Sub. report of abandonment

FILE NOTATIONS

Entered in NID File .....
Location Map Pinned ....✓....
Card Indexed .....✓.....

Checked by Chief .....
Approval Letter ....11-8-68....
Disapproval Letter .....

COMPLETION DATA:

Date Well Completed 12-12-68

Location Inspected .....

OW..... WW..... TA.....
GW..... OS..... PA.✓....

Bond released
State or Fee Land .....

LOGS FILED

Driller's Log.....
Electric Logs (No.) ....3....
E..... I..... Dual I Lat..... GR-N..... Micro.....
BHC Sonic GR..... Lat..... Mi-L..... Sonic.....
CBLog..... CCLog..... Others. Induction Guard

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-3281

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Dirty Devil

8. FARM OR LEASE NAME: Federal

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 7, 31S, 13E

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Buttes Gas & Oil Co.

3. ADDRESS OF OPERATOR: 420 C. A. Johnson Building, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2270' FNL, 1996' FEL SW SW NE
At proposed prod. zone: Same 130' To Fal South

12. COUNTY OR PARISH: Garfield Wayne

13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 21 miles South of Hawksville, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1866

16. NO. OF ACRES IN LEASE: 1866

17. NO. OF ACRES ASSIGNED TO THIS WELL: 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: 4800'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 4387' Ground Miss. Test

22. APPROX. DATE WORK WILL START*: November 12, 1968

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13 3/4	10 3/4	40.50	400	250 sx
7 7/8	5 1/2	15.5	4800	100 sx

1. Drill 13 3/4" hole to 400'. Run and cement 10 3/4" casing to surface.
2. Using air drill 7 7/8" to projected total depth, 4800'. If excessive water is encountered, then the circulating fluid will be converted to mud.
3. Conduct formation tests on any intervals that have oil or gas shows.
4. Based on logs and tests, complete or abandon well.

Check Topog. & located in Poison Spring Canyon — Unorthodox locatn. is in accordance with Rule C-3 — Need letter requesting exception and owning acreage — OMB

43-019-30010

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED John E. Way TITLE Engineer DATE 11-6-68

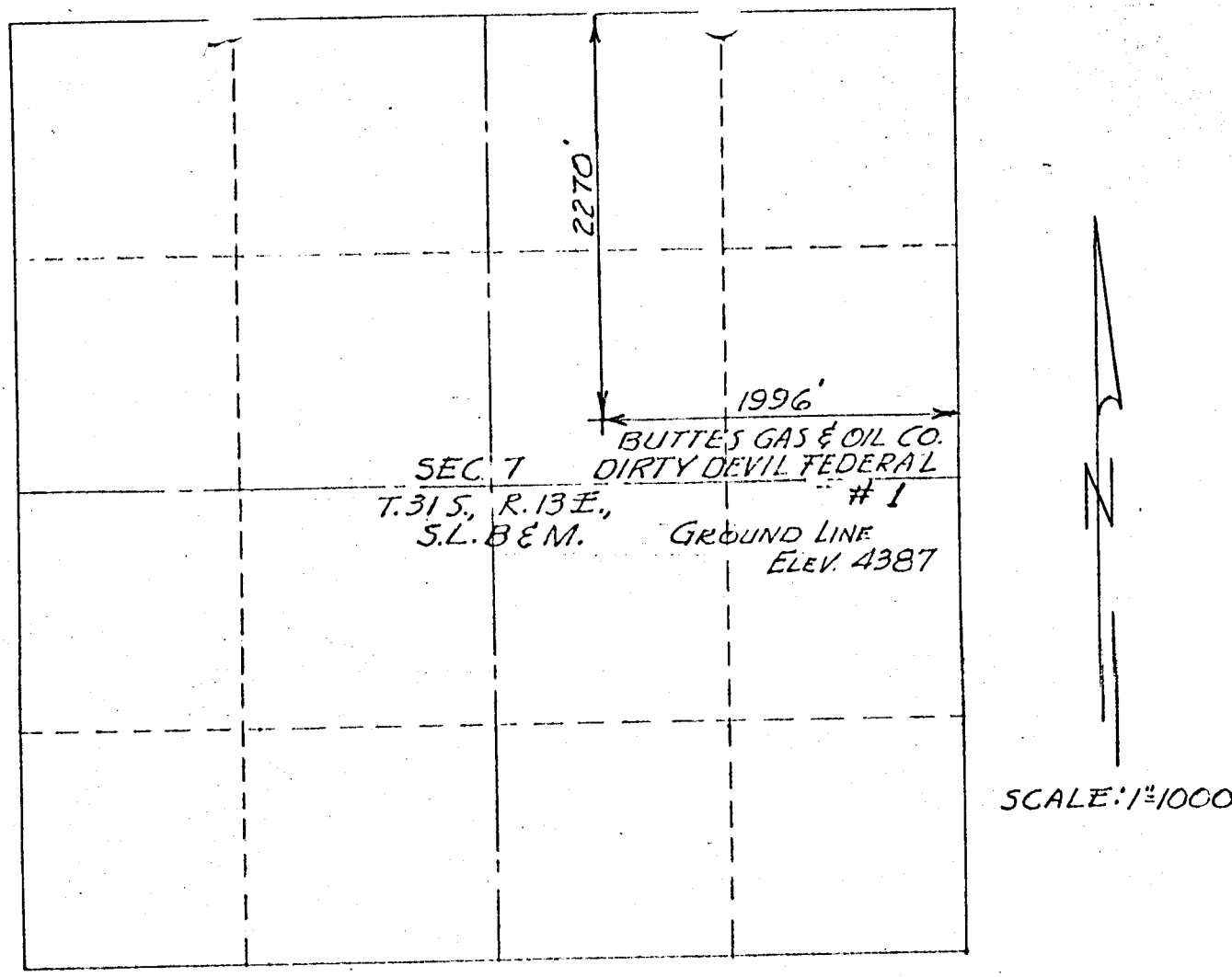
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side



SURVEYORS CERTIFICATE

I, GEORGE H. NEWELL, A REGISTERED LAND SURVEYOR AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH AND HOLDING CERTIFICATE NO. 1770, CERTIFY THAT THIS PLAT OF A WELL LOCATION MADE BY ME AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

BUTTES GAS & OIL CO. DIRTY DEVIL FEDERAL # 1 LOCATED 2270 FEET FROM THE NORTH LINE AND 1996 FEET FROM THE EAST LINE OF SECTION 7, T. 31 S., R. 13 E., SLB&M. GROUND ELEVATION 4387.

IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE OCTOBER 31, 1968

George H. Newell
GEORGE H. NEWELL

November 8, 1968

Buttes Gas & Oil Company
420 C. A. Johnson Building
Denver, Colorado 80202

Re: Well No. Dirty Devil Federal
#1, Sec. 7, T. 31 S., R. 13 E.,
Garfield County, Utah.

Gentlemen:

Insofar as this office is concerned, approval to drill the above mentioned well is hereby granted. However, this approval is conditional upon a letter stating that your company owns all the acreage in a radius of 660 feet of the proposed well site, or a written statement of approval by the offset lessee.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL, Chief Petroleum Engineer
HOME: 277-2890 - Salt Lake City, Utah
OFFICE: 328-5771

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

Enclosed please find Form OGC-8-X, Report of Water Encountered During Drilling, which is to be completed whether or not water sands (aquifers) are encountered while drilling. Your cooperation with respect to completing this form will be greatly appreciated.

The API number assigned to this well is 43-017-30010 (see Bulletin D12 published by the American Petroleum Institute).

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sc

cc: U. S. Geological Survey
Rodney Smith, District Engineer
8416 Federal Building
Salt Lake City, Utah

Sharon

PE file

BUTTES GAS & OIL CO.

2150 FRANKLIN STREET

OAKLAND, CALIFORNIA 94612

(415) 893-0364

November 19, 1968

State of Utah
Department of Natural Resources
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

RE: No. 1 Federal Well
SW/4 NE/4 Section 7-31S-13E
Dirty Devil Prospect
Garfield County, Utah

Gentlemen:

Please be advised that Buttes Gas & Oil Co., by virtue of an Assignment of Oil and Gas Lease, Utah 3281, filed for approval November 8, 1968, is the owner of the leasehold interest covering all of Section 7-31S-13E as well as other lands.

This would include all of the acreage in the radius of 660 feet of the proposed wellsite described above, and this information is submitted in response to your letter of November 8, 1968 to the Denver Office.

Very truly yours,

G. Hagerman

G. Hagerman
Assistant Land Manager

GH:jdt

cc: U. S. Geological Survey
Mr. John Wey

PLUGGING PROGRAM FORM

Name of Company Butte Gas & Oil Company Verbal Approval Given To: Dick

Well Name: Little Devil Fed #1 Sec. 7 T. 31S R. 13E County: Garfield

Verbal Approval Was given to plug the above mentioned well in the following manner:

Received Plugging program from U.S.G.S. in Casper. (Chuck Curtis or John Dulitsky)

Set 200' plug 4590' - 4390'
Set 100' plug 3770' - 3670'
Set 100' plug 3100' - 3000'
Set 100 plug 1800' - 1700'
Set 100' plug 1200' - 1100'
Set 50' plug 25' in 25' out base of surface 435 - 385
Set 15' plug accross top - surface with marker

Formation Tops

Kaibab	1120
Coconino	1180
Organ Rock	1630
Cedar Mesa	1750
Wolfcamp	2650
Upper Hermosa	3065
Paradox	3769
Lower Hermosa	4162
Molas	4469
Mississippian	4592

Date Verbally Approved: 12/11/68 Signed: Sharon G. Grover

Form 9-331
(May 1963)

UNI STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLI
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL [ ] GAS WELL [X] OTHER Dry Hole

2. NAME OF OPERATOR
Buttes Gas & Oil Co.

3. ADDRESS OF OPERATOR
420 C. A. Johnson Building, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface 2270' FNL, 1996' FEL, Section 7

5. LEASE DESIGNATION AND SERIAL NO.
U-32

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Dirty Devil

8. FARM OR LEASE NAME
Federal

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 7, T.35S.

12. COUNTY OR PARISH
Garfield

13. STATE
Utah

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
4396' K.B.

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[X]	SHOOTING OR ACIDIZING	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)	
(Other)					

REPAIRING WELL [ ]
ALTERING CASING [ ]
ABANDONMENT* [ ]

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

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

The following plugging program was approved by phone by Mr. C. J. Curtis on December 16, 1968 as follows. Casper, Wyoming. Proposed to plug and abandon with open end drill pipe

Plug #1 4590-4390', 200'
Plug #2 3770-3670', 100'
Plug #3 3100-3000', 100'
Plug #4 1800-1700', 100'
Plug #5 1200-1100', 100'
Plug #6 435-385', 50'
Surface Plug - 5 sx

Install dry hole marker.

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

SIGNED [signature] TITLE Engineer DATE December 16, 1968

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

cc: 3 copies State of Utah Oil and Gas Conservation Commission
cc: 1 copy to Shell Oil

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL [ ] GAS WELL [X] OTHER Dry Hole

2. NAME OF OPERATOR
Buttes Gas & Oil Co.

3. ADDRESS OF OPERATOR
420 C. A. Johnson Building, Denver, Colorado

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
2270' FNL, 1996' FEL, Section 7

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
4396' K.B.

5. LEASE DESIGNATION AND SERIAL NO.
U-3285

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Colorado

7. UNIT AGREEMENT NAME
Dirty Devil

8. FARM OR LEASE NAME
Federal

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 7, T35S, R1E

12. COUNTY OR PARISH
Garfield

13. STATE
Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)	
(Other)					

REPAIRING WELL
ALTERING CASING
ABANDONMENT* [X]

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

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

On December 12, 1968, well was plugged and abandoned with open end drill pipe as follows:

Plug No. 1 4600-4490' 40 sx.
Plug No. 2 3890-3785' 25 sx.
Plug No. 3 3055-2955' 30 sx.
Plug No. 4 2715-2610' 25 sx.
Plug No. 5 1790-1690' 30 sx.
Plug No. 6 1235-1135' 25 sx.
Plug No. 7 435-385' 15 sx.
Plug No. 8 surface plug 200 sx.

Installed dry hole marker.

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

SIGNED John E. Ely TITLE Engineer DATE December 17, 1968

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

cc: 3 copies State of Utah Oil and Gas Conservation Commission
cc: 1 copy to Shell Oil

PMB

BUTTES GAS & OIL CO.

MINERALS DIVISION
SUITE 4, URANIUM BUILDING
P. O. BOX 157 606
MOAB, UTAH 84532
(801) 253-4981

January 13, 1969

M-69-17

State of Utah
Department of Natural Resources
Division of Oil & Gas Conservation
1588 W.N. Temple, Suite 301
Salt Lake City, Utah 84116

Gentlemen:

Buttes Gas & Oil Co.
Dirty Devil No. 1 Federal
Garfield County, Utah

We are enclosing for your files the following:

1. Two copies, Drilling Time (1 ft. & 5 ft.)

2. Two copies, Megascopic Descriptions

If you need further information in regard to the subject test, please let us know.

Happy New Year.

Very truly yours,

Bob

Robert R. Norman
Manager, Minerals Exploration

RRN:ak

enc.

cc: Mr. John Wey, Operations Manager
Juniper Oil & Gas Co.
420 C. A. Johnson Building
Denver, Colorado 80202

Mr. Otto Hackel, Vice President
Buttes Gas & Oil Co.
2150 Franklin Street
Oakland, California 94612

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

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: Buttes Gas & Oil Company

3. ADDRESS OF OPERATOR: 420 C.A. Johnson Bldg., Denver, Colorado 80202

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 2270' FNL, 1996' FEL, Section 7
At top prod. interval reported below Same
At total depth Same

5. LEASE DESIGNATION AND SERIAL NO.: U-3281
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME: Dirty Devil
8. FARM OR LEASE NAME: Federal
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 7, 31S-13E
12. COUNTY OR PARISH: GARFIELD
13. STATE: UTAH

14. PERMIT NO. | DATE ISSUED

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
11/20/68	12/12/68	12/13/68	4396 K.B.	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
4750'	Surface		→	0 - 4750'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Induction, Formation Density, Gamma Ray - Caliper

27. WAS WELL CORED: No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10 3/4"	32.75#	415'	15"	245 sx 50-50 Pozmix & 2% gel w/150 sx Class G cement w/2% $CaCl_2$	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

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*)
None		

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 Engineer DATE 2/27/69

*(See Instructions and Spaces for Additional Data on Reverse Side)

cc: 2 copies State of Utah Oil and Gas Conservation Commission

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

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.
			DST #1 5966'-5987' IFP 5 min. ISIP 60 min. FFP 120 min. FSIP 90 min. No GTS. Had strong blow in bucket during flow period.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Coconino	1188'	
Organ Rock	1610'	
Cedar Mesa	1790'	
Wolfcamp	2660'	
U. Hermosa	3060'	
Paradox	3790'	
L. Hermosa	4150'	
Molas	4469'	
Mississippian	4592'	

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636
GPO 837-497

FORM OGC-8-X

FILE IN QUADRUPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Federal No. 1 - Dirty Devil Prospect

Operator Buttes Gas & Oil Co. Address 420 C. A. Johnson Bldg, Denver, Colo Phone 303-292-4820

Contractor Circle "A" Drilling Co. Address Denver, Colorado Phone 303-222-2894

Location SE ¼ NE ¼ Sec. 7 T. 31 ~~N~~ S R 13 E ~~W~~ Garfield County, Utah

Water Sands:

	Depth From	Depth To	Volume Flow Rate or Head	Quality Fresh or Salty
1.	1150'	1960'	450-500 bbl/hr.	sulphur
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops:

Miss 4592'	Paradox 3790'	Cedar Mesa 1790'
Molas 4469'	U. Hermosa 3060'	Organ Rock 1610'
L. Hermosa 4150'	Wolfcamp 2260'	Coconino 1185'.

Remarks:

NOTE:
(a) Upon diminishing supply forms, please inform this office.
(b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure, (See Back of form).
(c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

TELEPHONE: 292-4820
AREA CODE: 303

Juniper
OIL & GAS COMPANY
A DIVISION OF
BUTTES GAS & OIL CO.
SUITE 420, C. A. JOHNSON BUILDING, 509 SEVENTEENTH STREET, DENVER, COLORADO 80202

March 3, 1969

State Oil & Gas Conservation Commission
1588 W. North Temple
Salt Lake City, Utah

Re: Dirty Devil #1 Federal
Garfield County, Utah

Gentlemen:

Enclosed you will find one copy each of the Dual Induction - Laterolog and the Compensated Formation Density Log on the above mentioned well.

Sincerely,

John E. Wey
SD

John E. Wey

sd
Enclosures

Sharon

BUTTES GAS & OIL CO.

Dirty Devil, No. 1 Federal

Location: S/2 SW/4 NE/4 Sec. 7-31S-13E
(2270' S/N, 1996' W/E)
Garfield County, Utah

Elev.: 4398 KB
4397 DF
4387 Gr.

Contractor: Circle "A" Drilling Co., Denver, Colorado
Pete Estes, Tool Pusher

Geologists: Richard Higgins, Engineer

Interval	Logged By
0-2190	Bob Norman
2190-2790	Bill Whitley
2790-3500	Bob Norman
3500-4750 (TD)	Dick Higgins

Surf.-TD, doublechecked by Bob Norman

Logging Unit: Underwood, 2012 Lynwood Dr., Farmington, N.M.
(Richard Harnly)

Schlumberger Logs: 1. Compensated Formation Density Log (gamma-gamma)

2. Dual Induction-Laterolog

Interval	Lithology	Megascopic Descriptions
		Kayenta fm. - surface (Jk)
0 - 30	Ss.	Pink & varicolored, fn. grn. & poorly sorted, arkosic, w/some clear sub-round qtz. grns. Sli. calc. w/tr. choc. sh.
30 - 90	Ss.	Same, except w/occasional minute scatt. hornblende xals. giving "salt & pepper" (subsequently referred to as S. & P.) appearance, calc.
		Wingate fm. (Trw) 90' (+4308)
90 - 120	Ss. (20%)	Pink, fn. grn., poorly sorted, arkosic in part.
	Sltst. (40%)	Red, v/fn. grn., calc.
	Sh. (40%)	Choc. to lt. red.

Interval	Lithology	Megascopic Descriptions
120 - 160	Ss. Sltst. Sh.	Same as above, except w/buff, fn. grn. tightly cemented, sli. calc. quartzitic Ss. Also, w/scatt. show of bright oil fluorescence, some cut, no odor.
160 - 330	Ss. Sltst. Sh.	Same, except more pink-red Ss. & less clear quartzitic Ss. and w/scatt. S. & P. Ss., lt. gry., poorly sorted sizes of hornblende within qtz. matrix. 10% choc. sh. throughout.
330 - 390	Ss.	Orange to pink, v/fn. grn., highly pulverized, non-calc. w/exception of minute traces of calcite. Scatt. bright mineral fluorescence.
390 - 420	Ss.	Same, except w/10% choc. Sh.

Chinle fm. (Trc) 420' (+3978)

420 - 460	Sh. (75%)	Choc. & orange, non-calc., w/25% sltst., orange to pink, v/fn. grn., highly pulverized.
460 - 500	Sh.	Choc. milk-shake app., v/powdery & difficult to wet, dry sample has a more pink app.
500 - 570	Sh.	Pink & choc. colored, sli. aren., non-calc. as above (choc. milk shake app. in dry state).
570 - 580	Sh.	As above, except sli. more silty.
580 - 700	Sh.	Pink, "face powder" app., non-calc.
700 - 720	Sh.	Same, except w/beginning of v/lt. pink, grayish cast, calc. (either interbd. or gradual transition of color).

Moenkopi fm. (Trm) 722' (+3676)

720 - 750	Sh. (50%)	As above.
	Sh. (50%)	Lt. pink, grayish cast, calc.
750 - 770	Sh.	Lt. gry. w/pinkish cast, calc.
770 - 810	Sh.	Lt. red w/more "choc." cast (Dry sample "wine colored" & v/powdery), calc.
810 - 820	Sh.	Lt. pink w/sli. greenish cast, calc. (dry sample v/powdery & like face powder).
820 - 930	Sh.	Lt. red w/choc. app. in pt., calc.

Interval	Lithology	Megascopic Descriptions
930 - 950	Sh.	Same, except clay-like & darker red.
950 - 980	Sh.	Same as 820-930 interval.
980 - 1020	Sh.	Same as 930-950 interval.
1020 - 1030	Sh.	Lt. pink, w/sli. grayish cast, calc.
1030 - 1050	Sh.	Choc. to lt. red & less clay-like than above.
1050 - 1070	Sh.	Med. red & choc., more clay-like, calc.
1070 - 1080	Sh.	Lt. pink w/grayish cast, calc.
1080 - 1090	Sh.	Choc. to lt. red, calc.
1090 - 1100	Sh.	Lt. pink w/grayish cast, calc.
1100 - 1110	Sh.	Choc. to lt. red, calc.
		Kaibab fm. (Pk) 1110' (+3288)
1110 - 1120	Sh.	Lt. pink w/grayish cast, v/calc.
1120 - 1160	Sh.	Med. gry., v/marly (calc.), claystone in pt., asphaltic, some fluorescence, fair cut, no odor.
1160 - 1180	Sh.	Same, except no asphaltic shows.
		Coconino fm. (Pc) "White Rim member" 1180' (+3238)
1180 - 1190	Sh.	Varicolored, 75% purple, 10% red & 15% green, w/tr. tightly cemented pink fn. grn. ss. & med. angular dirty ss.
1190 - 1200	Sh.	Same, except 30% purple, 60% red & 10% green.
1200 - 1210	Sh.	Same, except 10% purple, 90% red & 5% green.
1210 - 1220	Sh.	Same, except 10% purple, 50% red & 5% green, w/35% Ss, clear v/fn. grn., non-concolidated, well rounded.
1220 - 1230	Sh.	Same, except 25% purple, 35% red, 15% green; & 25% ss. as above.
1230 - 1240	Sh.	Same, except 20% purple, 20% red & 20% green; w/40% ss., clear quartzitic, fn. to med. grn., round to subround, more consolidated than above.

Interval	Lithology	Megascopic Descriptions
1240 - 1250	Sh.	Same, except 20% purple, 15% red & 15% green; w/50% ss. as above.
1250 - 1270	Sh.	Same, except 60% purple, 20% red & 10% green; w/10% ss. as above.
1270 - 1280	Sh.-Ss.	Same, except w/tr. sltst. green, pyritic & argill.
1280 - 1290	Sh.-Ss.	Same, except without pyritic sltst.
1290 - 1300	Sh.	40% variegated as above, w/60% ss., clear, round, unconsolidated.
1300 - 1360	Sh. (10%)	Variegated, as above.
	Ss. (90%)	As above.
1360 - 1370	Sh. (30%)	As above.
	Ss. (70%)	As above.
1370 - 1380	Sh. (75%)	As above.
	Ss. (25%)	As above.
1380 - 1390	Sh. (40%)	As above.
	Ss. (60%)	As above.
1390 - 1420	Sh. (10%)	As above.
	Ss. (90%)	As above.
1420 - 1430	Sh. (30%)	As above.
	Ss. (70%)	As above.
1430 - 1470	Sh. (10%)	As above.
	Ss. (90%)	As above.
1480 - 1510	Sh. (75%)	As above.
	Ss. (25%)	As above.
1510 - 1520	Sh. (15%)	As above.
	Ss. (85%)	As above.
1520 - 1540	Sh. (75%)	As above, w/tr. asphalt.
	Ss. (25%)	As above.

Interval	Lithology	Megascopic Descriptions
1540 - 1550	Sh. (30%)	As above.
	Ss. (70%)	" "
1550 - 1560	Sh. (40%)	" "
	Ss. (60%)	" "
1560 - 1570	Sh. (60%)	" "
	Ss. (40%)	" "
1570 - 1600	Sh. (30%)	" "
	Ss. (70%)	" "

Organ Rock tongue (Por) 1600' (+2798)

1600 - 1620	Sh. (60%)	Variegated, purple, red & green.
	Ss. (40%)	Clear, quartzitic, med. grn., round.
1620 - 1640	Sh. (80%)	As above.
	Ss. (20%)	" "
1640 - 1670	Sh. (80%)	Variegated, purple, red, green & orange.
	Ss. (20%)	Pink, fn. grn., poorly-sorted, quartzitic, round to subround.
1670 - 1710	Sh. (95%)	As above.
	Ss. (5%)	" "
1710 - 1750	Sh. (70%)	As above.
	Ss. (30%)	Pink, fn. grn., quartzitic, apparently thinly interbd. w/red sh.
1750 - 1760	Sh. (10%)	As above.
	Ss. (90%)	Buff, v/fn. to fn., ang. to round, poorly sorted w/tr. xln. dolom.
1760 - 1780	Sh. (30%)	As above.
	Ss. (70%)	" "

Interval	Lithology	Megascopic Descriptions
1780 - 1790	Sh. (60%)	As above.
	Ss. (40%)	" "

Cedar Mesa member (Pcm) 1790' (+2608)

1790 - 1820	Sh. (10%)	Variegated, purple, red, green & orange.
	Ss.	Buff, v/fn. to fn., poorly-sorted, ang. to subround w/tr. dolo. xln. & calc.
1820 - 1860	Sh. (30%)	As above.
	Ss. (70%)	" "
1860 - 1880	Sh. (15%)	" "
	Ss. (85%)	" "
1880 - 1890	Sh. (25%)	" "
	Ss. (75%)	" "
1890 - 1900	Sh. (20%)	" "
	Ss. (80%)	" "
1900 - 1910	Sh. (30%)	" "
	Ss. (70%)	" "
1910 - 1930	Sh. (15%)	" "
	Ss. (85%)	" "
1930 - 1940	Sh. (75%)	" "
	Ss. (25%)	" "
1940 - 1960	Sh. (15%)	" "
	Ss. (85%)	" "
1960 - 1970	Sh. (10%)	" "
	Ss. (90%)	" "
1970 - 1980	Sh. (30%)	" "
	Ss. (70%)	" "

Interval	Lithology	Megascopic Descriptions
1980 - 2000	Sh. (60%)	As above.
	Ss. (30%)	Buff white to pink, v/fn. grn., qtztic., tightly cemented, non-calc.
	Ls. (10%)	Sli. xln.
2000 - 2020	Sh. (35%)	As above.
	Ss. (65%)	" " (w/no ls.)
2020 - 2030	Sh. (10%)	" "
	Ss. (90%)	" "
2030 - 2040	Sh. (50%)	" "
	Ss. (50%)	" "
2040 - 2050	Sh. (60%)	" "
	Ss. (35%)	" "
	Ls. (5%)	Sli. xln.
2050 - 2070	Sh. (40%)	As above.
	Ss. (60%)	" "
2070 - 2090	Sh. (15%)	" "
	Ss. (85%)	" "
2090 - 2140	Sh. (30%)	" "
	Ss. (70%)	" "
2140 - 2150	Sh. (20%)	" "
	Ss. (80%)	" "
2150 - 2160	Sh. (30%)	" "
	Ss. (70%)	" "
2160 - 2200	Sh. (5%)	" "
	Ss. (95%)	" "
2200 - 2210	Ss.	Buff-white to pink, med. to cse. grn., clear, sub-rounded, w/tr. variegated sh. as before.
2210 - 2350	Ss.	Same as above.

Interval	Lithology	Megascopic Descriptions
2350 - 2390	Ss.	Same, w/40% sh., maroon & lt. green, firm.
2390 - 2440	Ss.	White-buff, fn. to med. grn., fair to good por., limy cement, 10% maroon sh.
2440 - 2460	Ss.	Same as above, 20% sh.
2460 - 2510	Ss.	Fn. grn., wht., cemented w/limy cement, firm, low P. of P., 40% variegated sh.
2510 - 2530	Ss.	Same, w/20% variegated sh.
2530 - 2590	Ss. (100%)	
2590 - 2652	Ss.	As above, 20% sh., maroon-lt. green, limy.

Wolfcamp fm. (Pwc) Lower Permian "Carbonates"
2652' (+1746)

2652 - 2670	Ss. (50%)	As above.
	Sh. (30%)	Variegated.
	Ls. (20%)	Lt. gry-green, firm, sandy.

Drilling break 2662-2672.

2670 - 2680	Ls.	Lt. gry-green, firm, sandy, tight, scatt. dk. brn. specks of viscous oil, neg. fluorescence, in carbon tet, tan cut and bright yellow fluorescence, good oil color in sample, 50% Ss., 20% Sh.
2680 - 2690	Ls. (20%)	As above.
	Ss. (70%)	Fn. to med., well-cemented, fair poro., scatt. dk. brn. oil specks in interstices, faint oil odor, neg. fluor., in carbon tet., bright yellow fluor., lt. tan cut; 10% sh.
2690 - 2700	Ss. (80%)	As above, few specks dk. brn. oil; 10% variegated sh; 10% ls., as above.
2700 - 2710	Ss. (70%)	Wht., fn. to med., limy, fair poro., grades into 20% ls., wht. to green to gry., sandy, fine xln, firm; 10% sh., maroon to purple.
2710 - 2720	Ls.	Cream, micro-xln., firm, tight, grades into med. grn., limy ss., low poro; 10% maroon-purple sh. Scatt. oil show, low grav., yellow cut & no odor.
2720 - 2730	Ls.	Cream, lt. green to gry., dns., partly sandy, tight; considerable orange-wht. chert; 15% sh, maroon-purple. Same minor oil show.

Interval	Lithology	Megascopic Descriptions
2730 - 2740	Ls.	W/milky wht.-orange chert as above; 10% sh, as above. Same minor oil show.
2740 - 2750	Ls.	Cream-tan-lt. green-gry maroon, dns., partly sandy, firm, tight, w/few pieces orange chert.
2750 - 2760	Ls.	Cream-tan maroon, dns., firm, few pieces orange-wht. chert; 10% maroon sh.
Drilling break 2766-2774 (1-2 M/ft.)		
2760 - 2770	Ls.	As above, dns; 10% maroon sh., 50% ss., qtz., med. grn., subrounded, in loose grns., porous.
2770 - 2780	Ls.	Cream-wht.-maroon, dns. to fn. xals., party sandy, pyritic, tight, 20% ss, fine-med., limy, fair to good poro.
2780 - 2790	Ls.	Tan-wht.-maroon, dns., firm, party sandy, low P. of P.
2790 - 2800	Ss. (40%)	Fn. to med., buff, in loose subrounded qtz. grns.
	Sh. (40%)	Maroon, sandy.
	Ls. (20%)	As above.
Drilling break 2804-2823 circ. 19'/21 min.		
2800 - 2804	Ls.	As above.
2804 - 2823	Ss.	Buff, fn. to med., subrounded, porous.
2823 - 2830	Ss. (60%)	Cream to lt. pink, v/fn. grn., tightly cemented w/$CaCO_3$.
	Sh. (40%)	Red to dk. purple & tr. green, arkosic.
2830 - 2880	Ss. (80%)	As above, except w/minor show of low grav. oil, pale cut, no odor or poros.
	Sh. (20%)	As above.
2880 - 2910	Ls. (35%)	Lt. gry. to tan, dns. xln.
	Sh. (40%)	Choc.-maroon "wine colored", arkosic.
	Ss. (25%)	Cream-pink, fn. grn., v/calc.
2910 - 2920	Ls. Sh. Ss.	Same, except w/tr. buff chert.

Fast drilling between 2897 and 2920.
Circ. samp. 35 min. @ 2920, no shows

Interval	Lithology	Megascopic Descriptions
2920 - 2940	Ls. (35%) Sh. (40%) Ss. (25%)	Same, except w/no chert.
2940 - 2960	Ls. (40%)	Lt. gry. (some wht. & lt. tan), dns. xln.
	Sh. (40%)	Variegated, mostly red & green, arkosic.
	Ss. (20%)	Buff, fn. grn., calc.
2960 - 2990	Ls. (20%)	As above.
	Sh. (30%)	" "
	Ss. (50%)	" "
		Tr. yellow chert bet. 2960-90.
2990 - 3010	Ls.	None
	Sh. (25%)	As above.
	Ss. (75%)	" "
		Tr. yellow chert bet. 3000-10.
3010 - 3020	Sh. (25%)	As above.
	Ss. (75%)	As above, except med. to lge. grn. in part, still subroun & calc.
3020 - 3030	Sh. (25%)	As above.
	Ss. (75%)	As above, w/abundant yellow & some orange chert.
3030 - 3060	Sh. (25%) Ss. (75%)	Same, except w/low grav. oil show., no poro., fair to good oil fluor., some cut and odor.

Upper Hermosa fm. (Chu) 3058' (+1340)

3060 - 3070	Ls. (35%)	Lt. gry. & bluish med. gry., dns. xln. (tr. dk. gry. ls.)
	Sh. (35%)	As above.
	Ss. (30%)	As above.
		Tr. low grav. oil show, no poro.
3070 - 3080	Ls. (60%)	As above.
	Sh. (20%)	" "
	Ss. (20%)	As above, except w/tr. chert.

Interval	Lithology	Megascopic Descriptions
3080 - 3100	Ls. (95%)	"Mottled" lt. to med., dolom., gry., dns. xln.
	Sh. (5%)	Maroon.
3100 - 3110	Ls. (60%)	Mottled, dolom. as above, 20% lt. gry., pisoolitic (aren.?)
	Sh. (20%)	Variegated, maroon, red, purple, aren. in part, w/tr. red chert.
3110 - 3140	Ls. (60%)	Lt. gry., aren., 30% med. gry., dns. dolom.
	Sh. (10%)	Variegated as above.
3140 - 3160	Dolo. (30%)	Med. gry., sli. soft.
	Ls. (60%)	Lt. & med. gry., dns.
	Sh. (10%)	Variegated as above, arkosic & aren. in part.
3160 - 3170	Dolo. (60%)	50-50% dk. gry. & blk., argill. in pt., dns.
	Ls. (25%)	Vari-colored grys.
	Sh. (15%)	As above.
3170 - 3180	Dolo. (10%)	As above.
	Ls. (85%)	" "
	Sh. (5%)	" "
3180 - 3190	Ls. (95%)	Mottled lt. & med. gry., dns. xln.
	Sh. (5%)	As above.
3190 - 3200	Ls. (75%)	As above.
	Ss. (15%)	Lt. gry., v/qtzitic., fn. grn., subround, w/abundant $CaCO_3$ cement.
	Sh. (10%)	As above.
		Tr. chert, pink, red, yellow & milky-wht.
3200 - 3210	Ls. (10%)	As above.
	Ss. (85%)	" "
	Sh. (5%)	" "

Interval	Lithology	Megascopic Descriptions
3210 - 3220	Ls. (15%)	As above.
	Ss. (80%)	" "
	Sh. (5%)	" "
3220 - 3230	Ls. (20%)	" "
	Ss. (75%)	" "
	Sh. (5%)	" "
3230 - 3240	Ls. (30%)	" "
	Ss. (65%)	" "
	Sh. (5%)	" "
3240 - 3250	Ls. (60%)	Lt. to med. gry., aren. in pt.
	Ss. (30%)	As above.
	Sh. (10%)	" "
3250 - 3260	Ls. (40%)	Lt. to med. gry., xln. in pt.
	Dolo. (15%)	Dk. gry., argill.
	Ss. (10%)	As above.
	Sh. (35%)	" "
3260 - 3270	Ls. (30%)	" "
	Dolo. (15%)	" "
	Ss. (15%)	" "
	Sh. (40%)	" "
3270 - 3280	Ls. (30%)	Dk. gry., dns., argill.
	Sh. (70%)	Variegated, red, dk. gry. in part, arkosic & aren.
3280 - 3300	Ls. (40%)	As above.
	Ss. (20%)	Buff, calc., hard, tight
	Sh. (40%)	As above.
3300 - 3320	Ls. (60%)	" "
	Ss. (20%)	" "
	Sh. (20%)	" "

Interval	Lithology	Megascopic Descriptions
3320 - 3330	Ls. (90%)	Dk. gry., dns., argill.
	Sh. (10%)	As above.
3330 - 3340	Ls. (70%)	" "
	Sh. (30%)	" "
3340 - 3350	Ls.	Dk. gry., soft in part, argill.
3350 - 3360	Ls. (95%)	As above.
	Sh. (5%)	Variegated as before.
3360 - 3370	Ls.	Lt. gry., dns. to cryptoxln.
3370 - 3390	Ls.	Wht. to lt. gry., fnly. xln.
3390 - 3400	Ls. (90%)	As above.
	Sh. (10%)	Dull red, aren. in part.
3400 - 3410	Ls. (85%)	Lt. to med. gry., dns. to cryptoxln.
	Sh. (15%)	Dull red, aren.
3410 - 3420	Ls. (75%)	As above.
	Sh. (25%)	" "
3420 - 3430	Ls. (70%)	As above, except aren.
	Sh. (25%)	" " plus blue-gry., w/tr. yellow chert.
3430 - 3440	Ls. (90%)	As above.
	Sh. (10%)	" " w/tr. yellow chert.
3440 - 3450	Ls.	Wht. - lt. gry. - lt. brn., aren., sucrosic, w/5-10% milky wht. chert.
3450 - 3460	Ls.	As above, except w/some lt. brn. ls. w/tr. chert as above.
3460 - 3470	Ls. (95%)	As above.
	Ls. (5%)	Blk., dolom. & argill., w/chert as above.
3470 - 3480	Ls.	50-50% of the above w/chert as above.
3480 - 3500	Ls.	75% aren. as above, 25% dolom. & argill. as above.
3500 - 3510	Ls.	Lt. brn. to brn. gry., dns. to xln.

Interval	Lithology	Megascopic Descriptions
3510 - 3520	Ls.	As above.
3520 - 3530	Ls.	As above, w/some brn. to tan chert, much blue-wht. milky chert.
3530 - 3540	Ls.	As above, mostly brn. gry., dns., much tan chert.
3540 - 3550	Ls.	As above, w/v/much milky chert (sample dirty).
3550 - 3560	Ls.	Wht. to lt. gry., sli. aren. 95%, w/5% bluish-wht. milky & lt. tan chert. Tr. anhy.
3560 - 3580	Ls.	As above. Increase in brn, fn. xln. ls. (mostly cavings).
3580 - 3590	Ls.	As above & blk. dolom. 50-50, tr. anhy., some chert (mostly cavings).
3590 - 3600	Ls.	Blk., dolom., hd., dns., 70%; 30% wht. to bluish-wht. xln. ls., w/tr. powdery anhy. (mostly cavings).
3600 - 3610		All cavings.
3610 - 3620	Dolo.	Lt. brn., dns., tr. pink anhy.
3620 - 3630	Ls.	Lt. gry. to lt. brn.-gry., dns.
3630 - 3660	Ls.	As above, v/much brn. to tan chert.
3660 - 3670	Ls.	Lt. gry. to wht., xln., some v/fn. xln. w/poor oolites, some bluish-wht & tan chert.
3670 - 3700	Ls.	As above, much anhy. (mostly cavings).
3700 - 3710	Ls. (90%)	As above.
	Anhy. (10%)	
3710 - 3730		Sample cavings.
3730 - 3750	Ls.	Wht., sli. sandy, some dns. oolitic, same wht. to blue wht. chert.
3750 - 3790	Ls.	As above, 90%, 10% tan to milky wht. chert (mostly cavings).
3790 - 3796	Ls.	Wht., fn. xln. to sucrosic, 80%; 20% sltst., wht., calc.

Paradox member (Cp) 3796' (+602)

3796 - 3830	Ls.	As above.

Interval	Lithology	Megascopic Descriptions
3830 - 3840	Ss. (50%)	V/fn. grn., calc.
	Dolo. (50%)	Brn.-gry., dns. to cryptoxln.
3840 - 3850	Dolo.	Lt. brn.-gry., cryptoxln., contains some clayey material, tr. poro.
3850 - 3860	Dolo. (70%)	As above.
	Ls. (30%)	Wht. to lt. gry., v/slty.
3860 - 3880	Ls. (60%)	Wht. to lt. gry., slty.
	Dolo. (40%)	As above.
3880 - 3890	Ls. (80%)	Wht. to lt. gry., v/slty.
	Ls. (20%)	Gry., brn.-gry., dns. to fn. xln., tr. dolo.
3890 - 3910	Ls. (20%)	As above.
	Ls. (80%)	Gry.-brn. to brn., fn. xln., dolom.
3910 - 3920	Ls.	Gry. to brn.-gry., slty. in part, dolom.
3920 - 3940	Dolo. (80%)	Lt. brn., v/fn. xln., some shaly.
	Ls. (20%)	As above. Sh. cavings after trip.
3940 - 3950	Dolo.	Dk. brn. to blk., fn. xln. to shaly.
3950 - 3960	Dolo.	As above, some gry. to dk. gry. slty. ls.
3960 - 3970	Ls.	Lt. gry. to dk. gry., fn. xln. to v/slty, some dolo. as above.
3970 - 3980	Ls.	As above, increase of dolo. to 10%.
3980 - 3990	Ls. (60%)	Gry. to dk. gry., slty.
	Sltst.(20%)	Gry., calc.
	Dolo. (20%)	
3990 - 4000	Ls.	V/slty, as above.
4000 - 4010	Ls.	As above, more fn. xln. tr. dolo. w/blk. sh.
4010 - 4020	Ls.(60%)	As above.
	Dolo. (40%)	Dk. gry. to gry., v/slty., tr. sh.
4020 - 4040	Ls. (80%)	As above.
	Dolo. (20%)	

Interval	Lithology	Megascopic Descriptions
4040 - 4050	Dolo. (80%)	Dns. to sucrosic in part, lt. tannish brn.
	Ls. (20%)	Fn. xln.
4050 - 4060	Dolo. (60%)	As above.
	Ls. (40%)	As above, w/tr. oolites.
4060 - 4070	Ls. (60%)	As above.
	Dolo. (40%)	" " w/much smoky tan to lt. brn. chert.
4070 - 4080	Dolo. (80%)	As above.
	Ls. (20%)	" ", w/chert as above.
4080 - 4100	Dolo.	Tan-brn., fn. xln., sucrosic, some poro.
4100 - 4120	Dolo.	Tan & brn. as above & lt. gry., dns. hrd., blocky, shaly.
4120 - 4130	Dolo.	Tan-brn., much good poro.
4130 - 4140	Dolo.	Tannish-brn., fn. xln., pin point poro.
4140 - 4162	Dolo.	As above, & some sucrosic dolo. w/fair poro.

Lower Hermosa member (Chl) 4162' (+236)

4162 - 4170	Dolo.	As above, some Triticites.
4170 - 4190	Dolo. (40%)	As above.
	Ls. (60%)	Wht. to lt. gry., fn. xln.
4190 - 4200	Ls.	Dk. gry. to gry., shaly.
4200 - 4220	Ls. (20%)	As above.
	Dolo. (80%)	
4220 - 4240	Dolo.	Tan to lt. brn., xln., sucrosic, poro.
4240 - 4260	Dolo. (60%)	As above.
	Ls. (40%)	Wht. to lt. gry., sandy.
4260 - 4270	Dolo.	Lt. brn., sucrosic.
4270 - 4280	Ls. (80%)	Wht. to lt. gry., sandy.
	Dolo. (20%)	As above.

Interval	Lithology	Megascopic Descriptions
4280 - 4300	Dolo.	Lt. tannish-brn.
4300 - 4310	Dolo.	Lt. tan-brn., sucrosic, some tan chert.
4310 - 4320	Dolo.	Dk. gry., v/slty. to shaly, large amt. of blue-wht. chert.
4320 - 4330	Dolo.	As above, 40%, and lt. gry., sandy, 60%. V/much tea brn. to smoky tan chert.
4330 - 4340	Dolo. (60%)	As above.
	Ls. (40%)	Gry. to lt. gry. w/small brn. oolites. Tr. chert as above.
4340 - 4350	Ls.	Gry. to brn., silty in part 40%; oolitic in part w/brn. oolites 60%. (Poor oolites).
4350 - 4360	Ls.	As above 40%. Dolo., tan to buff, dns., hard, contains some large brn. nodules, some lt. green bentonitic matrix binding up large nodules.
4360 - 4370	Sh.	Red, green & blue gry. 10% w/large to med. dull red nodules, some bedded w/the ls. Ls. & dolo. as above.
4370 - 4380	Sh.	As above, increase of shale to 20%, Ls. greater amt. of wht.
4380 - 4390	Sh.	Decreased to very little, lg. wht. to gry.
4390 - 4410	Ls.	As above, much wht., fn. xln.
4410 - 4420	Ls.	Wht., fn. xln., sucrosic & silty.
4420 - 4450	Ls.	Wht., chalky, v/fossil, fusulinids, corals (triticites?)
4450 - 4460	Ls.	As above and much brn xln, 90%, sltst., gry., green, hard, sl. calc.
4460 - 4469	Ls.	As above, 80%, sh., green, black, red.

Molas fm. (Cm) 4469' (-71)

4469 - 4490	Sh.	Purple, apple green, blue, soft, mushy.
4490 - 4500	Sh. (60%)	As above.
	Ls. (40%)	Wht., dns.
4500 - 4510	Sh. (80%)	As above.
	Ls. (20%)	

Interval	Lithology	Megascopic Descriptions
4510 - 4530	Sh.	Variegated as above.
4530 - 4570	Sh.	Red, purple, sli. slty.
4570 - 4592	Sh.	Increase in gry. & blue sh.

Leadville fm. (Miss) 4592' (-194)

4592 - 4600	Sh. (60%)	As above.
	Ls. (40%)	Buff, wht. to lt. gry., xln., some gry. chert.
4600 - 4610	Ls.	Buff to wht., v/fn. xln. to dns.
4610 - 4620	Ls.	As above, mostly wht.
4620 - 4630	Sh.	Red, purple, soft.
4630 - 4650	Ls.	Wht., fn. xln.
4650 - 4662	Ls. (80%)	As above.
	Sh. (20%)	" "

Madison fm. (Miss) 4662' (-264)

4662 - 4670	Ls.	Wht., xln., no app. poro.
4670 - 4690	Ls.	As above, some chalky.
4690 - 4700	Ls. (80%)	As above.
	Sh. (20%)	Red, purple.
4700 - 4710	Ls.	Wht., xln., w/sli. pinkish cast. Tr. poro.
4710 - 4750	Ls.	As above, some small vugular poro.

TD 4750 (Driller)

4752 (Schlumberger)

Shaver

BUTTES GAS & OIL CO.
DIRTY DEVIL, NO. 1 FEDERAL

Interval	Time/ft.											Time/5 ft.	Remarks
0-10	X	X	X	X	X	-	X	X	X	X	X		
10-20	X	X	X	X	X	-	X	X	X	10	4	30	
20-30	1	2	1/2	1	2	-	2-1/2	7	6	20	5	7-40	
30-40	3-1/2	4	4	5	3-1/2	-	4	3-1/2	3	2-1/2	3	20-16	
40-50	8	4	2-1/2	3	3	-	4	3	3-1/2	4	4	21-19	
50-60	2	4	3	5	3-1/2	-	4	5	1-1/2	2	3	18-16	
60-70	4	5	4	4-1/2	5-1/2	-	4-1/2	1-1/2	2	1-1/2	2	23-12	
70-80	1-1/2	1-1/2	2	2-1/2	2	-	4	4-1/2	6	4-1/2	2	11-21	
80-90	2-1/2	2	2	2	2-1/2	-	3	2-1/2	2-1/2	2-1/2	2	11-13	
90-00	4	4	1/2	1/2	1/2	-	1/2	1/2	1	2	1-1/2	10-5	
100-10	1/2	1/2	1/2	1/2	1	-	1/2	1/2	1/2	1/2	2	3-4	Lost circ. @ 100' for 2 hrs. Slope test 1/2° @ 100'.
10-20	2	4	1/2	1/2	1/2	-	2	5	2	1-1/2	1	8-12	
20-30	1	1-1/2	7	5	3	-	1	1	1-1/2	1-1/2	1-1/2	18-7	
30-40	1-1/2	1-1/2	2	1-1/2	1-1/2	-	1-1/2	1-1/2	1-1/2	1-1/2	2	9-8	
40-50	2	1-1/2	1	1	1	-	1-1/2	1-1/2	1-1/2	1-1/2	2	7-8	
50-60	2	2	2	2	1-1/2	-	1-1/2	1	1-1/2	1-1/2	1-1/2	10-7	
60-70	1-1/2	2	1-1/2	1-1/2	1-1/2	-	1	1-1/2	1-1/2	1	1	9-6	
70-80	1	1	1	1/2	1	-	1/2	1-1/2	1	1	1	5-6	
80-90	1	1-1/2	1	1	1/2	-	1	1/2	1/2	1	1	5-4	

Interval	Time/ft.											Time/5 ft.	Remarks
90-00	1	1	1	1/2	1	-	1	1	1-1/2	1	1	5-6	
200-10	1-1/2	1-1/2	1-1/2	1	1-1/2	-	1	1-1/2	1-1/2	1-1/2	1-1/2	7-7	
10-20	1-1/2	1	1	1	1	-	1	1	1	1	1-1/2	5-5	
20-30	1	1/2	1/2	1/2	1	-	1/2	1/2	1	1	1	4-4	
30-40	1/2	1	1	1	1	-	1/2	1/2	1/2	1/2	1/2	4-3	
40-50	1/2	1/2	1/2	1/2	1/2	-	1/2	1/2	1/2	1/2	1/2	3-3	
50-60	1/2	1/2	1/2	1/2	1/2	-	1/2	1/2	1/2	1/2	1/2	3-3	
60-70	1/2	1/2	1/2	1/2	1/2	-	1/2	1/2	1/2	1/2	1/2	3-3	
70-80	1/2	1/2	1/2	1/2	1/2	-	1/2	1/2	1/2	1	1	3-4	
80-90	1	1	1	1	1	-	1	1	1	1	1	5-5	
90-00	1	1	1	1	1	-	1	1	1	1	1	5-5	
300-10	1	1	1	1	1	-	1	1	1	1/2	1/2	5-4	1/2° Dev. @ 300'
10-20	1	1	1	1	1	-	1	1	1	1	1	5-5	
20-30	1/2	1/2	1-1/2	1/2	1/2	-	1/2	1/2	1/2	1/2	1/2	3-3	
30-40	1/2	1/2	1/2	1/2	1/2	-	1/2	1/2	1/2	1/2	1/2	3-3	
40-50	1/2	1	1	1/2	1	-	1	1-1/2	1-1/2	1-1/2	1	4-6	
50-60	1/2	1/2	1	1/2	2	-	1	1	1	1	1	4-5	
60-70	1-1/2	1-1/2	2	2	1-1/2	-	2	1-1/2	1-1/2	2	1-1/2	8-8	
70-80	2	2	2	1-1/2	1	-	1	1	1	1	1	8-5	
80-90	1	1	1	2	2-1/2	-	1	1	1	1-1/2	1-1/2	7-6	
90-00	2	1-1/2	2-1/2	2-1/2	2	-	1-1/2	1-1/2	1-1/2	1-1/2	1	10-7	

Interval	Time/ft.										Time/5 ft.	Remarks
400-10	1-1/2	1-1/2	1-1/2	1-1/2	2	- 1	1	1	1	2	8-6	
10-20	2	1-1/2	1-1/2	1-1/2	1-1/2	- X	X	X	X	X	7-	Completed 8-3/4" hole to 415'. Reamed 15" hole to 410' & set 10-3/4" csg.@ 410' w/1: 245 sx w/2% gel; 2: 150 sx neat w/2% calcium chloride; 3:circ. out 150 sx. Started out of surf. w/10,000 lbs. w/W7R equivalent bit, 7-7/8".
20-30	X	X	X	X	X	- 1	1	2	2-1/2	1-1/2	-8	
30-40	2-1/2	3-1/2	3	3	2-1/2	- 3	3	3	3-1/2	3-1/2	14-16	
40-50	2	2	2	2	2	- 2	1/2	1	1	2-1/2	10-7	
50-60	2	2	1/2	2	2	- 2-1/2	1	1	1/2	1/2	8-6	
60-70	1	1	1	1	1	- 1	1	1	1	1	5-5	
70-80	1	1	1	1	1	- 1	1	1-1/2	1-1/2	1	5-6	
80-90	1	1	1	6	5	- 5	6	4	4	5	14-24	
90-00	4	4	3-1/2	3	3	- 3-1/2	3	3	3	4	18-17	
500-10	4	4	3-1/2	3	3-1/2	- 3	3	1	1	1	18-9	
10-20	1	1	1	1	1/2	- 1/2	1/2	1/2	1/2	1/2	4-3	
20-30	1/2	1/2	1/2	1	1	- 1/2	1/2	1/2	1/2	1/2	4-3	
30-40	2	1	1/2	1	1	- 1	1	1-1/2	1-1/2	1	5-6	
40-50	1	1	1-1/2	1-1/2	2	- 2	1-1/2	1	2-1/2	2-1/2	7-10	
50-60	3	2-1/2	3	1-1/2	1-1/2	- 2	2	2	2	2	11-10	
60-70	2	2	2	2-1/2	2	- 2	2-1/2	2-1/2	3	5	11-15	
70-80	5	6	5	4	3	- 2	2	2	2	2-1/2	23-10	
80-90	2	1-1/2	2	2	2	- 2-1/2	1-1/2	1-1/2	1	1-1/2	9-7	
90-00	2-1/2	3	2-1/2	2	2	- 3	3	1-1/2	1-1/2	1	12-10	
600-10	1-1/2	1-1/2	1-1/2	2	2-1/2	- 3	3	3-1/2	2-1/2	2-1/2	9-13	

Interval	Time/ft.											Time/5 ft.	Remarks
10-20	3	3	3	2-1/2	3	-	3-1/2	3	3-1/2	2-1/2	2-1/2	14-14	
20-30	2	2	2	2	2	-	2	2	2	2	2	10-10	
30-40	3	2	2-1/2	2	2	-	2	2	2	2	2	11-10	Geolograph clock ran down bet. 640 & 645. Time est. by time lapse and averaged.
40-50	2	2	1-1/2	1-1/2	1-1/2	-	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	9-7	
50-60	2-1/2	2-1/2	2	2	2	-	2	2	2	2	2-1/2	10-10	
60-70	2	2-1/2	2-1/2	2	1-1/2	-	2	2-1/2	2-1/2	2	2	9-10	
70-80	1	1	1	1	1	-	1-1/2	1-1/2	1	1	1	5-6	
80-90	1	1	1	1-1/2	1-1/2	-	1	1	1	1	1	6-5	
90-00	1	1	1-1/2	2	2	-	2	2	2-1/2	2	1-1/2	7-10	
700-10	1-1/2	1-1/2	1-1/2	1	1	-	1/2	1/2	1	2	2-1/2	6-6	
10-20	1-1/2	1	1	1/2	1/2	-	1/2	1/2	1	1/2	1/2	5-3	
20-30	1	1/2	1/2	1/2	1/2	-	1	1	1-1/2	1-1/2	1-1/2	4-6	
30-40	1	1	1-1/2	2	1-1/2	-	1-1/2	1	1-1/2	2	2-1/2	6-8	
40-50	2	2	2-1/2	2	2	-	2	1	1-1/2	1-1/2	1-1/2	10-7	
50-60	2	3	3	3	3	-	2	1	1-1/2	1-1/2	1	14-7	
60-70	1-1/2	2	1-1/2	1-1/2	1	-	1-1/2	1-1/2	2	2	4	7-10	
70-80	1-1/2	2	2-1/2	2-1/2	3	-	3	2-1/2	2-1/2	2	2	11-12	
80-90	1	1	1	1-1/2	1-1/2	-	2-1/2	2-1/2	2	2	2	6-11	
90-00	2	1-1/2	3	1-1/2	1	-	1-1/2	1-1/2	1	1	1	9-6	
800-10	1/2	1	1	1-1/2	1-1/2	-	1	1	1	1	1	5-5	
10-20	1	1	1-1/2	1	1	-	1	1-1/2	1-1/2	1-1/2	1-1/2	5-7	

Interval	Time/ft.										Time/5 ft.	Remarks
20-30	2	2	2-1/2	1-1/2	1-1/2 -	1-1/2	1-1/2	2	3-1/2	3	9-12	
30-40	6	6	6	8	5 -	4	4	5	4	4	30-21	
40-50	4	4	5	4	5 -	5	8	7	3	6	22-29	
50-60	4	6	4	7	5 -	5	6	5	4-1/2	4-1/2	26-25	
60-70	4	6	6	4	4 -	6	6	5	5	5	24-27	
70-80	5	3	2-1/2	2	2-1/2 -	2	2-1/2	2-1/2	2-1/2	3	15-13	
80-90	3	3	4	3	4 -	5	3-1/2	3-1/2	5	6	17-23	
90-00	3	3	4	5	4 -	4	4	4	4	4	19-20	
900-10	4	4	4	4	3 -	6	7	4	3	2	19-22	
10-20	7	5	4	4	3 -	3	3	3	3	3	23-15	
20-30	3	3-1/2	3-1/2	3-1/2	3-1/2 -	3	3	3-1/2	2	2	17-14	3/4° Dev. @ 927'; also increased wt. to 20,000 from 10,000 lbs.
30-40	1-1/2	1-1/2	1-1/2	1-1/2	2 -	2	1-1/2	1	1-1/2	1-1/2	8-7	
40-50	2	1-1/2	1-1/2	1-1/2	1-1/2 -	1-1/2	2	1-1/2	2	1-1/2	8-7	
50-60	2-1/2	2-1/2	2-1/2	2-1/2	2 -	2	1	1	2	1-1/2	12-7	
60-70	2	2	1	1	1 -	1	1	1	1	1	7-5	
70-80	1	1	1-1/2	1-1/2	1-1/2 -	2-1/2	2	1	1	1-1/2	6-8	
80-90	2	2	1-1/2	2-1/2	2 -	2-1/2	2	2	2-1/2	2	10-11	3/4" Dev. @ 989' on bottom w/button bit & increased wt. to 30,000 from 20,000 lbs.
90-00	1	1	2-1/2	1-1/2	1-1/2 -	1	1/2	1	2-1/2	1	7-6	
1000-10	2-1/2	1	1/2	1-1/2	1-1/2 -	1-1/2	1	1/2	1	1-1/2	6-6	Trip @ 990'.
10-20	1-1/2	1-1/2	1-1/2	1	1/2 -	1/2	1/2	1	1/2	1/2	6-3	
20-30	1/2	1/2	1	1/2	1/2 -	1/2	1	1/2	1/2	1/2	3-3	

Interval	Time/ft.										Time/5 ft.	Remarks
30-40	1/2	1	1/2	1/2	1/2 -	1/2	1/2	1/2	1/2	1	3-3	
40-50	1	1	1	1	1-1/2 -	1-1/2	1	1-1/2	1-1/2	1-1/2	5-6	
50-60	1-1/2	2	2	1-1/2	1-1/2 -	2	2	1-1/2	2	2	8-10	
60-70	1-1/2	1-1/2	2	2	1-1/2 -	1-1/2	2	2	2	2	12-10	
70-80	2	2	2	1-1/2	1-1/2 -	2	2	2	1-1/2	1-1/2	9-9	
80-90	1	1	1-1/2	1-1/2	1 -	1	1	1	1-1/2	1-1/2	6-6	
90-00	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2 -	1-1/2	1	1	1-1/2	1	7-6	
1100-10	1-1/2	1	1	1	1-1/2 -	1-1/2	1-1/2	2	1-1/2	2	6-7	
10-20	1-1/2	1-1/2	2	2	1-1/2 -	1-1/2	1-1/2	1-1/2	1	2	8-7	
20-30	1-1/2	1-1/2	1-1/2	1	1-1/2 -	1	1	1-1/2	1-1/2	2	7-7	
30-40	1-1/2	1-1/2	2	1-1/2	1 -	1-1/2	1-1/2	2-1/2	2-1/2	1	7-9	
40-50	1-1/2	3	2	1-1/2	2 -	2	2-1/2	2-1/2	2-1/2	2-1/2	10-12	
50-60	2	2	2	2-1/2	2 -	2	2	2	2	3	11-11	
60-70	2	3	3	2	3 -	2	2	2	1	1-1/2	13-9	
70-80	2	2	2	2	2-1/2 -	2	2	2	2	3	11-11	
80-90	2	2	2-1/2	2	2-1/2 -	2	1-1/2	1	1	1	11-6	At 1187' hit 1-1/2" stream of salty water w/sulfur odor.
90-00	1	1-1/2	1	1	1 -	3	3-1/2	4	2	2-1/2	5-15	
1200-10	2	4	2	2	4 -	4	4	4	4	4	14-20	
10-20	4	3	1	1-1/2	1-1/2 -	1	1-1/2	1	1-1/2	1-1/2	11-7	
20-30	1-1/2	1-1/2	1	1	2 -	1-1/2	1	2	2	1-1/2	7-8	Dev. 3/4° @ 1226'
30-40	1	1	1	1	2 -	2	2	2	1	1	6-8	

Interval	Time/ft.										Time/5 ft.	Remarks
40-50	1	1	1	1-1/2	1-1/2	- 1	1	2	3	2	6-9	
50-60	2	1-1/2	2	4	3	- 3	3	3	3	3	13-15	
60-70	2	1-1/2	1-1/2	2	2	- 1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	9-7	
70-80	2-1/2	1-1/2	2	2	1-1/2	- 1-1/2	2	2-1/2	4	3-1/2	11-13	
80-90	4	4	3	1	1	- 1-1/2	1	1	1	1-1/2	13-6	
90-00	1	1	1	1	1	- 1	1	1	1	1	5-5	
1300-10	2	2	1-1/2	1	1	- 1	1-1/2	3	4	3	7-12	
10-20	3	2	1	1/2	1/2	- 2	2	1	1	1	7-7	
20-30	1	1	1	1	1-1/2	- 1	1	2	2	1	6-8	
30-40	1-1/2	2	2-1/2	3	1-1/2	- 1	1	1	1	1	10-5	
40-50	1	1	1	1	1	- 1	1	1	1	1	5-5	
50-60	1	1	1	1	1	- 1	1	1	1	1	5-5	
60-70	1-1/2	1	1	1	1	- 1	1	1	1	1	6-5	
70-80	1	1-1/2	1-1/2	1-1/2	1-1/2	- 1	1	1	1	1	7-5	
80-90	1	1	2	1	2	- 2	2	3	3	3	7-13	
90-00	3	3	3	2-1/2	2-1/2	- 2	2	2	2	3	14-11	
1400-10	2	3	2	1-1/2	1	- 1	1	1	1	1	10-5	
10-20	1	1	1	1-1/2	1	- 1	1	1	1	2	5-6	
20-30	3	3	2	3	2	- 2	2	2	2	3	13-11	
30-40	2	2	2	2	2	- 1-1/2	1	1	1-1/2	1	10-7	
40-50	1	1	3	1	1	- 1	1	1	1	1	7-5	

Interval	Time/ft.											Time/5 ft.	Remarks
50-60	1	1	1	1	1	-	1	1	1	1	2	5-6	
60-70	2	2	3	2	2	-	2	2	3	3	3	11-13	
70-80	2	2	3	3	2	-	1	1	2	2	2	13-8	
80-90	1	2	2	2	2-1/2	-	2	2	1	1	1	10-7	
90-00	1/2	1/2	1/2	1	1	-	1/2	1/2	1/2	1	1	4-4	
1500-10	1	1	1	1	2	-	2	2	2	2	2	6-10	
10-20	2	2	2	2	3	-	3	2	2	1	1	11-9	
20-30	1	1	1	1	2	-	3	2	2	1	1	6-9	
30-40	1	1	1	1	2	-	2	2	2	2	2	7-10	Dev. 3-1/4° @ 1535'
40-50	2	2	2	2	2	-	2	2	3	2	2	10-11	
50-60	2	3	2	3	2	-	2	2	2	4	3	12-13	
60-70	4	4	3	3	3	-	3	3	3	4	3	17-16	
70-80	3	3	3	4	4	-	4	4	4	3	4	17-19	
80-90	3	3	3	3	3	-	3	3	3	4	4	15-17	
90-00	4	4	4	3	3	-	4	4	4	4	5	18-19	
1600-10	7	7	6	3-1/2	3-1/2	-	4	4	5	7	7	28-27	
10-20	6	6	4	4	4	-	4	4	5	4	5	22-22	
20-30	8	7	4	5	4	-	6	5	5	5	5	32-26	
30-40	6	5	5	6	5	-	6	5	4	4	4	27-23	
40-50	4	4	4	4	5	-	6	4	5	5	5	21-25	
50-60	6	6	6	7	5	-	4	3	4	6	5	30-22	

Interval	Time/ft.										Time/5 ft.	Remarks
60-70	4	4	4	6	4	- 6	7	7	5	5	22-30	
70-80	4	5	3	3	4	- 5	6	5	5	3	22-24	
80-90	3	5	5	5	5	- 6	5	5	6	6	23-28	Trip @ 169°
90-00	6	5	6	7	8	- 7	3	4	5	11	32-30	
1700-10	10	6	10	5	6	- 12	8	5	5	5	37-35	
10-20	6	4	5	9	7	- 4	6	5	7	5	31-27	
20-30	8	7	4	4	4	- 4	5	5	6	6	27-26	
30-40	5	7	7	6	6	- 6	5	6	7	4	31-28	
40-50	4	5	5	4	6	- 3	4	5	6	5	24-21	
50-60	5	6	8	6	4	- 4	5	5	7	4	29-24	
60-70	3	3	3-1/2	3-1/2	4	- 4	3	2-1/2	3	3	17-16	
70-80	3	4	6	4	5	- 5	4	4	4	4	22-21	
80-90	5	4	4	4	4	- 2	1-1/2	2-1/2	2	2	21-10	Dev. 3-1/2° @ 1784'
90-00	2-1/2	2-1/2	2-1/2	2	2	- 3	3	3	2	2	11-13	
800-10	3	2-1/2	2-1/2	2	2	- 3	3	3	2	2	12-13	
10-20	3	3	3	3	4	- 3	3	3	3	3	16-15	
20-30	4	4	4	4	4	- 4	3	3-1/2	4	3-1/2	20-18	
30-40	4	4	3-1/2	3	4	- 3	3	3-1/2	2-1/2	3	18-16	
40-50	4	3	3	3	4	- 3	3	2-1/2	3	4	17-15	
50-60	4	3-1/2	4	2-1/2	3-1/2	- 2	3	2	3	3	17-13	
60-70	4-1/2	4	3	3-1/2	7	- 4	4	3	2-1/2	4-1/2	19-18	

Interval	Time/ft.											Time/5 ft.	Remarks
70-80	4	4	3	3	3	-	2-1/2	2-1/2	2-1/2	3	3	17-12	
80-90	3-1/2	3-1/2	3-1/2	3-1/2	4	-	3-1/2	4	4	4	4-1/2	17-20	
90-00	5	4	4	6	6	-	6	5	7	5	5	25-28	
1900-10	5	5	4	3	4	-	4	4	3-1/2	3-1/2	4	21-19	
10-20	4	4	4	3-1/2	3-1/2	-	3	3-1/2	4	4	3-1/2	19-18	
20-30	4	3-1/2	4	3-1/2	3	-	4	4	3	3-1/2	3-1/2	18-18	
30-40	4	4-1/2	5	6-1/2	6	-	5	5	6	5	5	26-26	
40-50	4	4	4	4	4	-	3-1/2	3-1/2	3-1/2	3-1/2	4	20-18	
50-60	5	4	5	4	3	-	3-1/2	3-1/2	3-1/2	4	3-1/2	21-17	
60-70	3	3-1/2	3	3-1/2	3	-	3	3-1/2	4	4	4-1/2	16-19	
70-80	4	4	3-1/2	3	2-1/2	-	4	3	4	4	3	17-18	
80-90	3	2-1/2	2-1/2	5	8	-	6	7	4	4	4	24-25	Switched to mud @ 1985'
90-00	4	4	5	3-1/2	5-1/2	-	6	5	4-1/2	4-1/2	5	22-25	
2000-10	4	4-1/2	5-1/2	4	4	-	4	5-1/2	3	4	6-1/2	22-23	
10-20	5-1/2	4	4	4	3-1/2	-	3	4	2-1/2	3-1/2	3	21-16	
20-30	3	3	3	3	3	-	3	3	3	3	3	15-15	
30-40	3	3	3	4	3-1/2	-	4	4	4	3	3	17-18	
40-50	3	4	4	5	4	-	3	4	3	3	3	20-16	
50-60	3	3	3	2-1/2	3	-	3	3	3	3	4	15-16	
60-70	3	3	3	3	3	-	3	3	3-1/2	3	3	15-16	
70-80	3	3	3	3-1/2	3-1/2	-	3-1/2	3-1/2	5	5	5	16-22	

Interval	Time/ft.											Time/5 ft.	Remarks
80-90	6	7	6	6	8	-	4-1/2	4	3-1/2	3-1/2	3-1/2	33-19	
90-00	4	3-1/2	4	4	3-1/2	-	4	3	3-1/2	3-1/2	4	19-18	
2100-10	3	3-1/2	4	4	3	-	4	3	4	6	6	18-23	
10-20	4	3-1/2	3-1/2	2	3	-	2-1/2	3	5	4-1/2	3	16-19	
20-30	3-1/2	3	3	5	5	-	4	7	7	5	5	20-33	
30-40	5	5	5	3-1/2	4	-	3-1/2	4	4-1/2	2	4	23-18	
40-50	4	4	3-1/2	3	4	-	2-1/2	2	5-1/2	4	4	18-18	
50-60	4	4	3-1/2	4	4-1/2	-	5	4	3-1/2	3-1/2	3	20-19	
60-70	3	3	4	4	2	-	2	2	2-1/2	2-1/2	3	16-10	
70-80	3	3	2-1/2	2-1/2	2	-	2	3	4	3-1/2	4-1/2	13-17	
80-90	3	3	3-1/2	4	3	-	3	4	3-1/2	4	4	16-18	
90-00	2	2	3	3-1/2	4	-	4	5	4-1/2	4	4	14-21	
2200-10	5	4-1/2	2-1/2	2	5	-	3	3	3	5	3	19-17	
10-20	2-1/2	3	2	2	3	-	2	3	2	2	4	13-13	
20-30	3	3	3	2	2	-	2	2	1-1/2	2-1/2	3	13-11	
30-40	2	2	2	1-1/2	1-1/2	-	1-1/2	1-1/2	1	1	1	9-6	
40-50	2	2	2	3	2-1/2	-	2	2	2	2-1/2	3	11-12	
50-60	2	3	3-1/2	2	3	-	2	2-1/2	2-1/2	3	2	13-13	
60-70	2	2	2	2	2	-	2	2	2	2	2	10-10	
70-80	2-1/2	2-1/2	3	3	3	-	3	3	2	3	3	14-14	
80-90	2-1/2	3	3	1-1/2	2	-	2	2	2	3	2	12-11	

Interval	Time/ft.										Time/5 ft.	Remarks
90-00	3	2	2	2	2	- 2	2	2-1/2	2-1/2	2	11-11	
2300-10	2	2	2	2	6	- 4	5	4	4	4	14-21	
10-20	5	4	4	3	3	- 3	3	2-1/2	2-1/2	2	19-13	
20-30	2-1/2	3	5	3-1/2	4	- 3	5	4	2	2	18-13	
30-40	3	3	5	4	4	- 4	3-1/2	3-1/2	3	3	19-17	
40-50	3-1/2	4	4	3	2	- 2	2	3	4	3	17-14	
50-60	3	3	3	2	7	- 15	7	6	4	4	18-36	
60-70	4	4	4	4	5	- 4	3-1/2	3-1/2	4	4	21-19	
70-80	4	4	3-1/2	3-1/2	4	- 4-1/2	7	6-1/2	3	3	19-24	
80-90	3	3	3-1/2	3	4	- 3-1/2	3-1/2	4	4	4	17-19	
90-00	5	5	4-1/2	3-1/2	3-1/2	- 5-1/2	3	3-1/2	4	3	22-19	
2400-10	5	2	3-1/2	3-1/2	3-1/2	- 3-1/2	4	6	4	3	18-20	
10-20	4	4	3	2	2	- 2	2	2	2	2	15-10	
20-30	2	2	2	1	1	- 1	1	1	2	2	8-7	
30-40	2	2	2	3	3	- 3	3	3	2	2	12-13	
40-50	2	2	2	3	4	- 2-1/2	2-1/2	2-1/2	2-1/2	2-1/2	13-13	
50-60	2	3	2-1/2	1-1/2	2	- 2	2-1/2	2-1/2	2	2	11-11	
60-70	4	2	2	2	2	- 2	2	3	2	2	12-11	
70-80	3	2	2	3	3	- 2	2	3	2	4	13-13	
80-90	3	1	2	2	2	- 2	3	2	3	3	10-13	
90-00	2	2	1	2	3	- 3	2	5	5	4	10-19	

Interval	Time/ft.										Time/5 ft.	Remarks
2500-10	3	3	3	3	4	- 2	2	2	2	2	16-10	
10-20	2	2	2	2	2	- 2	3	2	2	2	10-11	
20-30	2	3	2	2	2	- 2	2	3	2	3	11-12	
30-40	2	3	3	2	4	- 3	3	4	3	3	14-16	
40-50	3	2	3	3	3	- 3	3	4	3	3	14-16	
50-60	2	3	3	3	4	- 2	3	3	2-1/2	2-1/2	15-13	
60-70	3	3	4	3	3	- 4	4	3	4	3	16-18	
70-80	3	3	3	2	2	- 3	2	2	2	2	13-11	
80-90	2	2	2-1/2	2-1/2	2	- 2	2	8	5	7	11-24	
90-00	5	2	2	1-1/2	1	- 1	1	1	2-1/2	1-1/2	10-7	
2600-10	2	2	2	2	2	- 2	2	2	2	2	10-10	
10-20	3	2	2	6	3	- 4	2-1/2	3-1/2	3	2	16-15	
20-30	2-1/2	2-1/2	3	3	2	- 2	2	3	2	3	13-12	Corrected to 2640'
40-50	2	2	2	2	3	- 2	2	3	3	2	11-12	
50-60	2	4	6	10	7	- 11	13	17	12	12	29-65	
60-70	11	13	3-1/2	3	4	- 3-1/2	4	3	3	3	34-16	Drlg. break 2662-72'
70-80	3	4	14	17	13	- 12	13	12	15	13	51-65	
80-90	12	12	11	12	12	- 12	10	13	15	13	59-63	
90-00	12	12	10	13	12	- 10	10	11	5	8	59-44	
2700-10	9	12	12	12	10	- 12	10	10	11	9	55-52	
10-20	11	6	6	7	7	- 4	3	4	4	5	37-20	Trip @ 2715'

Interval	Time/ft.											Time/5 ft.	Remarks
20-30	6	5	5	6	7	-	5	8	7	8	5	29-33	
30-40	5	6	6	7	8	-	8	7	6	6	4	30-31	
40-50	7	7	7	6	10	-	9	9	8	9	11	38-46	
50-60	5	5	7	5	5	-	9	8	6	8	8	27-39	
60-70	8	5	3	5	9	-	6	7	1	2	1	30-17	
70-80	2	1	1	2	3	-	3	6	4	12	15	9-49	
80-90	12	6	5	4	4	-	3	5	5	5	7	31-25	
90-00	19	16	16	15	12	-	12	7	8	6	7	80-40	
2800-10	6	7	7	4	1	-	1	1	1-1/2	1-1/2	2	25-7	
10-20	1-1/2	1/2	1/2	1/2	1	-	1/2	1/2	1	1-1/2	1	4-4	
20-30	1/2	1	1/2	2	3	-	4	3	3	3	4	7-17	Circ. samp. 35 min. @ 2824'
30-40	6	1-1/2	2	3	4	-	5-1/2	2	5	5	2	16-32	Trip @ 2839'
40-50	4	3	7	3-1/2	3-1/2	-	4	5	4	7	7	21-27	
50-60	6	4	6	3	3	-	2	3	1-1/2	1-1/2	2	22-9	
60-70	2-1/2	2	2	2	2-1/2	-	2-1/2	2-1/2	2-1/2	2	2	11-11	
70-80	2	3-1/2	2	2	1-1/2	-	5	3	7	9	9	11-33	
80-90	13	12	11	10	7	-	8	6	7	8	8	53-41	
90-00	2-1/2	7	4	4	4-1/2	-	5	5	2	1-1/2	1-1/2	22-15	
2900-10	1-1/2	2	2	2	2-1/2	-	2	2	2	1-1/2	1-1/2	10-9	
10-20	1-1/2	1-1/2	2	3	2	-	2-1/2	2	2	2	2	10-10	Circ. samp. 35 min. @ 2920'
20-30	2	1/2	3-1/2	2	3	-	1-1/2	3	2	3	1-1/2	11-11	

Interval	Time/ft.										Time/5 ft.	Remarks
30-40	3	4	1-1/2	2	3-1/2 - 5	2	4	6	9		14-26	
40-50	8	6	8	10	4 - 3-1/2	3-1/2	3	4	6		36-20	
50-60	2	4-1/2	1	1-1/2	4 - 10	3	3-1/2	2	2		13-20	
60-70	2	3-1/2	4	5	6 - 3	4	3	3-1/2	4-1/2		20-18	
70-80	4	7	8	9	10 - 10	8	7	10	11		38-46	
80-90	5	8	6	8	11 - 7	2	2	1	4		38-16	
90-00	3	3-1/2	4	4	2-1/2 - 3	3-1/2	3	3-1/2	5		17-21	
3000-10	5	5	2	5	3-1/2 - 4	3	4	4	7		21-22	
10-20	12	12	12	8	5 - 4-1/2	2-1/2	4	6	8		49-25	
20-30	5	4	6	7	8 - 12	11	9	7	11		30-50	Cleaned suction pit @ 3023'
30-40	14	15	11	11	6 - 19	8	12	12	10		57-61	Trip due to plugged bit @ 3037'. Ran old bit in.
40-50	8	12	9	8	9 - 13	11	9	9	7		46-49	
50-60	12	8	7	5	7 - 7	7	7	9	10		39-40	
60-70	8	8	9	9	12 - 18	15	13	13	16		46-75	
70-80	3	3	5	8	8 - 11	10	8	8	8		27-44	
80-90	12	10	8	10	10 - 11	10	11	10	12		50-54	
90-00	11	6	9	3	4 - 4	5	5	5	6		33-25	
3100-10	3	5	6	6	6 - 7	8	6	6	6		26-33	
10-20	10	7	7	13	10 - 12	10	11	12	9		47-54	
20-30	11	9	10	15	10 - 10	10	9	9	11		54-49	
30-40	10	9	9	7	8 - 11	10	10	9	13		43-53	
40-50	13	8	7	8	9 - 11	10	8	7	9		45-44	

Interval	Time/ft.										Time/5 ft.	Remarks
50-60	10	9	5	8	9	- 8	11	11	5	8	41-43	
60-70	6	10	9	8	12	- 10	10	8	7	7	45-42	
70-80	10	11	11	11	12	- 10	12	12	5	4	55-43	
80-90	5	12	12	12	13	- 11	10	8	10	8	54-47	
90-00	10	9	11	10	6	- 5	6	4	3	4	46-21	
3200-10	3	4	7	5	5	- 4	3	4	3	3	24-17	
10-20	8	3	4	7	4	- 9	7	8	7	7	26-38	
20-30	6	8	7	8	10	- 6	8	13	13	15	39-55	
30-40	16	16	10	8	3	- 19	14	10	16	12	53-75	
40-50	14	12	11	16	8	- 9	10	10	8	8	61-45	
50-60	8	7	8	8	7	- 7	7	12	11	11	38-48	
60-70	12	13	12	13	11	- 11	11	13	12	13	61-60	
70-80	12	11	10-1/2	15-1/2	13	- 12	12	12	16	19	62-71	
80-90	20	19	17	15	17	- 15	16	22	12	7	88-72	Trip @ 3287'
90-00	7	8	8	13	9	- 7	7	8	8	7	45-37	
3300-10	7-1/2	8	9	8	8	- 10	8-1/2	8	9	11	40-1/2-46-1/2	
10-20	10	10	10	10	8	- 11	8	8	8	8	48-43	
20-30	5	9	9	7	10	- 11	7	8	9	8	40-43	
30-40	7	7	8	10	10	- 9	5	7	5	6	42-32	
40-50	7	6	6	6-1/2	5-1/2	- 6	6	7	6	7	31-32	
50-60	6	6	6-1/2	7-1/2	8	- 8	8	7	6	7	34-36	

Interval	Time/ft.										Time/5 ft.	Remarks
60-70	6	6	7	7	6	- 6	10	5-1/2	5-1/2	8	32-35	
70-80	7	9	6	7	7	- 8	8	6	7	7	36-36	
80-90	5	6	6	8	6	- 4	5	5	5	5	31-24	
90-00	7	8	6	12	6	- 9	7	6	7	8	39-37	
3400-10	6	7	7	8	9	- 9	8	8	7	8	37-40	
10-20	11	7	7	6	7	- 7	8	6	7	7	38-35	
20-30	8	7	7	7	7	- 7	7	7	7	8	36-36	
30-40	8	8	7	8	10	- 8	6	6	8	6	41-34	
40-50	10	7	9	6	9	- 7	10	6	7	8	41-38	
50-60	6	8	5	7	5	- 6	6	7	8	7	31-34	
60-70	7	9	8	8	5	- 8	8	10	8	9	37-43	
70-80	8	8	9	6	7	- 9	8	6	7	9	38-39	
80-90	9	8	8	8	8	- 10	8	8	8	9	41-43	
90-00	7	7	6	6	7	- 7	8	5	6	6	33-32	
3500-10	9	6	7	8	8	- 7	7	6	8	6	38-34	
10-20	9	8	8	7	8	- 9	7	7	8	7	40-38	
20-30	8	8	9	7	7	- 7	9	6	7	7	39-36	
30-40	7	7	6	7	7	- 6	7	6	6	7	34-32	
40-50	5	6	6	5	5	- 5	5	4	3	3	27-20	
50-60	4	3	3	5	3	- 3	4	7	7	7	18-28	
60-70	6	7	9	7	6	- 6	5	4	6	6	35-27	

Interval	Time/ft.										Time/5 ft.	Remarks
70-80	6	7	6	6	4	- 4	6	7	4	8	29-29	
80-90	5	6	6	6	6	- 5	5	6	5	4	29-25	
90-00	5	6	6	6	7	- 5	5	5	6	8	30-39	
3600-10	8	7	5	7	4	- 6	7	6	6	7	31-32	
10-20	6	5	5	5	5	- 5	5	7	6	5	26-28	
20-30	5	4	4	6	7	- 6	6	6	6	7	26-31	
30-40	6	7	6	7	6	- 6	5	5	6	5	32-27	
40-50	5	6	5	6	7	- 7	6	7	6	7	29-33	
50-60	6	4	5	6	7	- 6	5	2	2	2	28-17	
60-70	1	2	1	3	6	- 7	6	7	7	6	13-33	
70-80	6	6	8	7	8	- 5	6	5	6	5	35-27	
80-90	6	7	8	6	6	- 6	6	5	5	4	33-26	
90-00	2	4	6	5	4	- 5	6	5	5	5	21-26	
3700-10	6	5	6	6	7	- 6	6	6	6	6	30-30	
10-20	6	5	6	6	6	- 6	6	6	5	4	29-27	
20-30	6	6	6	6	6	- 5	6	5	6	6	30-28	
30-40	6	6	6	6	6	- 5	7	5	5	6	30-28	
40-50	5	4	6	6	5	- 7	5	7	6	5	26-30	
50-60	5	6	5	6	6	- 6	6	5	5	5	28-27	
60-70	5	5	5	5	4	- 4	5	5	5	5	24-24	
70-80	5	5	5	5	4	- 5	5	6	5	5	24-26	

Interval	Time/ft.										Time/5 ft.	Remarks
80-90	4	6	5	6	6	- 6	6	6	5	6	27-29	
90-00	5	6	5	6	4	- 4	3	2	3	3	26-15	
3800-10	2	1	2	1	1	- 1	2	2	2	2	7-9	
10-20	2	2	1	4	5	- 4	2	4	5	4	14-19	
20-30	1-1/2	1-1/2	2	2	3	- 3	3	3	3	2	10-14	
30-40	3	3	3	3	1	- 1	1-1/2	1-1/2	2	2	13-8	
40-50	2	1	1	1	1	- 1	5	9	10	10	6-35	
50-60	9	11	7	5	3	- 4	3	4	3	4	35-18	
60-70	3	3	3	3	3	- 2	3	2	4	3	15-14	
70-80	5	7	6	7	6	- 7	6	6	6	6	31-31	
80-90	6	8	6	6	6	- 6	7	6	6	7	32-32	
90-00	5	6	7	7	6	- 7	8	6	6	6	31-33	
3900-10	6	7	7	8	8	- 8	8	10	7	10	36-43	
10-20	7	8	7	8	8	- 8	9	8	13	6	38-44	
20-30	8	10	7	9	10	- 7	10	9	11	10	44-47	
30-40	8	9	9	8	7	- 7	8	8	9	6	41-38	Trip @ 3936'
40-50	6	6	5	6	5	- 5	4	4	5	5	28-23	
50-60	4	5	5	6	4	- 4	5	5	4	5	24-23	
60-70	5	6	5	4	4	- 5	5	6	6	5	24-27	
70-80	6	6	6	6	6	- 7	5	6	6-1/2	6-1/2	30-31	
80-90	6	6	5	7	6	- 6	6	6	5	6	30-29	

Interval	Time/ft.										Time/5 ft.	Remarks
90-00	6	7	5	6	7	- 6	5	5	5	5	31-31	
4000-10	7	6	7	9	9	- 9	7	8	8	6	38-38	
10-20	4	4	5	6	7	- 10	8	9	7	5	26-39	
20-30	4	3	4	4	6	- 9	10	7	7	6	21-39	
30-40	8	4	3	5	5	- 5	4	6	3	4	25-22	
40-50	4	3	4	6	5	- 3	3	5	4	6	26-21	
50-60	3	3	2	3	3	- 3	6	5	5	4	14-23	
60-70	5	3	2	3	2	- 2	2	3	2	4	15-13	
70-80	8	3	2	2	2	- 2	2	2	3	2	17-11	
80-90	2	2	2	3	3	- 4	4	3	3	3	12-17	
90-00	4	4	7	7	7	- 7	8	8	10	4	29-37	
4100-10	3	3	2	2	3	- 4	4	2	3	2	13-15	
10-20	2	3	3	3	3	- 3	4	3	4	4	14-18	
20-30	3	2	3	3	3	- 2	3	3	3	2	14-13	
30-40	3	3	4	3	4	- 3	3	3	2	3	17-14	
40-50	2	4	5	5	4	- 3	4	4	3	3	11-17	
50-60	3	4	3	3	3	- 3	3	3	3	3	16-15	
60-70	3	2	7	11	9	- 2	2	2	3	5	32-14	
70-80	8	6	7	7	8	- 8	8	9	6	6	36-37	
80-90	9	7	9	8	8	- 8	12	7	8	8	41-43	
90-00	8	7	8	6	4	- 4	3	3	3	6	33-19	

Interval	Time/ft.										Time/5 ft.	Remarks
4200-10	8	7	8	11	9	- 6	8	9	7	7	43-37	
10-20	7	7	7	4	3	- 2	2	3	2	6	28-15	
20-30	6	2	2	2	2	- 2	2	3	3	3	14-13	
30-40	3	3	2	4	3	- 4	6	9	15	11	15-45	
40-50	8	6	8	7	8	- 11	4	10	5	5	37-35	
50-60	2-1/2	2-1/2	2-1/2	2-1/2	2	- 2-1/2	2-1/2	3	2-1/2	2-1/2	12-13	
60-70	3	2	2	3	3	- 4	3	6	5	5	13-23	
70-80	4	5	5	5	3	- 4	5	7	6	5	22-27	
80-90	7	5	4	3	4	- 6	7	7	10	5	23-35	
90-00	6	4	3	4	4	- 3	3	7	8	8	21-29	
4300-10	7	7	8	12	11	- 13	12	12	18	20	45-75	
10-20	15	16	18	22	9	- 6	6	7	8	9	80-36	
20-30	7	8	8	12	9	- 6	6	7	13	20	44-52	
30-40	27	12	6	7	7	- 7	6	6	5	5	59-29	
40-50	10	26	23	12	10	- 6	6	7	8	7	81-34	
50-60	7	7	7	4	6	- 13	8	8	6	8	31-43	
60-70	25	36	41	34	31	- 23	27	11	8	7	167-75	
70-80	6	9	9	10	9	- 12	9	8	8	9	43-46	
80-90	8	9	13	16	11	- 8	8	8	9	8	57-41	
90-00	7	7	6	8	7	- 6	8	12	9	10	35-45	
4400-10	13	16	9	9	7	- 13	12	13	9	10	54-57	

Interval	Time/ft.										Time/5 ft.	Remarks
10-20	12	10	6	8	8	- 6	3	3	3	4	44-19	
20-30	5	7	9	10	9	- 9	10	9	8	7	40-43	
30-40	9	9	7	9	5	- 3	6	7	5	4	39-25	
40-50	3	7	7	9	9	- 10	8	8	17	13	35-56	
50-60	15	17	11	12	9	- 9	9	9	16	9	64-52	
60-70	8	8	13	9	11	- 6	5	5	8	26	49-50	
70-80	23	37	23	31	21	- 25	19	14	27	46	135-131	
80-90	20	20	10	12	14	- 9	10	6	7	3	76-35	
90-00	6	7	9	8	13	- 9	8	7	11	8	43-44	
4500-10	7	16	20	19	15	- 5	8	13	11	13	77-50	
10-20	16	26	25	26	20	- 23	23	20	16	13	113-95	
20-30	14	14	15	13	19	- 15	14	15	17	20	75-81	
30-40	22	12	18	13	14	- 10	15	13	15	17	79-70	
40-50	22	28	26	24	20	- 25	17	32	12	23	120-109	
50-60	21	27	20	25	25	- 23	25	20	21	21	118-110	
60-70	26	20	20	6	16	- 22	27	25	16	16	88-106	
70-80	19	24	24	27	21	- 26	25	27	27	21	115-126	
80-90	9	25	27	27	29	- 25	26	22	16	19	117-108	
90-00	24	17	5	11	7	- 10	10	13	9	9	64-51	
4600-10	10	8	9	7	9	- 8	8	8	10	9	43-43	
10-20	9	9	11	7	10	- 9	6	10	8	8	46-41	

Interval	Time/ft.										Time/5 ft.	Remarks
20-30	8	8	10	7	8	- 9	7	8	8	9	41-41	
30-40	9	9	9	5	10	- 8	6	7	9	5	42-35	
40-50	6	9	6	6	7	- 7	8	8	8	9	34-40	
50-60	7	9	6	10	11	- 8	6	9	8	7	43-38	
60-70	7	7	6	5	5	- 5	5	4	3	4	30-21	
70-80	5	5	3	4	4	- 3	3	4	3	4	21-17	
80-90	3	3	3	3	3	- 3	4	4	3	4	15-18	
90-00	4	4	5	5	4	- 4	3	3	2	3	22-15	
4700-10	3	5	5	6	5	- 4	6	3	3	4	24-20	
10-20	6	3	3	3	5	- 4	3	3	3	3	20-16	
20-30	4	2	3	3	3	- 2	5	3	2	3	15-15	
30-40	1-1/2	1-1/2	2	2	3	- 4	4	2	2	5	10-17	
40-50	4	5	4	5	3	- 4	3	3	2	2	21-14	

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. LEASE DESIGNATION AND SERIAL NO.: U-3201

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL ☐ GAS WELL ☐ OTHER dry

7. UNIT AGREEMENT NAME: Dirty Devil

2. NAME OF OPERATOR: Buttes Gas & Oil Co.

8. FARM OR LEASE NAME: Federal

3. ADDRESS OF OPERATOR: 420 C. A. Johnson Bldg., Denver, Colorado 80202

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2270' FNL, 1996' FEL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 7-31S-13E

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 4395' K.B.

12. COUNTY OR PARISH: Garfield

13. STATE: Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	XX
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
(Other)							

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

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

Present Condition:
10 3/4" surface casing cemented at 415' in 15" hole to surface.
Total Depth: 7 7/8" to 4750'.

Work Performed:
With open end drill pipe set plugs at following depths:

Plug No. 1	4490'-4600'	40 sx.
Plug No. 2	3785'-3890'	25 sx.
Plug No. 3	2955'-3055'	30 sx.
Plug No. 4	2610'-2715'	25 sx.
Plug No. 5	1690'-1790'	30 sx.
Plug No. 6	1135'-1235'	25 sx.
Plug No. 7	385'-435'	15 sx.
Plug No. 8	surface	10 sx.

Well plugged and abandoned at 4:00 P.M. on December 12, 1968.

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

SIGNED [signature] TITLE Engineer DATE 8-19-69

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

2 copies of FDC-GR logs sent to State of Utah.