam, mod dns, interlam lt gn-olv gn shs, aa NOCSF

- Core #14 - 2659 - 2719', Rec 60', 7 3/4" hole  
 2659 - 2719 - Interbedded sltst, sh and ss  
 Sltst - lt gry to tn, calc to v calc, com, scat dk unknowns, hd, dns, ti, v thinly irreg lam due to compaction, com layers & stks dull gold flor, dull cut flor  
 Sh - lt gy to dk gy-gn, calc to v calc, hd, dns, ti, flor, aa, bcm drkr downward  
 Ss - tn to gy, calc, vfn gn w/com med, hrd, dns, ti, flor aa; dead oil stks in all  
 2" cong strk @ 2683 making scour fill contact w/lower sh bed  
 Sh med gy to blue gy, calc, flor aa, intbd sh, sltst & ss aa, bcm dk w/depth.

- Core #15 - 2719 - 2779', Rec 60', 7 3/4" hole  
 2719 - 2726 - Sh-lt gy to lt & med bn, v calc, v thinly irreg lam due to compaction, hd, dns, ti, com layers & stks dull gold flor, & cut flor, raredead oil stks, pt slty; bcm med dk brn to dk gy, calc, v thinly irreg lam due to compaction, hd, dns, ti w/flor aa, pt slty  
 2726 - 2728 - Ss, lt med gy grn, vfn-fn gn, calc, argil, w/abund biotite flakes & poss spotty stn, no flor, well sort, hd dense, ti, thn irreg beded due to compaction, v thn intbd tar  
 2728 - 2729 - Sh, aa w/v minor ss stks  
 2729 - 2731 - Ss, lt tn & gy, intbd w/minor sh stks aa, calc, vfn-slty, argil, well sort, scat dk acces min, hd, dns to sli fri, ti, no show, wet  
 2731 - 2777 - Sh, lt gy to lt & med brn w/rare grn brn as from 2719 to 2720 intbd w/ss  
 2777 - 2779 - Ss, lt to med gy, cse gn, congl, poor sort, ang to sub rnd qtz grns, calc, scat dk cht, bent, com sh frags, spotty bri grn flor & cut flor, no vis stn

- Core #16 - 2779 - 2839', Rec 60', 7 3/4" hole  
 2779-2786 - SS, lt med gy, csg gn, congl, poor sort, ang to sub rnd qtz gns, calc, scat dk cht, bent, sh frags, NOCSF, mod hd to fri  
 2786 - 2815 - Sh, lt gy-grn, v calc, v thinly lam, hd, dnse, ti/w/slty strks, bcm lt tn & brn to dk gy-grn,  
 2815 - 2819 - Ss, as above w/few scat med grns, no SOCF, bcm inc gr grn down to slty ss in lowest 1'  
 2819 - 2839 - Sh, aa w/few scat slty stks

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RED WASH FIELD

Core #17 - 2839 - 2900', Rec 61', 7 3/4" hole

2839 - 2874 - Sh, lt bn &amp; gy to dk gy-grn, v calc to poss dolo, thn irreg lams due to compaction, hd, dnse, ti, occ stks dull gold flor &amp; cut flor, rare dead oil stks, pt slty

2874 - 2883 - Ss, lt gy to brn, calc, fn gn w/few med, comm qtz o'gths, rare cht frags, est fair to good perm &amp; por, rare slty stks, no SOCF

2883 - 2900 - Intbd Sh, ss &amp; sltst

Core #18 - 2900 - 2960', Rec 60', 7 3/4" hole

2900 - 2906 - Ss, lt to med gy tn, sl calc to calc, fn gn, w/rare cse stks, few slty stks, mod hd to fri, com o'gths on qtz, few scat cht frags, rare pyrite &amp; biotite, no SOCF

2906 - 2910 - Sh, med gy &amp; brn, calc to v calc, abd stks dead oil w/gold flor, hd, dnse, ti, rare slty stks, generally thn lam

2910 - 2916 - Ss aa, except slty to fn grn, less perm, com stks dull gold flor in slty stks, otherwise no SOCF

2916 - 2924 - Sltst, med gy to brn, calc, mass to thn, lam com stks dead oil w/dull gold flor, rare sh stks, vfn ss stks

2924 - 2940 - Ss &amp; sh in irreg contorted intbds

Ss-fn gn w/few med cse gns &amp; stks, sl calc, com excel SOCF in irreg spots, spotty bri yel flor &amp; cut flor

Sh-dk gy to blk, makes irreg convoluted contacts w/ss, com stks dull gold flor

Ss, aa, vfn to fn gn, w/rare slty stks, few med ss stks, rare irreg stks bri yel flor

Sh, dk gy &amp; brn, calc to v calc, hd, dnse, ti, thn irreg lam due to compactions, com slty stks, few vfn ss stks, com stks dull flor in sh

2940 - 2942 - Sh, aa

2942 - 2943 - Ss, aa, dk gy, fn gn w/few med gns, excel SOCF, flor bri yel, pt slty

2943 - 2960 - Sh &amp; ss

Ss, med gy, fn to med grn w/cse gns

Sh aa

Sh, med gy, mass, pt vfn ss, v calc, com qtz o'gths, few scat cht, rare sh stks, dull gold flor, hd, dns, ti

Core #19 - 2960 - 3020', Rec 58 1/2', 7 3/4" hole

2960 - 2965 - Sh, lt-med gy, w/tan stks, slty, com thn irreg lam due to compaction, few scat cht, frags, rare mica, rare irreg spots chalcopryrite, hd, dns, ti, com stks dead oil w/dull gold flor &amp; cut flor, v calc

2965 - 2968 Ss, med-dk gy, vfn-fn gn, well sort, com qtz o'gths, rare slty stks, calc, no SOCF, but bri yel cut flor, est fair perm & por, excel small x-beds  
Sh aa, lt gy

2968 - 2971 - Sh aa, lt tan, v calc, poss mrlst, no slt

2971 - 2980 - Sh, aa, blk, v organic, sli calc, w/few stks v calc tan sh, no slt

2980 - 3020 - Sh, aa, blk, organic etc bcm blk in lower 16', no SOCF

Sh, aa, lt tan, v calc, poss mrlst, no slt @ 3005' bcm blk, v organic etc @ 3010

Core #20 - 3020 - 3080', Rec 59', 7 3/4" hole

3020 - 3035 - Sh, lt gy to blk, sli calc, com thn irreg lam due to compaction, few thn slty lam, hd, dnse, ti, com stks dead oil w/dull gold flor &amp; cut flor bcm lt tan, va calc, poss mrlst, rare thn slty strks, no SOCF

3035 - 3036 - Ss, med brn, vfn gn, slty, sli calc, abund qtz o'gths, few scat bio, faint kerosene odor, dull gold flor throughout, dull yel cut flor

3036 - 3080 - Sh, aa, lt tn, etc, bcm blk, organic etc; lt gy, mass, calc, v slty, w/few scat vfn gns, few scat specks oil, rare scat cht &amp; bio, few scat stks dull gold flor, com scat carb frags, bcm intrbd blk organic &amp; lt tr v calc, bcm lt tn, v calc downward, 6" stk ss @ 3072 as 3035-3036'.

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RED WASH FIELD

Core #21 - 3080 - 3140', Rec. 60', 7 3/4" hole

- 3080 - 3083 - Sh, med gy-grn to blk, sli calc, com thn irreg lam due to compaction, hd, dnse, ti, com strks dead oil w/dull gold flor & cut flor.
- 3083 - 3084 - Sh, aa, lt tan, v calc, poss mrlst, rare thn slty strks, no SOCF
- 3084 - 3085 - Ss, lt to med tan, vfn to fn gn, sli slty, calc, abund qtz o'gths, few scat frags cht, excel small x-bds, hd, str oil odor, wk stn, dull yel flor, bri yel cut flor, oil in abd specks throughout
- 3085 - 3088 - Sh, lt gy-grn, v calc, sli slty, com scat carb specks, com v thn slty lam, no SOCF
- 3088 - 3096 - Ss, aa, dk gy, com scat vvgs, sat w/dead oil, dull gold cut flor
- 3096 - 3110 - Sh, as 3080 to 82; sh fracs w/hvy sticky oil, yel flor, slty in basal foot
- 3110 - 3115 - Ss, lt tan to gy, vfn-fn gn, calc, massive w/few thn sh stks near bottom, hd, few scat cht & mica, com qtz o'gths, no SCOF
- 3115 - 3116 - Ss, aa, except dk gy mottled due to irreg bdg, fn to med gn w/few slty stks, sli calc, stks & spots bri yel flor & cut flor
- 3116 - 3125 - Sh, aa, w/few thn ss strks
- 3125 - 3140 - Ss, as 3110 to 3114, except com irreg stks of oil stn'ng, stn'ng coincides w/less well cemented stks, oil stn'g constitutes approx 25% of this unit.

Core #22 - 3140 - 3200', Rec 60', 7 3/4" hole

- 3140 - 3142 - Ss, wh to lt gy, mass to thn bd, hd, v fn gn w/stks fn gn, few scat med gns, few blk cht gns, calc, rare scat stks dead oil w/dull gold flor & cut flor
- 3142 - 3145 - Sltst, lt gy-grn to dk gy, thn bd to lam, hd, dnse, ti, calc, w/com dk gy-grn sh stks, com thn stks dead oil
- 3145 - 3148 - Ss, aa, except about 75% gives bri yel cut flor, also has thn stks sh frags, mass to thn bd w/com x-bds
- 3158 - 3170 - Sh, lt gy, to dk gy-grn, slty, w/stks sltst aa, thn irreg lam com thn stks dead oil w/dull gold flor & cut flor
- 3170 - 3172 - Sltst aa, except sndy, no OSCOF
- 3172 - 3177 - Sh, aa
- 3177 - 3182 - Ss, aa, except slty in top 1' w/bri yel cut flor throughout
- 3182 - 3200 - Sh, aa

Core #23 - 3200 - 3261', Rec. 61', 7 3/4" hole

- 3200 - 3201 - Sh, lt gy-grn to lt gy, calc, fiss, lam
- 3201 - 3202 - Ist, dk bl-gy, sh, slty, fn xln, frac sealed w/calc
- 3202 - 3203 - Sh, aa w/thin strks oil sh, dk brn to dk olv gn
- 3203 - 3204 - Ss, lt gy, stn lt brn, sli calc, fn gn, s ang, w/sort, qtz w/few blk cht gns, sft, pbls at base, gd por & perm, gd OCF and odor
- 3204 - 3206 - Sh, aa, w/thn stks slty ss & ss filled fracs
- 3206 - 3208 - Sltst, v dk gy, v calc, hd, ti, sp OCF; oil sh, blk to dk brn w/lt gy-grn sh lam, sli calc, dull gold flsn
- 3208 - 3210 - Sh, lt gy, v calc, mrlly, slty, w/intbd thn gy ss stks, fw thn oil sh stks
- 3210 - 3212 - Ss, lt gy, calc, slty, v fn gn, s ang, fr-gd sort, fr to pr por & perm, mostly qtz, fw scat blk cht gns, thn x/lam, med sft
- 3212 - 3213 - Sh, aa, only lt gy to gy-grn
- 3213 - 3215 - Sltst, lt to med gy, sndy, calc, cse gn, s ang, fr por, low perm, grd down to ss, lt to med gy, slty, v calc, fr-pr por & perm, s ang, lam bdg, NOSCF w/sltst stks
- 3215 - 3217 - Sh, aa
- 3217 - 3222 - Ss w/sltst stks, aa; w/thn sh strks incr down, grd into sh w/thn ss & sltst stks, aa, NOSCF
- 3222 - 3228 - Sh, aa
- 3228 - 3229 - Ss, lt gy, v calc, aa, NOSCF

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RED WASH FIELD

## Core #23 (Cont'd)

- 2" Ss aa, @ 3235', bri yel flsn, bldg blk hvy oil
- 3229 - 3236 - Sh, aa, except more dk olv-gn oil sh, intlam w/lt olv gn sh, whole intvl low grd oil sh, getting richer downward, dull gold flsn
- 3236 - 3241 - Sh, lt to med gy, slty, w/slty ss stks, irreg lam, some ss stks w/thin sh pbls & thn x-lam
- 3241 - 3243 - Sltst, lt gy, v calc, hd, ti, dns, NOSCF
- 3243 - 3249 - Oil sh, dk brn to dk olv gn, calc, fn, irreg lam, thn sh-sltst intbds, becm dker & richer downward
- 3249 - 3252 - Ss, lt gy, slty, v calc, hd, ti, dns, w/thin intbds lam sh, aa, sh & cht pbl cgl at base, NOSCF
- 3252 - 3261 - Sh, lt gn, v calc, mass, dns, w/slty-ss dikes, some dist lam; lam lt gn & dk olv gn w/few stks olv-gn oil sh grd down to gd oil sh; oil sh, blk to dk brn, lam w/dk olv-gn calc

## Core #24 - 3261 - 3320', Rec 59', 7 3/4" hole

- 3261 - 3262 - Ss, lt gy, stn spot brn, sli calc, v fn to fn gn w/com sh pbls, x-lam, s ang, w/sort, qtz, fw scat blk cht gns, sft, fr por & perm, gd cut, bri yel flsn
- 3262 - 3264 - Sh, gn, sli calc, lam, hd, dns, grd down to oil sh, low grd
- 3264 - 3265 - Oil sh, lw grd, lam, dk brn to tn, & pl gn, calc, w/sltst filled frac, dl gold flsn
- 3265 - 2" - Ss, lt gy, slty, calc, v fn gn, bri OCF, fr sort, low por & perm
- 3265 - 3270 - Sh, aa, lw grd oil sh, w/intrlam sltst & ss bds, thk 15%, dl gld flsn, fw bri yel spts & stks
- 3270 - 3271 - Sh, gy & gy-gn, lam, calc, hd, dns
- 3271 - 3274 - Ss, lt gy, stnd brn, calc, v fn gn, lam, & x-lam, s ang, w/sort qtz, v fn to fn gn, fr por & perm, gd oil stn, gd OC&F, hvy oil smell; sh, gn-gy, slty, calc; ss, aa, w/sh ptg, gd OCF
- 3274 - 3280 - Sltst, lt-med gy, v calc, hd, dns, ti, fw scat sndy stks, spot v pale yel flsn when cut, lam, fw thn zones x-lam
- 3280 - 3281 - Sltst, aa
- 3281 - 3286 - Sh, lt gy to tn, w/50% intbd
- 3286 - 3287 - Sltst aa, w/30% intbds
- 3287 - 3293 - Intbd sh & sltst aa, irreg thn bdg & lam, some x-lam channeled contacts com
- 3293 - 3295 - Sh, lt gy, v calc, lam, w/thn lns & lam sltst, aa
- 3295 - 3302 - Sh, aa, w/thn int bds low grd oil sh, lt brn, dull gld flsn, incre down into low grd oil sh w/thin intbds lt gysh
- 3302 - 3303 - Sltst, lt gy, sndy, v calc, w/x-lam ss str, ss lt gy, calc, s ang qtz, fw blk cht gns, gd OC&F in ss str
- 3303 - 3304 - Sh, gn, v sli calc w/vert sh filled dikes
- 3304 - 3305 - Ss, lt gy to lt bf, dkly stnd w/blk oil, calc, fn gn, w/sort, good por & fr perm, sft, x-lam, channeled base, v gd OC&F
- 3305 - 3311 - Intbd sltst & sh; sltst, lt gy, v calc, hd, dns, ti, w/sh ptgs, NOSCF sh, lt gy-gn w/lam med brn oil sh, intbds sltst & num short, thn sltst dikes, irreg bdg
- 3311 - 3320 - Ss, lt gy, v calc, chalky, microxln mtrk, fn gn, fw scat med gns, s ang, w/sort qtz, fw scat blk cht gns + other dk unknowns, mass sft, low poros & perm, gn sh ptngs near base, fw spots & stks bri yel OCF throughout

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RED WASH FIELD

Core #25 - 3320 - 3380', Rec 60', 7 3/4" hole

- 3320 - 3333 - Ss, lt gry to wht calc, slty, fg, to vfg, well sort, s ang qtz, sft to md hd, w/strgrs, lt gr-grn slty sh, spotty stn, flsn @ 3329'
- 3333 - 3364 - Ss, lt gr to wht, calc, fg to vfg, scat ools, few cht pebs, scat oil stn, occ strg lt grn sh & sltst
- 3364 - 3380 - Ss aa, intbd w/lt gr calc sltst & sh, gr-olive grn.

Core #26 - 3380 - 3440', Rec 60', 7 3/4" hole

- 3380 - 3385 - Ss, lt gr, calc, vfg, to fg, well sort, mod sft, scat ool & cht pebs, lt evn stn, gd OCF
- 3385 - 3407 - Intbd ss, sltst & sh, ss aa, sltst lt gr & brn, x bd, hd, ti; sh lt gr-grn, sli calc, scat spotty stn in ss & sltst
- 3407 - 3427 - Sh, lt gry & brn, calc, slty, pyr w/thn strks oil sh dk olv grn
- 3427 - 3440 - Ss, lt gr, calc, vfg, s ang, well sort, mod sft, scat cht & ool pebs, lt stn top 2 1/2', lt gr sh parting 3432-33.

Core #27 - 3440 - 3501', Rec 61', 7 3/4" hole

- 3440 - 3460 - Ss, lt gy, calc, py, fn-grn-vfg, s ang, w/sort mod hd, to sft, qtz, fw scat blk cht gns, pr to fr por & perm, lam, some x-lam, w/lt gn calc slty-sh & sh-stst strks and ptgs; some intbd sltst, lt gn, sh, dns, hd, ti, NOSCF @ 3455'
- 3460 - 3480 - Ss, aa, 10% calc gns & pel, gd por & perm, v pale bl spot & strky OCF; cgl-ss, lt gy, ss mtrx aa, abd calc sh & blk cht pbls; Sh, lt gn, sli calc, slty, hd, dnse @ 3473'
- 3480 - 3501 - Intbd Ss, sltst & sh, ss aa, sltst - lt gy, sndy, calc, cse gn, w/sort, hd, ti, low por & perm, NOSCF; Sh - gn, v sli calc, slty, dns, hd, ti, grdg down thru sltst into ss

Core #28 - 3500 - 3560', Rec 59', 7 3/4" hole

- 3500 - 3520 - Sltst, grn, hd, dns, ti, arg, thnly lam, irreg micro-structures, pt sli calc, NOSCF; bcm sltst to ss, med gy-gy grn, vfn gn-slty, s ang, w/sort qtz, hd, dns, ti, pt v argl, thnly lam, com dk slt size dk gns, NOSCF; bcm intbd sltst, lt gy, sli calc, pt arg, hd, dns, ti, com dk slt size unknowns, NOSCF & sh, med grn, hd, dns, w/abd micro structures
- 3520 - 3540 - Sltst, aa; w/intbd sltst & sh
- 3540 - 3542 - Sltst-ss, aa
- 3542 - 3560 - Sh, med grn, v sli calc, v thnly lam, hd, dns, irreg micro struc, pt v slty & gy w/intbd sltst

Core #29 - 3560 - 3620', Rec 57', 7 3/4" hole

- 3560 - 3568 - Intbd sh & ss; sh - dk gy, thnly lam & sltst, lt gy, qtz, v sl calc, abd irreg micro struc; ss, lt gy, vfg, slty, s ang, w/sort
- 3568 - 3580 - Sltst-ss, aa, com ost, com dk gy calc frag; bcm ss-sltst, med lt gy, calc cem, no observed qtz,
- 3580 - 3600 - Intbd sltst & sh; sltst-lt gy, abd whole & frag ost, var qtz, calc cem, s ang, hd, dns, ti, bcm med gy; sh - gy-grn, sl calc, w intbd lt gy slt, micro struc, NOSCF
- 3600 - 3617 - Intbd sltst aa & sh, dk gy, thnly lam, tr dull yel cut flor in sltst incl in sh, dull gold oni; ss, lt gy, ost coq, fn-vfg, NOSCF, calc cem; sh, grn-gy grn, slty, thnly lam & sltst aa
- 3617 - 3620 - No recovery

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RED WASH FIELD

Core #30 - 3620 - 3680', Rec 60', 7 3/4" hole

- 3620 - 3625 - Sh, med-dk gry, hd, dns, sl calc, slty in part  
 3625 - 3640 - Sltst, med-lt gry, dns, hd, ti, occ thin ss strg, lt gr, vfg, scat irreg oil stn  
 3640 - 3650 - Ss-sltst aa, sl arg, sft, med hd, guly msv, local zones w fn-slt size, rnd, calc gns to 10%  
 3650 - 3680 - Sltst-ss aa, guly msv, bcmg more arg down, med hd

Core #31 - 3680 - 3740', Rec 60', 7 3/4" hole

- 3680 - 3687 - Sltst-ss, med gy, s ang, vfn-slt, w/sort, 2° o'gths, calc cem, w/ind, hd, dns, ti, msv; sh, med gy, dns, hd, calc, thnly lam  
 3687 - 3700 - Sltst-ss, lt med gy, vfn gn-slt, s and-s rnd, w/sort, w/ind, calc cem bcm sh, med grn-dk gy, hd, dns, lam calc, minor sltst inbds at bottom.  
 3700 - 3709 - Sh, aa w/sltst interlam to 20%, fr-gd oil stn, dull gold flsn & yel cut flsn  
 3709 - 3712 - Sltst-ss, lt-med gy, qtz, s and-s rnd, vfn-slt, w/sort, calc cem, fr ind, prob fr por, NOSCF  
 3712 - 3720 - Sh, med-dk gy-grn, dns, hd, lam, v sl calc, v minor sltst interlam, intbd sltst aa & sh aa  
 3720 - 3727 - Sltst-ss, med-lt gy, vfn-slt, s ang-s rnd, guly w/ind, ti, hd, dns, w/sh aainbd to 15% w/micro struc  
 3727 - 3740 - Sh, dk grn, lam, hd, dns, sl calc, w/sltst aa

Core #32 - 3740 - 3800', Rec 60', 7 3/4" hole

- 3740 - 3752 - Sh, lt-med dk gy, calc, hd, dns, lam, abd micro struc, some thn zones may approach "oil sh" w/lt gy sltst interlam, dip 4 - 5°  
 3752 - 3758 - Sltst-ss, lt gy, vfn-slt, s ang-s rnd, w/sort, fr-w/ind, calc cem, hd, dns, ti, tr random fn gn, clr, ang qtz, tr tn calc gns, minor sh intlam to 10% compactional deformation in sh, dip 7 - 8°  
 3758 - 3762 - Sh, aa, wtr v dull gold flsn, dd oil  
 3762 - 3773 - Sltst-ss, lt gy, vfg-slt, s rnd, frstd, w/sort, fair ind, msv-lam, calc cem, tr random clr, ang, fn, qtz gns, tr tn, rnd calcgns, tr solid hydrocarbon  
 3773 - 3782 - Sh, med grn, hd, dns, lam, sl calc, micro struc, dip 6 - 12°  
 3782 - 3795 - Sltst-ss, aa; stks gd dull gold flsn, dull yel cut flsn, v ltl vis stng, scat specks solid hydrôcarbon, dip 9 - 11°  
 3795 - 3800 - Sh, med-dk grn, hd, dns, lam-sl vsv, v sl calc, dip 5° fair

Core #33 - 3800 - 3860', Rec 60', 7 3/4" hole

- 3800 - 3804 - Sh, med grn lam, hd, dns, sl calc, ptly slty, dull gold cut flsn  
 3804 - 3810 - Sltst, lt-med gy, qtz, s and-s rnd, w/sort, w/ind, calc cem, hd, dns, ti, scat tr dull gold cut flsn; ss, med-crs gn, calc gns-s rnd-rnd, w/sort, calc cem, w/cem, NOSCF  
 3810 - 3817 - Sh, med-dk grn, sl calc, lam, hd, dns, v minor inbds & inlam of qtz sltst w/random wh gns  
 3817 - 3829 - Sltst-ss, lt gy, qtz, vfg-slt, s ang-s rnd, w/sort, calc cem, w/ind, hd, dns, ti, lam-msv, w/abd random fn-slt wh gns; some minor grn sh inlam  
 3829 - 3834 - Sh, grn, sl calc, minor sltst inlam, dull gold cut flsn in sh  
 3834 - 3858 - Sltst-ss aa, intricately x-lam, dull gold cut flsn  
 3858 - 3860 - Sh, med-dk grn, lam, sl calc, dns, hd

WELL NO: 12-18G

PROPERTY: Raven Ridge

RED WASH FIELD

Core #34 - 3860 - 3920', Rec 60', 7 3/4" hole  
 3860-3862 - Sh, med-dk grn, lam, dns, hd, sl calc,  
 3862-3884 - Sltst-ss, lt-med gy, qtz, vfn-slt, s ang-s rnd, calc cem, fr-w/ind,  
 local fr por, irreg lam, minor sh inbd, tr dk acc mnl  
 3884-3891 - Sh, med-dk grn, hd, dns, lam, v sl calc, w/minor lt gy sltst lam  
 3891-3900 - Ss, lt gy, fn-vfg, v slty, qtz, s ang-s rnd, calc cem, w/ind,  
 dns, hd, tr low por, prob locally grades into sltst  
 3900-3912 - Sh, med-dk gy-grn, v sl calc, dns, hd, lam w/thin inlam, tr arg  
 ls strgr containing comabd calc gns  
 3912-3915 - Sltst, lt gy, loc sdy, s ang-s rnd, w/sort, calc cem, w/ind, hd,  
 dns, w inlam sh & ls aa  
 3915 - 3920 - Sh, aa; Ls, bf-tn, clastic, med gn, vf-crs gn, v pr sort, calc cem,  
 tr por, gd gold flsn, yel cut flsn, scat specks of oil; sh, aa  
 sltst aa, minor is aa, fr gold flsn, yel cut flsn, scat specks oil

Core #35 - 3920 - 3980', Rec 60', 7 3/4" hole  
 3920-3939 - Sn, med-dk gy-grn, v sl calc, dns, hd, lam abd compactional drform  
 3939 - 3942 - Ls, tn, sl dol, dns, hd, hly deform, lt-med gy sh filling brks, tr  
 vug por, grds down into lt gy sh  
 3942-3955 - Sh, brn-blk, aa;  
 3955-3958 - Ls, highly deform  
 3958-3969 - Sh, lt-dk grn, v sl calc, dns, hd, lam, compactional deform  
 3969-3980 - Ls, highly deform; Sh, aa;

September 8, 1959.

Attempted to run B.J. MNL Log. Ran McCullough Density Log.

September 9, 1959

Recorded Schlumberger Induction-ES 252-3972'; Microlog, Sonic, Gamma-Neutron and Potoclinometer continuous dipmeter.

September 10, 1959

Installed formation logging unit.

September 11, 1959

Drilled 7 5/8" hole 3980 - 4871'.

September 16, 1959

Ran B.J. MNL Log. Drilled 7 5/8" hole 4871 - 4996'.

September 17, 1959

Ran McCullough density log.

September 18, 1959

Ran Schlumberger Induction-ES and Microlog. Recorded Microlog 1900-4993'.  
 "H" 4019', "I" - 4190'; "J" - 4385'; "K" - 4518'; "K<sub>B</sub>" - 4590'; "L" - 4768'.  
 DST #1 - 2 hr HFT interval 4899-4996'. Set pkrs at 4885 and 4889'. Opened valve  
 3 min then SI 30 min for ICIP. Opened 2 hrs, med blow decreasing to faint at  
 end of test. No gas to surface. Took 30 min FCIP, rec 2668' total rise, top  
 120' oil, next 240' watery mud, next 1020' oil, 32.3° API, 90°F pour point, bottom  
 1288' water grading from 3.4 ohm meters (65°F) to 3.0 ohm meters at bottom (120  
 g/g NaCl) (Mid resist 4.2 ohm meters at 65°F). Pressures - Lower: IH-2550;  
 ICIP-1755; IF-210; FF-1170; FCIP-1515; FH-2550; Top: IH-2490; ICIP-1705; IF-  
 175; FF-1178; FCIP-1450; FH-2490.

September 19, 1959

DST #2 - 2 hr HFT interval 4785 - 4890'. Set packers 4780, 4785 and 4890'. Took  
 30 min ICIP, 2 hr flow test and 30 min FCIP. Had med decr blow during test, no

WELL NO: 12-18G

PROPERTY: Haven Ridge

RED WASH FIELD

gas to surf. Rec 2160' brackish smelling water testing 4.0 ohm meters @ 55°F.  
 Pressures: Top - IH-2385; ICIP-2065; IF-89; FF-947; FCIP-1915; FH-2385;  
 Bottom - IH-2468; ICIP-2133; IF-170; FF-1005; FCIP-1965; FH-2468.

September 20, 1959

Drld 7 5/8" hole 4996 - 4150'.

Ran Schlumberger IES log and found pick up at 5153'. Logged from 5147' to 4988'.  
 Shot sidewall samples at 4977, 4973, 4969, 4963, 4876, 4807, 4803, 4654, 4618, 4610,  
 4546, 4542. Recovered 1/2" to 3/4" at each depth.

4542' - fn to vy fn grn ss, no stn'g or flor

4546' - fn to vy fn grn ss, no stn'g or flor

4610' - no rec

4618' - fn to med grn ss, no stn'g or flor

4654' - No rec

4803' - fn grn ss, no stn'g, drk orange flor

4807' - fn grn ss, no stn'g, no flor

4876' - fn grn ss, no stn'g, no flor

4963' - Fn to med grn ss, no vis stn'g but good bri yel to lt orange flor

4969' - Ditto

4973' - Ditto

4977' - Ditto

September 21, 1959

DST #3 - 2 hr HFT interval 4595 - 4666'. Set packers at 4595, 4590 and 4686'.

Took 30 min ICIP, 2 hr flow test and 30 min FCIP. Blow while open was fair to  
 weak to very weak. NGTS. Rec 4140' clear water. Ditch sample tested 3.6 ohm  
 meters. 4140' above tool tested 3.70, 3000' above tool tested 5.0, 2400' above

tested 5.2, 1200' - 5.2 and at tool 5.8 ohm meters at 65°F. Pressures: Top -  
 IH-2340; ICIP-1810; IF-520; FF-1790; FCIP-1790; FH-2340; Bottom - IH-2385; ICIP-1882;  
 IF-635; FF-1860; FCIP-1882; FH-2385.

DST #4 - HFT interval 4536-4550'. Set packers at 4531, 4536 and 4550'. Took  
 30 min ICIP, 2 hr flow test and 30 min FCIP. Blow while open was weak to very  
 weak. NGTS. Rec 800' gassy water. Ditch tested 3.6 ohm meters. Sample 800'  
 above tool tested 5.5 ohm meters, 400' above 4.0, at tool 4.5 ohm meters at  
 60°F. Pressures, Top: IH-2320, ICIP-1915; IF-50, FF-370, FCIP-1790, FH-2320;  
 Bottom - IH-2342; ICIP-1923; IF-45; FF-360; FCIP-1779; FH-2342.

September 22, 1959

Bridged hole with cement 5096 4846' w/115 sacks neat cement. Plugged through  
 4841' of 3 1/2", 13.3# D.P. and 255' 2 1/2" EUE tubing hung at 5096'. Tubing  
 equipped with rotating scratchers 4841-4931'. Preceded cement with 10 bbls  
 water. 15 min mixing and pumping to place. Displaced with 35 bbls mud.  
 Pulled out.

Bridged hole with cement mixed with 20% sand and 2% Howco HA5 accelerator from  
 2284 to a calculated top of 2034'. Plugged through 2029' 3 1/2", 13.3# D.P.  
 and 255' 2 1/2" EUE tubing hung at 2284'. Tubing equipped with rotating  
 scratchers 2029-2179. Mixed 135 sacks neat cement, 24 sacks sand and 10  
 sacks Howco HA5 accelerator. 15 min pumping to place. Displaced with 14 1/2  
 bbls mud.

Felt for plug 8 hrs after setting it. Found top of plug at 2035'. Drilled  
 3' soft cement and 3' firm cement to leave top of plug @ 2041'.

WELL NO: 12-18G

PROPERTY: Raven Ridge

RED WASH FIELD

September 23, 1959

DST #5 - 1 hr HDST 2041-2008'. Set 2 top packers at 2008 and 2004' on 33' of perforated anchor setting on plug at 2041'. Took 30 min ICIP, 1 hr flow test and 30 min FCIP. Opened with med strong blow declining to very weak NGTS. Rec 1483' water testing 4.7 ohm meters, 700' above tool and 5.7 ohm meters at tool. Ditch tested 3.6 ohm meters at 60°F. Pressures - Top - IH-1010; ICIP-692; IF-219; FF-698; FCIP-648; FH-1010; Bottom - 1030; ICIP-217; IF-277; FF-675; FCIP-675; FH\_1030.

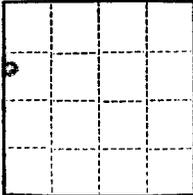
September 24, 1959.

Plugged with cement 285' to surface with 110 sacks. Crew released 4:00 p.m.  
September 24, 1959.

September 26, 1959.

Set 4" OD marker in 8 5/8" casing and cemented in place and abandoned well.

T. R. HULL



(SUBMIT IN TRIPPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake City  
Lease No. 071857-C  
Unit \_\_\_\_\_

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	X	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

15 December, 19 61

Well No. 12-18G <sup>Redrill</sup> is located 1980 ft. from N/S line and 660 ft. from E/W line of sec. 18

NW 1/4 18 (1/4 Sec. and Sec. No.)      7S (Twp.)      25E (Range)      SL (Meridian)  
Raven Ridge Area (Block)      Uintah (County or Subdivision)      Utah (State or Territory)

The elevation of the <sup>ground</sup>~~casin~~ floor above sea level is 5733 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Old well total depth 5150', 8-5/8" cmtd. 252, cement plugs  
Surface - 285, 2041-2284 and 4846-5096. Abandoned non-productive Sept. 26, 1959.  
Proposal: 1) Move in December 18, clean out to 5100'. 2) Run 5 1/2" 15.5# csg. to 5100 and cement 4600-5100, and test water shut off at 4940.  
3) Perforate uppermost wasatch sand 4955-65 and test for production.  
4) If commercial, will put on pump. If non-commercial, will pull 5 1/2" from about 4600, plug with cement as required, and abandon.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Daniel J. Pickrell, Operator (phone EXbrook 2-2270)

Address 155 Montgomery Street, Rm. 1109

San Francisco 4

California

By Elmo W. Adams

Title Geologist for Pickrell

Vernal Hotel, Vernal, Utah

ELMO W. ADAMS  
CONSULTING GEOLOGIST  
747 WINCHESTER DRIVE  
BURLINGAME, CALIFORNIA  
DIAMOND 3-6652

December 15, 1961

Mr. D. F. Russell  
District Engineer, Oil and Gas Leasing Branch  
U. S. Geological Survey  
416 Empire Bldg., 231 East 4th South  
Salt Lake City 11, Utah

Daniel J. Pickrell, Operator  
12-18G Redrill - Raven Ridge Area  
US Lease 071857-C, Sec 18-7S-25E  
Uintah County, Utah

Dear Mr. Russell:

Herewith in triplicate Form 9-331a, Notice of Intention to Redrill well (Standard Oil Co.) 12-18G. A copy of this Notice and covering letter is being sent to

- X
- 1) Oil and Gas Conservation Commission, State of Utah, 310 Newhouse Building, 10 Exchange Place, Salt Lake City 11
  - 2) E. J. Barker, Barker Well Service, Box 53, Vernal ( phone 1422), the drilling contractor,

with copies for the files of Daniel J. Pickrell, the operator, at 155 Montgomery Street, Suite 1109, San Francisco 4, phone EXbrook 2-2270, and the writer who will be in residence at the Vernal Hotel, Vernal during operations on this well.

It is requested that your communications on this operation be addressed to writer at Vernal Hotel, with copies to Pickrell's San Francisco address.

This operation is covered by \$5000 bond of Home Indemnity Company ( address New York, N. Y., agent: Finance Insurance Agency, Inc., 2801 East Colfax Ave., Denver 6, Colo., attention Mr. Mitton, phone Fremont 7-2749 ) # N-374719 dated 15 December 1961, executed by Daniel J. Pickrell and ~~submitted herewith~~ returned to the agent who will complete and forward to you.

Writer has contacted Mr. Odell Frandsen, grazing officer in Vernal District for the U. S. Land Office, to advise of our intentions. Mr. Barker, the drilling contractor has been requested to clear his operations with said office.

We expect to repair road and rig up at location starting immediately and to enter the subject well as soon as we have received your approval of our proposal.

Sincerely,

  
Elmo W. Adams

December 19, 1961

Mr. Elmo W. Adams,  
Consulting Geologist  
Vernal Hotel  
Vernal, Utah

Attn: Mr. Daniel J. Pickrell, Operator

Gentlemen:

This is to acknowledge receipt of your notice of intention to rework Well No. Raven Ridge Unit #12-18G, which is located 1980 feet from the north line and 660 feet from the west line of Section 18, Township 7 South, Range 25 East, SLEM, Uintah County, Utah.

Please be advised that insofar as this office is concerned approval to rework said well is hereby granted.

This approval terminates within 90 days if the above mentioned well has not been spudded in within said period.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT,  
EXECUTIVE DIRECTOR

CBF:avg

cc: Don F. Russell, Dist. Eng.  
U. S. Geological Survey

Mr. Daniel J. Pickrell,  
Operator

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R356.5  
Approval expires 12-31-60.

LAND OFFICE \_\_\_\_\_  
LEASE NUMBER \_\_\_\_\_  
UNIT \_\_\_\_\_

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Uintah Field Raven Ridge Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of December, 1961,

Agent's address 155 Montgomery St. Company D. J. Pickrell, Operator  
San Francisco 4, California Signed Elmo W. Adams

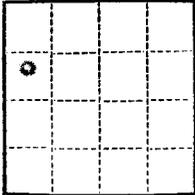
Phone EXbrook 2-2270 Agent's title Elmo W. Adams, Geologist

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SW NW 18	7 S	25 E	12-18G		Redrill -					Moved in light rotary equipment December 16 to drill out cement plugs in abandoned well and test. As of December 31 cleaning out and drilling at 2765.

NOTE.—There were no runs or sales of oil; no M cu. ft. of gas sold;

no runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.



(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake City

Lease No. 071857 C

Unit \_\_\_\_\_

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	X	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

8 January, 1962

**Redrill**  
Well No. 12-18 G is located 1980 ft. from N/E line and 660 ft. from E/W line of sec. 18  
NW 1/4 18 7 S 25 E SL  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Raven Ridge Area Uintah Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 5733 ft. KB 5743

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

**WORK PERFORMED:** Commencing 16 December using light work-over rig cleaned out cement plugs and redrilled to 2940 by 2 January. Determined had lost original hole at about 2041' top of sand cement plug and drilled new hole 2041-2940'.

**PROPOSE:** \* Fill hole with heavy mud, weld steel plate over 8-5/8" casing at surface and suspend operations until can move in heavier rotary equipment to redrill to 5100' and test Wasatch sand 4960-80 (of original hole). Will continue operations as soon as equipment can be contracted, expected to be within 10 days but in no event later than 15 June 1962.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company D. J. Pickrell, Operator

Address 155 Montgomery Street, Room 1109

San Francisco 4, California

Phone EX 2-2270

By Elmo W. Adams

Title Elmo W. Adams, Geologist

(\* Confirmation phone conference with Mr. Joe Harstead 2nd January.)

100-108-804

ELMO W. ADAMS  
CONSULTING GEOLOGIST  
747 WINCHESTER DRIVE  
BURLINGAME, CALIFORNIA  
DIAMOND 3-6652

STATE OF UTAH  
OIL & GAS CONSERVATION COMM.

March 17, 1962

Mr. Don F. Russell, Dist. Engr.  
U S Geological Survey, Conservation Branch  
416 Empire Bldg., 231 E 4 S, S.L.C. 11

Salt Lake City  
017857-C

REPORT OF OPERATIONS

D. J. Pickrell, Operator Well 12-18 G Redrill  
Sec. 18-7 S-25 E, SW-NW, Uintah Co. Utah

Cleaning out and drilling plugs. Cement and sand plug 2041-2284.  
Lost old hole at about 2185', drilled ahead 7 5/8" hole to 2975'.  
Ran Schlumberger directional survey to 2975". Filled hole with  
heavy mud, welded steel plate over 8 5/8". Suspended Jan. 3, 1962.

Moved in H & H Drilling Co. rig, T-Bone Hunt, superintendent,  
on March 10, 1962. Expect to reenter hole about March 17.

PROPOSE ( See Form 9-331a submitted 15 Dec. 1961 )  
Will follow program as submitted if we are lucky and get back  
into old hole. Otherwise, will drill to about 4945', take 50'-60'  
core, examine same and proceed as information indicates:  
test or run casing and test, or plug and abandon.

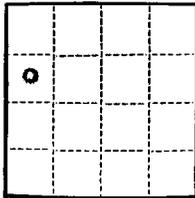
T-Bone Hunt is staying at Vernal Hotel, phone 560.  
Either Dan Pickrell or writer will be at well site ( Stay Vernal  
Hotel ) when core and make further decision. will be in touch  
with you.

Address Daniell J. Pickrell, Operator, 155 Montgomery St., Rm. 1109  
San Francisco, 4. Writer's address letterhead.

*Elmo W. Adams*  
Elmo W. Adams

We are going to have national AAPG convention here in San Francisco  
March 25-30. Hope you and Joe Harstead can be here. Spring is already  
here. We will be reluctant to come to Vernal during Convention  
as we are on committees which require attention. Regards E.W.A.

211



(SUBMIT IN TRIPLICATE)

Land Office Salt Lake City

Lease No. 071 857 C

Unit \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
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NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....	X		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

29 March, 1962

Well No. 12-18G is located 1980 ft. from N line and 660 ft. from W line of sec. 18

SE - NW 18                      7 S                      25 E                      SL  
(¼ Sec. and Sec. No.)                      (Twp.)                      (Range)                      (Meridian)

Raven Ridge Area                      Uintah                      Utah  
(Field)                      (County or Subdivision)                      (State or Territory)

The elevation of the derrick floor above sea level is 5733 ft. **KB 5743**

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

**OLD WELL Standard Oil 12-18G, Abd. 26 Sept. 1959. T. D. 5150, 8-5/8" cmtd. 252', cement plugs 2041-2284, 4846-5096.**

**WORK PERFORMED Cleaned out to about 2100'. Lost old hole. Redrilled to 5027'. Cored 4948-5027. No oil nor gas shows. Surface Uintah. Top Green River 2312', top Wasatch 4907'. Size hole 7-5/8".**

**PROPOSE \*** Place 30 sx cement plugs (fill 104') 4850-4950, 2260-2360, and 200-300, and 10 sx plug at surface with 4" pipe marker in casing to 4' above ground. Abandonment work 29 March will complete clean-up when pits dry up.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company D. J. Pickrell, Operator

Address 155 Montgomery St., Room 1109

San Francisco 4, California

EX 2-2270

By Elmo W. Adams  
Elmo W. Adams,  
Title Petroleum Engineer

(\* Confirmation phone conference USGS Engineer Joe Harstead 29 March.)

ELMO W. ADAMS  
CONSULTING GEOLOGIST  
747 WINCHESTER DRIVE  
BURLINGAME, CALIFORNIA  
DIAMOND 3-6652

March 30, 1962

Oil and Gas Conservation Commission  
30 Newhouse Building  
10 Exchange Place, Salt Lake City 11

Gentlemen:

Herewith copy of our Notice of Intention to Abandon  
DANIEL J. PICKRELL, OPERATOR well 12-18 G (Sec 18-7S-25E  
Uintah Co.).

If you require such form on this well please send me several copies  
(including sufficient for 3 file copies) "Affidavit and Record of Abandon-  
ment and Plugging".

Sincerely,

  
Elmo W. Adams

EWA:em

cc: D. J. Pickrell

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City  
LEASE NUMBER 071 857 C  
UNIT \_\_\_\_\_

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Uintah Field Raven Ridge Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of March, 19 62,

Agent's address 155 Montgomery St., Rm. 1109 Company Daniel J. Pickrell, Operator  
San Francisco 4, California Signed Elmo W. Adams

Phone EXbrook 2-22 70 Agent's title Elmo W. Adams, Petro. Engr.

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SW NW 18	7 S	25 E	12-18-G		Redrill:					<p>Barker Drilling Co. production rig cleaned out and redrilled to 2975'. Lost old hole about 200'. Suspended January 3, 1962.</p> <p>Moved in H &amp; H Drilling Co. equipment on March 10, 1962. Redrilled 7-5/8" hole to 4997'. Cored 7 1/2" hole 4997-5027. Ran e-log 4900-5027.</p> <p>No oil or gas shows of importance.</p> <p>Filled hole with heavy mud. Placed 30 sx cement plugs 4950-4850, 2360-2260, and 300-200, 10 sx at surface.</p> <p>Completed abandonment March 30, 1962.</p>

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

April 3, 1962

Elmo W. Adams, Consulting Geologist  
747 Winchester Drive  
Burlingame, California

Re: Well No. Raven Ridge Unit 12-18 G,  
Sec. 18, T. 7 S., R. 25 E.,  
Uintah County, Utah

Dear Mr. Adams:

We would like to thank you for submitting the notice of intention to abandon and Lessee's Monthly Report of Operations for the above mentioned well. It is also necessary for you to complete the enclosed copies of Form OGCC-3, "Log of Oil or Gas Well" in duplicate, and return to us as soon as possible. Legible copies of U. S. Geological Survey Form 9-330 may be used in lieu of our forms. Copies of any electric and/or radioactivity logs that might have been run on this well should also be filed with this Commission.

Form OGCC-2, "Affidavit and Record of Abandonment and Plugging" is no longer used by this Commission; only the notice of intention to abandon and subsequent report of abandonment.

Your prompt attention to the above request will be very much appreciated.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

KAREN BERGMAN,  
RECORDS CLERK

KB

cc: D. J. Pickrell, Operator

Encl: (Forms)

EM  
WAD  
11

ELMO W. ADAMS  
CONSULTING GEOLOGIST  
741 WINCHESTER DRIVE  
BURLINGAME, CALIFORNIA  
DIAMOND 3-6652

June 29, 1962

*Utah Oil and Gas Conserv. Comm*

Mr. D. J. Pickrell  
155 Montgomery St., Rm. 1109  
San Francisco 4, California

D. J. PICKRELL, OPERATOR  
Well 12-18 G Redrill  
Lease: SL 071857 C  
Raven Ridge, Uintah Co., Utah

Dear Dan:

Herewith the master copy and several copies of the Log and Abandonment Report on subject well.

You will note that this Log was prepared April 10th except as to the final paragraph, which was added on June 25th after the surface marker had been put in place. H & H Drilling Company had agreed and promised to do this job and to clean up the surface location over the past ninety days. I finally had to get someone else to put in the marker. I find that H & H still have some drilling equipment on the location and we will have to wait until this is moved before we can finally clean the location. I have written them, see letter enclosed, requesting them to immediately remove their equipment from the location or acknowledge that it is abandoned and can be disposed of.

With a copy of this letter I am transmitting to:  
Don F. Russell, District Engineer, U. S. Geological Survey Conservation Branch, 416 Empire Building, 231 East 4th South, Salt Lake City 11  
3 copies of History and Abandonment Notice and 3 copies of the Electric Log.

X

The Oil and Gas Conservation Commission, State of Utah, 310 Newhouse Building, 10 Exchange Place, Salt Lake City 11  
2 copies of History and Abandonment Notice and 2 copies of the Electric Log.

I have sent one copy of the Log and Abandonment report to Standard Oil Company, attention Mr. Patterson at the Red Wash Field. He already has a copy of the Electric Log.

I will keep you advised of progress of clean-up of the surface of this location.

Sincerely,



Elmo W. Adams  
EWA:em  
Encls.

101 8 30

LOG OF OIL OR GAS WELL (ABANDONMENT REPORT)

COMPANY - DANIEL J. PICKRELL, OPERATOR  
ADDRESS - 155 Montgomery Street, Rm. 1109, San Francisco 4, California

FIELD OR AREA - Raven Ridge, Uintah Co., Utah  
WELL NO. - 12-18 G Redrill, Sec. 18, T. 7 S., R. 25 E., SLM  
Location: 1980 feet from N. line and 660 feet from W. line Sec. 18.  
Elevation: Ground above sea level 5733', KB 5743'.  
All measurements are from KB datum.

Herewith a complete and correct record of the well and all work done thereon since record filed by Standard Oil Company of California dated December 29, 1959.

Dated: April 10, 1962 Signed *Elmo W. Adams*  
Elmo W. Adams, Petroleum Engineer for Daniel J. Pickrell, Operator

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SUMMARY

Commenced operations: December 16, 1961 Reentered old hole.  
Suspended operations: January 3 - March 17, 1962 Changing drilling rigs.  
Completed operations: March 29, 1962 Plugged and abandoned.

Total Depth 5019'	Formation Tops:
Casing 8-5/8" cemented 252'	Uintah: Surface
Cement bridges: Surface -10', 200'-300', 2250'-2350' and 4850'-4950'.	Green River: 2310'
	Wasatch: 4900'

Oil or gas zones: None  
Important water sands: None

PURPOSE OF WORK: To re-enter old hole, set casing and test for production Wasatch sand 4960-80 as encountered in original hole drilled by Standard Oil Co. of California. T.D. 5150'. 8-5/8" cemented 252'.  
Cement bridges: surface -285', 2041'-2284', and 4846'-5096'. Abandoned Sept. 26, 1959.

RESULT: Sand not present in redrilled hole. Abandoned, non-productive.

WORK DONE BY: See History of Operations following.

E-LOG attached 4000'-5018'.

*AV*

DANIEL J. PICKRELL, OPERATOR 12-18 G Redrill  
Section 18-7S-25E SLM, Uintah Co., Utah

- 1961
- December 16 Moved in Barker Drilling Co. (Vernal, Utah) production rig and rigged up over abandoned (Sept. 26, 1959) Standard Oil Company of California well 12-18 G. Dug cellar to 4' below ground, washed over and recovered 4" marker pipe. Welded nipple on 8-5/8" surface casing and installed BOPE. Drilled out hard cement to 50'. Tested BOPE with 1000# for 15 min. Drilled out hard cement to 285' midnite, December 19.
- December 20 Cleaned out hole with 7-7/8" bit, including several bridges to top cement at 2055, hard cement 2089'. Continued drilling cement and hard formation to 2526' December 26. Stuck dp while making connection at 2520' 4 p.m. December 26.
- Conditioned mud. Spotted 60 bbl. Rangeley crude, worked pipe. Free point indicator showed bit stuck. Using collar shot recovered all except bottom drill collar, sub and bit. Ran jars and overshot and recovered balance of fish. 5:30 p.m. Dec. 27.
- December 27 Drilled ahead 7-7/8" hole to 2560' with bumper sub and safety joint in drill collar string.
- December 28 Cored 2540-42' with junk basket. Recovery 2' dolomitic marl, initially identified as cement. Measured in hole corrected measurement 2542'. Drilled ahead 7-5/8" hole.
- 1962
- January 2 2940', 5 a.m. Cored 2540-44' with junk basket. Recovered 2' shale and limestone, Green River formation.
- January 3 Went in with bit #12 and reamed hole to 7-5/8". Drilled ahead to 2975'.
- Ran Schlumberger Directional survey. Concluded had lost old hole at about 2100'. At 2975' Redrill hole deviation 3-1/4°, location 106' N and 82' E of surface. Original hole at 3000', deviation 3°, location 59' N and 69' E of surface. Released rig 12 midnite January 3, 1962. Filled hole with heavy mud. Welded steel plate over surface fittings and suspended operations temporarily.
- March 7, 1962 Moved in H and H Drilling Co. rotary drilling outfit and rigged up. Considerable delay due to snow storms, thawing ground, etc. Necessary to repair road, reserve pit and location.
- March 17 Installed BOPE and tested same. Ran in with 7-5/8" bit, 537' of drill collars, 4 1/2" full hole drill pipe to 2327' and broke circulation, reamed and cleaned out to 2965'. 10 feet of cavings. Cleaned out and drilled ahead to 3436'.
- March 19 Pulling bit #2, stuck at 626', 12 noon. Spotted 20 bbls. diesel oil. Put on jars and worked pipe loose 1 a.m. March 20.

DANIEL J. PICKRELL, OPERATOR 12-18 G Redrill  
Section 18-7S-25E SLM, Uintah Co., Utah

- 1962
- March 20 Drilled ahead to 3553', 8 a.m. Trouble with swivel. Changed swivel and worked on pumps until midnite.
- March 21 Drilled ahead 7-5/8" hole to 4948'. 10 p.m. March 26.
- March 28 Cored 7½" hole 4948'-5027'. Core #1: 4948'-4997', 49' recovered 42'. Core #2: 4997'-5027', 30' recovered 27'. Cores corrected to e-log depth 4940'-5019'.
- The 5-3/4" diameter cores recovered are described as Wasatch formation sediments, predominantly shale and silty shale, well indurated, slightly calcareous, gray-green with occasional red-brown inclusions and laminations and with interbeds to several feet thick of shale, crumbly, purple or dark gray-green; 4951-52' (corrected to e-log depth) Sandstone, very hard, slightly calcareous, gray-green, very fine to fine grained, estimated 25% porosity, zero permeability; 5004-5016' (corrected to e-log depth) Sandstone, firm to hard (cored 10-12 feet per hour cf. 3-5 feet per hour for remainder of cored interval) abundant interstitial clay material, slightly calcareous, light gray-green, generally well sorted, fine to very fine grained, sub angular to sub rounded. Estimated 12-15% porosity, low permeability. Faint sulphur odor on fresh surfaces. No show, cut, fluorescence nor stain. Note that mud carries 6% oil by volume which contaminated surface only of core.
- March 28 Pulled Core #2 6 p.m. Waited on orders and logging unit until 11 p.m.
- March 29 Ran Schlumberger Induction-Electrical log 4000-5018'. Corrected total depth 5019' (Driller 5027').
- Correlated by electric logs, the redrilled hole is several feet higher than original hole. 4905' redrill equals 4908' original. Sand of e-log 4960-80' original hole not present nor indicated on redrill e-log. See core description above.
- Completed logging 1 a.m. Waited on orders and cement truck until 10 a.m.
- With open end drill pipe hanging at lower limit each of two plugged depths indicated below and using Dowell equipment, pumped in 30 sacks of neat cement preceded by 50 cf. water and followed by 15 cf. water and mud to equalize: 4950-4850', and 2350-2250'.
- With open end drill pipe at 300', pumped in 30 sacks of neat cement preceded by 20 cf. water and followed by 7 cf. water and mud to equalize. Calculated top cement 200'. Job complete 8 p.m. Placed 10 sx. cement plug at surface and released rig.
- June 22 Cut off 8-5/8" casing at surface. Placed 4" OD marker pipe in 8-5/8" extending 4' above ground and welded steel plate over top of 8-5/8".

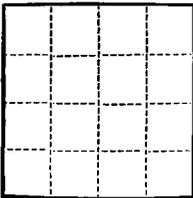
*Copy H. L. C.*

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake City

Lease No. SL 071857-C

Unit .....



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....	X
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

*Dorrit Pickrell*

January 7, 1963

Redrill

Well No. 12-18G is located 1960 ft. from [N] line and 660 ft. from [E] line of sec. 18

SE-NW 18      7S      25E      SL  
(1/4 Sec. and Sec. No.)      (Twp.)      (Range)      (Meridian)

Raven Ridge area      Uintah      Utah  
(Field)      (County or Subdivision)      (State or Territory)

The elevation of the derrick floor above sea level is 5733 ft. KB 5743

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

OLD HOLE - Standard Oil "12-18-G" t.d. 5150, 8-5/8 cmtd. 252. Cement bridges reported surface - 285, 2041-2284 & 4846-5096. Abd. 26 Sept. 1959.  
REENTERED 16 Dec. 1961, c.o. bridges to 2100, sidetracked old hole.  
REDRILLED to 5019 t.d. RESULTS oil sand not present, no oil or gas shows of commercial importance.  
PLUGGED Filled hole with heavy mud. Placed cement plugs 4950-4850, 2350-2250, 300-200, and at surface, 30 March, 1962.  
SURFACE ABANDONMENT Cut off 8-5/8" at surface, placed 4" pipe in 8-5/8 extending 4' above ground and showing well identification 22 June, 1962.  
CLEAN UP Filled pits and restored surface - Completed 26 July, 1962.  
REPORT and record of work done since report dated 10 April, 1962. ✓

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company D. J. Pickrell, Operator

Address 155 Montgomery St., Room 1109

San Francisco 4, California

By *Elmo W. Adams*  
Elmo W. Adams,  
Title Petroleum Engineer

cc: Utah Oil and Gas Conservation Commission