

ARCO Oil and Gas Company
Western District
717-17th Street
Mailing address: P.O. Box 5540
Denver, Colorado 80217
Telephone 303 575 7000



April 10, 1981

United States Geological Survey
Attn: Mr. Ed Gynn
1745 West 1700 South
Salt Lake City, Utah 84138

RECEIVED
APR 15 1981

Re: Application for Permit to Drill
Pavant Butte Unit #1
Section 35-19S-7W
Millard County, Utah
Federal Lease #U-19361
Federal Unit Being Formed

DIVISION OF
OIL, GAS & MINING

Dear Sir:

Enclosed are five copies of the subject application. Please note that the location has been moved 168' south and 11' west of the site given in PER for best terrain. This is still within the 500' from quarter quarter limit for a legal location in Utah since the section is larger than normal. We are in the process of obtaining designations of operator which will be forwarded to you.

Please inform us of any further requirements and arrange for the on-site inspection as soon as possible.

Your truly,


W. A. Walther Jr.
Operations Manager

MWS/WAW/ps

cc: Utah Division of Oil, Gas and Mining (2) ✓
1588 West, North Temple ✓
Salt Lake City, Utah 84116

enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL OR GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 ARCO Oil and Gas Company, a Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
 P. O. Box 5540, Room 1819 DEC, Denver, Co. 80217

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 828' FNL and 1991' FEL, Sec. 35, T19S, R7W NW NE
 At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 18 miles WNW of Fillmore, Utah

16. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 828'

17. NO. OF ACRES ASSIGNED TO THIS WELL
 Not spaced

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

19. PROPOSED DEPTH
 12,500' *Horizontal*

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 4589' - GR

22. APPROX. DATE WORK WILL START*
 May 20, 1981

5. LEASE DESIGNATION AND SERIAL NO.
 U-19361*

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
 Pavant Butte Unit*

8. FARM OR LEASE NAME

9. WELL NO.
 1

10. FIELD AND POOL, OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 35, T19S, R7W, SLM.

12. COUNTY OR PARISH
 Millard

13. STATE
 Utah

22. APPROX. DATE WORK WILL START*
 May 20, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	conductor	50'	To surface - est 50 sax
17-1/2"	13-3/8"	54.5#	600'	To surface - est 800 sax
12-1/4"	9-5/8"	36.0#	6,500'	500 sax
8-1/2"	7"	23 & 26#	12,500'	As required - based on completion intervals and hole caliper to over 500' above prospective zones.

Enclosures: 10 point drilling plan
 13 point surface use plan
 Certified Location Plat

PROCESSED
 APR 15 1981

* This well is the initial well in the Pavant Butte Unit now being formed. Final details of the unit are being negotiated with the USGS Units Section.

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.

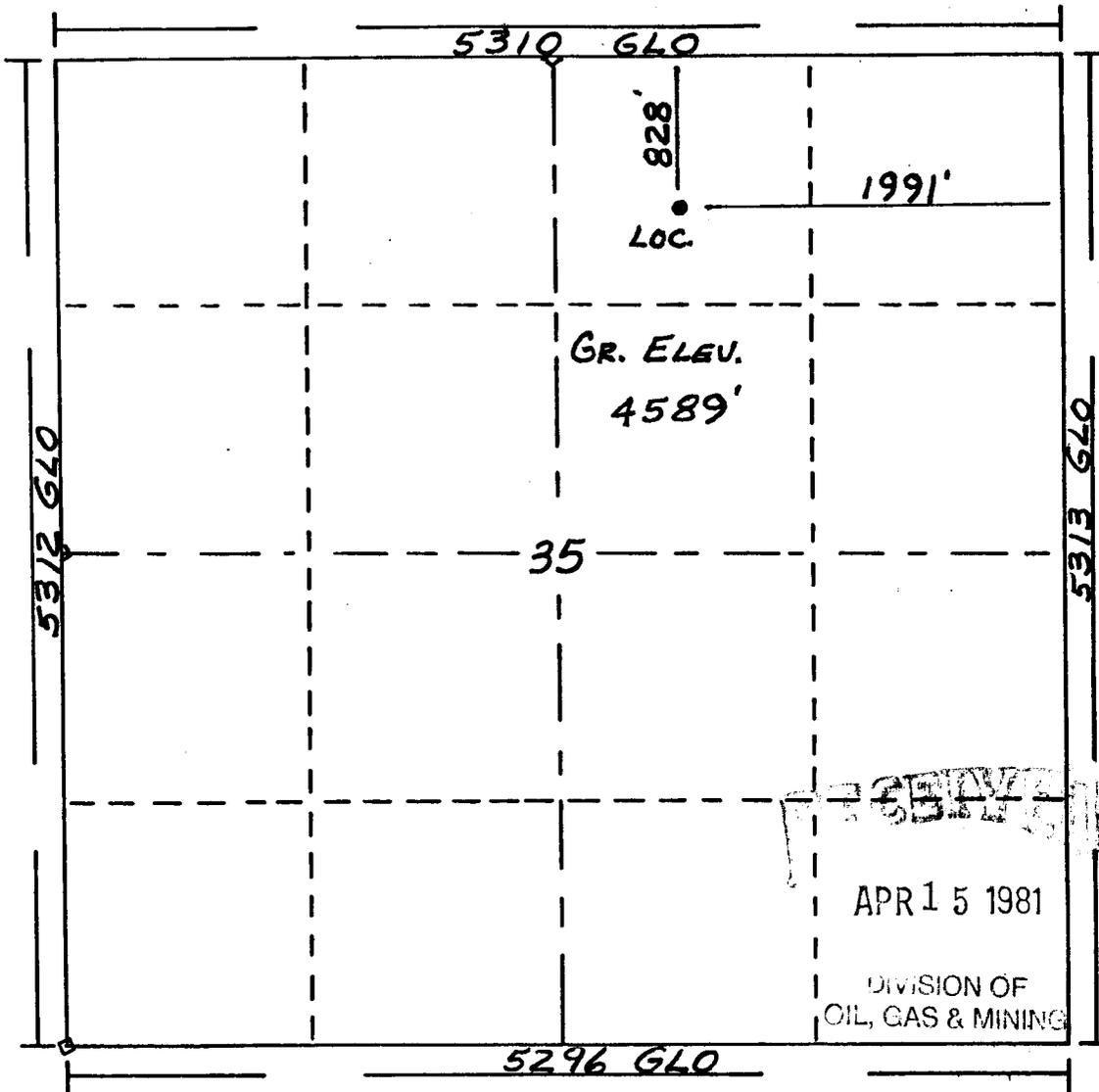
24. SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE April 10, 1981
 (This space for Federal or State office use)

PERMIT NO. 43-027-30027 APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

APPROVED BY _____ TITLE _____ DATE: 5/21/81 BY: CB Light



R. 7 W.

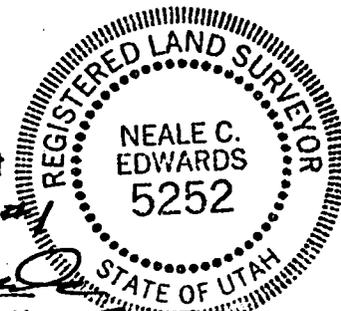


T. 19 S.

Scale... 1" = 1000'

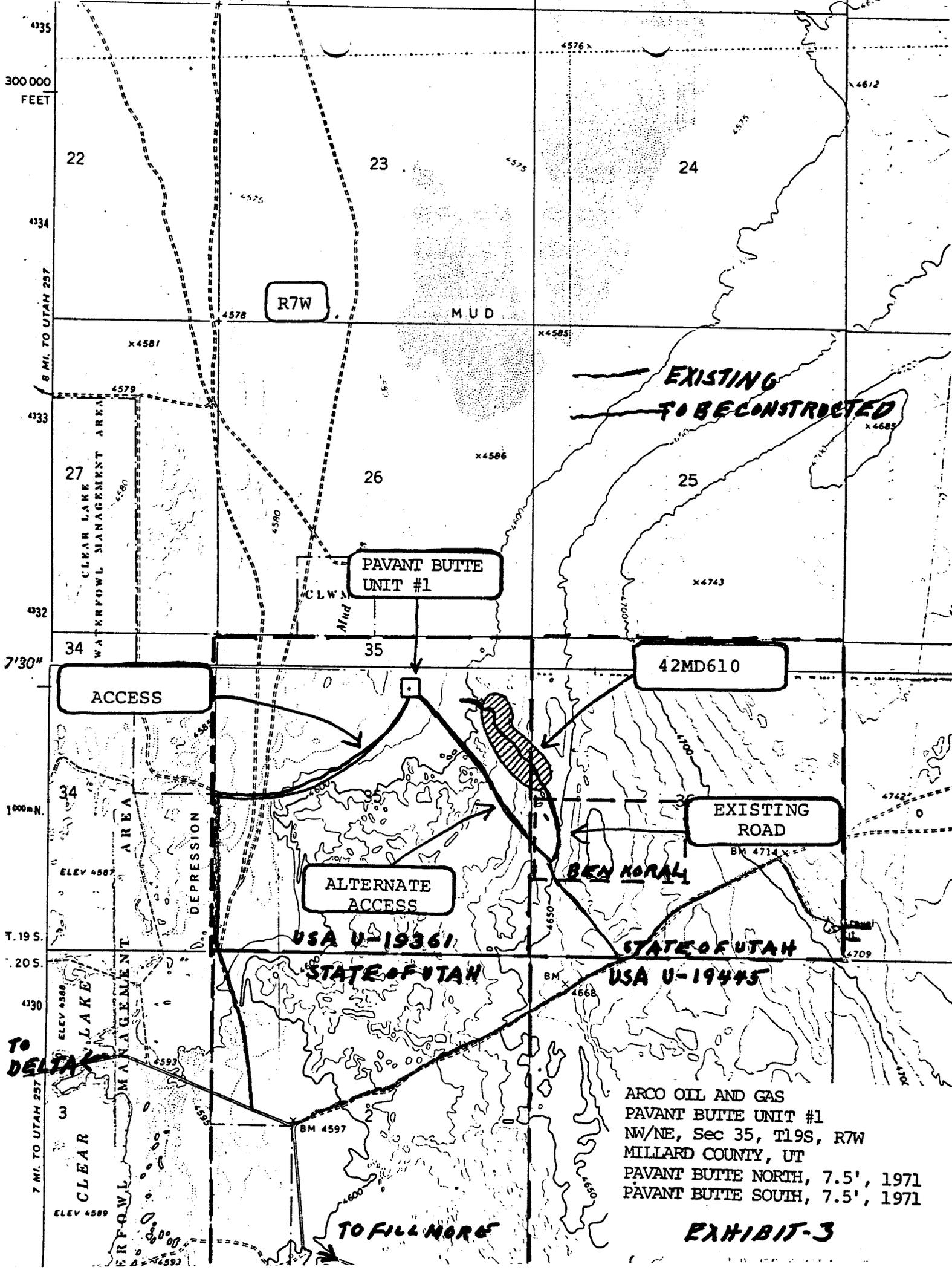
Powers Elevation of Denver, Colorado
 has in accordance with a request from **Marc Smith**
 for **ARCO OIL AND GAS Co. A DIVISION OF ATLANTIC RICHFIELD Co.**
 determined the location of **PAVANT BUTTE UNIT #1**
 to be **828 FNL 1991 FEL** Section **35** Township **19 S.**
 Range **7 W.** Salt Lake Meridian
MILLARD County, UTAH

I hereby certify that this plat is an
 accurate representation of a correct
 survey showing the location of
PAVANT BUTTE UNIT #1



Date: 3-31-81

Neale C. Edwards
 Licensed Land Surveyor No. **5252**
 State of **UTAH**



R7W

MUD

EXISTING
TO BE CONSTRUCTED

PAVANT BUTTE
UNIT #1

ACCESS

42MD610

ALTERNATE
ACCESS

EXISTING
ROAD

BEN MORALI

USA U-19361

STATE OF UTAH
USA U-19445

STATE OF UTAH

ARCO OIL AND GAS
PAVANT BUTTE UNIT #1
NW/NE, Sec 35, T19S, R7W
MILLARD COUNTY, UT
PAVANT BUTTE NORTH, 7.5', 1971
PAVANT BUTTE SOUTH, 7.5', 1971

EXHIBIT-3

TO FILL MORE

TO DELTA

8 MI. TO UTAH 257

7 MI. TO UTAH 257

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FEET

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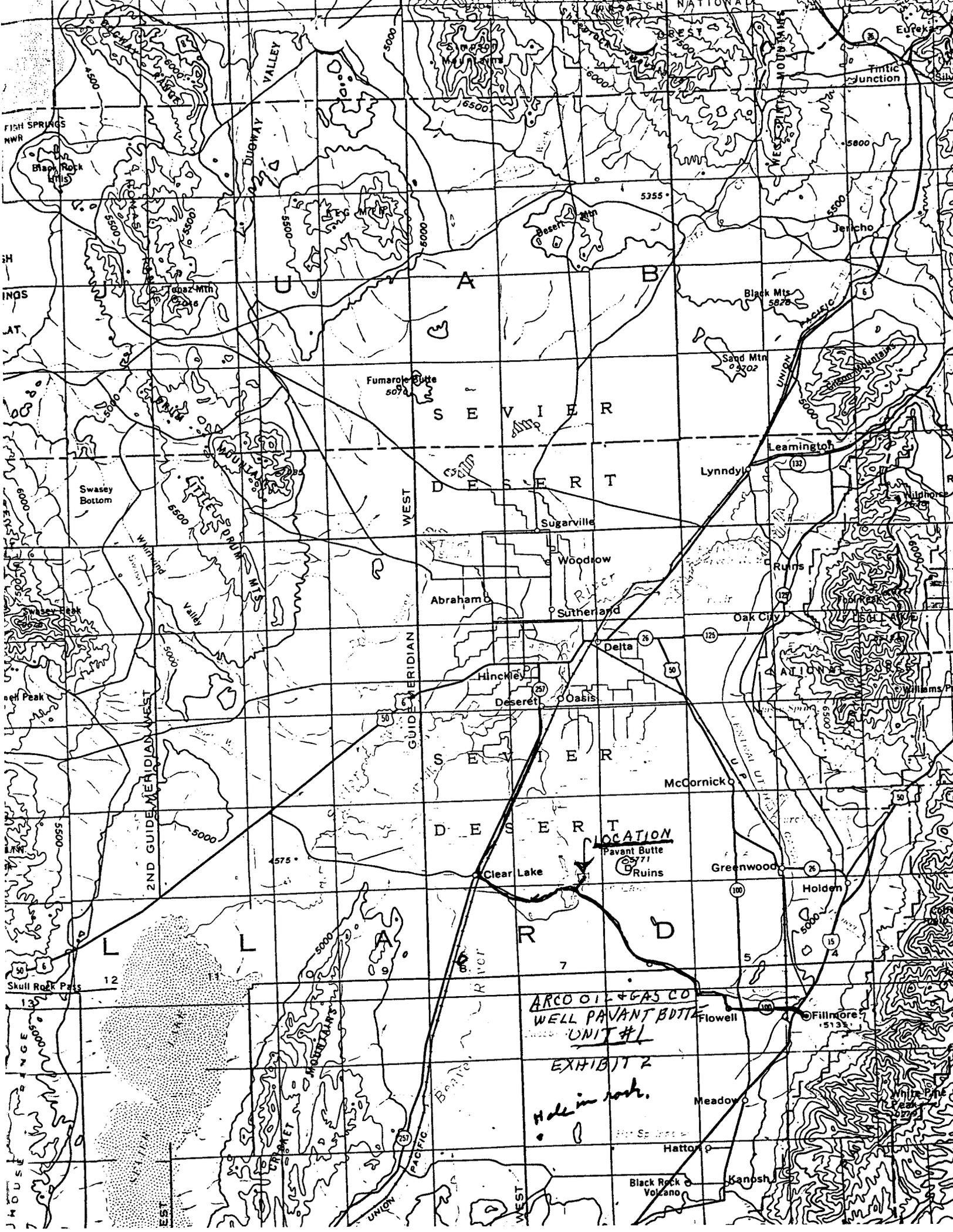
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ARCO OIL & GAS CO
WELL PAVANT BUTTE
UNIT #1

EXHIBIT 2

Hole in rock.

LOCATION
Pavant Butte
Ruins



TEN POINT DRILLING PLAN

Attach to APD Form 9-331-C
 ARCO Oil and Gas Company
 Well Pavant Butte Unit #1
 NW NE Sec. 33-19S-7W
 Millard County, Utah

1. Surface Geological Formation: Quaternary Alluvium

2. Estimated Tops of Geological Markers:

Miocene - 4,700'
 Miocene-Oligocene - 6,500'
 Paleozoic - 9,600'
 T.D. - 12,500'

3. Estimated Tops of Possible Water, Oil, Gas or Minerals:

Lower Miocene - 4700-9600'
 Possible Water Sands - 100-500'
 Other Minerals Unknown

*13 3/8 @ 590
 9 5/8 @ 9772*

4. Proposed Casing Program:

<u>Casing</u>	<u>Hole Size</u>	<u>Interval</u>	<u>Section Length</u>	<u>Size OD</u>	<u>Weight and Joint</u>	<u>Grade</u>	<u>New Used</u>
Conductor	26"	0- 50'	50'	20"	Set new conductor in dry hole		
Surface	17-1/2"	0- 600'	600'	13-3/8"	54.5#	K-55 STC	New
Intermediate	12-1/4"	0-6500'	6500'	9-5/8"	36#	K-55 STC	New
Production	8-1/2"	0-3100'	3100'	7"	26.0#	K-55 BTC	New
		3100-8620'	5520'	7"	26.0#	K-55 STC	New
		8620-12,500'	3880'	7"	23.0#	S-95 LTC	New

Cement Program

Conductor Fill to surface w/neat cement approx. 50 sx.
 Surface Fill to surface w/neat cement approx. 800 sx.
 Intermediate Fill from casing shoe to 5500' (1000') w/cement plus required additives for hole conditions (approx. 500 sx).

4. Proposed Casing Program Cont'd:

Production Cover prospective zones plus 500' using additives as required for down hole conditions and calculating volumes.

5. Minimum Specifications for Pressure Control:

Exhibit 1 is a schematic diagram of the blowout preventer equipment. This equipment will be 5000 psi working pressure. The BOP's will be hydraulically tested to API specifications after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period, as will blind rams and annular preventer each time pipe is pulled out of the hole. Such checks of BOP will be noted on daily drilling reports.

6. Type and Characteristic of Proposed Drilling Fluids:

<u>Depth</u>	<u>Type</u>	<u>Weight #/gal.</u>	<u>Visc. sec/qt.</u>	<u>Fluid Loss cc</u>
0- 600	Wtr & Gel	8.5 - 9.0	50-70	No control
600- 6,500	Gel & chem.	8.8 - 10.0	40-50	8-15
6500-12,500	Gel & chem.	8.5 - 9.0	40-45	8-10

Treat mud as required to control hole conditions. Maintain stock of mud materials to raise mud weight if required for pressure control.

7. Auxiliary Equipment:

- (a) A kelly cock will be kept in the string.
- (b) A float will not be used at the bit.
- (c) A mud logging unit with gas detecting device will be monitoring the system.
- (d) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. Testing, Logging and Coring Programs:

- (a) Two DST's are anticipated at approximately 5460' and 9760', based on drilling results. Other zones may be tested if hydrocarbons are indicated.
- (b) The logging program will consist of a DIL/MSFL, BHC-Sonic CST, FDC/CNL, HDT, and CST. Log each casing point back to previous casing. Other logs such as velocity, frac and dipmeter may be run as required by well indications.

- (c) Three 30' cores are anticipated at 5500', 9800' and 12,440'.
- (d) Well will be completed by gun perforating casing and flowing through tubing. Acid or frac treatments may be required but cannot be detailed until well is drilled and tested. Appropriate Sundry Notice will be submitted.

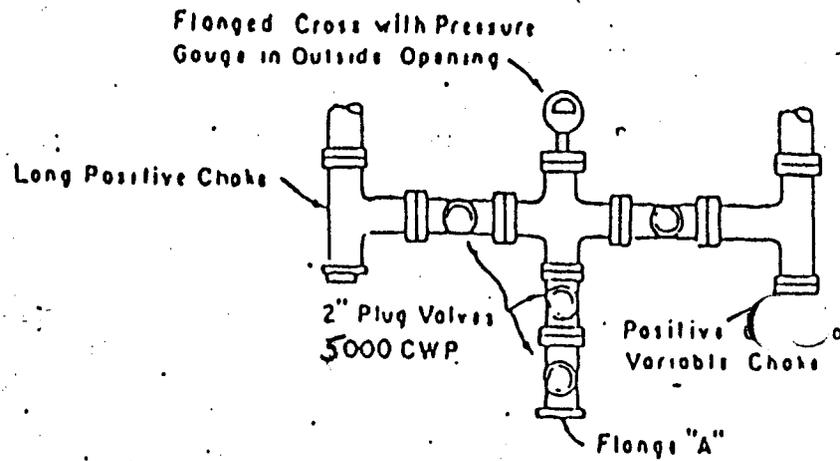
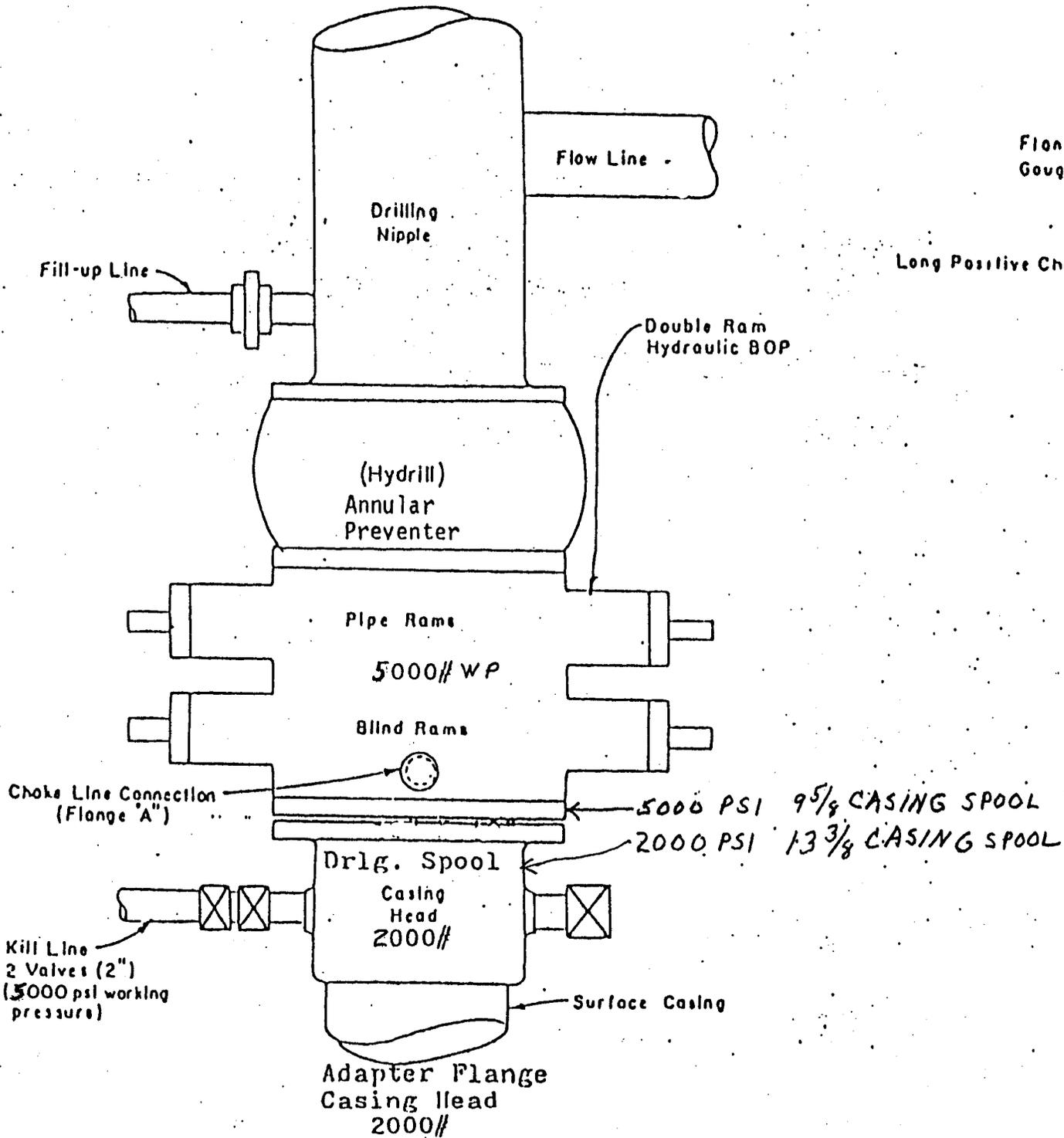
9. Anticipated Abnormal Temperatures, Pressures or Hazards:

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Maximum bottom hole pressure expected is 5400.

No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date and Duration of Operations:

The anticipated starting date is set for May 20, 1981, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 120 days after spudding the well and drilling to casing point.



PLAN VIEW-CHOKE MANIFOLD

BLOWOUT PREVENTER
 AGRAM
 EXHIBIT 1

13-POINT PLAN SURFACE USE PLAN

Attached to Form 9-331C
ARCO Oil and Gas Company
Well Pavant Butte Unit #1
NW NE Sec. 33-19S-7W
Millard County, Utah

1. Existing Roads:

- A. The proposed location is staked as shown in the Certified Location Plat. The corners of the drilling pad area are also staked as shown in Exhibit 4. A north directional stake was also placed.
- B. The location is reached as shown in Exhibit 2 from Fillmore, Utah, go west on Highway 100, through Flowell 6.5 miles. Turn right 0.9 miles (end of paved road). Turn left 2.4 miles. Bear left 10.4 miles to Clear Lake Waterfowl Management Station. Continue to right 0.4 miles to alternate access and 0.1 mile further to access. See details on Exhibit 3.
- C. The roads near the location are shown in Exhibit 3. The existing roads shown in green are gravel surfaced roads which should be adequate for access. These roads are county roads used by the Clear Lake Waterfowl Management Agency operations.
- D. This is an exploration well and all roads are shown on Exhibits 2 and 3.
- E. The existing roads are county roads which are currently in good condition and which will be maintained in existing condition in cooperation with the Millard County Road Supervisor and Clear Lake Waterfowl Management agency.

2. Planned Access Roads:

The planned access roads are shown in green on Exhibit 3.

A. Drilling Operations

- 1. There are two possible access roads shown in red. The access is about 4200'. The soil is clay and will require new construction with a BLM standard 18' width temporary road with 5' drainage on each side and a gravel surface of about 6". The alternate access starting at the Section 1 and 36 boundary crosses lava outcrops up to a point about 1000' from the location and then clay. The first 2100' of the alternate access is an existing

single track trail which would be upgraded by widening with necessary drainage. The surface is porous lava so no additional surfacing materials would be required. Our current thinking is that the alternate route would be cheaper to build and have less environmental impact; however, the alternate route was staked by our surveyor after our original alternate was discarded because of discovery of the cultural site shown on map as 42 MD610. A final selection will be made during on-site in conjunction with USGS, BLM, Clear Lake Management, and our construction contractor. We also have the problem of the alternate crossing private land (N 1/2 of SW of Sec. 35 owned by Ben Koral, Box 133, Marysvale, Ut., 84750). We are in the process of negotiating to cross this private land and agreeing to a rehabilitation plan with the owner.

2. The grades on these roads will be mostly 0-3% with possibly a short section up to 8% on the alternate access dropping off the lava outcrop.
3. No turnouts are planned.
4. Drainage is planned where required as discussed above.
5. No culverts are needed.
6. Surface materials required will be obtained from commercial private sources or the State owned lava aggregate pit shown in the SE SE SE of Section 36. A permit for use of this gravel has been applied for with Utah's Division of Lands.
7. No gates, fence cuts or cattleguards are required.
8. The new access and alternate roads were centerline flagged and cross Federal, State, and private lands as shown and discussed above.

3. Location of Existing Wells:

There are no known wells existing within two miles of this exploratory well.

4. Location of Existing and/or Proposed Facilities:

There are no existing facilities operated by ARCO in this area. If production is found, plans for required production facilities will be submitted under Sundry Notice.

5. Location and Type of Water Supply:

A water well will be drilled on the drill pad at a convenient location. A permit for this well has been applied for with the State of Utah and a copy will be submitted to the U.S.G.S.

6. Construction Materials:

- A. Surfacing materials for the drill site and roads will be obtained from commercial sources or the State pit in Section 35 as mentioned above.
- B. No materials will be taken from Federal land.
- C. The access roads to the location as shown in Exhibit 3 are the only Federal lands to be crossed.

7. Handling of Waste Materials and Disposal:

- (1) Drill cuttings will be buried in the reserve pit.
- (2) Drilling fluids will be handled in the reserve pit.
- (3) Any fluids produced during drilling test or while making production test will be collected in a test tank. Any spills of oil, gas, or salt water will be cleaned up and removed. If well is productive, produced water will be disposed of on-site for 30 days only, or 90 days with permission of District Engineer. After that time application will be made for approval of permanent disposal methods in compliance with NTL-2b.
- (4) Chemical toilet facilities will be provided for human waste.
- (5) Garbage produced during drilling or testing will be handled in trash pit. Drill fluids, water, drilling mud and tailings will be kept in reserve pit, as shown on Exhibit 6. The trash pit will be totally enclosed with small mesh wire to prevent wind scattering trash before being burned or removed. Reserve pit will be fenced on three sides during drilling and the fourth side fenced upon removal of the rig.
- (6) After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. All open pits will be fenced during drilling and kept fenced until such time as the pit is leveled.

8. Ancillary Facilities:

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout:

- (1) Exhibits 5 and 6 are the Drill Pad Layout as staked, with elevations. Cuts and fill have been drafted to visualize the planned cut across the location spot and the deepest part of the pad. Topsoil will be stockpiled per BLM specifications determined at time of pre-drill inspection.

- (2) Exhibit 6 is a plan diagram of the proposed rig and equipment, reserve pit, trash/burn pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be 3 or 4 trailers on site.
- (3) Exhibit 6 shows rig orientation, road access and parking areas.
- (4) The reserve pits will not be lined.

10. Plans for Restoration:

- (1) If well is abandoned, site will be restored to original condition as nearly as possible. Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately to an approved sanitary land fill after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
- (2) The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the BLM. Revegetation is recommended for road area, as well as around drill pad.
- (3) Three sides of the reserve pit will be fenced during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from entering; and the fencing will be maintained until leveling and cleanup are accomplished.
- (4) If any oil is on the pits and is not immediately removed or burned after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.
- (5) The rehabilitation operations will begin immediately after the well is plugged. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation will be done as recommended by surface management agency.

11. Other Information:

- (1) The topography is as shown in Exhibit 3. The area in Section 35 above the 4600' contour is rugged weathered basalt (lava) flow material. The location itself and the first access is salt encrusted clay with occasional juniper, and more common, but sparse rabbitbrush, fourwing saltbrush, mormon tea, greaseweed and halogeton.
- (2) The primary surface use is for grazing.

- (3) The closest waters are several ponds or springs about 1400' west of the location. Discussions with the Clear Lake Waterfowl Management agent indicate that surface and subsurface waters in the area have 2000-3000 ppm dissolved salts. The salt incrustations on the surface indicate that surface waters will have significant salt content. Clear Lake itself is approximately one mile west of the wellsite.

The closest occupied dwelling is the Clear Lake Waterfowl Management supervisor's house about 1.8 miles south of the wellsite.

Discussions with the Clear Lake Supervisor indicate that the main waterfowl migrations will be over by the time drilling begins about June 1, 1981, and that he doesn't feel that the operations will have any adverse effects on waterfowl.

An archeological survey of the proposed accesses and drill site were made while staking. A significant cultural site was discovered as discussed above and the alternate access moved to avoid this site. Copies of the cultural survey report which recommends that the project be allowed to proceed have been mailed to the interested agencies.

- (4) No specific unusual restrictions are noted in our lease.
- (5) It is expected to begin construction of the access road and drill site on May 20 or as soon before as this plan is approved and to commence drilling on or before June 1, 1981.
- (6) It is noted that the lease to be drilled on U-19361 is a total of 1040 acres and includes all of Section 35, the NE 1/4 and E 1/2 of the SE 1/4 of Section 34 and the NW 1/4 of Section 33. All activity will be carried out only on the surface of Section 35. The original lessee of record of this lease was Estelle Wolf with assignments to various others. Designation of operator will be forwarded in the near future for all lessees of record.

12. Lessee's or Operator's Representative:

W. A. Walther, Jr.
ARCO Oil and Gas Company
P. O. Box 5540
Denver, Colorado 80217
Bus. Tele: (303) 575-7031
Res. Tele: (303) 575-7153

C. E. Latchem
ARCO Oil and Gas Company
P. O. Box 5540
Denver, Colorado 80217
Bus. Tele: (303) 575-7127
Res. Tele: (303) 575-7152

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by ARCO Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

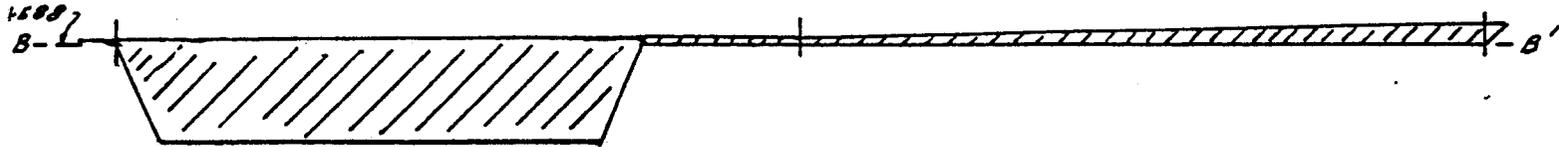
April 10, 1981
Date



W. A. Walther, Jr.
Operations Manager
ARCO Oil and Gas Company

ARCO OIL & GAS Co. A Division
of ATLANTIC RICHFIELD Co.
#1 Pavant Butte Unit
828' FN + 1991' FE. Sec. 35-T19S-R7W
Millard County, Utah

Pad and Pit
Cut-Fill Cross-Sections



LEGEND:

Cut 
Fill 

SCALE: 1"=50' Horizontal
1"=20' Vertical

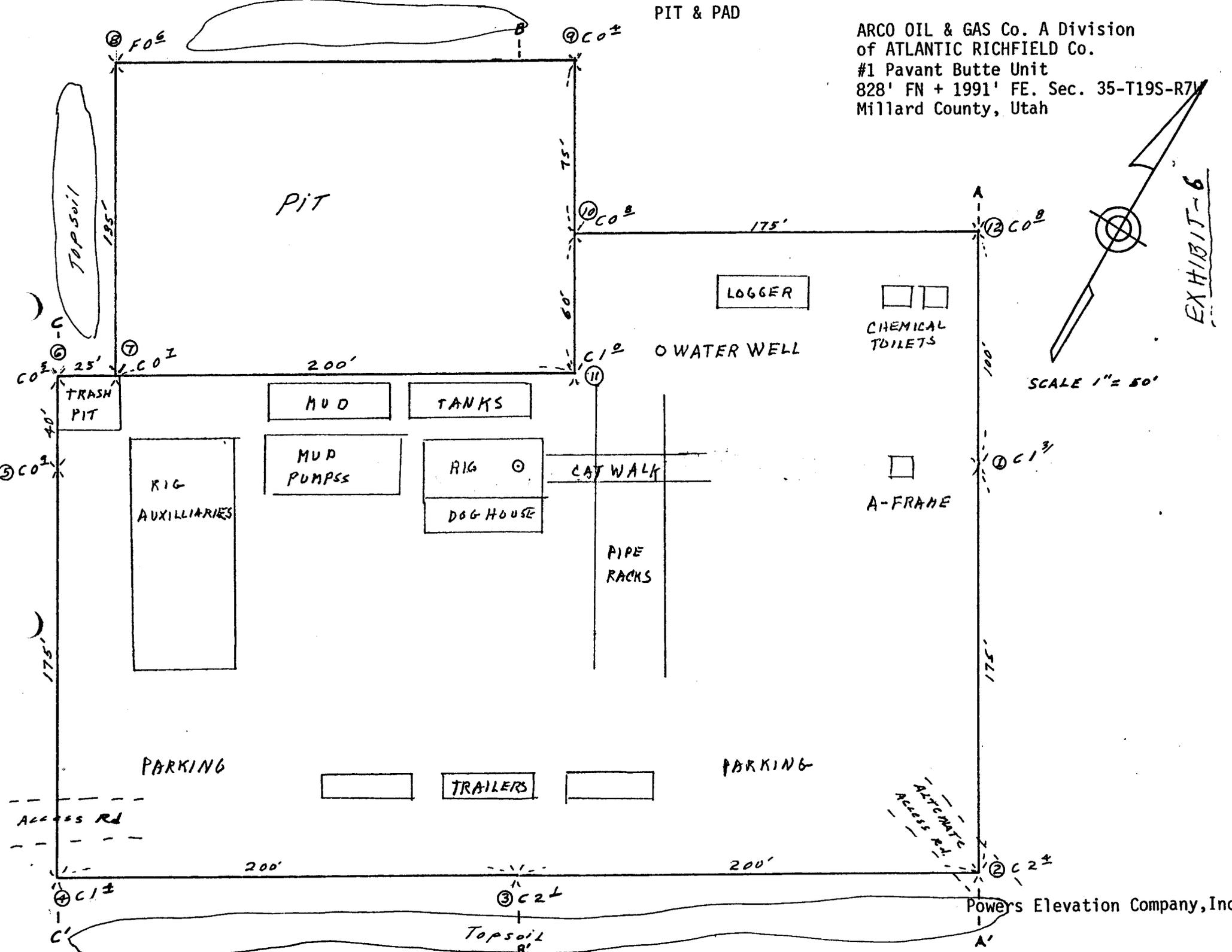
EXHIBIT 5

PIT & PAD

ARCO OIL & GAS Co. A Division
of ATLANTIC RICHFIELD Co.
#1 Pavant Butte Unit
828' FN + 1991' FE. Sec. 35-T19S-R7W
Millard County, Utah

EXHIBIT-6

SCALE 1" = 50'



Powers Elevation Company, Inc.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Devner, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL NW NE
AT TOP PROD. INTERVAL: Approx the same
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

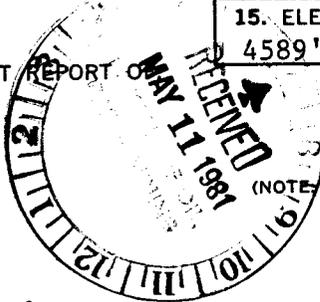
PULL OR ALTER CASING

MULTIPLE COMPLETE

CHANGE ZONES

ABANDON*

(other) Change in Planned Access Road



5. LEASE
U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte Unit

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-7W

12. COUNTY OR PARISH | 13. STATE
Millard | Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589'

(NOTE) Report results of multiple completion or zone change on Form 9-330.)

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.)*

Due to conflicts with the landowner of the 80 acre tract, a portion of the access road was moved. Attached is a map showing the change.

Fred Frampton, Richfield District Archaeologist, cleared this route and his report is being sent to the BLM.

Please attach to No. 2 Planned Access Road on the APD 13 Point Surface Use Plan.

All other plans remain as originally submitted.

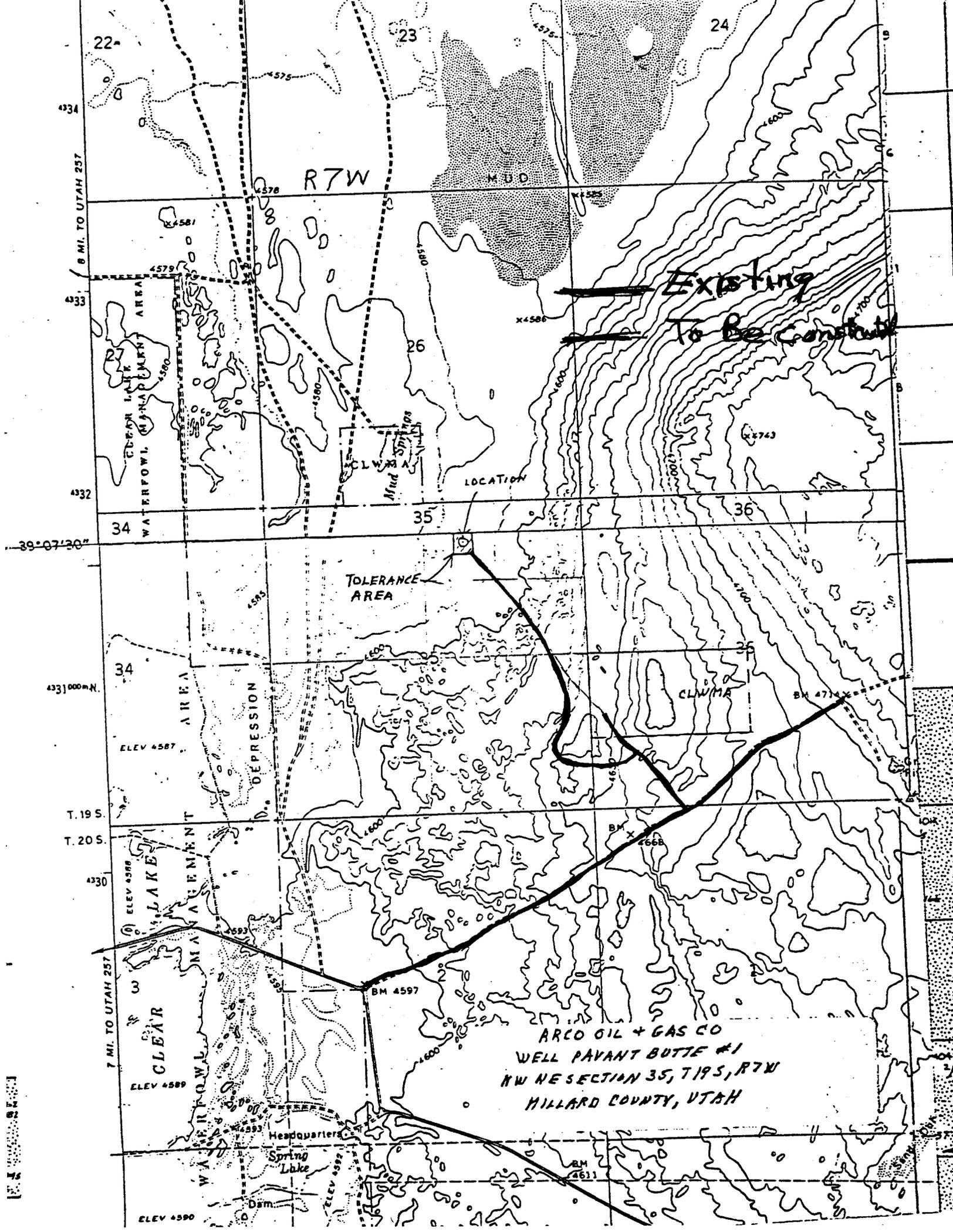
Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 5-8-81

(This space for Federal or State office use)

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



R7W

MUD

Existing
To Be Constructed

WATERFOWL MANAGEMENT AREA
CLEAR LAKE
WATERFOWL MANAGEMENT AREA

TOLERANCE AREA

DEPRESSION
ELEV 4587

CLEAR LAKE
ELEV 4589

ARCO OIL + GAS CO
WELL PAVANT BUTTE #1
NW NE SECTION 35, T19S, R7W
HILLARD COUNTY, UTAH

Headquarters

Spring Lake

Dam

7 MI. TO UTAH 257

8 MI. TO UTAH 257

39° 07' 20"

4331000m.N.

T. 19 S.

T. 20 S.

4330

ELEV 4590

BM 4597

BM 4668

BM 4611

BM 4714

45743

x4580

LOCATION

Mud Springs

26

35

36

22-

23

24

434

433

432

34

34

25

4330

1:24,000



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WARM SPRINGS RESOURCE AREA
Fillmore, Utah 84631

IN REPLY REFER TO

3100
U-057

May 14, 1981

U. S. Geological Survey
Oil and Gas Operations
2000 Adm. Bldg.
1745 West 1700 South
Salt Lake City, UT 84104

Attn: George Diwachak

Gentlemen:

We received the proposed change in access road for ARCO's Well No. 1, Sec. 35, T. 19 S., R. 7 W. We have no objections to the proposed change. We have been assured by Fred Frampton that the route has been cleared for cultural resources.

Sincerely yours,

Area Manager



Save Energy and You Serve America!

** FILE NOTATIONS **

DATE: 5/15/81
OPERATOR: ARCO oil & Gas Company
WELL NO: Pavant Butte #1
Location: Sec. 35 T. 19S R. 7W County: Millard

File Prepared: Entered on N.I.D:
Card Indexed: Completion Sheet:

API Number 43-027-30027

CHECKED BY:

Petroleum Engineer: _____

Director: OK under rule C-3 (492) OK

Administrative Aide: OK as per C-3 spacing, OK on
boundrys; OK on any other oil & gas wells.
Jack

APPROVAL LETTER:

Bond Required: Survey Plat Required:
Order No. _____ O.K. Rule C-3
Rule C-3(c), Topographic Exception - company owns or controls acreage
within a 660' radius of proposed site

Lease Designation Plotted on Map

Approval Letter Written
Hot Line P.I.

U. S. GEOLOGICAL SURVEY - CONSERVATION DIVISION

FROM : DISTRICT GEOLOGIST, ME, SALT LAKE CITY, UTAH
TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH
SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-19361

OPERATOR: ARCO WELL NO. 1

LOCATION: C NW 1/4 NE 1/4 sec. 35, T. 19S, R. 7W, SLM
Millard County, Utah

1. Stratigraphy:

Alluvium	surface
Miocene	4700'
Miocene-Oligocene	6500'
Paleozoic	9600'
	<u>TD 12,500'</u>

2. Fresh Water:

Fresh water may be present in near surface sands (to 500').

3. Leasable Minerals:

Unknown - A real wildcat

4. Additional Logs Needed: Adequate

5. Potential Geologic Hazards: None expected

6. References and Remarks:

Signature:

Gregory W. Wood

Date:

5-1-81

REC'D

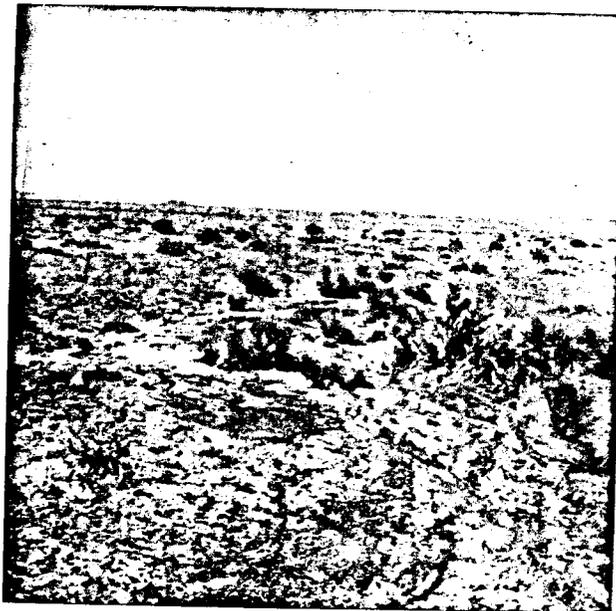
OIL GAS & MINES

CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency			Local and private correspondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Correspondence (date)	Phone check (date)	Meeting (date)						
1. Public health and safety	1 (5-1-81) (5-14-81)					2	6	6 (4-22-81)	4
2. Unique characteristics	1						6	6	4, 8
3. Environmentally controversial							6	6	4, 8
4. Uncertain and unknown risks							6	6	4
5. Establishes precedents							6	6	4, 8
6. Cumulatively significant							6	6	4
7. National Register historic places	1								
8. Endangered/threatened species	1							6	
9. Violate Federal, State, local, tribal law							6	6	4, 8

CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey
(Conservation Division, Geological Division, Water Resource Division,
Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation (*FIELD NOTES*)
7. Private Rehabilitation Agreement
8. *RECOMMENDED STIPULATIONS*



WEST

United States Department of the Interior
Geological Survey
Oil and Gas Operations
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator/Project Name ARCO OIL AND GAS CO.
Project Type OIL OR GAS WELL
Project Location 828' FNL, 1991' FEL Sec 35, T19S R7W
Date Project Submitted 4/13/81

FIELD INSPECTION

Date 4/22/81

Field Inspection
Participants

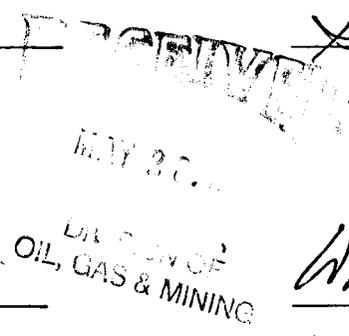
George Diwachak USGS
MARK W. SMITH, PAT ARCKEY ARCO
GERALD Muhlstein, RON PAULICK BLM
MICHAEL COFFEEN, DON NELSON UTAH, D.W.R.

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

5/22/81
Date Prepared
George J. Diwachak
Environmental Scientist

I concur

MAY 26 1981
Date
W.P. Martner FOR E. W. GUYNN
District Supervisor DISTRICT ENGINEER





United States Department of the Interior

IN REPLY REFER TO

BUREAU OF LAND MANAGEMENT
WARM SPRINGS RESOURCE AREA
Fillmore, Utah 84631

3100
U-057

May 1, 1981

U.S. Geological Survey
Oil & Gas Operations
2000 Adm. Bldg.
1745 W. 1700 S.
Salt Lake City, Utah 84104

Attention: George Diwachak

Gentlemen:

In reference to ARCO's permit to drill Section 35, T. 19 S., R. 7 W., Lease No. U-19361, we offer the following:

1. We attended the on-site joint inspection April 22, 1981.
2. The ultimate access route was determined to be best. We had no objections to this, however, we do recommend that the permittee develop the road to a good gravel base road prior to allowing any travel on it. The route was altered slightly to avoid a hardpan that is sometimes covered with water. Travel must stay on road.
3. The water pits were to be lined to avoid any water contamination.
4. Burning is allowed at the site but all non-combustible material must be removed. The burning pit must be enclosed.
5. Cultural values have been considered and no adverse impact encountered. We need a copy of the full report.
6. Top soil is to be stockpiled and replaced after operations are completed. Revegetation will be accomplished by dressing, mulching and seeding. Seed mixture to be determined later. Seeding would be done during the fall and early winter season.
7. No threatened or endangered plant or animal species were identified as being adversely impacted.
8. We would like to be advised of the ARCO representative at the site when operations commence.

Sincerely yours,

Mark E. Bailey
Area Manager

RECEIVED

MAY 22 1981

U.S. DEPT. OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ARCO
Per Diachak - 303-575-7192

DUPLICATE
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATE*
(Other instructions on reverse side)

Form approved
Budget Bureau No. 42-R1425

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL OR GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 ARCO Oil and Gas Company, a Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
 P. O. Box 5540, Room 1819 DEC, Denver, Co. 80217

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 828' FNL and 1991' FEL, Sec. 35, T19S, R7W
 At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 18 miles WNW of Fillmore, Utah

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 828'

16. NO. OF ACRES IN LEASE
 1040*

17. NO. OF ACRES ASSIGNED TO THIS WELL
 Not spaced

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

19. PROPOSED DEPTH
 12,500'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 4589' - GR

22. APPROX. DATE WORK WILL START*
 May 20, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	conductor	50'	To surface - est 50 sax
17-1/2"	13-3/8"	54.5#	600'	To surface - est 800 sax
12-1/4"	9-5/8"	36.0#	6,500'	500 sax
8-1/2"	7"	23 & 26#	12,500'	As required - based on completion intervals and hole caliper to over 500' above prospective zones

Enclosures: 10 point drilling plan
 13 point surface use plan
 Certified Location Plat

MAY 23 1981

* This well is the initial well in the Pavant Butte Unit now being formed. Final details of the unit are being negotiated with the USGS Units Section.

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 W. A. Walther, Jr. TITLE Operations Manager DATE April 10, 1981

PERMIT NO. _____ APPROVAL DATE _____
 APPROVED BY W. A. Walther FOR E. W. GUYNN DISTRICT ENGINEER
 CONDITIONS OF APPROVAL, IF ANY: _____ DATE MAY 26 1981

NOTICE OF APPROVAL CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY
 of State O & G. FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

June 5, 1981

ARCO Oil & Gas Company
P. O. Box 5540
Room 1819 DEC
Denver, Colorado 80217

Re: Well No. Pavant Butte #1
Sec. 35, T. 19S, R. 7W, NW NE
Millard County, Utah

Insofar as this office is concerned, approval to drill the above referred to o/g well is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure.

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

MICHAEL T. MINDER - Petroleum Engineer
Office: 533-5771
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-027-30027.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

Cleon B. Feight
Cleon B. Feight
Director

CBF/ko
cc: USGS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OIL & GAS OPERATIONS
RECEIVED
JUL 13 1983
SALT LAKE CITY, UT

5. LAND DESIGNATION AND SERIAL NO.

BLM U - 19361

6. IF INDIAN, ALIOTTEE OR TRIBE NAME

N/A

7. UNIT AGREEMENT NAME

Pavant Butte Unit Area

8. FARM OR LEASE NAME

9. WELL NO.

Pavant Butte #1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

NW NE Sec. 35-19S-7W

12. COUNTY OR PARISH 13. STATE

Millard UT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK

RE-DRILL

DEEPEN

PLUG BACK

B. TYPE OF WELL

OIL WELL

GAS WELL

OTHER

SINGLE ZONE

MULTIPLE ZONE

2. NAME OF OPERATOR

Phillips Geothermal Company

3. ADDRESS OF OPERATOR

655 East 4500 South, Salt Lake City, UT 84107

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

At surface

828' FNL 1991' FEL Sec. 35-19S-7W

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15 mi. SW of Delta, Utah

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

828' FNL, 1991' FEL Sec. 35

16. NO. OF ACRES IN LEASE

880 ac.

17. NO. OF ACRES ASSIGNED TO THIS WELL

dry hole

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

N/A

19. PROPOSED DEPTH

11,133

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4567' GL

22. APPROX. DATE WORK WILL START*

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

Phillips Geothermal Co. requests to drill out the existing plugs and re-enter the Pavant Butte #1 well. After running 2 7/8" 6.5# J55 and N80 EU tubing to TD w/mule shoe, drill pipe float and omega latchdown collar, a temperature survey will be performed.

Please see attached outline of operations.

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 7/15/83
BY: [Signature]

20491

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 David L. Reese

TITLE Geothermal Operations Manager DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

[Signature]

for E. W. Guynn
TITLE District Oil & Gas Supervisor

DATE

JUL 15 1983

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

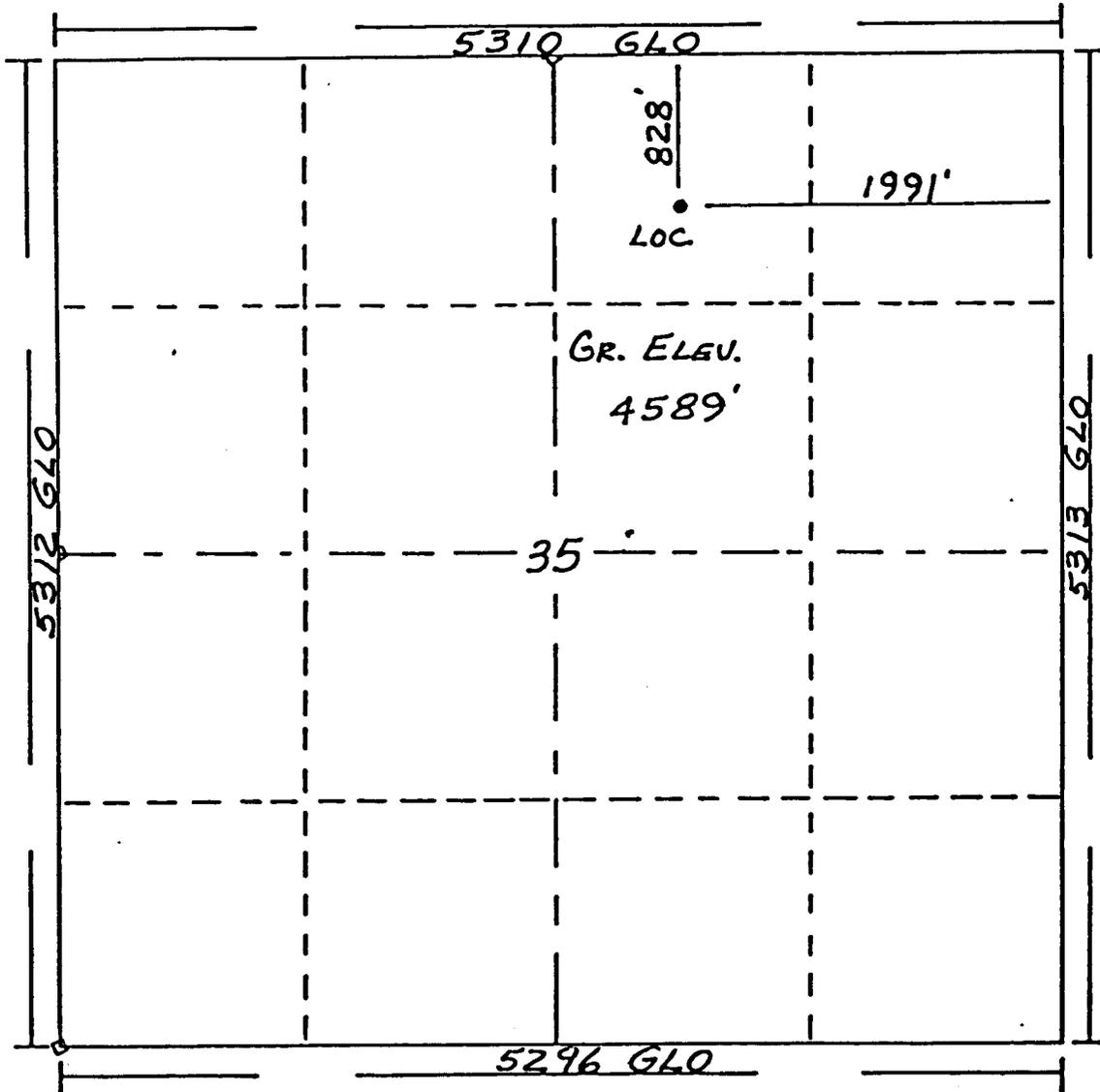
CONDITIONS OF APPROVAL ATTACHED
TO OPERATOR'S COPY

FLARING OR VENTING OF
GAS IS SUBJECT TO NTL 4-A
DATED 1/1/80

State O & G



R. 7 W.

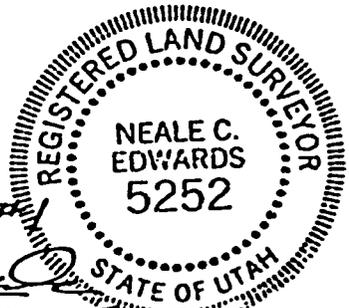


T. 19 S.

Scale... 1" = 1000'

Powers Elevation of Denver, Colorado
 has in accordance with a request from Marc Smith
 for ARCO OIL AND GAS Co. A DIVISION OF ATLANTIC RICHFIELD Co.
 determined the location of PAVANT BUTTE UNIT #1
 to be 828 FNL 1991 FEL Section 35 Township 19 S.
 Range 7 W. Salt Lake Meridian
 MILLARD County, UTAH

I hereby certify that this plat is an
 accurate representation of a correct
 survey showing the location of
 PAVANT BUTTE UNIT #1



Date: 3-31-81

Neale C. Edwards
 Licensed Land Surveyor No. 5252
 State of UTAH

Phillips Geothermal Company
Well No. 1
Section 35, T. 19 S., R. 7 W.
Millard County, Utah
Lease U-19361

Supplemental Stipulation

- 1) The existing fence around the site will be maintained during operations.
- 2) Actual surface area disturbed will be kept to a minimum leaving as much of the old reclaimed pad undisturbed as possible.
- 3) All pits will be in the same area as the ARCO pit and will not exceed eight feet in depth or beyond the water table.
- 4) Any pit containing material that could adversely affect birds must be covered.
- 5) If any earth moving must be done the top 10 inches must be removed and stockpiled.
- 6) Reclamation will be accomplished as soon after the project is completed as weather and season will permit. The company will work with the Warm Springs Resource Area representative to accomplish what reasonable practices as may be deemed necessary to rehabilitate the site.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Arco Oil & Gas

WELL NAME: Pavant Butte #1

SECTION NW NE 35 TOWNSHIP 19S RANGE 7W COUNTY Millard

DRILLING CONTRACTOR CRC Colorado well Inc.

RIG # 140

SPUDDED: DATE 7-5-81

TIME 8:10

How rotary

DRILLING WILL COMMENCE _____

REPORTED BY Kathy Slinn

TELEPHONE # 575-7036 (303)

DATE 7-6-81 SIGNED DB

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR **ARCO Oil and Gas Company
Division of Atlantic Richfield Company**

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: **828' FNL & 1991' FEL**
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: **Approx the same**

5. LEASE
U 19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte Unit

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-7W SLM

12. COUNTY OR PARISH | 13. STATE
Millard | Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GR

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) N.O. spud and set surface casing		

RECEIVED
JUL 15 1981
DIVISION OF
OIL, GAS & MINING

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

20" conductor pipe set @ 50'. MIRU CRC, Colorado Well, Inc. Rig #140. Spud 12-1/4" hole @ 8:00 pm 7-5-81. Opened 17-1/2" hole to 602'. Circ. hole. Rig up and ran 16 jts (596.96') of 54.5#, 61#, & 68#, K-55, 13-3/8" ST&C casing and set @ 590'. Cemented using 10 bbls chemical wash, 10 bbls gel water & 230 bbls 15.8#/gal cement. First 200 sx cement contained 3% salt, 2% CaCl₂, 1/4#/sx celloflake & 10#/sx gilsonite; tailed with 894 sx cement, 2% CaCl₂, 3% NaCl₂ & 1/4#/sx celloflake. Displaced with 78 BW & bumped plug @ 12:00 midnite - held OK. Good cement returns to surface. Tested wellhead to 1500 psi - held OK; tested manifold, blind & pipe rams to 3000 psi - held OK; tested hydrill to 1000 psi - held OK. Drilling ahead @ 1776' on 7-8-81.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W.A. Walther, Jr. TITLE Operations Manager DATE 7-8-81
W. A. Walther, Jr.

(This space for Federal or State office use)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL: Approx the same
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

5. LEASE
U 19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte Unit

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-7W

12. COUNTY OR PARISH
Millard

13. STATE
Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GL

REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

PULL OR ALTER CASING

MULTIPLE COMPLETE

CHANGE ZONES

ABANDON*

(other)

RECEIVED

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

DIVISION OF
OIL, GAS & MINING

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.)*

Salt bearing formations came in deeper and thicker than anticipated, therefore have to go deeper with protective casing. Propose to change casing plans as follows:

- Set 500' 9-5/8", 36#, S-80, LT&C
- Set 3800' 9-5/8", 36#, K-55, ST&C
- Set 4200' 9-5/8", 36#, S-80, ST&C

Depth of 9-5/8" casing @ 8500' and cemented with approximately 650 sx cement

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 7-23-81
W. A. Walther, Jr.

(This space for Federal or State office use)

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

**APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING**
DATE: 8/3/81
BY: M. J. Minder

*See Instructions on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
AUG 05 1981

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 Form 9-331-C for such proposals.)

1. oil well gas well other **DIVISION OF OIL, GAS & MINING**

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Approx the same

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte Unit

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-7W

12. COUNTY OR PARISH
Millard

13. STATE
Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other)	N.O. setting protective casing	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Drilled to 7778' & logged. RU & ran 181 jts 9-5/8", 36#, K-55, & S-80 casing and cemented @ 7772'; diff collar @ 7722'. Cemented with 10 bbls mud flush, 15 bbls spacer @ 11#/gal, 15 bbls wtr followed by 1090 ex-nalio (65% cement, 35% pozmix & 6% gel) with 15% silica flour, .8%, CDR-2, .5% NFR-1, .25% NBD & 10% salt followed by 375 sx Class "H" cement with 10% salt and 35% silica flour, .75% NFR-1, .25% NDF-1, 1.2% CDR-12. Pumped plug down with 598 BW. Final disp pressure 1700 psi. P.D. @ 10:28 pm 7-31-81 w/ 2600 psi. Had full returns throughout.

Tested BOP, pipe rams, blind rams, manifold & kelly to 3000 psi - held OK. Drilling ahead @ 8208' 8-3-81.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W.A. Walther, Jr. TITLE Operations Manager DATE August 3, 1981

(This space for Federal or State office use)

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

APPROVED BY THE STATE
OF UTAH
DEPARTMENT OF
OIL, GAS, AND MINING
DATE: 8-10-81
BY: [Signature]

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL: Approx the same
AT TOTAL DEPTH:

5. LEASE
U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-7W

12. COUNTY OR PARISH Millard 13. STATE Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) SEE BELOW			

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Notice is given that ARCO intends to change over to drilling this well with oil base mud due to high temperatures and hole stability problems. Pits are now being pumped down to allow for increased capacity.

Discussed with George Divachak, U.S.G.S., and Pat Archey, ARCO, August 21, 1981.

**APPROVED BY THE DIVISION
OF OIL, GAS, AND MINING**

DATE: 8-31-81

BY: M.S. Miller Ft.

Subsurface Safety Valve: Manu. and Type _____

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

SIGNED W.A. Walther, Jr. TITLE District Manager DATE August 25, 1981
W. A. Walther, Jr. of Production
 (This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) <u>PLUG BACK PROCEDURE</u>		

5. LEASE
U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-7W

12. COUNTY OR PARISH
Millard

13. STATE
Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GL

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Plug back procedure due to high temperatures:

- Put cement plug 7600' to 7900' with 117 sx Class "H" cement w/ 10% salt, 35% silica flour, .75% NFR-1, .25% NDF-1 & 1.2% CDR-12. Job complete @ 8:00 am 8-29-81. Found top of cement @ 7762.24'.
- Set EZ drill plug @ 7625'. Displaced oil mud in hole with water.
- Cement plug with 70 sx Class "H" cement, 10% salt, 35% silica flour, 1.2% CFR-12 & .25% NDF-1 (203' of plug laid from just above BP @ 2725').

(OVER)

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W.A. Walther, Jr. TITLE District Manager DATE September 1, 1981
W. A. Walther, Jr. of Production

(This space for Federal or State office use)

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

**APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING**

DATE: 10-2-81
BY: M. J. [Signature]

*See Instructions on Reverse Side

MINING
DIVISION OF
STATE

Instructions

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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.

17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

4. The 7240' to 7300' interval is to be tested using a completion rig.
5. Nippled up a Bonnet/valve/bull plug & valve on the 13-3/8" 5000# 12" casing spool and released rig @ 9:00 pm 8-31-81.

WO Completion Unit

Estimated formation Tops:

Tertiary	Surface
Cambrian (Pole Canyon Limestone)	9800'
Cambrian (Pioche Shale)	10150'
Cambrian (Prospect Mountain - Quartzite)	10610'
TD	11133'
PBTD	7625'

Will forward logs and temperature information when received.

Discussed with Mr. Ed Guynn, U.S.G.S., and Mr. Pat Archey, ARCO, on August 28, 1981.

Quilling

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL: Approx the same
AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) <u>N.O.I. to Move In Testing Unit</u>			

5. LEASE U-19361	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---	
7. UNIT AGREEMENT NAME Pavant Butte	
8. FARM OR LEASE NAME ---	
9. WELL NO. 1	
10. FIELD OR WILDCAT NAME Wildcat	
11. SEC., T., R., M. OR BLK. AND SURVEY OR AREA 35-19S-7W	
12. COUNTY OR PARISH Millard	13. STATE Utah
14. API NO. 43-027-30027	
15. ELEVATIONS (SHOW DF, KDB, AND WD) 4589' GL	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Propose to MI & RU Welltech Rig on approximately September 18, 1981 to test this well.

**APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING**

DATE: _____
BY: _____

RECEIVED
1981
DIVISION OF
OIL, GAS & MINING

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED WA Walther, Jr. TITLE District Manager DATE September 16, 1981
W. A. Walther, Jr. of Production

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY: _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

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P. O. Box 5540, Denver, Colorado 80217

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AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
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SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) <u>N.O. Moving replacement rig</u>		

5. LEASE
U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-70W

12. COUNTY OR PARISH Millard 13. STATE Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GL

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

Welltech Rig #23 was moved on location September 18, 1981. See approved Sundry Notice of September 21, 1981. Had trouble with Rig #23. Welltech Rig #25 was moved on location October 12, 1981 to replace Rig #23.

Per conversation October 13, 1981 @ 1:00 pm between B. Martens, U.S.G.S. and K. Flinn, ARCO.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W. A. Walther, Jr. TITLE District Manager of Production DATE October 13, 1981

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

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Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Approx the same

5. LEASE U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME Pavant Butte

8. FARM OR LEASE NAME

9. WELL NO. 1

10. FIELD OR WILDCAT NAME Wildcat

11. SEC., T., R., M. OR BLK. AND SURVEY OR AREA 35-19S-70W

12. COUNTY OR PARISH Millard

13. STATE Utah

14. API NO. 43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD) 4589' GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE TESTS <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input checked="" type="checkbox"/>	<input type="checkbox"/>
(other)	

(NOTE: Report results of multiple completion zone change on Form 9-330.)

MINER

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.)*

Propose to P & A as follows:

- (1) Set cement retainer @ 6700'
- (2) Squeeze 200 sx cement
- (3) Set plug from 600' to 400' in 9 5/8" casing
- (4) Pump 160 sx into 13-3/8" 9 5/8" annulus
- (5) Set 10 sx surface plug
- (6) Place dry hole marker - 4" pipe 4' above GL

Conditional
APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE 12-2-81
BY: M. J. [Signature]

and outside of 9 5/8" casing across shoe
Set @ (OVER) Ft.

Subsurface Safety Valve: Manu. and Type

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

SIGNED W.A. Walther, Jr. TITLE District Manager DATE October 21, 1981
of Production

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

Set Plug 5800' - 5600'
Set Plug 3000 - 2800 both inside & outside of 9 5/8" casing
Set _____
*See Instructions on Reverse Side

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, or all lands in such State, pursuant to applicable State law 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.

Section 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 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below; between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

As per conversation between C.E. Latchem, ARCO, and E. Gynn, USGS, 10-16-81.

As per conversation between P.J. Archey, ARCO, and E. Gynn, USGS, 10-17-81. Retainer had stuck @ 4514'. Tried to pressure on annulus with 1500'. Wouldn't move. Slips stuck. USGS said to pump cement down with enough volume to cross perforations and come up to 6700'.

As per conversation between P.J. Archey, ARCO, and E. Gynn, USGS, 10-18-81. Formation wouldn't break down, so cement couldn't be pumped. USGS said to drill out retainer, go in and spot cement as far down as tubing could be run, than spot 500' plugs.

PROPOSE TO P & A AS FOLLOWS:

(1) 350 GALLON RETAINER @ 2100

(2) 250 GALLON 200 EX CEMENT

(3) 250 GALLON 100 EX CEMENT

(4) 250 GALLON 50 EX CEMENT

(5) 250 GALLON 25 EX CEMENT

(6) 250 GALLON 10 EX CEMENT

17. RESPONSE PROPOSED OR COMPLETED OPERATIONS

- ABANDON
- CHANGE ZONES
- MUDFILL COMPLETE
- BUILT UP AFTER CAPPING
- REPAIR WELL
- SHOOT OR FLOOD
- EMULSION TEST
- TEST WATER SHUT-OFF
- REQUEST FOR APPROVAL FOR

18. CHECK APPROPRIATE BOX TO INDICATE WHAT REPORT OR OTHER DATA

1. LOCATION OF WELL REPORT LOCATION OPERATOR

2. ADDRESS OF OPERATOR

3. NAME OF OPERATOR ARCO OIL AND GAS COMPANY

4. WELL NO.

5. INDIAN AREA

6. FEDERAL LAND

7. STATE

8. COUNTY

9. LOCAL OFFICE

10. DATE

11. SIGNATURE

12. TITLE

13. COMPANY

14. PHONE

15. FAX

16. TELETYPE

17. TELEFAX

18. TELEMAIL

19. TELEVIDEO

20. TELECONFERENCE

21. TELEWORKSHOP

22. TELESEMINAR

23. TELEDEBATE

24. TELELECTURE

25. TELEINTERVIEW

26. TELECONFERENCE

27. TELEWORKSHOP

28. TELESEMINAR

29. TELEDEBATE

30. TELELECTURE

31. TELEINTERVIEW

32. TELECONFERENCE

33. TELEWORKSHOP

34. TELESEMINAR

35. TELEDEBATE

36. TELELECTURE

37. TELEINTERVIEW

38. TELECONFERENCE

39. TELEWORKSHOP

40. TELESEMINAR

41. TELEDEBATE

42. TELELECTURE

43. TELEINTERVIEW

44. TELECONFERENCE

45. TELEWORKSHOP

46. TELESEMINAR

47. TELEDEBATE

48. TELELECTURE

49. TELEINTERVIEW

50. TELECONFERENCE

51. TELEWORKSHOP

52. TELESEMINAR

53. TELEDEBATE

54. TELELECTURE

55. TELEINTERVIEW

56. TELECONFERENCE

57. TELEWORKSHOP

58. TELESEMINAR

59. TELEDEBATE

60. TELELECTURE

61. TELEINTERVIEW

62. TELECONFERENCE

63. TELEWORKSHOP

64. TELESEMINAR

65. TELEDEBATE

66. TELELECTURE

67. TELEINTERVIEW

68. TELECONFERENCE

69. TELEWORKSHOP

70. TELESEMINAR

71. TELEDEBATE

72. TELELECTURE

73. TELEINTERVIEW

74. TELECONFERENCE

75. TELEWORKSHOP

76. TELESEMINAR

77. TELEDEBATE

78. TELELECTURE

79. TELEINTERVIEW

80. TELECONFERENCE

81. TELEWORKSHOP

82. TELESEMINAR

83. TELEDEBATE

84. TELELECTURE

85. TELEINTERVIEW

86. TELECONFERENCE

87. TELEWORKSHOP

88. TELESEMINAR

89. TELEDEBATE

90. TELELECTURE

91. TELEINTERVIEW

92. TELECONFERENCE

93. TELEWORKSHOP

94. TELESEMINAR

95. TELEDEBATE

96. TELELECTURE

97. TELEINTERVIEW

98. TELECONFERENCE

99. TELEWORKSHOP

100. TELESEMINAR

101. TELEDEBATE

102. TELELECTURE

103. TELEINTERVIEW

104. TELECONFERENCE

105. TELEWORKSHOP

106. TELESEMINAR

107. TELEDEBATE

108. TELELECTURE

109. TELEINTERVIEW

110. TELECONFERENCE

111. TELEWORKSHOP

112. TELESEMINAR

113. TELEDEBATE

114. TELELECTURE

115. TELEINTERVIEW

116. TELECONFERENCE

117. TELEWORKSHOP

118. TELESEMINAR

119. TELEDEBATE

120. TELELECTURE

121. TELEINTERVIEW

122. TELECONFERENCE

123. TELEWORKSHOP

124. TELESEMINAR

125. TELEDEBATE

126. TELELECTURE

127. TELEINTERVIEW

128. TELECONFERENCE

129. TELEWORKSHOP

130. TELESEMINAR

131. TELEDEBATE

132. TELELECTURE

133. TELEINTERVIEW

134. TELECONFERENCE

135. TELEWORKSHOP

136. TELESEMINAR

137. TELEDEBATE

138. TELELECTURE

139. TELEINTERVIEW

140. TELECONFERENCE

141. TELEWORKSHOP

142. TELESEMINAR

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240. TELELECTURE

241. TELEINTERVIEW

242. TELECONFERENCE

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

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 Form 9-331-C for such proposals.)

1. oil well gas well other DRY HOLE

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(other)

5. LEASE
U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-~~740~~W

12. COUNTY OR PARISH | 13. STATE
Millard | Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GL

NOV 02 1981

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

OIL AND MINING

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.)*

Rigged up to the annulus and pumped 175 sx Class "H" cement and displaced with 1 bbl mud. Milled on cement retainer. Retainer came loose and pushed down to 7048'. RIH with open ended tubing to 7020'. Set 500' Class "H" cement plug containing 35% silica flour, 10% salt, 3/4% FR, .05% diacel LWL and 1% CDR-12. Pull tubing above cement plug and mixed bentonite and put in hole between plugs. RIH with tubing and mixed and pumped 75 sx Class "H" cement plug from 600' to 400'. Cut off casing. Cement 25' inside 9-5/8" casing with Class "H" cement. Set dry hole marker. Cement again down annulus with 25 sx Class "H" cement containing 3% CaCl₂.

Cleaned location and released rig 10-23-81.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W. A. Walther, Jr. TITLE District Manager DATE 10-28-81
W. A. Walther, Jr. of Production

(This space for Federal or State office use)

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

PAVANT BUTTE #1
NW NE Section 35-19S-70W
Millard County, Utah

1

7/6/81	602	Day-1, Ftg-602. RU 17-1/2" HO. SPUD 12-1/4" hole 8:00 pm 7/5/81. Drlg ahead. 0° @ 309', 1° @ 602' in pilot hole.
7/7/81	602	Day-2, Ftg-0. NU BOPs. Opnd 12-1/4" hole to 17-1/2". Circ hole. TOH. RU & ran 16 jts 54.5# & 68#/ft 13-3/8" csg (596.95') & set @ 590'. Cmtd 13-3/8" csg using total of 1094 sx cmt. Gd returns thruout w/gd cmt returns to surf.
7/8/81	602	Day-3, Ftg-0. RU flw line & nple. Tstd wellhd @ 1500# f/ 1/2 hr. Manifold, blind rams & pipe rams @ 3000# - OK. Hydril @ 1000# - OK. Note: Survey f/yesterdays rpt - 13-3/8° @ 590'.
7/9/81	1776	Day-4, Ftg-1174'. Drlg. MW: 9.0#, vis 40, WL 15. Tstd csg @ 1800# f/30 min - OK. Drld cmt & flt clr. Tstd csg. Drld 48' cmt & csg shoe. Drlg ahead in claystone. 1-1/4° @ 976', 1° @ 1286'. 1° @ 1594'.
7/10/81	2930	Day-5, Ftg-1154'. Drlg. Mud: 9.1#, vis 38, WL 18. Drld & made trip. PU 3 - 8" DCs. Drlg w/B#2. 1° @ 1902', 1-1/4° @ 2503', 1° @ 2811'.
7/11/81	3938	Day-6, Ftg-1008. POH f/bit. Mud: 9.2#, vis 38, WL 18. LD 15 jts 4-1/2" FH to PU 15 jts HW & move jars to top DC. 1° @ 3110', 1-1/4° @ 3420', 1° @ 3727'.
7/12/81	4245	Day-7, Ftg-307. Drlg. Mud: 9.1#, vis 35, WL 11.
7/13/81	4430	Day-8, Ftg-185. Drlg. Mud: 9.1#, vis 35, WL 12. Drld. Made trip. Drlg ahead. 1-1/4° @ 4386'.
7/14/81	4783	Day-9, Ftg-353. Drlg sd & sh. Mud: 9.2#, vis 36, WL 10. Drld. Rig service.
7/15/81	5075	Day-10, Ftg-292. Drlg. Mud: 9.2#, vis 35, WL 10. Drld. Circ'd up samples. Chk out gas detector in logging unit.
7/16/81	5320	Day-11, Ftg-245. Drlg. Mud: 9.3#, vis 33, WL 11. Drld. Repair fuel line valve. Drld. Survey. Rig service. Drld. 1-1/4° @ 5119'.
7/17/81	5584	Day-12, Ftg-264. Drlg. Mud: 9.2#, vis 34, WL 13. Drld. Rig service & dump sand traps. RU flow censor in flow line. Drld. RU flow censor equip. Drld.
7/18/81	5555	Day-13, Ftg-6. Coring. Mud: 9.4#, vis 38, WL 11.0. Drld to 5552'. Circ hole & dropped survey. Meas'd out of hole SLC of 21' (5552-5531'). PU CB & TIH - had drag 10 stds off btm both on TOH w/bit & while tripping in hole w/CB. Wshd last 30' to btm & begin coring @ 5531'. 1-1/2° @ 5540'.

Note: Report of 7/17/81 - depth should have been 5546' - made 226'.

- 7/19/81 5583 Day-14, Ftg-28. Reaming 8-3/4" core hole to 12-1/4". Fin'd coring 5531-5583'. TOH & LD core. Cored 52' & rec'd 52' - core description below. PU 12-1/4" bit & BHA & TIH. Begin rm'g core hole @ 5531' - rmd 12' in 1-1/2 hrs. Core #1, 5531-5583': At top of core some marlestone w/interbedded siltstone. Remainder of core was interbedded siltstone & sh w/claystone @ btm of core.
- 7/20/81 5752 Day-15, Ftg-169. Drlg. Mud: 9.3#, vis 33, WL 10. Rm'g 8-3/4" hole to 12-1/4" hole. Rmd 5543-5583' - 40'. Rig service. Repair U-joint to rotary drive. Rm'g 8-3/4" hole to 12-1/4" hole. Drld. Survey - got no picture. Drld. Missrun.
- 7/21/81 6030 Day-16, Ftg-278. Drlg. Mud: 9.4#, vis 58, WL 18. Drlg. Survey. Drlg. Circ samples. Top salt @ 5944'. Drlg. Salt 5944-6004' (60'). Coal bed 6004-6012' (8'). PU 25 units of gas. Now circ'g samples. WO orders f/geology. 2° @ 5747'.
- 7/22/81 6190 Day-17, Ftg-160. Drlg. Mud: 9.2#, vis 38, WL 11. Drlg. Circ samples. Drlg. Survey. Drld. Circ & cond mud. TOH. Cln'g pits. TIH. Brk circ. Drld. 1-3/4° @ 6088'.
- 7/23/81 6466 Day-18, Ftg-276. Drlg. Mud: 9.3#, vis 33, WL 13. Drlg. Service rig. Drlg. Survey. Drlg. Lost 200 BM last 24 hrs-10 to 15 bbls at a time in thin drlg brks. 2 1/2° @ 6380'.
- 7/24/81 7075 Day-19, Ftg-609. Drlg. Mud: 10.3#, vis 33, WL 10. No mud loss last 24 hrs - have drld numerous salt stringers during past 24 hrs. Mud flw line temperature 158°F. 2-1/2° @ 6597', 2-1/4° @ 6890'.
- 7/25/81 7426 Day-20, Ftg-351. Drlg. Mud: 10.8#, vis 32, WL 10. Drld & survey @ 7182'. Drld to 7426' & circ samples twice. 2-1/2° @ 7182'.
- 7/26/81 7583 Day-21, Ftg-157. Drlg. Mud: 10.9#, vis 33, WL 6. Drld & survey. No problems. 2-1/2° @ 7488'.
- 7/27/81 7692 Day-22, Ftg-109. Drlg. Mud: 10.8#, vis 34, WL 13. Drlg. Rig service. Drlg. Drop survey. Trip f/new bit. Drlg. 2-1/2° @ 7623'.
- 7/28/81 7731 Day-23, Ftg-39. Logging. Mud: 10.8#, vis 37, WL 11. Drld. Circ & cond to log. TO to surf csg @ 590'. Cut drlg line. TIH - 6' fill. Circ to log. TO. Logging. Run Dual Laterlog. Loggers TD 7765'. Hole took 8 BM in 3 hrs. 2° @ 7731'.
- 7/29/81 7731 Day-24, Ftg-0. TOH to log. Mud: 10.8#, vis 36, WL 14. Logging run. Caliper log, temp run Sonic, FDEL log. Temp got to 310°. Tubes stopped wrkg. RD Schl. TIH to circ & cool dn mud. Wshd 60' to btm. Circ till blw line reached 170'. TO SLM pipe.
- 7/30/81 7778
(corr'd) Day-25, Ftg-0. Rng sidewall cores. Mud: 10.8#, vis 35, WL 16. Fin TO, SLM 7131-7778 47' change. RU RI Dipmeter, hit bridge 680'. TIH, did not touch bridge at 680'. Wsh 90' to btm & 20' fill. Circ. TOH. Run Sonic log, dipmeter & Sidewall Core #1. Temp 1st run 308°.

PAVANT BUTTE #1
 NW NE Section 35-19S-70W
 Millard County, Utah

7/31/81	7778	Day-26, Ftg-0. Rng 9-5/8" csg. Mud: 10.9#, vis 35, WL 20. Fin rng logs & sidewall cores (shot 60 SW cores, rec'd 12 samples, lost no bullets). TIH w/bit & BHA. Brk circ 18 stds off btm. TIH. Wsh 60' to btm, 26' fill. Mixed & pmpd mud sweep, circ'd & cond mud. TOH. LD 8" DCs & BHA. Chg'd rams to 9-5/8". RU csg tools & strtd rng csg.
8/1/81	7778	Day-27, Ftg-0. WO cmt. Mixing mud. Fin rng 181 jts 9-5/8" OD 36# K-55 & S-80 csg w/Bkr guide shoe & B&W diff fill clr btmd @ 7772'. Diff clr @ 7722'. 10 cntrlzrs - 20' above shoe & on clr of alternate jts f/btm. Circ until circ mud temp - 150-160°F. National cmtd w/10 bbl mud flush, 15 bbl spacer @ 11#/gal, 15 BW foll'd by 1090 sx Nalit (65% cmt, 35% Poz, 6% gel) w/15% Silica flour, .8% CDR-12, .5% NFR-1, .25% NBD (defoamer), 10% salt wt 12.8 ppg foll'd by 375 sx Cl "H" cmt w/10% salt & 35% Silica flour, .75% NFR-1, .25% NDF-1, 1.2% CDR-12 @ 14.1#/gal. Pmpd plug dn w/598 BW. Final disp press 1700#. PD @ 10:28 pm w/2600#. Flt did not hold. SI w/2000#. Had full returns thruout. WOC 7 hrs & ND flwline. Cld pits & mixed new mud.
8/2/81	7778	Day-28, Ftg-0. TIH w/bit. Mud: 8.7#, vis 32, WL 13. WOC 3-1/2 hrs. Rel'd press 7:00 am. Set 2200# on csg hgr. Cut 9-5/8" csg. NU pack off & spool & tstd seals to 500#. NU BOP. Tstd BOP, pipe rams, blind rams, manifold & kelly to 3000# - OK. Tstd Hydril to 1500#. PU BHA & 18 new 7" DC. WIH instl'g DP rubbers on every other jt.
8/3/81	8208	Day-29, Ftg-430. Drlg. Mud: 9.4#, vis 31, WL 38. TIH to instl rubbers on DP every other jt. Drl FC, cmt f/7636' to FC 7722' 86' cmt on top of FC. Drl cmt 7722-shoe @ 7772'. Press tst csg to 1500# - held OK. Drld shoe. Drlg. Service rig. Drld Survey. Drld. 1-3/4° @ 8077'.
8/4/81	8550	Day-30, Ftg-342, Drlg. Mud:10.2#, vis 33, WL 18. Drlg. Rig svc. Drlg. Survey. Drlg. Survey. Drlg. Survey @ 8324'-3 1/4" took wt off bit to 30M# & ran 60 rpm. After survey @ 8476'-5° now drlg w/20M# on bit & 65 rpm.
8/5/81	8634	Day-31, Ftg-84. Drlg. Mud: 10.2#, vis 33, WL 21. Drld. Run 2 surveys - both misruns @ 8567'. Drld. Survey - misrun @ 8573'. Pmp pill & drop survey. TOH. Rig service. Rearrange BHA. TI DC & wt pipe. Cut drlg line. TIH. Move rubbers up over DP. Drld. Survey. Drld. 2 misruns @ 8567', 1 misrun @ 8573', 6° @ 8581'.
8/6/81	8813	Day-32, Ftg-179. TOH. Mud: 10.3#, vis 35, WL 31. Drld. Circ & survey. Drld. Circ samples @ 8706' - was soft. Drld. Survey. Lost 800# top press. Chk'd both pmps. Pmpd soft line dn - had 100# incr in press in 12 min. Now chaining out looking f/hole in pipe. 6° @ 8765', 5-3/4° @ 8767'.
8/7/81	8912	Day-33, Ftg-99. Drlg. Mud: 10.3#, vis 35, WL 37. Chain out of hole - looking f/hole in pipe. Chg out jars. LD 6 - 7" DCs. Pull BHA. LD shock sub. Cracked 3/4 way around btm of mandrel. TIH. Brk circ & wsh 30' to btm. Drld. Survey. Drld. 5-3/4° @ 8846'.
8/8/81	9057	Day-34, Ftg-145. Drlg. Mud: 10#, vis 35, WL 42. Drld. Rig serv. Drld. Circ & survey. Drld. Drld 70% hard sh, 30% sltstone red, med soft. 5-1/2° @ 8960'.

PAVANT BUTTE #1
 NW NE Section 35-19S-70W
 Millard County, Utah

4

- 8/9/81 9185 Day-35, Ftg-128. Drlg. Mud: 10#, vis 35, WL 41. Drl'd. POH. Chg out 6 pt & 2 - 3 pt. TIH. No problem on trip. Drl'd. Survey. Drl'd. 5-1/2° @ 9097'.
- 8/10/81 9403 Day-36, Ftg-218. Drlg. Mud: 9.9+#, vis 35, WL 53. Drl'd. Rig serv. Drl'd. Survey. Drl'd. Survey. Drl'd. Mixed 60 sx Soltex - no results. Mix 40 sx Soltex since 2:30 am this morning - WO results. Drlg 90% sh & 10% siltstone. 5-1/4° @ 9241', 5-1/2° @ 9371'.
- 8/11/81 9432 Day-37. Ftg-29. Circl & cond mud. Mud: 9.9+#, vis 39 Drlg. Stop drlg to circl & cond mud to get wtr loss control dwn before drlg carbonates. Circl & cond mud. Put 2#/bbl resinex in mud system. Now waiting on pre-mix tk to mix gel. Pilot tstd w/resinex & clay & tst showed filter loss dwn to 16.
- 8/12/81 9432 Day-38. Ftg-0. Circ & cond mud. Mud: 9.7#, vis 37, WL 18 Circ'd & cond mud. Strtd mixing premix hydrated gels @ 12 noon w/National pump truck. Strtd treating mud @ 6:00 pm w/resinex - 8#/bbl & 1/4#/bbl drispac. (2#/bbl soltex already in mud). Premix tk arrived @ 10:30 pm. PU mixed 200 bbls premix gel & pmpd same @ 3:00 am this morning. At 6:00 am WL dwn to 18.
- 8/13/81 9515 Day-39. Ftg-83. Drlg. Mud: 9.9#, vis 31, WL 28 Circl & cond mud. Drlg. Drop survey. Trip-chg'd out 6 pt rnr - 1/2" out-of-gage. Reaming 63' of out-of-gage hole. Drlg. Drlg @ 90% sh & 10% sharp sand. Misrun @ 9483'.
- 8/14/81 9734 Day-40. Ftg-219. Drlg. Mud: 9.5#, vis 33, WL 15.2 Drl'd. Service Rig. Drl'd. Surveyed. Drl'd. Ran temp survey on WL. Drl'd. Survey. Drl'd. Drlg in 85% sh & 15% sd w/tr of lime. Ran Totco instrument to record bottom hole temperature - 1/2 hr temp was 320° F at 9571'. 4° @ 9511', 4 1/2° @ 9632'.
- 8/15/81 9909 Day-41. Ftg-175. Tripping. Mud: 9.5#, vis 32, WL 17 Had 4 hrs circ'g samples up at 9822' & 9832' - No shows. Circ 1 1/2, pumped pill & TOH for bit (drlg Carbonates) S.T. of Carbonates at 9810'. 4 1/2° @ 9756', Misrun @ 9909', 1/2 hr Temp Survey-300°F @ 9909'.
- 8/16/81 10,195 Day-42. Ftg-286. Drlg in Carbonates. Mud: 9.7#, vis 33, WL 17.5 On SLM-no correction. Ran DC's & HWDP & cut drlg line. Finished TIH & had 2 1/2 hrs reaming & wasg 90' to bttm. Circ'd samples @ 9970' - no shows. Bit torqued in fractures @ 9970' & lost 15 bbls mud. Drl'd ahead w/o further losses. 4° @ 9770'.
- 8/17/81 10,580 Day-43. Ftg-385. Drlg. Mud: 9.7#, vis 34, WL 12 Drlg. Survey. Rig svc. Drlg. Survey. Drlg. 5° @ 10,244, 5° @ 10,396
- 8/18/81 10,698 Day-44, Ftg-118. Drlg. Mud: 9.8#, vis 33, WL 28. Drl'd. Survey. Rig service. Drl'd. Pmp pill, temp survey & TO. No tite hole. Chg out 6 pt btm, 3 pt & shock sub - 1/4" out of gage. TIH to 8142'. Hit bridge. Wshd thru bridges f/8142-8442' (300'). TIH. Hit bridge @ 10,487'. Wshd & rmd f/10,487-10,667' (180'). Tite hole - heaving sh. Drl'd. Drl'd into quartzsite @ 10,685'. Now drlg quartzsite @ sd & sh. 5-1/2° @ 10,550', survey temp 340° @ 10,667' (RHT).

- 8/19/81 10,721 Day-45, Ftg-23. TIH. Mud: 9.6#, vis 37, WL 18. Dlrld. Circ & cond mud. Survey. Circ & cond mud. TOH - no tite hole. TIH w/DCs, BHA - chgd out Dailey jars. Cut drlg line. TIH (no bridge @ 8142'). 6° @ 10,607'.
- 8/20/81 10,771 Day-46, Ftg-50. Circ & cond mud. Mud: 9.6#, vis 36, WL 38. TIH. Wash & rm to btm. Drlld. Rig service. Drlld. Circ & cond mud. Short TO to csg & chained out (7772'). Let pipe set. TIH - no fill. Circ & cond mud.
- 8/21/81 10,812 Day-47, Ftg-41. Circ & cond hole f/logs. Mud: 9.4#, vis 36, WL 42. Circ to log. Pmp pill. Chain out of hole. Logging. Ran temp survey to 6700'. Tool failed. Max temp 304°. Also ran DLL & MSFL & hit bridge @ 8311'. Temp @ 8311' - 350°. TIH to 8311'. Drl out bridges f/8311-8751' (440'). TIH. Wash 60' to btm. Drlld. Circ to run logs. Samples f/10,770-10,780' were sh & sd; 10,780-10,790' 80% quartz & rest sd & sh; 10,790-10,800' 70% quartz & rest sd & sh; 10,800-10,810' 80% quartz & rest sd & sh.
- 8/22/81 10,812 Day-48, Ftg-0. WO fshg tools. Mud: 9.4#, vis 36, WL 38. Circ & cond to log. Pmp pill. POH f/logs. Repair throttle linkage on #2 motor to dwks. Fin POH. RU Schl. Ran DLL f/10,814' (WL) no fill. Max temp 398°F @ 6 hrs after circ. Ran BHC-S. Wrk thru bridge 9435'. Found btm @ 10,798' (16' fill). Logging up hole tite 10,070', logged hole. Max temp 424°F, 10 hr after circ. Lost 1 cntlrzrs in hole (probably @ 10,070'), 3' long 16" dia full expanded, w/ 2-4" dia sleeves & keepers. RD Schl. WO fshg tools.
- 8/23/81 10,814 Day-49, Ftg-2. RIH w/bit (RR #6). Mud: 9.4#, vis 36, WL 37. WO fshg tools. PU mill & jk sub. RIH, wash 60' to btm pushing jk w/o rotary. Milling jk. Circ & cond mud. POH. LD mill & PU drlg ass'y. RIH w/BHA & DCs. Cut drlg line. RIH.
- 8/24/81 10,900 Day-50, Ftg-86. Magnafluxed DC & BHA. Mud: 9#, vis 34, WL 48. TIH. Drlld. Well drains in flw line f/drain pan under pipe rock board. Rig floor to convert to oil mud. Drlld. Circ'g btms up before trip. TOH. Magnaflux all DCs & BHA - kelly saber sub & btm of kelly. Everything OK - except kelly saber sub - chg'd it out. 5° @ 10,900'.
- 8/25/81 11,038 Day-51, Ftg-138. Drlg. Mud: 9.8#, vis 34, WL 52. Inspect DCs - OK. Saber sub cracked - chg out same. PU 3 pt & B#17. TIH. Ream out bridge @ 10,560'. TIH to 10,900'. Ream 100' to btm. Drlg. Service pmp. Drlg ahead.
- 8/26/81 11,073 Day-52, Ftg-35. Sht trip to csg shoe & cln'g pits. MW 9.8#, vis 34, WL 62. Drlld to 11,073'. Circ btms up & cln hole. TOH f/new bit. Repair BOP. TIH w/B#18. PU new kelly. TIH. Rm bridge @ 10,922'. Wash to btm. Circ hole cln f/displacement. Pmp pill. Trip pipe to csg shoe.
- 8/27/81 11,073 Day-53, Ftg-0. Displ hole w/oil base mud. Mud: 9.8+#, vis 83 CPS @ 120°, WL 38, O/W 83.3/16.7. Dumping & clng pit. Circ & cond oil mud @ surf. TIH to 8825'. Wash thru bridge @ 8825' w/clear wtr. TIH to bridge @ 10,850'. Displ hole @ 10,850' w/oil base mud.

8/28/81 11,105	Day-54, Ftg-32. TIH. Mud: 9.4#, vis 46, WL 1.9. Fin'd displc'g hole w/oil base mud & circ 1/2 hr. Wshd 80' to btm & resumed drlg while cond'g mud. Dn 1 hr while wrkg on pmps. Flw line mud temp after circ'g - 203°F. Drld 4 add'l hrs & circ'd 2-1/2 hrs before TOH. Flw line mud circ'g temp before tripping - 220°F. TOH. PU drlg BHA & begin TIH.
8/29/81 11,133	Day-55, Ftg-28. RU to set plug. Mud: 9.1#, vis 55, WL 1.7. Cut drlg line. TI. Rig service. Fin TI. Wsh & rm 60' to btm. Drld. Pmpd pill & pull 38 stds to csg. WOO. TI to 7900'. POH & LD BHA. TI OE to 7900'. RU Nat'l cmtrs to set plug 7900-7600'. Note: Flwline circ temp pm 8/28 f/203°F to 214°F. Flash pt oilfaze mud sys 220°F.
8/30/81 11,133	Day-56. TD - TI w/BP on DP. No mud check. Nat'l cmtrs sptd cmt plug f/7900-7600' w/117 sx Cl "H" cmt w/10% salt, 35% silica flour, .75% NFR-1, .25% NDF-1, 1.2% CFR-12. JC 8 am 8/29/81. POH. WOC 12 hrs. WIH w/bit & found top of cmt @ 7762.24' SLM meas. LD 12 DCs & 15 jts HWDP.
8/31/81 7625	Day-57. PB - LD DP. Clear wtr. LD wt pipe & DC. TIH slow w/BP to 7650'. Set EZ drl Hall plug @ 7625'. Brk circ & press tst plug to 1500# f/30 mins. Displ oil mud in hole w/wtr. Cmtg plug w/70 sx Cl "H" cmt, 10% salt, 35% silica flour, 1.2% CDR-12 & .25 of 1% NDFL. Pull 3 stds. Rev circ out. Drillers PU pipe w/rams closed. Pull pipe into above rotary table. Welded 1" rod on pipe. Used DC clamp to pull fish out. LD DP & remove rubbers
9/1/81 7625	Day-58. PB - WO tstg unit. LD DP. Wsh up BOP & under rig floor. ND BOPs & put on wellhd flange & valve. Cln all pits. RR 9:00 pm 8/31/81.
9/2/81 7625	Day-58. PB - WO tstg unit. (Drop f/report until tstg unit arrives.)
9/18 7625	Day-59. PB - WO parts f/rig (brkn linkage going to main drum on brks while raising derrick.) Welltech Rig #23 arrived 11:00 am 9/17/81. MI land fill under rig & rig equip using backhoe & landfill f/loc. RU & substructure. NU BOP. Load tbg & clrns on pipe racks. Move 3 - 400 bbl upright tks f/wtr storage. SDFN. (Dropped f/report of 9/2/81.)
9/19/81 7625	Day-60. PB - RIH w/tbg. PU tbg & put on racks. Fill tks w/wtr f/brine. RU pmp & lines. Repair brake system on rig. Cln up oil base mud spills w/backhoe. RIH w/ 8-3/4" bit, 9-5/8" scraper & 2 - 4-3/4" DC. Rabbit & tally DCs & tbg. RIH w/20 jts tbg. SDON.
9/20/81 7625	Day-61. PB - Prep to SD f/Sunday. RIH w/tbg to 6733'. Tag fill. Mixing brine.
9/21/81 7625	Day-61. PB - Prep to wsh fill. SD f/Sunday.

9/22/81 7625

Day-62. PB - Prep to TIH w/ 8-1/2" flat btm mill. PU power swivel & kelly & wshd out 2' bridge 6733-6735'. Lowered 8-3/4" bit & Bkr csg scraper to 7246' & tagged up on something solid, setting dn 10M#. PU & begin rotating w/1500# & showing considerable torque w/o making any hole. Rotated & circ'd f/1 hr rec'g some mud & oil. Pres tstd csg to 1500# f/15 min - OK. POH & found csg scraper bolts loose w/2 of the 12 missing (5-1/2" dia X 1-1/2" long). Bit teeth were OK; however, bit showed milling/peeling on outside of all 3 cones.

9/23/81 7625

Day-63. PB - Prep to cont CO w/FBM using power swivel. Had 2 hrs WO hot shot to deliver 8-1/2" Cutrite flat btm mill & non rotating stabilizer. When Texas Reamer tools arrived @ 10 am, the wrong subs had been sent. Waited 3 hrs on Air Hot Shot to deliver correct X0 subs. From 1 pm to 4 pm made up & RIH w/ 8-1/2" flat btm mill, 2 - 4-3/4" OD DCs, 8-1/2" NRS & 2-7/8" H-80 tbg & tagged up @ 7055' & spongy. (This depth is 191' higher than yesterdays PB depth using an 8-3/4" bit.) Flanged up stripper head & PU power swivel. From 5 pm to 7 pm rotated making 2' & rec'd 1 gal orange rubber on screen. The rubber is vy tacky & has appearance of vulcanized rubber - could be DP protector rubber. SDON @ 7:30 pm.

Note: Correction yesterday's rpt should have read: 2 bolts left in hole were 5/8" dia X 1-1/2" long.

9/24/81 7625

Day-64. PB - Prep to run 5 jts 2 7/8" tbg to btm (7422'). Rotate & bounce mill to make hole w/no results. Stuck mill in hole. Pld mill free. Tst csg to 1500 psi. RD power swivel and stripping head. POH w/tbg. Breakout non-rotating stab. and mill. RIH w/7-7/8" J-4 Hughes bit w/2 collars & tally everything in hole to 7273'. SDFN.

9/25/81 7625

Day-65. PB - Prep to run CBL. Stand back clr & stripping off stripping hd. RIH w/ 4 jts tbg & CO to 7401'. Tst csg to 1500# - OK. Circ brine tks. Displ'd well w/600 bbls 9.8# brine wtr. POH w/tbg. SDON.

9/26/81 7625

Day-66. PB - Prep to make up Johnson DST tools & TIH. Rigged up Schl w/lubricator to run CBL log. Ran sonde to 7278' where tools hung up. Begin to pressure up to log the CBL under pressure and the sonde went thru tite spot at 7278' & lowered CBL to W.L.T.D. of 7373' (note: yesterday's reported 7401' depth should be corrected to 7373' as one jt. of tbg has been LD). From observation of CBL reading the casing ID below 7300' appears rough. Ran Schl. CBL from 7373' to 6000'. Bonding appears good opposite zones to be perforated & top of cement is at approx. 6520'. BHI after 22 hrs static (end of CBL log) was 359° F. Correlation of CBL to open hole DLL logs were 2' diff. i.e. 7200' CBL - 7202' DLL depth. LD CBL tools and PU shooting nipple and Schl perforated DLL interval 7228' to 7256' w/4" hyperjet csg gun w/2 JSPF(.38" dia holes). Hole stood full after perforating. POH & RD Schl & shut in BOP blind rams & SDON (BHT on perforating run was 360°F-28 hrs static)

Note: Not included on the 9/25/81 report was the fact that when the 7 7/8 NRS was POH the entire rubber element was missing from its mandrel - possibly this was hanging up the CBL sonde.

9/27/81

Day-67. PB - Prep to rerun Johnson DST tools. Calipered Johnson DST tools, made up tools and TIH to 3172' & filled tbg with water. Continued tripping in hole to 6050'; tbg begin to flow - flowed back 10 bbls of water cushion. Pumped brine water down annulus & had communication w/tbg. Stroked MFE valve of DST tools & pmpd brine down annulus again getting communication. TOH w/tbg standing full. MFE of DST tools had malfunctioned. BHT recorder read 320°F @ 6050' - the static temperature after 50 hrs. SDON.

9/28/81

Day-68. PB - PU Johnston DST tools. Chg out recorders & MFE valve sub. Going in hole w/2000 ft. water cushion.

9/29/81 7625

Day-69. PB - Strtg in hole w/7 7/8" rock bit to cln rubber & core matter out of hole. Will run to 7378'. RU Johnson DST tools. Exchange out MFE tool. Run 2-48 hr charts & temp recorders. RIH to 2050'. Filled tbg f/fresh wtr cushion. RIH to 7020' w/string wt of 32M#. Flw test tool open w/no blow or indication @ surf. SI MFE tool f/30 min. Flw test tool open 37 min w/again no surf activity. SI MFE tool f/100 min. POH w/DST tools - plg hard 25M# over string wt @ times. When retrieved cased hole pkr, found btm rubber missing. Rubber size = 8 3/8" OD x 4 1/2" ID. Rec'd 2050' wtr cushion & 624' brine wtr = 3.6 BW; no oil show. Chart appeared tool opened f/IF; then either plugged or malfunctioned f/remainder of tst. IHP = 3577#, FHP = 3548#. 17 minute IF = 1046-1228#. Indicated FSI = 3765# (possibly) w/BHT 360°F. Appears that this test was a misrun DST.

9/30/81 7625

Day-70. PB - Prep to make up HOWCD RTTS tool & TIH to swab well. Ran in hole with 7 7/8" milled tooth bit to 7048' & took weight. RU stripping head & power swivel. Wrkd on pmp for 1 hr. Circl brine water & rotated using power swivel for 20 min recovering what appears to be all of the black rubber f/DST rubber element left in hole on DST misrun of 9/28/81. PU bit & circ'd 55 min recovering metal shavings. Pulled 40 stds (80 jts) and SDON.

10/1/81 7625

Day-71. PB - Prep to cont w/swb tstg. SI well hd press 7:30 am 9/30/81 was 300#. Bled off press & RD flange & stripping head. Fin TOH w/ 7-7/8" bit. Made up 14' of perf'd tail pipe below 9-5/8" Howco RTTS pkr - calipered tools. RIH w/ RTTS pkr on 6 - 4-3/4" DCs & 2-7/8" N-80 EUE tbg to 7022'. Set pkr w/20M# set dn wt & press tstd annulus to 1M# - OK. RU swb & made 5 pulls - netting only 4 runs since 4th run lost its pull. On 1st swb pull the fld was @ the surf. Pld f/1000' w/tr of black oil (less than 1/2 bbl). On last swb pull (#5) hit fld @ 3500' - pld swb f/4000'. Swbg total recovery was 25 bbls of brine wtr & tr of black oil. SDON.

10/2/81 7625

Day-72. PB - SD while WO new swb line.
Opn tbg valve - tbg on sli vac @ 7:30 am 10/1/81. Tstd annulus to 500# - OK. Transferred brine wtr f/rig flat tk & begin swbg @ 8:00 am. From 8:00 am to noon - made 6 successful swb runs w/FL lowering f/1500' initially to 3850' on 6th run - rec'd 25 BF of which 6-1/2 bbls was black-dead oil. Also had 1 run of no recovery & 1 run w/sinker bars to SN @ ±6840'. Also on 3 of these runs lost some swb cub rubber in the tbg. Between noon & 3:15 pm made 5 more swb runs w/no recoveries on runs 8 or 9. Had gd recoveries on runs 10 & 11 rec'g about 1000'/run w/FL varing f/4880-5400' & w/oil percentage incr'g on successive runs. On swb run #12 pld 600' of fld - 95% oil cut. Oil is black-dead oil & temp is 140°F. No recovery on swb run #13. Ran sinker bars on run #14 to 6500' w/FL @ 5600'. Run #15 was a swb run tagging fld @ 5400', but unable to lower swb cups into fld - believe pieces of missing swbs are reason. At 4:20 pm while operator was attempting to wrk swbs into fld the line slacked/looped and when PU became kinked. SD operations. Recovery today was 41 BF of which 20-25 bbls was black-dead oil. The double swb cups need to be chg'd after every run.

Note: Samples of fld rec'd are being sent to laboratory to determine if rec'd oil is due to possible channeling of oil mud used in the deeper drlg of this hole.

10/3/81 7625

Day-73. PB - Prep to resume swbg operations.
7:30 am 10/2/81 - no press on tbg. Welltech Company WL specialist arrived @ 12:30 pm 10/2/81. Reeled off swb line to 2320' & 5200' & made splices. Reeled line back into drum & SDON. Samples f/swb runs 1, 5, 7 and off top of recovery tk were sent by airplane to Magabar's Lab in Houston and to Chem's Lab in Casper. This was flds swbd on 10/1/81 & respectively represents sampling after cumulative swb volumes of 27.9 BF, 45 BF, 49.5 BF & 66 BF had been rec'd by swbg the tbg. The samples looked emulsified & the black oil taste salty.

10/4/81 7625

Day-74. PB - Prep to repair sd line drum chain.
In am 10/3 SITP 0#. Ran swb mandrel & sinker bar to 6400' w/no trouble. Strtd swbg. 1st run FL 3100' - temp 135° - recovery all brine wtr; 2nd run FL 4900' - temp 140° - recovery all brine wtr; 3rd run FL 5400' - temp 140° - recovery all brine wtr; 4th run FL 6400' - swbd to SN - recovery 300' brine wtr w/some gritty matter about 5%. Waited 1 hr 5th run FL 6400' - swbd to SN - recovery 300' brine wtr about 80% contain brown emulsion & material. Waited 2 hr 6th run FL 6400' - recovery 300' brine wtr. Waited 2-1/2 hrs & strtd in hole f/7th run to 6100' where line stacked out & stuck swb @ 6100'. Jarred on swb 1-1/2 hrs & brk chain on sd line drum @ 6:15 pm. Total recovery today - 25 bbls brine wtr w/some brown emulsion - not oil. SDON.

10/5/81 7625

Day-75. PB - Prep to resume swbg.
In am 10/4 TP 0#. WO new chain & repaired sd line drum @ 3:15 pm. PU on tbg to wt of string & jarred on swb 45 min & swb came free. POH. Appeared swb line had been dn beside sinker bar. Recovered swb. Will cut about 50' off swb line & resume swbg.

Note: Results of lab tests of fld produced will be received this pm.

10/6/81 7625

Day-76. PB - Prep to resume swbg.
 Ran inside tbg WL jk bskt to 4790' where it stopped - meas'd w/depthometer. FL indicated @ 3400'. Ran sinker bar s/swb mandrel w/no cups stopped @ 4790'. Also, att run sinker bar, and sinker bar w/4' of 5/8" both stopped @ 4790'. Opnd tbg bypass & reverse circ'd tbg capacity + 5 bbls - rec'd swb reinforcing wires, smal pieces sh cutting & pea gravel in est 4 bbl dark brown emulsion, and pieces of swb rubbers. Reset wt on pkr. Began swbg @ 1:30 pm:

Run #	FL	Plg From	Remarks
1	Surf	2700'	Brine Wtr
2	2500'	4800'	Brine Wtr-145°F
3	4500'	6400'	Brine Wtr-164° w/ 10% brn emulsion
4	6200'	6824'(SN)	Brine Wtr-120°F w/ sml amt emulsion
5	6540'	6824'(SN)	Vy sml amt brine (salt settles out in sample)
Shut Down 1-1/2 hrs.			
6	6540'	6824'	No recovery
7	6400'	Stuck swb, wrkd free in 35 min.	Bottom cup damaged.

Total recovery 43.5 bbls (39.5 bbls was tbg capacity - after reversing out). Note: While rev out caught 8 spls @ 3 min intervals: #1 - 100% brine; #2 - 20% brn emulsion, 80% brine; #3 - 80% brn emulsion, 20% brine, some pea gravel; #4 - 80% brn emulsion, 20% brine, some pea gravel & fine salt; #5, #6, #7, #8 - 100% brine w/vy thin skim oil. SDON.

10/7/81 7625

Day-77. PB - Prep to pull pkr.
 In am SITP 0#. Ran sinker bar to straighten swb line. Made 3 runs w/swb - no recovery, unable to get below approx 5700'. Ran sinker bar, unable to get below 5700'. Opnd pkr bypass & filled hole thru annulus w/34.9 bbls. Calc FL in tbg was 6020' based on vol to fill. Rev circ tbg @ 3 BPM f/70 bbls. 1st of recovery was 4.5 bbl drk brn thick emulsion w/est 5 gal gravel & sh. Closed bypass w/14M# on pkr. Swbd tbg dn. Then swbd 5-1/2 bbls brn emulsion - no oil. Made total 6 swb runs. Recovered the 5-1/2 bbl emulsion in 2 hrs swbg f/SN. Some gravel rec'd on 5th run. Total recovery today 45 bbls of which 5-1/2 bbls was brn emulsion - no oil. SDON.

10/8/81 7625

Day-78. PB - Cln flat tank & prep to wsh to bttm.
 0 press on tbg. Open bypass on RTTS packer. Fluid level @ 6020'. Fill hole & reverse out 4-1/2 bbls of emulsion. Pull packer out of hole. LD 2 collars, std 4 collars. Repair on rig for 2 hrs. Run in hole w/notch collar (3.375) went into 7,086'. Cln out flat tank & flange up spool & stripping head. Dmp'd 80 bbls of dirty brine wtr in emulsion & small amt of diesel f/flat tank. SDON.

10/9/81 7625

Day-79. PB - Prep to determine rig damage. Cln flat tk to store brine wtr. RU power swivel. Wrk on main drum clutch. PU 1 jt tbg w/power swivel & tag btm @ 7048'. Rotate & set down 5M# on btm. Tbg torqued up to 1400#. Wrkd tbg up & down to determine if csg was collapsed. Made no hole. Rotate f/10 min & circ btms up twice. POH w/ 2 7/8" notched clr. With 192 jts of pipe out of hole, drlr ran into crown w/blocks & parted drlg line. Blocks & tbg went into cellar opposite side of derrick. Brk tbg off @ top of BOPs - dropping 1799' tbg dwn hole (57 jts & ± 15' piece). Fish @ 5249'+ due to corkscrew tbg. Severe damage to crown, tbg board, tongs & rig floor & equipment. No crew injuries.

- 10/10/81 7625 Day-80. PB - Prep to run tbg in hole which was in derrick & move rig off. Pulled line down & cleaned up damage from dropping blocks. Hung blocks & strung new line. Strung up new tongs, racking fingers & replaced work floor on sub. Manufacturer inspected rig. Rig is to be moved off after tbg is hung off. Another rig will be moved back in on Monday.
- 10/11/81 7625 Day-81. PB - Prep to MI new Rig #25. SD to WO rig. Load out damaged eqpt. RIH w/tbg to top of fish. Locked dwn slips & SI well. RD rig to ship out. Cut off 4' piece of parted tbg, to be taken to Acme tool for sizing fishing tools.
- 10/12/81 7625 Day-81. PB - Prep to MI new Rig #25. SD to WO rig
- 10/13/81 7625 Day-81. PB - WO rig, no report.
- 10/14/81 7625 Day-82. PB - RU skirted mill to run dn to tag fsh. MI & RU rig (#35). Moved sub base into adjustment. POH w/tbg. Std back 4 clrs. String up lines f/brk out tongs & tools. SDFN.
- 10/15/81 7625 Day-83. PB - POH w/mill, prep to run 2-7/8" OS. PU 8-1/2" skirted mill w/2 clrs. RIH w/tbg to top of fsh. PU power swivel & strip on stripping hd & mill off top of fsh @ 7072'. LD power swivel & pull 2 jts tbg. SD & repair traveling block.
- 10/16/81 7625 Day-84. PB - LD fsh (1800'). Repair travel blocks. POH. LD mill. PU 2-7/8" OS, bmpr sub, jars, 2 DCs. RIH & latch onto fsh @ 5273'. Jarred fsh loose. POH. LD OS w/fsh hanging in slips. SDFN.
(Note: Correction f/yesterday's report: Top of fsh was 5273' & btm of fsh was 7072').
- 10/17/81 7625 Day-85. PB - Prep to temp survey requested by Geo Thermal Group. Rec'd all of 2-7/8" tbg fsh. LD Acme fshg tools. Inspection of fsh showed that the notched tbg clr, before being dropped, had milled off about 1/2" of the teeth. Next f/the dropping of the tbg, it was observed that the notched clr was pinched together & the lower most jt of 2-7/8" OD tbg f/a length of 20' was edged dn to 2.31" thus indicating the degree to which the ID of the 9-5/8" csg had been reduced too because of being collapsed. Also several jts of tbg (11-15) were bent & were LD.
- 10/18/81 7625 Day-86. PB - Prep to spt cmt plugs & P & A the well. RU Pruitt Industries & ran temp as requested by ARCO's Geo Thermal Group. Temp log run f/200-7020' @ 40'/ft. RD Pruitt WL unit. LD 3 - 4-3/4" DCs. Made up HOWCO 9-5/8" cmt retainer & TIH w/retainer to 4514' where retainer prematurely set. Rotated 35 times & rel'd f/retainer. Press tstd annulus to 1M# - OK.

- 10/19/81 7625 Day-87. PB - Prep to TIH w/ 8-1/2" mill to drl up retainer. RU Nat'l Cmtrs & stung into retainer @ 4514' & tstd annulus to 500# - OK. Pmpd 14 bbls brine below retainer @ 1/4 BPM w/3600# & then locked up w/o being able to pmp in @ 3700#. Bled back 4 bbls of compression & called into Denver. (USGS would not approve of sptg cmt above retainer since interval below retainer couldn't be sealed off w/cmt and USGS required that the retainer be drld up & a 500' cmt plug be laid f/just above the collapsed csg interval). RU to the 9-5/8" by 13-3/8" annulus & pmpd in 175 sx of Cl "H" cmt & displ'd w/1 BM. POH w/HOWCO setting tool/stinger. SDON.
- 10/20/81 7625 Day-88. PB - Milling on cmt retainer. PU 4 clrs & 8-1/2" cutrite mill. RIH to 4514'. PU swivel & milled approx 1'. LD swivel. SDON.
- 10/21/81 7625 Day-89. PB - Rng OE tbg to cmt btm plug. Mill on cmt retainer. Retainer came loose - push dn to 7048'. POH tbg. SDFN.
- 10/22/81 7625 Day-90. PB - Plug to abandon. POH w/mill. RIH OE tbg to 7020'. Set 500' Cl "H" cmt plug containing 35% silica flour & 10% salt & 3/4% FR & .05% diacel LWL & 1% CDR 12. Pull tbg above cmt plug & mix bentonite & put in hole between plugs. POH & LD tbg. RIH w/600' tbg & mix 75 sx Cl "H" cmt f/600-400'. LD tbg. SDFN.
- 10/23/81 7625 Day-91. PB - Fin RD. LD DC. RD BOP. RD 13-5/8" X 9-5/8" csg pack off spool. Cut off 9-5/8" csg below slips. Cut off 13-5/8" Bradenhead. Cmt top inside 9-5/8" - 25' w/Cl "H" cmt. Set dry hole marker. Cmt again dn 9-5/8" & 13-3/8" annulus w/25 sx Cl "H" containing 3% CaCl₂. Load out equip of Weatherford Lamb & tbg. SDFN.
- 10/24/81 7625 Day-92. PB - RD 10/23/81. RR 12:30 pm 10/23/81. Big K trucking to take over loc, cln up. Fin'd put in DHM. Well P & A - FINAL REPORT.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

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

2

RECEIVED
 NOV 23 1981
 DIVISION OF OIL GAS & MINING

WELL COMPLETION OR RECOMPLETION REPORT LOG *

5. LEASE DESIGNATION AND SERIAL NO.
U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
UNIT AGREEMENT NAME
avant Butte

7. FARM OR LEASE NAME

8. WELL NO.
1

9. FIELD AND POOL, OR WILDCAT
Wildcat

10. SEC., T. R., M., OR BLOCK AND SURVEY OR AREA
35-19S-70W

11. COUNTY OR PARISH
Millard

12. STATE
Utah

13. PERMIT NO.
Mr. Martens

14. DATE ISSUED
5-21-81

15. DATE SPUDDED
7-5-81

16. DATE T.D. REACHED
8-29-81

17. DATE COMPL. (Ready to prod.)
P & A

18. ELEVATIONS (DF, REB, RT, GR, ETC.)*
4589' GL; 4606' KB

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD
11,133 TD

21. PLUG, BACK T.D., MD & TVD
7625' PB

22. IF MULTIPLE COMPL., HOW MANY*
Surface P & A

23. INTERVALS DRILLED BY
10-23-81 P & A

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

25. WAS DIRECTIONAL SURVEY MADE
NO

26. TYPE ELECTRIC AND OTHER LOGS RUN
MRT, DLL-SP-GR: Waveforms, DLT-MSFL, FDC/CNL-GR, BHC-GR, CST

27. WAS WELL CORED
YES

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"	---	50'	Conductor		NONE
13-3/8"	54.5# & 68#	590'	17-1/2"	1094 sx	NONE
9-5/8"	36#	7772'	12-1/4"	1465 sx	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)

7228'-7256' .38" diameter 2JSPF

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
7900'-7600'	117 sx Class H - cement plug
7625'	70 sx Class H - cement plug

33.* PRODUCTION

DATE FIRST PRODUCTION
P & A

PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)

WELL STATUS (Producing or shut-in)
P & A

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
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FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
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34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS
2 of #26 above and Daily Well History

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

SIGNED W.A. Walther, Jr. TITLE District Manager of Production DATE 10-30-81

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

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.

Item 1: 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 POREOUS 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.
CORE #1 5531	-5583'	52'	Recovered 52' At top of core some marblestone with interbedded siltstone, remainder interbedded siltstone with shale with claystone at bottom
DST #1 MISSOURI			
PLUGGED AND ABANDONED WELL AS FOLLOWS:			
Pumped 175 sx Class H cement down annulus			
Set 500' Class H cement plug from 7020' to 6520'			
Set 200' Class H cement plug from 600' to 400'			
Set 25' Class H cement plug inside 9-5/8" casing			
Set dry hole marker			
Set another 25 sx Class H cement plug inside annulus			

38. GEOLOGIC MARKERS

NAME	TOP
Tertiary	Surface
Cambrian Teutonic Limestone	9800'
Cambrian Pioche Shale	10,150'
Cambrian Prospect Mountain Quartzite	10,610'



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
James A. McInnis, Executive Director
Richard E. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

July 13, 1982

Arco Oil & Gas Company
P. O. Box 5540
Denver, Colorado 80217

Re: Well No. Pavant Butte #1
Sec. 35, T. 19S, R. 7W.
Millard County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office November 30, 1981, from above referred to well, indicates the following electric logs were run: NRT, DLL-SP-GR, Waveforms, SLT-MSFL, FDC-CNL-GR, BHC-GR, CST. As of today's date, this office has not received these logs: NRT, DLL-SP-GR, SLT-MSFL, CST.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Cari Furse
Clerk Typist

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well gas well other

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR
P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 828' FNL & 1991' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Approx the same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

5. LEASE
U-19361

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Pavant Butte

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
35-19S-7W

12. COUNTY OR PARISH Millard 13. STATE Utah

14. API NO.
43-027-30027

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4589' GL

REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

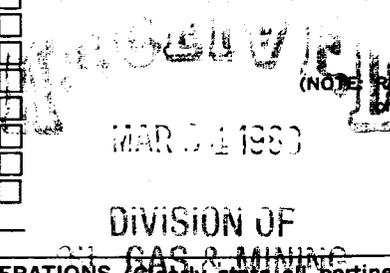
PULL OR ALTER CASING

MULTIPLE COMPLETE

CHANGE ZONES

ABANDON*

(other) REHABILITATION



(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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 last phase of rehabilitating the Pavant Butte location was accomplished in the fall of 1982 (September or October) by Big "K" of Kanosa, Utah. The BLM's recommended mixes were applied to the disturbed surface by "Broadcasting" and then harrowed-in. Reseeding was done with Mr. Jerry Mulestein of the BLM observing. Location will be inspected during late May of 1983 and again in August of 1983 to view the stance of grass and/or to determine what additional reseedling may need to be done before fall 1983.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED W.A. Walther, Jr. TITLE Operations Manager DATE 3-22-83
W. A. Walther, Jr.

(This space for Federal or State office use)

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



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

May 25, 1983

ARCO Oil & Gas Company
P. O. Box 5540
Denver, Colorado 80217

Re: Well No. Pavant Butte # 1
Sec. 35, T. 19S, R. 7W.
Millard County, Utah

Gentlemen:

Our office contacted you on July 13, 1982, requesting that you send in the electric logs for the above referred to well.

According to our records, a "Well Completion Report" filed with this office November 30, 1981, from above referred to well, indicates the following electric logs were run: NRT, DLL-SP-GR, Waveforms, SLT-MSFL, FDC-CNL-GR, BHC-GR, CST. As of todays date, this office has not received these logs: NRT, DLL-SP-GR, SLT-MSFL, CST.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

**You are in violation of the above rule. If you wish to continue developing business in the State of Utah, compliance with pertinent rules and regulations is essential. Further delay in your attention to this matter may result in punitive action. Please submit the required information as stated above within fifteen (15) days.

Respectfully,

DIVISION OF OIL, GAS AND MINING

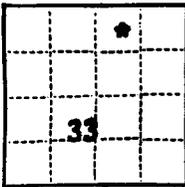
Cari Furse
Well Records Specialist

CF/cf

43-027-30027

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION

EA #414-81
Sec. 35
T. 19S
R. 7W
SLB & Mer.
Ref. No. 1



INDIVIDUAL WELL RECORD

PUBLIC LAND: _____ Date November 30, 1981 _____

Land office Utah State Utah
Serial No. 19361 County Millard
Lessee Columbia Gas Devel. Pan Canadian Pet. et al Field Wildcat
Operator ARCO Oil & Gas Company District Salt Lake City
Well No. 1 Subdivision NW NE

Location 828' FNL & 1991' FEL

Drilling approved May 26, 1981 Well elevation 4589 GR, 4606 KB feet

Drilling commenced July 5, 1981 Total depth 11133 feet

Drilling ceased August 29, 1981 Initial production Dry

Oral to Abandon
~~Completed~~ October 16, 1981 Gravity A. P. I. _____

Abandonment approved Dec 12, 1986 Initial R. P. _____

Geologic Formations		Productive Horizons		
Surface	Lowest tested	Name	Depths	Contents
<u>Alluvium</u>	<u>Cambrian</u>			
	<u>Prospect Mtn.</u>			

WELL STATUS

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
<u>1981</u>							<u>Spud</u>	<u>TD 11133</u>		<u>ABD</u>		
<u>1986</u>												<u>P+A</u>

REMARKS Geologic Markers: See Well File in STORAGE CAB
casing record: 20" cc @ 50'
13 3/8" cc @ 590' w/1094 sxs.
9 5/8" cc @ 772' w/1465 sxs.

ARCO Oil and Gas Company
Rocky Mountain District
707 Seventeenth Street
Mailing address: P.O. Box 5540
Denver, Colorado 80217
Telephone 303 293 7031



W. A. Walther, Jr.
Operations Manager

PEA

June 3, 1983

43-027-30027

State of Utah
Division of Oil, Gas & Mining
Attn: Cari Furse
4241 State Office Bldg
Salt Lake City, Utah 84114

RE: Well No. Pavant Butte #1
Sec. 35-T19S-R7W
Millard County, Utah

Dezr Ms. Furse:

In referenced to your letter of May 25, 1983, the following logs were run on the Pavant Butte #1 Well:

CNL/FDC/GR
DLL/GR
BHCS
Waveform
Temperature

The logs previously listed on the "Well Completion Report" were incorrectly reported.

Enclosed please find extra copies of these logs for your files.

If I can be of further help, please let me know.

Very truly yours,

K.L. Flinn

K.L. Flinn
Operations Information Assistant

Encl.