

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

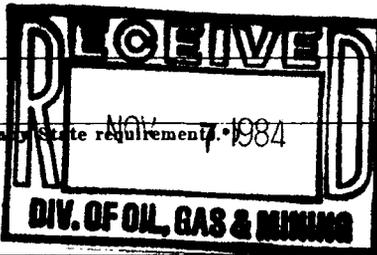
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APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK   
 b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

5. LEASE DESIGNATION AND SERIAL NO.  
U-51082  
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 7. UNIT AGREEMENT NAME  
 8. FARM OR LEASE NAME  
Devil Canyon  
 9. WELL NO.  
11-31  
 10. FIELD AND POOL, OR WILDCAT  
Wildcat  
 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 31, T36S, R24E SLB&M  
 12. COUNTY OR PARISH  
San Juan  
 13. STATE  
Utah

2. NAME OF OPERATOR  
DIAMOND SHAMROCK EXPLORATION COMPANY  
 3. ADDRESS OF OPERATOR  
P. O. DRAWER 'E', VERNAL, UTAH 84078  
 4. LOCATION OF WELL (Report location clearly and in accordance with applicable State requirements)  
 At surface 745' FWL & 643' FNL (NW/NW)  
 At proposed prod. zone



14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
22 miles South East of Monticello, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 643  
 16. NO. OF ACRES IN LEASE 621.92  
 17. NO. OF ACRES ASSIGNED TO THIS WELL 40  
 18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 19. PROPOSED DEPTH 6,450' *Subst*  
 20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6085' GR  
 22. APPROX. DATE WORK WILL START\*  
A.S.A.P.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
16"	13 3/8"	48#	30'	Redi Mix Cement to surface
12 1/4"	8 5/8"	24#	2150'	Circ to surface
7 7/8"	5 1/2"	15.5#	6450'	500 sacks

Drill 16" hole to 30', set 13 3/8" casing.  
 Drill 12 1/4" hole to 2,150', cement to surface, set BOP and pressure test.  
 Drill 7 7/8" hole to 6,450', run 5 1/2" casing if production is found feasible.

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: 11/18/84  
BY: *[Signature]*

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.

SIGNED *Russ Ivie* TITLE District Superintendent DATE November 1, 1984

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

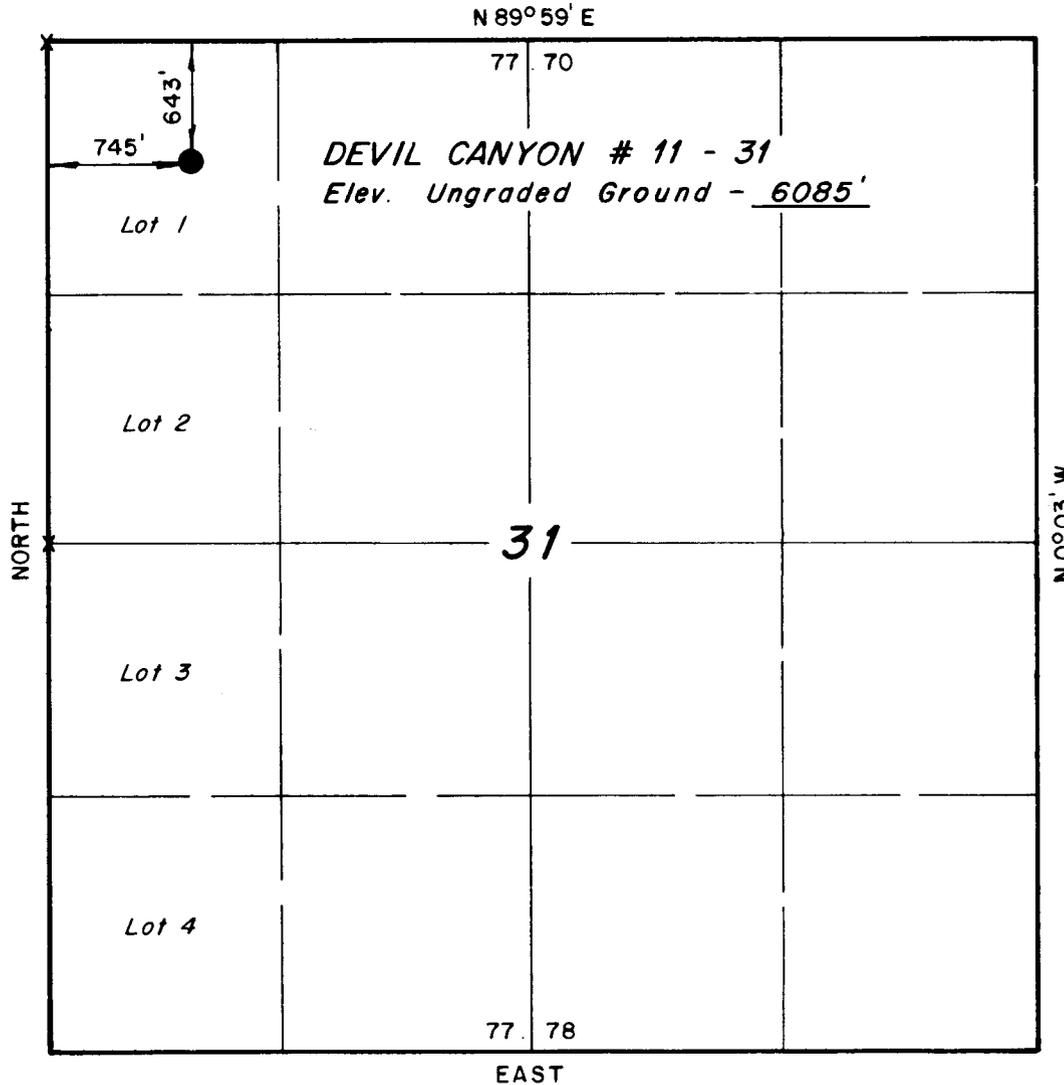
CONDITIONS OF APPROVAL, IF ANY:

T 36 S, R 24 E, S.L.B. & M.

PROJECT

DIAMOND SHAMROCK EXPLORATION CO.

Well location, *DEVIL CANYON # 11-31*,  
located as shown in the NW 1/4 NW 1/4  
(Lot 1), Section 31, T 36 S, R 24 E,  
S.L.B. & M. San Juan County, Utah.



X = Section Corners Located



CERTIFICATE  
 THIS IS TO CERTIFY THAT THE PLAT WAS PREPARED  
 FIELD NOTES OF ACTUAL SURVEY MADE BY 2154 UNDER  
 SUPERVISION AND THAT THE SURVEY IS TRUE AND CORRECT TO THE  
 BEST OF MY KNOWLEDGE AND BELIEF.



UINTAH ENGINEERING & LAND SURVEYING  
 P. O. BOX Q - 85 SOUTH - 200 EAST  
 VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 11 / 5 / 84
PARTY G.S. D.M. BFW	REFERENCES GLO Plat
WEATHER Fair	FILE DIAMOND SHAMROCK

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Company: Diamond Shamrock Exploration Co.

Well No. Devil Canyon #11-31

Location: Section 31, T36S, R24E, S.L.M.

Lease No.: U-51082

Onsite Inspection Date: September 18, 1984

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

A. DRILLING PROGRAM

1. Surface Formation and Estimated Formation Tops:

Dakota Surface  
Morrison 735'  
Entrada 1041'  
Carmel 1205'  
Navajo 1250'  
Kayevta 1803'  
Wingate 1880'  
Chinle 2140'  
Shinarump 2785'  
Moenkopi 2885'  
BeChelly 3045'  
Cutler 3105'  
Elephant Canyon 4669'  
Honaker Trail 4895'  
Ismay 6049'  
Hovenweep 6147'  
Lower Ismay 6204'  
Gothic 6252'  
Desert Creek 6281'  
Lower Desert Creek 6330'  
Chimney Rock 6359'  
Akah 6382'  
Sult 6413'  
TD 6450'

2. Estimated Depth at which Oil, Gas, Water, or other Mineral Bearing Zones are Expected to be encountered:

	<u>Formation</u>	<u>Zone</u>
Expected Oil Zones:	Ismay	6049'
	Hovenweep	6147'
	Lower Ismay	6204'
	Gothic	6252
	Desert Creek	6281'
	Lower Desert Creek	6330'
	Chimney Rock	6359'
	Akah	6382'
	Sult	6413
Expected Gas Zones:	Ismay	6049'
	Hovenweep	6147'
	Lower Ismay	6204'
	Gothic	6252
	Desert Creek	6281'
	Lower Desert Creek	6330'
	Chimney Rock	6359'
	Akah	6382'
	Sult	6413
Expected Water Zones:	None Expected	
Expected Mineral Zones:	None Expected	

All fresh water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

### 3. Pressure Control Equipment:

12 inch 3000 # Double Hydraulic B.O.P. with Pipe Rams and Blind Rams and spherical B.O.P. B.O.P. to be pressure tested before spudding and daily testing of closing units and rams while drilling.

BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing.

### 4. Casing Program and Auxiliary Equipment:

2150' of 8 5/8" surface casing 24# 6,450' of 5 1/2" 15.5# K-55.

Anticipated cement tops will be reported as to depth, not the expected number of sacks.

5. Mud Program and Circulating Medium:

Fresh water 500' gel based mud to T.D.. expected maximum mud weight 9  
lb. expected bottom hole pressure 2600 lbs.

6. Coring, Logging and Testing Program:

DLL - SFL surface to T.D.  
GR - FDC - CNL - Base of surface casing to T.D.  
Cyberlook - Base of surface to casing to T.D.  
BHC - Sonic - Base of surface to casing to T.D.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164.

Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted to the District Manager.

7. Abnormal Conditions, Bottom Hole Pressures and Potential Hazards:

None

8. Anticipated Starting Dates and Notifications of Operations:

The operator will contact the San Juan Resource Area at 801-587-2201, 48 hours before beginning any dirt work.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours after spudding, reporting the spud date and time. The Sundry will be sent to the District Manager. If the spudding is on a weekend or holiday, the Sundry will be submitted on the following regular work day.

In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations", starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed, in duplicate, to the Moab BLM District Office, P.O. Box 970, Moab, Utah 84532.

DIAMOND SHAMROCK EXPLORATION CO.  
Devil Canyon #11-31  
Section 31, T36S, R24E, S.L.M.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with the requirements of NTL-3A.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergencies, verbal approval can be given by the District Petroleum Engineer.

If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than 5 business days following the date on which the well is placed on production.

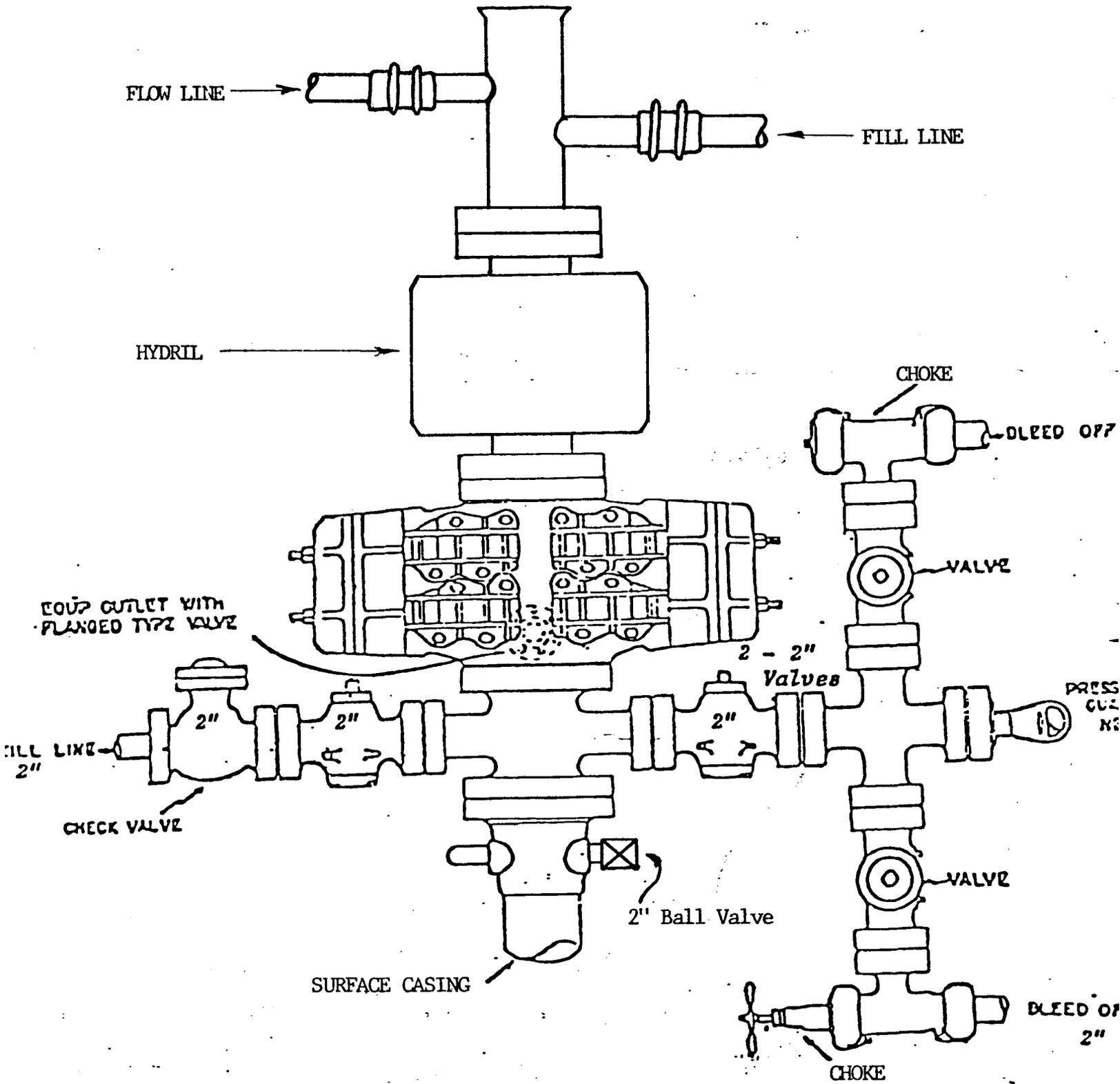
No well abandonment operations will begin without prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the District Manager within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.

Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager or the appropriate surface manager.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently beaded-on with a welding torch: Fed, Well number, location by 1/4 1/4 section, township and range, Lease number.

A first production conference will be scheduled within 15 days after receipt of the first production notice. The San Juan Area Manager will schedule the conference.



NOTE: BLOWOUT PREVENTER HAS DOUBLE RAMS;  
ONE BLIND AND ONE PIPE RAM.

Diag. A

DIAMOND SHAMROCK EXPLORATION CO.

13 Point Surface Use Plan

For

Devil Canyon #11-31

Located in

Section 31, T36S, R24E, S.L.M.

San Juan County, Utah

1. EXISTING ROADS:

a. Location of proposed well in relation to town or other reference point: 9 miles East of Blanding, Utah.

b. Proposed route to location: North from Blanding, Utah on U-47 9 miles Southeasterly on county road, 9.8 miles to the beginning of the proposed access road.

c. Plans for improvement and/or maintenance of existing roads: To be maintained as per requirements of state, county and B.L.M. officials.

The maximum total disturbed width will be 30 feet.

d. An encroachment permit will be obtained from the San Juan County Road Dept., (801) 587-2231, ext. 43.

e. Other: None

2. PLANNED ACCESS ROADS:

Existing road to location site.

a. Width: 30 feet

b. Maximum grades: 8%

c. Turnouts: None

d. Location (centerline): Flagged

e. Drainage: None

f. Surface materials: Existing materials

g. Other: None

Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance by the San Juan Area Manager.

The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drill rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.

The Class III Road Standards which ensure drainage control over the entire road through the use of natural, rolling topography; ditch turnouts; drainage dips; outsloping; crowning; low water crossings; and culverts will be determined at the appropriate field inspection.

3. LOCATIONS OF EXISTING WELLS:

None

4. LOCATION OF TANK BATTERIES AND PRODUCTION FACILITIES:

All permanent (onsite for six months or longer) above ground facilities (including pump jacks) will be painted a flat, non-reflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5 State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1 1/2 times the storage capacity of the battery.

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and anchored securely at the meter. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Moab District office. All meter measurement facilities will conform with the API standards for liquid hydro-carbons and the AGA standard for natural gas measurement.

5. LOCATION AND TYPE OF WATER SUPPLY:

All water needed for drilling purposes will be obtained from: Blanding City, Water Supply

Use of water for this operation will be approved by obtaining a temporary use permit from the Utah State Engineer, (801) 637-1303 and by receiving permission from the land owner or surface management agency to use the land containing the water source.

6. SOURCE OF CONSTRUCTION MATERIAL:

Pad construction material will be obtained from: The existing site.

The use of materials under B.L.M. jurisdiction will conform to 43 CFR 3610 . 2-3. Construction materials will be located on lease.

7. METHODS OF HANDLING WASTE DISPOSAL:

The reserve pit will not be lined with commercial bentonite sufficient to prevent seepage. At least half of the capacity will be in cut. Commercial bentonite will be used if subsurface rock is hit.

Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.

A trash basket will be placed near the mud tanks. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free.

A burning permit is required for burning trash between May 1 and October 31. This can be acquired by contacting the State Fire Warden, John Baker, at (801) 587-2705.

Produced waste water will be confined to a (lined/unlined) pit for a period not to exceed 90 days after initial production. During the 90 day period an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas Order No. 3 (NTL-2B).

8. ANCILLARY FACILITIES:

Camp facilities will not be required.

9. WELL SITE LAYOUT:

The reserve pit will be located:

The top 12 inches of soil material will be removed from the location and stockpiled separate from the trees on the South side. Topsoil along the access will be reserved in place.

Access to the well pad will be from: The Northwest.

10. PLANS FOR RESTORATION OF SURFACE:

- A. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.
- B. The operator/holder or his contractor will contact the San Juan Resource Area office in Monticello, Utah, (801) 587-2201, 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- C. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- D. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- E. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.
- F. Water bars will be built as follows to control erosion.

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 feet
2-4%	Every 100 feet
4-5%	Every 75 feet
5+%	Every 50 feet

G. Seed will be broadcast October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.

4 lbs/acre Western wheatgrass (Agropyron smithii)

1 lb/acre Fourwing saltbush (Atriplex canescens)

2 lbs/acre Wild sunflower (Helianthus annuus)

H. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.

I. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

11. Surface Ownership: B.L.M. approximately 2500' of proposed road on state land.

Mineral Ownership: Federal

12. OTHER INFORMATION

There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.

"Sundry Notice and Report and Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.

The dirt contractor will be provided with an approved copy of the surface use plan.

If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator/holder that they are subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will be done by a B.L.M. approved archaeologist only if damage occurs.

This permit will be valid for a period of one year from the date of approval. After permit termination a new application will be filed for approval for any future operations.

Your contact with the District Office is: Bob Graff  
Office Phone: (801) 259-6111 Address: P.O. Box 970, Moab, UT 84532

Resource Area Manager's address and contacts:  
Address: P.O. Box 7, Monticello, UT 84535

Your contact is Rich McClure  
Office Phone: (801) 587-2201

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

Name: Russ Ivie

Address: Drawer E, Vernal, Utah 84078

Phone No. (801) 789-5270

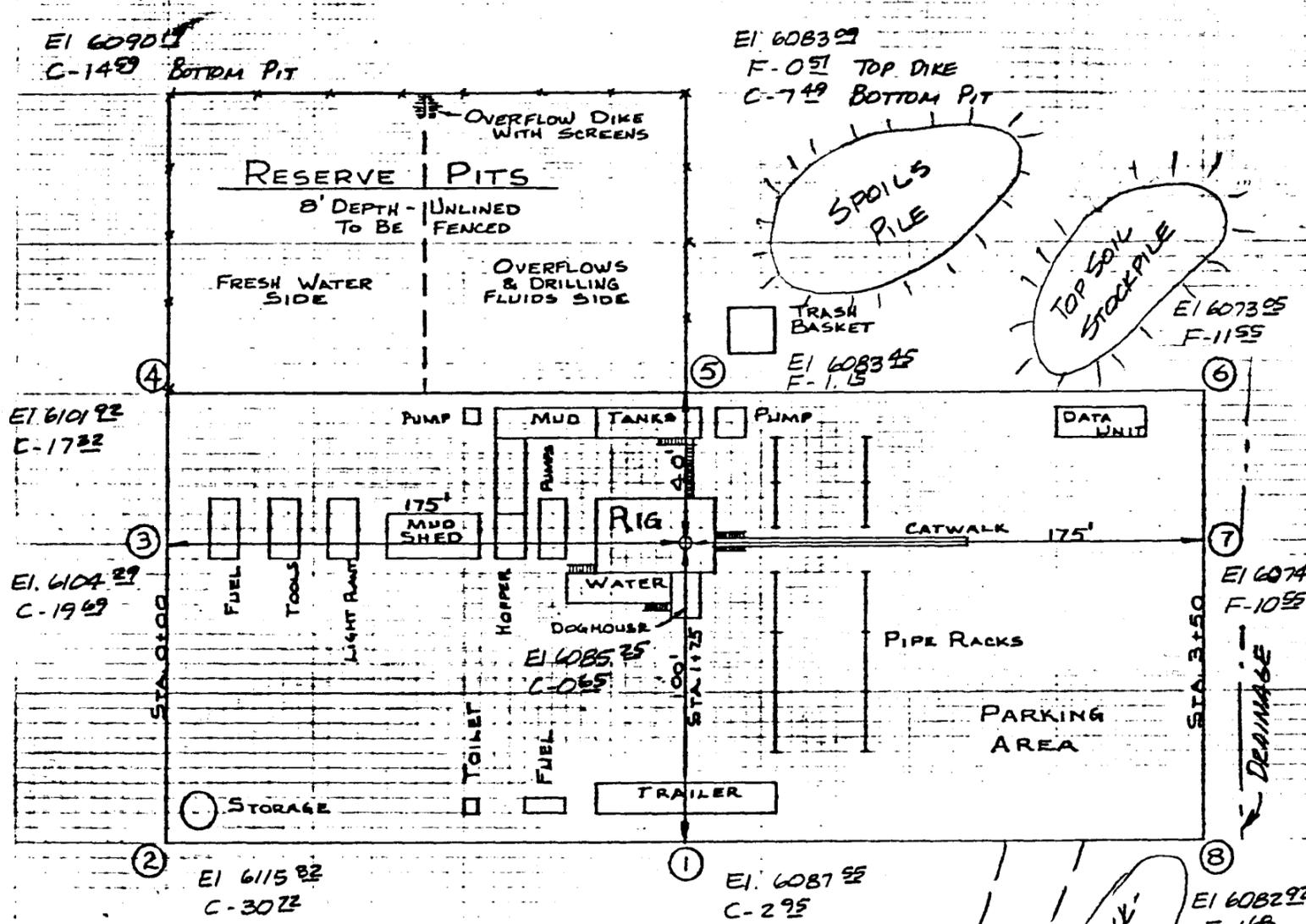
Certification:

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 currently 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: Diamond Shamrock Exploration Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

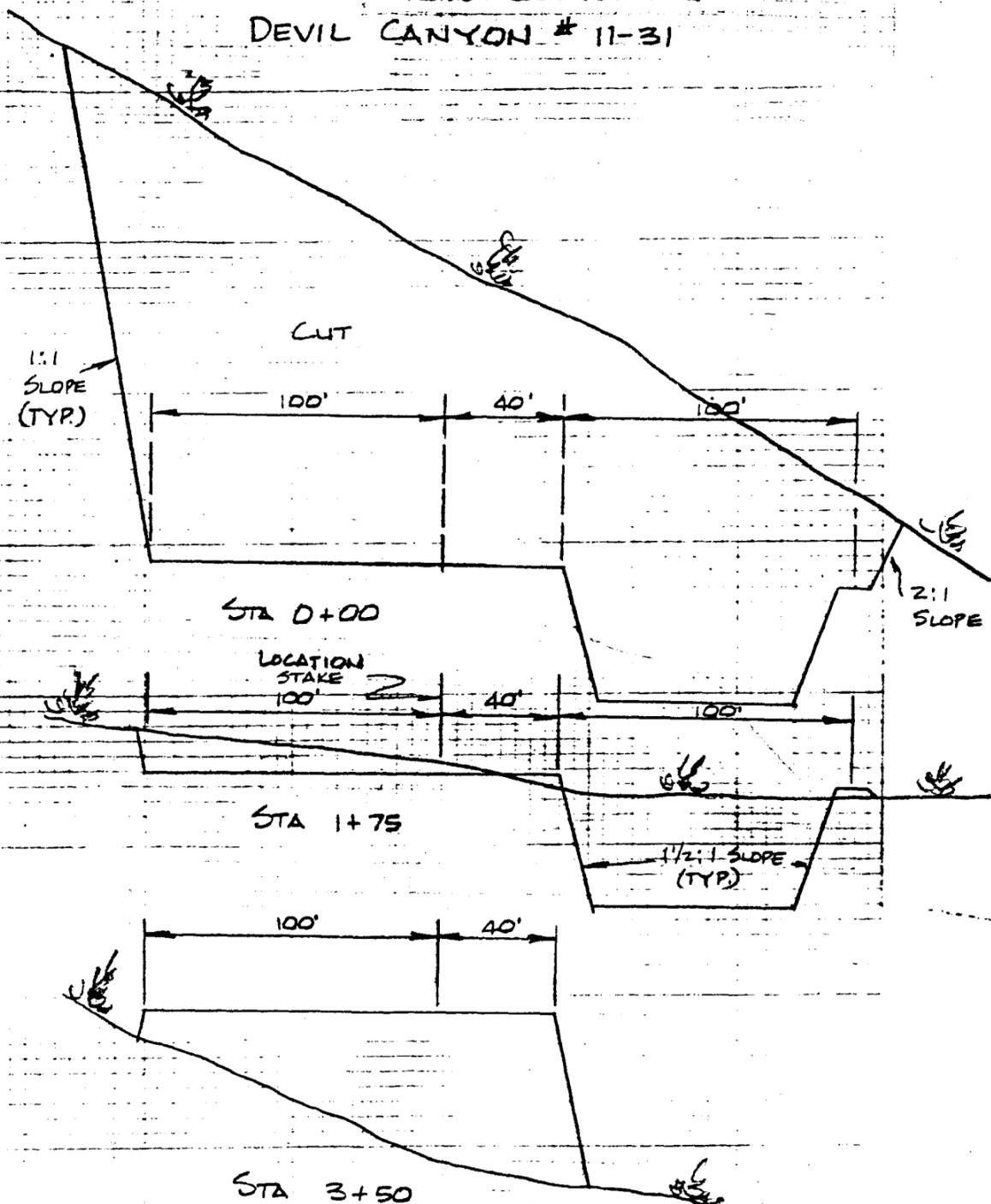
Nov. 1, 1984  
Date

Russ Ivie

# DIAMOND SHAMROCK EXPLORATION COMPANY DEVIL CANYON # 11-31

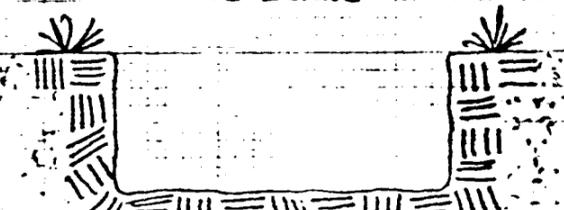


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SCALE 1" = 50'  
DATE 11-5-84

SOILS LITHOLOGY  
- NO SCALE -

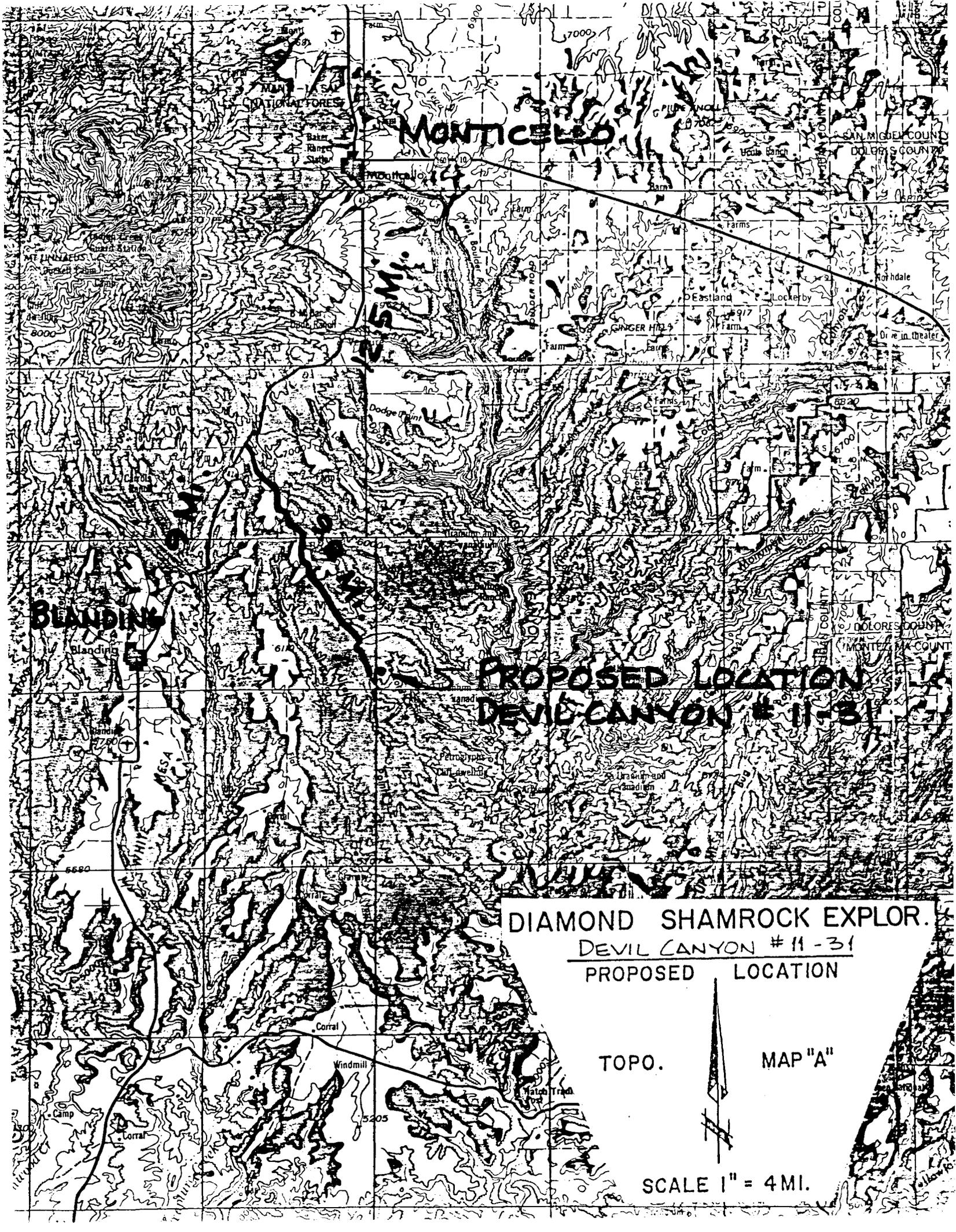


LIGHT BROWN  
SANDY CLAY

SCALES  
1" = 50'

APPROX. YARDAGES

CUT	- 19,472	CU. YDS.
FILL	- 4,926	CU. YDS.



MONTICELLO

BLANDING

PROPOSED LOCATION  
DEVIL CANYON #11-31

DIAMOND SHAMROCK EXPLOR.

DEVIL CANYON #11-31

PROPOSED LOCATION

TOPO.

MAP "A"

SCALE 1" = 4 MI.

MONTICELLO, UT  
12.5 Mi.

Dodge Point

9110

T35S  
T36S

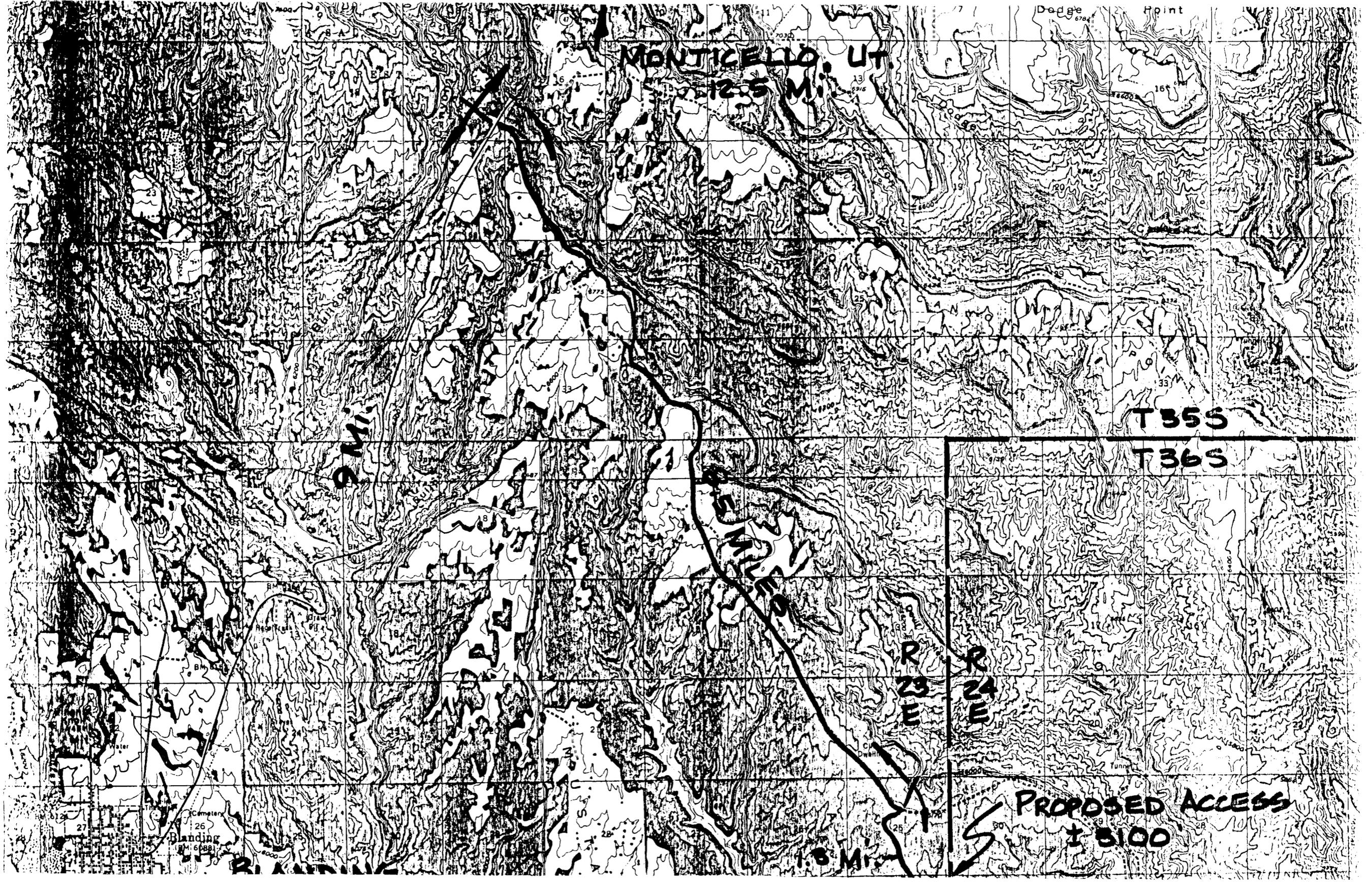
9110

R23E  
R24E

PROPOSED ACCESS  
± 5100

Cemetery  
Blanding  
6888

1.5 Mi.



UTAH

T 36 S

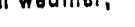
PROPOSED LOCATION  
DEVIL CANYON # 11-31

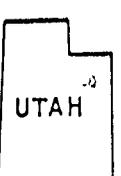
T 37 S

DIAMOND SHAMROCK EXPLOR.  
DEVIL CANYON # 11-31  
PROPOSED LOCATION

TOPO. MAP "B"

SCALE 1" = 2000'

ROAD CLASSIFICATION  
Light duty road, all weather, Improved surface  Unimproved road fair or dry weather 

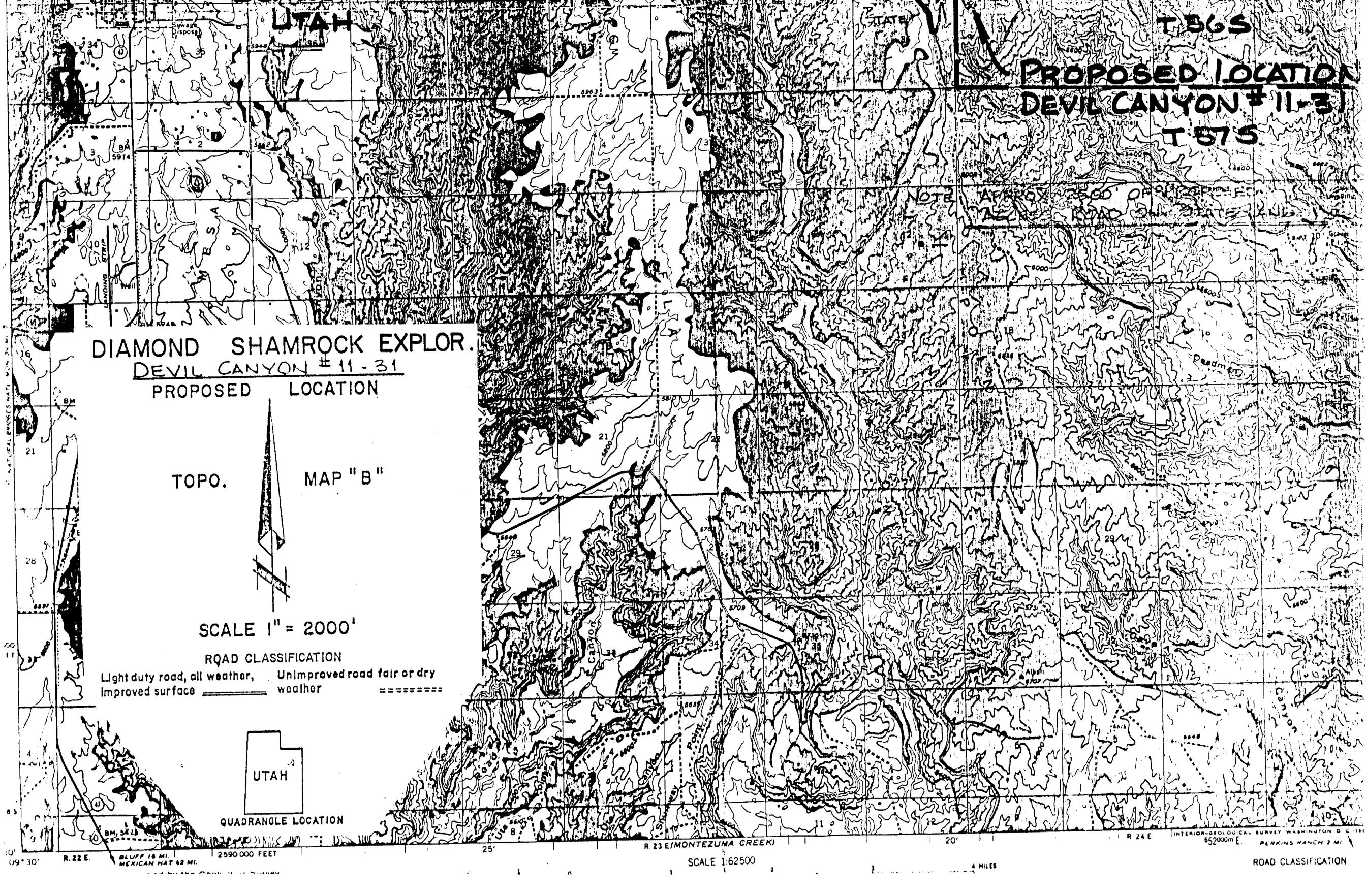


QUADRANGLE LOCATION

09° 30' R. 22 E. BLUFF 16 MI. MEXICAN HAT 42 MI. 2590000 FEET 25' R. 23 E (MONTEZUMA CREEK) 20' R. 24 E 8520000 E. PENKINS RANCH 2 MI. 4 MILES

SCALE 1:62500

ROAD CLASSIFICATION



OPERATOR Diamond Shamrock DATE 11-7-84  
WELL NAME Devil Canyon #11-31  
SEC NW NW 31 (Lot 1) T 36S R 26E COUNTY San Juan

43-037-31102  
API NUMBER

Oil  
TYPE OF LEASE

CHECK OFF:

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> PLAT  | <input checked="" type="checkbox"/> BOND  | <input checked="" type="checkbox"/> NEAREST WELL |
| <input checked="" type="checkbox"/> LEASE | <input checked="" type="checkbox"/> FIELD | <input type="checkbox"/> POTASH OR OIL SHALE     |

PROCESSING COMMENTS:

No other wells within 1000'  
Need water permit

APPROVAL LETTER:

- SPACING:  A-3 \_\_\_\_\_ UNIT  c-3-a \_\_\_\_\_ CAUSE NO. & DATE
- c-3-b  c-3-c

STIPULATIONS:

1- Water



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

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

November 8, 1984

Diamond Shamrock Exploration Company  
P.O. Drawer "E"  
Vernal, Utah 84078

Gentlemen:

Re: Well No. Devil Canyon #11-31 - NW NW Sec. 31, T. 36S, R. 24E  
643'FNL 745'FWL - Duchesne County, Utah  
SAN JUAN

Approval to drill the above referenced oil well is hereby granted in accordance with Rule C-3 (b), General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

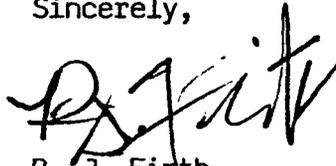
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 533-5771, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.

Page 2  
Diamond Shamrock Exploration Company  
Well No. Devil Canyon #11-31  
November 8, 1984

5. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31102.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. J. Firth', written in a cursive style.

R. J. Firth  
Associate Director, Oil & Gas

as  
Enclosures  
cc: Branch of Fluid Minerals



**Diamond Shamrock**  
Exploration Company

June 14, 1985

Carol Freudiger  
Bureau of Land Management  
P. O. Box 970  
Moab, Utah 84532

Re: Devil Canyon 11-31  
Lease #U-51082

Dear Carol,

Enclosed you will find the Application for Permit to Drill the subject well, which was previously filed with you in November of 1984. Also enclosed you will find three (3) original copies of the Designation of Operator from both Santa Fe and MCOR, which we lacked when we submitted the APD before.

We are also resubmitting to the State of Utah.

Should you require any additional information, please contact me at the phone number or address listed below.

Sincerely,

Russ Ivie  
District Superintendent  
DIAMOND SHAMROCK EXPLORATION COMPANY  
Vernal District Office

RI/ln

Enclosures

xc: DSEC/Denver/Casper  
file



**Diamond Shamrock**  
Exploration Company

DO NOT  
RESCIND  
=====

RECEIVED

JUN 17 1985

DIVISION OF OIL  
GAS & MINING

June 14, 1985

Ron Firth  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
Salt Lake City, Utah 84180-1203

Re: Devil Canyon 11-31  
Lease # U-51082

Dear Ron,

We are resubmitting the APD for the subject well even though we have a previous approval on this well. The APD was returned to us by the BLM because we lacked the Designation of Operator from Santa Fe and MCOR.

We have obtained the DO's from both Santa Fe and MCOR and have resubmitted the APD to the BLM in Moab.

Should you require any additional information, please contact me at the address or phone number listed below.

Sincerely,

*Russ Ivie*

Russ Ivie  
District Superintendent  
DIAMOND SHAMROCK EXPLORATION COMPANY  
Vernal District Office

RI/ln

Enclosures

xc: DSEC/Denver/Casper  
BLM/Moab  
file

*Did not  
rescind  
4/19/85  
New  
APD returned*

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       GAS WELL       OTHER   
 SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 DIAMOND SHAMROCK EXPLORATION COMPANY

3. ADDRESS OF OPERATOR  
 P. O. DRAWER "E", VERNAL, UTAH 84078

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements\*)  
 At surface  
 745' FWL & 643' FNL (NW/NW)  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 22 MILES SOUTHEAST OF MONTICELLO, UTAH

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 643

16. NO. OF ACRES IN LEASE  
 621.92

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 40

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

19. PROPOSED DEPTH  
 6,450

20. ROTARY OR CABLE TOOLS  
 ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6085' GR

22. APPROX. DATE WORK WILL START\*  
 ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
16"	13 3/8"	48#	30'	Redi-Mix cement to surface
12 1/4"	8 5/8"	24#	2150'	Circ to surface
7 7/8"	5 1/2"	15.5#	6450'	500 sacks

Drill 16" hole to 30', set 13 3/8" casing.  
 Drill 12 1/4" hole to 2150', cement to surface, set BOP and pressure test.  
 Drill 7 7/8" hole to 6450', run 5 1/2" casing if production is found feasible.

See attached conditions and 13 point surface use program.

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 Russ Ivie TITLE District Superintendent DATE 6-14-85  
 Russ Ivie

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY /s/ James J. Travis TITLE Acting DISTRICT MANAGER DATE 30 JUL 1985  
 CONDITIONS OF APPROVAL, IF ANY:

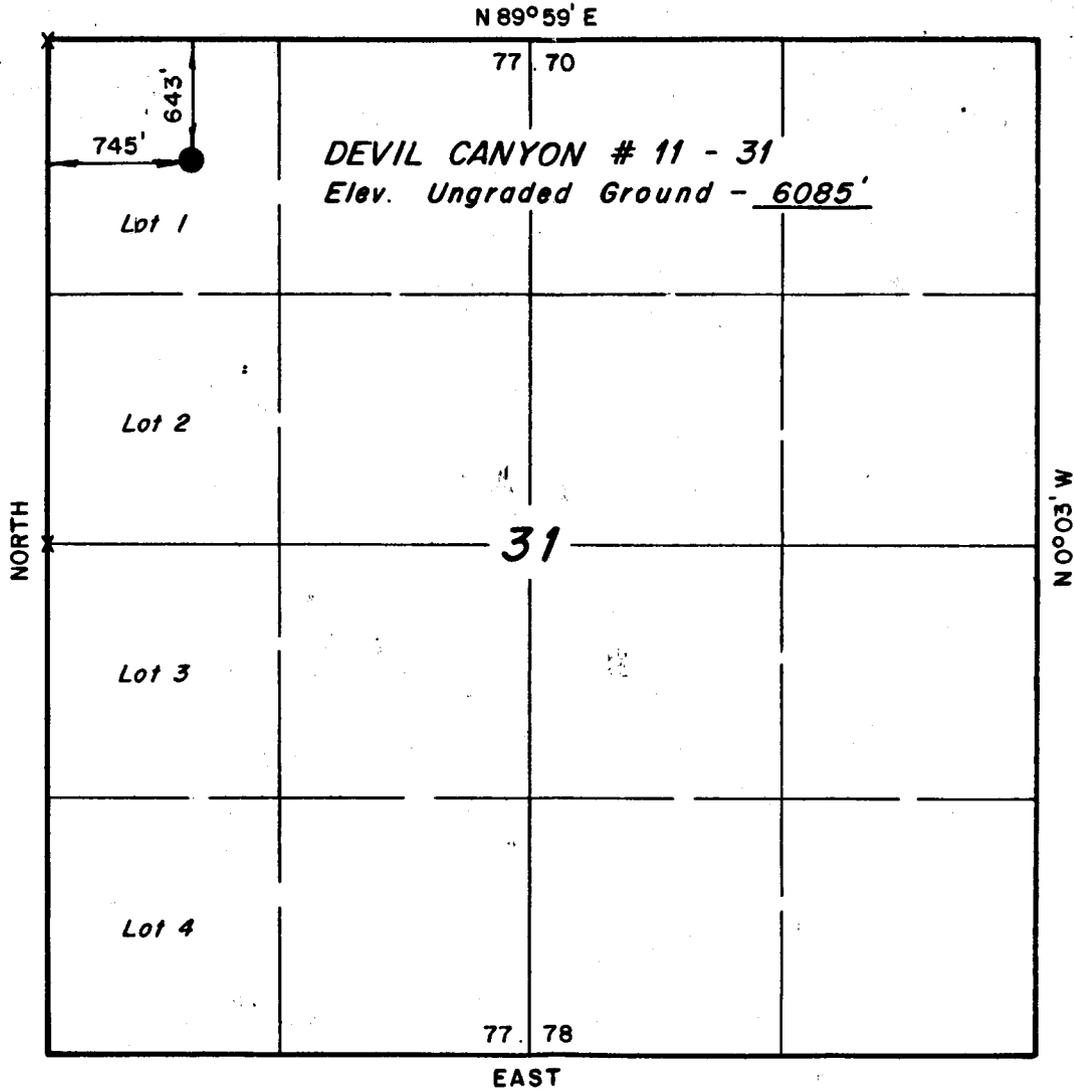
CONDITIONS OF APPROVAL ATTACHED

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

T 36 S, R 24 E, S.L.B. & M.

PROJECT  
DIAMOND SHAMROCK EXPLORATION CO.

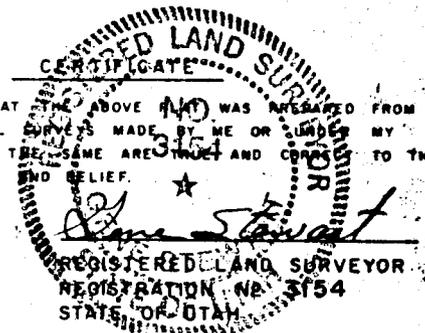
Well location, DEVIL CANYON # 11 - 31,  
located as shown in the NW 1/4 NW 1/4  
(Lot 1), Section 31, T 36 S, R 24 E,  
S.L.B. & M. San Juan County, Utah



X = Section Corners Located



THIS IS TO CERTIFY THAT THE ABOVE (LOT) WAS DERIVED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.



UTAH ENGINEERING & LAND SURVEYING P.O. BOX Q - 85 SOUTH - 200 EAST VERNAL, UTAH - 84078	
SCALE 1" = 1000'	DATE 11 / 5 / 84
PARTY G.S. D.M. BFW	REFERENCES GLO Plat
WEATHER Fair	FILE DIAMOND SHAMROCK

Diamond Shamrock Exploration Company  
Well No. Devil Canyon 11-31  
Sec. 31, T. 36 S., R. 24 E.  
San Juan County, Utah  
Lease U-51082

CONDITION OF APPROVAL

1. Due to the extremely high density of cultural resources surrounding the well location, an archaeological monitor will be required during construction of the well pad and access road.





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE  
(Other instructions on reverse side)

RECEIVED

Budget Bureau No. 1004-0135  
Expires August 31, 1985

NOV 26 1985

5. LEASE DESIGNATION AND SERIAL NO.  
U-51082

SUNDRY NOTICES AND REPORTS ON WELLS

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

DIVISION OF OIL  
GAS & MINING

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

DEVIL CANYON

9. WELL NO.

11-31

10. FIELD AND POOL, OR WILDCAT

WILDCAT

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

SEC. 31, T36S, R24E SLB&M

12. COUNTY OR PARISH

SAN JUAN

13. STATE

UTAH

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
DIAMOND SHAMROCK EXPLORATION CO.

3. ADDRESS OF OPERATOR  
P. O. DRAWER "E", VERNAL, UTAH 84078

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface

745' FWL & 643' FNL (NW/NW)

14. PERMIT NO.  
43-037-31102

15. ELEVATIONS (Show whether DF, RT, OR, etc.)  
6085' GR

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF  PULL OR ALTER CASING   
FRACTURE TREAT  MULTIPLE COMPLETE   
SHOOT OR ACIDIZE  ABANDON\*   
REPAIR WELL  CHANGE PLANS

(Other) NOTICE OF SPUD

XX

SUBSEQUENT REPORT OF:

WATER SHUT-OFF  REPAIRING WELL   
FRACTURE TREATMENT  ALTERING CASING   
SHOOTING OR ACIDIZING  ABANDONMENT\*

(Other)

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

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

DATE SPUDDED: 11-21-85  
TIME SPUDDED: 1:30 P.M.  
SPUDDED BY: L.C. JONES  
ROTARY RIG: COLEMAN DRILLING RIG #4 MI & RU 11-25-85

DRILLED 81', SET 2 JOINTS 13 3/8, 54.50# CASING. CEMENTED WITH 4 1/2 YARDS READY MIX.

REPORT OF SPUD CALLED IN TO Rich McClure W/BLM.

REPORT OF SPUD CALLED IN TO Arlene W/STATE WATER PERMIT # 09-1449, SUNCO TRK.

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

SIGNED Russ Ivie  
RUSS IVIE

TITLE DISTRICT SUPERINTENDENT

DATE 11-25-85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side

12/9/85 Drg.  
0900 hrs. f.

Diamond Shamrock  
Devil Canyon Fed. 11-31  
Sec. 31, T36, R24E, San Juan Co.

BLM approved by Greg Noble

- ① 6250 - 6350' 35 sx
- ② 2200 - 2300 50 sx (half in / half out)
- ③ Surf. plug 25 sx w/ dry hole marker

Will plug this evening.

Bill Foster  
(307) 266-1882

Verbal OK given by J. Baza

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> <u>Plugged and Abandoned</u>		5. LEASE DESIGNATION AND SERIAL NO. <u>U-51082</u>
2. NAME OF OPERATOR <u>DIAMOND SHAMROCK EXPLORATION COMPANY</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <u>----</u>
3. ADDRESS OF OPERATOR <u>P.O. Box 2530 Mills, WY 82644</u>		7. UNIT AGREEMENT NAME <u>----</u>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <u>745' FWL 643' FNL NW/NW</u>		8. FARM OR LEASE NAME <u>Devil Canyon</u>
14. PERMIT NO. <u>43-037-31102</u>		9. WELL NO. <u>11-31</u>
15. ELEVATIONS (Show whether OF, RT, OR, etc.) <u>6085' GR</u>		10. FIELD AND POOL, OR WILDCAT <u>Wildcat</u>
		11. SEC., T., R., M., OR SLE. AND SURVEY OR ABRA <u>Sec. 31, T36S, R24E SLB&amp;M</u>
		12. COUNTY OR PARISH <u>San Juan</u>
		13. STATE <u>Utah</u>

RECEIVED

DEC 16 1985

DIVISION OF OIL  
GAS & MINING

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Velocity Survey</u>	<input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

This shall serve as notification that on 12/09/85 a velocity survey was conducted by Schlumberger Well Services on the subject well.

This type of survey consists of running a geo-phone type recorder down hole while simultaneously detonating loaded shot-holes drilled adjacent to the bore hole, and the pertinent data recorded.

If you have any questions please contact Frank Miller at 307/266-1882.

18. I hereby certify that the foregoing is true and correct  
SIGNED Frank Miller TITLE Drilling Supervisor DATE 12/12/85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL  GAS WELL  OTHER  Plugged and Abandoned

2. NAME OF OPERATOR DIAMOND SHAMROCK EXPLORATION COMPANY

3. ADDRESS OF OPERATOR P.O. Box 2530 Mills, WY 82644

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface 745' FWL 643' FNL NW/NW

14. PERMIT NO. 43-037-31102

15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6085' GR

RECEIVED

DEC 16 1985

DIVISION OF OIL  
GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO. U-51082

6. IF INDIAN, ALLOTTEE OR TRIBE NAME ----

7. UNIT AGREEMENT NAME ----

8. FARM OR LEASE NAME Devil Canyon

9. WELL NO. 11-31

10. FIELD AND POOL, OR WILDCAT Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 31, T36S, R24E SLB&M

12. COUNTY OR PARISH San Juan

13. STATE Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Velocity Survey</u>	<input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	<input type="checkbox"/>	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

This shall serve as a velocity survey was conducted by Schlumberger *Pam K.*

This type of survey and is probably a type recorder down hole while simultaneously and the pertinent info. I don't think we need to request copies for our records. adjacent to the bore hole,

If you have any records. ler at 307/266-1882.

-JRB

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

SIGNED *[Signature]* TITLE Drilling Supervisor DATE 12/12/85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE  
(Other instructions  
reverse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

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

RECEIVED

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
DIAMOND SHAMROCK EXPLORATION COMPANY

3. ADDRESS OF OPERATOR  
P.O. Box 2530 Mills, WY 82644

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface  
745' FWL 643' FNL NW/NW

5. LEASE DESIGNATION AND SERIAL NO.  
U-51082

6. INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Devil Canyon

9. WELL NO.  
11-31

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 31, T36S, R24E SLB&M

12. COUNTY OR PARISH  
San Juan

13. STATE  
Utah

14. PERMIT NO.  
43-037-31102

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6085' GR

DEC 16 1985

DIVISION OF OIL  
GAS & MINING

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	

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

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

81 feet of 13-3/8", 54.5# casing cemented to surface with 4 1/2 yards Ready Mix.

8-5/8", 24#, K-55 casing set at 2226' KB in 12 1/4" hole. Cement with 695 sacks to surface.

7-7/8" hole to 6494' T.D.

FORMATION TOPS: See Attachment

PLUGGING PROCEDURE: See Attachment

Verbal approval was received from Greg Noble, BLM - Moab, Utah at 9:00 a.m. on 12/09/85.

I hereby certify that the foregoing is true and correct

SIGNED [Signature] TITLE Drilling Supervisor DATE 12/12/85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

\*See Instructions on Reverse Side

DATE: 12/17/85  
BY: [Signature]

DEVIL CANYON 11-31  
NW/NW Sec. 31, T36S, R24E  
San Juan County, Utah

RECEIVED

DEC 16 1985

DIVISION OF OIL  
GAS & MINING

FORMATION TOPS:

<u>FORMATION</u>	<u>DEPTH</u>
Chinle	2190'
Shinarump	2840'
Moenkopi	2950'
Dechelly	3108'
Cutler	3180'
Elephant Canyon	4753'
Honaker Trail	4981'
Ismay	6116'
Hovenweep	6235'
Lower Ismay	6294'
Desert Creek	6370'
Chimney Rock	6435'
Akah	6470'
Salt	6489'
Drillers T.D.	6494'
Loggers T.D.	6494'

PLUGGING PROCEDURE:

Bottom of Plugs

* 6348'	35 sacks	
* 2285'	50 sacks	Tagged @ 2226'
* 2226'	30 sacks	
90'	25 sacks	
Surface w/Marker	<u>5 sacks</u>	
	145 sacks	

\* Plugs witnessed by Mike Wade, BLM at Monticello, Utah

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

4

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

RECEIVED

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_  
b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP EN  PLUG BACK  DIFF. RESVR.  Other DEC 16 1985

2. NAME OF OPERATOR  
DIAMOND SHAMROCK EXPLORATION COMPANY

3. ADDRESS OF OPERATOR  
P.O. Box 2530 Mills, WY 82644 DIVISION OF OIL GAS & MINING

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 745' FWL 643' FNL NW/NW  
At top prod. interval reported below  
At total depth

14. PERMIT NO. 43-037-31102 DATE ISSUED 11-8-84

5. LEASE DESIGNATION AND SERIAL NO. U-51082  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME \_\_\_\_\_  
7. UNIT AGREEMENT NAME \_\_\_\_\_  
8. FARM OR LEASE NAME Devil Canyon  
9. WELL NO. 11-31  
10. FIELD AND POOL, OR WILDCAT Wildcat  
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 31, T36S, R24E SLB&M  
12. COUNTY OR PARISH San Juan 13. STATE Utah

15. DATE SPUNDED 11/21/85 16. DATE T.D. REACHED 12/09/85 17. DATE COMPL. (Ready to prod.) Plug & Abandon 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 6085' GR 19. ELEV. CASINGHEAD 6085' GR

20. TOTAL DEPTH, MD & TVD 6494' 21. PLUG, BACK T.D., MD & TVD Plug & Abandon 22. IF MULTIPLE COMPL., HOW MANY\* n/a 23. INTERVALS DRILLED BY ROTARY TOOLS 0' - 6494' CABLE TOOLS n/a

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* None - Plugged and Abandoned 25. WAS DIRECTIONAL SURVEY MADE NO

26. TYPE ELECTRIC AND OTHER LOGS RUN BIL-BHC-GR LRT-CNL-GR 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
13-3/8"	54.5#	81'	16"	4 1/2 yards Ready Mix	-0-
8-5/8"	24 #	2226'	12 1/4"	695 sacks	-0-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
n/a				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
n/a		

31. PERFORATION RECORD (Interval, size and number) Plugged and Abandoned

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
n/a	

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
<u>P &amp; A</u>	<u>n/a</u>	<u>n/a</u>

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>→</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
<u>n/a</u>	<u>n/a</u>	<u>→</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>

34. DISPOSITION OF GAS (Solid, used for fuel, vented, etc.) n/a TEST WITNESSED BY n/a

35. LIST OF ATTACHMENTS  
Geologist, Core and DST Reports to follow

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

SIGNED F. R. Miller TITLE Drilling Supervisor DATE 12/12/85

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

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			REFER TO GEOLOGIST REPORT

38. GEOLOGIC MARKERS

NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH

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DEC 16 1985

DIVISION OF OIL  
GAS & MINING



TICKET NO. 23176300

12-DEC-85

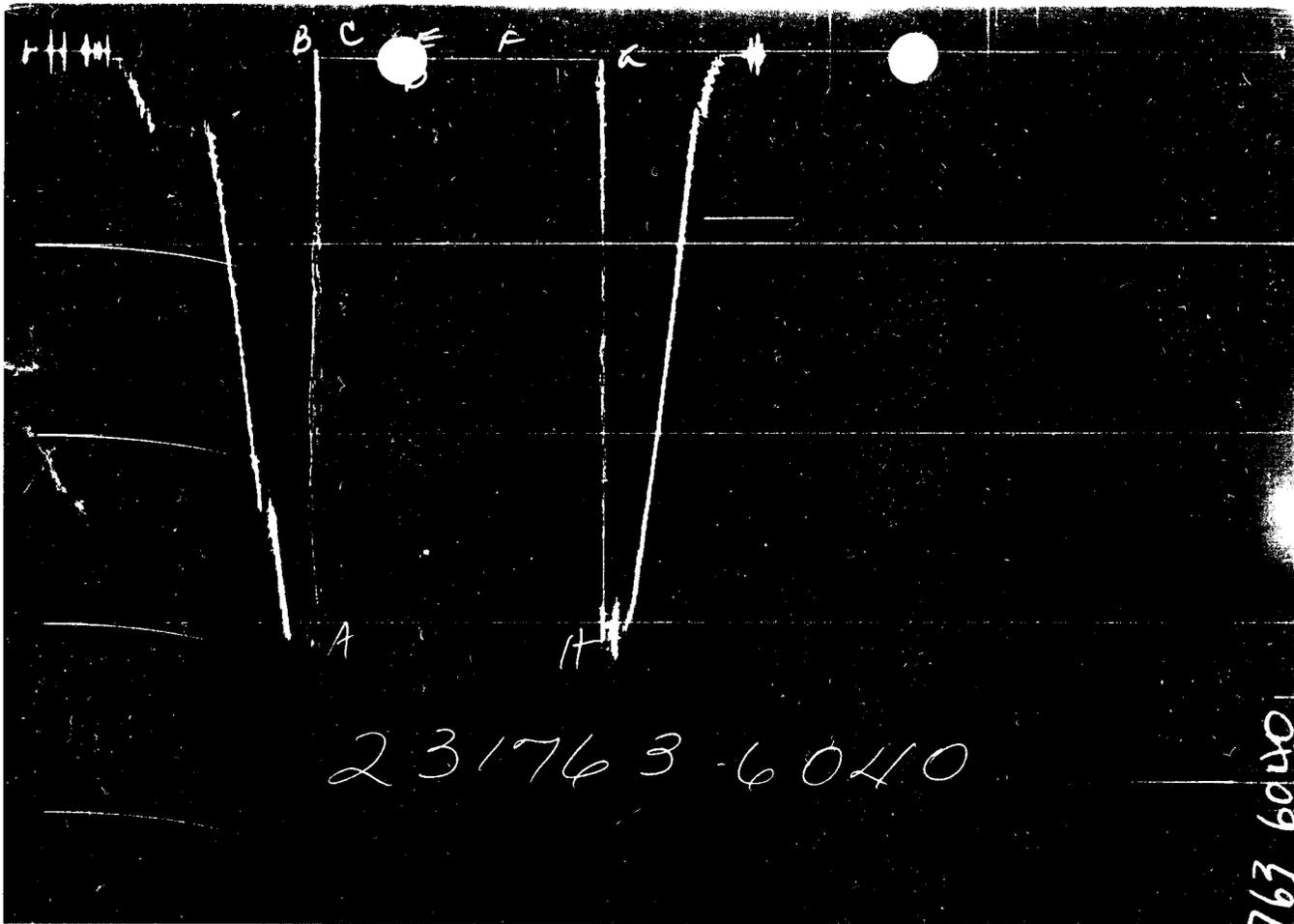
FARMINGTON

# FORMATION TESTING SERVICE REPORT

DEVIL CANYON	11-31	1	6128.0 - 6243.0	DIRMOND SHAMROCK EXPLORATION COMPANY
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
LEGAL LOCATION SEC. - TWP. - RANG.	31 36S 24E	FIELD AREA	WILDCAT	COUNTY
				SAN JUAN
				STATE
				UTAH SM

GAUGE NO: 6040 DEPTH: 6107.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3102	3094.7			
B	INITIAL FIRST FLOW	41	35.5			
C	FINAL FIRST FLOW	41	35.5	30.0	30.0	F
C	INITIAL FIRST CLOSED-IN	41	35.5			
D	FINAL FIRST CLOSED-IN	54	41.9	60.0	60.0	C
E	INITIAL SECOND FLOW	41	39.5			
F	FINAL SECOND FLOW	41	40.2	60.0	60.0	F
F	INITIAL SECOND CLOSED-IN	41	40.2			
G	FINAL SECOND CLOSED-IN	54	43.8	180.0	180.0	C
H	FINAL HYDROSTATIC	3102	3091.6			



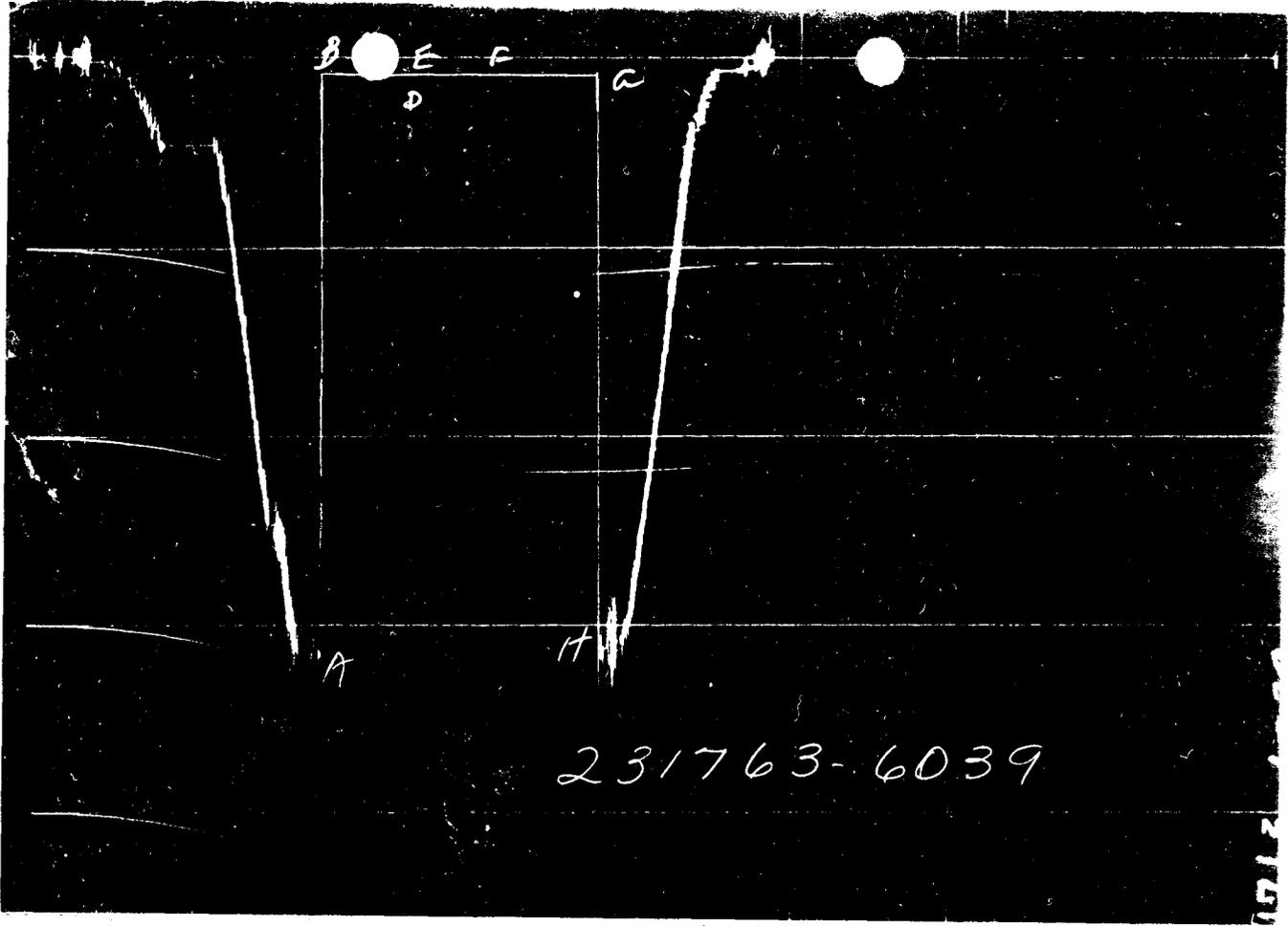
231763-60410

763 60410

Faint, illegible text at the bottom of the page, possibly a header or footer.

GAUGE NO: 6039 DEPTH: 6240.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	3125	3146.9			
B	INITIAL FIRST FLOW	81	87.2			
C	FINAL FIRST FLOW	81	88.6	30.0	30.0	F
C	INITIAL FIRST CLOSED-IN	81	88.6			
D	FINAL FIRST CLOSED-IN	94	92.7	60.0	60.0	C
E	INITIAL SECOND FLOW	81	90.4			
F	FINAL SECOND FLOW	81	90.6	60.0	60.0	F
F	INITIAL SECOND CLOSED-IN	81	90.6			
G	FINAL SECOND CLOSED-IN	94	94.2	180.0	180.0	C
H	FINAL HYDROSTATIC	3125	3138.0			



231763-6039

231763-6039

### EQUIPMENT & HOLE DATA

FORMATION TESTED: UPPER ISMAY

NET PAY (ft): 16.0

GROSS TESTED FOOTAGE: 115.0

ALL DEPTHS MEASURED FROM: KELLY BUSHING

CASING PERFS. (ft): \_\_\_\_\_

HOLE OR CASING SIZE (in): 7.875

ELEVATION (ft): 6099.0

TOTAL DEPTH (ft): 6243.0

PACKER DEPTH(S) (ft): 6122, 6128

FINAL SURFACE CHOKE (in): 0.75000

BOTTOM HOLE CHOKE (in): \_\_\_\_\_

MUD WEIGHT (lb/gal): 9.60

MUD VISCOSITY (sec): 42

ESTIMATED HOLE TEMP. (°F): \_\_\_\_\_

ACTUAL HOLE TEMP. (°F): 134 @ 6239.0 ft

TICKET NUMBER: 23176300

DATE: 12-7-85 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: FARMINGTON

TESTER: D. AULD

WITNESS: MR. WILLIAMS

DRILLING CONTRACTOR: COLEMAN #4

### FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
<u>PIT</u>	<u>1.130 @ 56 °F</u>	<u>_____ ppm</u>
<u>BOTTOM</u>	<u>1.330 @ 60 °F</u>	<u>_____ ppm</u>
<u>SAMPLER</u>	<u>1.360 @ 58 °F</u>	<u>_____ ppm</u>
_____	<u>_____ @ _____ °F</u>	<u>_____ ppm</u>
_____	<u>_____ @ _____ °F</u>	<u>_____ ppm</u>
_____	<u>_____ @ _____ °F</u>	<u>_____ ppm</u>

### SAMPLER DATA

Pstg AT SURFACE: 4.5

cu.ft. OF GAS: \_\_\_\_\_

cc OF OIL: \_\_\_\_\_

cc OF WATER: \_\_\_\_\_

cc OF MUD: 2765.0

TOTAL LIQUID cc: 2765.0

### HYDROCARBON PROPERTIES

OIL GRAVITY (°API): \_\_\_\_\_ @ \_\_\_\_\_ °F

GAS/OIL RATIO (cu.ft. per bbl): \_\_\_\_\_

GAS GRAVITY: \_\_\_\_\_

### CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED: 52 FEET OF MUD

MEASURED FROM  
TESTER VALVE

REMARKS:



		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	5293.0	
4		FLEX WEIGHT.....	4.500	3.640	180.0	
3		DRILL COLLARS.....	6.500	2.500	531.0	
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0	6005.0
3		DRILL COLLARS.....	6.500	2.500	88.0	
5		CROSSOVER.....	6.000	3.000	1.0	
13		DUAL CIP SAMPLER.....	5.000	0.870	7.0	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	6105.0
80		AP RUNNING CASE.....	5.000	2.250	4.0	6107.0
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	6122.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	6128.0
5		CROSSOVER.....	6.000	3.000	1.0	
3		DRILL COLLARS.....	6.500	2.500	87.0	
5		CROSSOVER.....	6.000	3.000	1.0	
20		FLUSH JOINT ANCHOR.....	5.750	2.500	20.0	
81		BLANKED-OFF RUNNING CASE.....	5.750		4.0	6240.0

TOTAL DEPTH

6243.0

EQUIPMENT DATA

CORE LABORATORIES, INC.  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

RECEIVED

JAN 06 1986

DIVISION OF OIL  
GAS & MINING

CORE ANALYSIS REPORT  
  
FOR  
  
DIAMOND SHAMROCK EXPL. COMPANY  
  
DEVIL CANYON FED. # 11-31  
WILDCAT  
SAN JUAN, UTAH

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*

DALLAS, TEXAS

DIAMOND SHAMROCK EXPL. COMPANY  
 DEVIL CANYON FED. # 11-31  
 WILDCAT  
 SAN JUAN, UTAH

DATE : 10-DEC-1985  
 FORMATION : PARADOX  
 DRLG. FLUID: WBM  
 LOCATION : NW, NW SEC. 31-T36S-R24E

FILE NO : 38030-003426  
 ANALYSTS : DS;EV  
 ELEVATION: 6097 KB

FULL DIAMETER ANALYSIS-BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID SATS. OIL	WTR	GRAIN DEN	DESCRIPTION
UPPER ISMAY ZONE CORE # 1 6126-6186								
	6126.0-28.0							ANHYDRITE -- NO ANALYSIS
	6128.0-30.0							LM SHY -- NO ANALYSIS
	6130.0-36.0							SHALE -- NO ANALYSIS
	6136.0-38.0							ANHYDRITE -- NO ANALYSIS
	6138.0-40.0							SHALE -- NO ANALYSIS
1	6140.0-41.0	0.02	0.02	1.7	0.0	64.8	2.71	LM GRY VFXLN
2	6141.0-42.0	0.02	0.01	1.7	0.0	48.1	2.72	LM GRY VFXLN
3	6142.0-43.0	0.01	0.01	2.2	0.0	55.3	2.72	LM GRY VFXLN
4	6143.0-44.0	0.02	<0.01	2.3	0.0	47.7	2.73	LM GRY VFXLN
5	6144.0-45.0	0.20	0.01	3.4	13.4	40.1	2.78	DOL LTBRN VFXLN SL/CALC **
6	6145.0-46.0	0.02	0.02	3.7	23.3	27.9	2.78	DOL LTBRN VFXLN SL/CALC
	6146.0-86.0							CORE LOSS

\*\* DENOTES FRACTURE PERMEABILITY

CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

PAGE 1

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: DIAMOND SHAMROCK EXPL. COMPANY  
FIELD : WILDCAT

WELL : DEVIL CANYON FED. # 11-31  
COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD. ( HORIZONTAL ) RANGE USED 0.000 TO 100.  
POROSITY : PERCENT ( HELIUM ) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 6140.0 - 6146.0 INTERVAL LENGTH : 6.0  
FEET ANALYZED IN ZONE : 6.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
2.5	0.05	0.02	0.03

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*

DALLAS, TEXAS

DIAMOND SHAMROCK EXPL. COMPANY  
DEVIL CANYON FED. # 11-31

DATE : 10-DEC-1985  
FORMATION : PARADOX

FILE NO. : 38030-003426  
ANALYSTS : DS;EV

\*\*\* CORE SUMMARY AVERAGES FOR 1 ZONE \*\*\*

DEPTH INTERVAL: 6140.0 TO 6146.0

FEET OF CORE ANALYZED : 6.0 FEET OF CORE INCLUDED IN AVERAGES: 6.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

PERMEABILITY MAXIMUM RANGE (MD.) : 0.00 TO 100. (UNCORRECTED FOR SLIPPAGE)  
HELIUM POROSITY RANGE (%) : 0.0 TO 100.0  
OIL SATURATION RANGE (%) : 0.0 TO 100.0  
WATER SATURATION RANGE (%) : 0.0 TO 100.0

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 6140.0 TO 6146.0

AVERAGE PERMEABILITY (MILLIDARCIES)

ARITHMETIC PERMEABILITY : 0.05  
GEOMETRIC PERMEABILITY : 0.03  
HARMONIC PERMEABILITY : 0.02  
GEOMETRIC MAXIMUM & 90 DEG PERM. : 0.01

PRODUCTIVE CAPACITY (MILLIDARCY-FEET)

ARITHMETIC CAPACITY : 0.29  
GEOMETRIC CAPACITY : 0.16  
HARMONIC CAPACITY : 0.12  
GEOMETRIC MAXIMUM & 90 DEG CAPACITY: 0.09

AVERAGE POROSITY (PERCENT) : 2.5

AVERAGE TOTAL WATER SATURATION : 44.2  
(PERCENT OF PORE SPACE)

AVERAGE RESIDUAL OIL SATURATION : 8.8  
(PERCENT OF PORE SPACE)

AVERAGE CONNATE WATER SATURATION \*\* : 42.9  
(PERCENT OF PORE SPACE)

\*\* ESTIMATED FROM TOTAL  
WATER SAUTRATION.

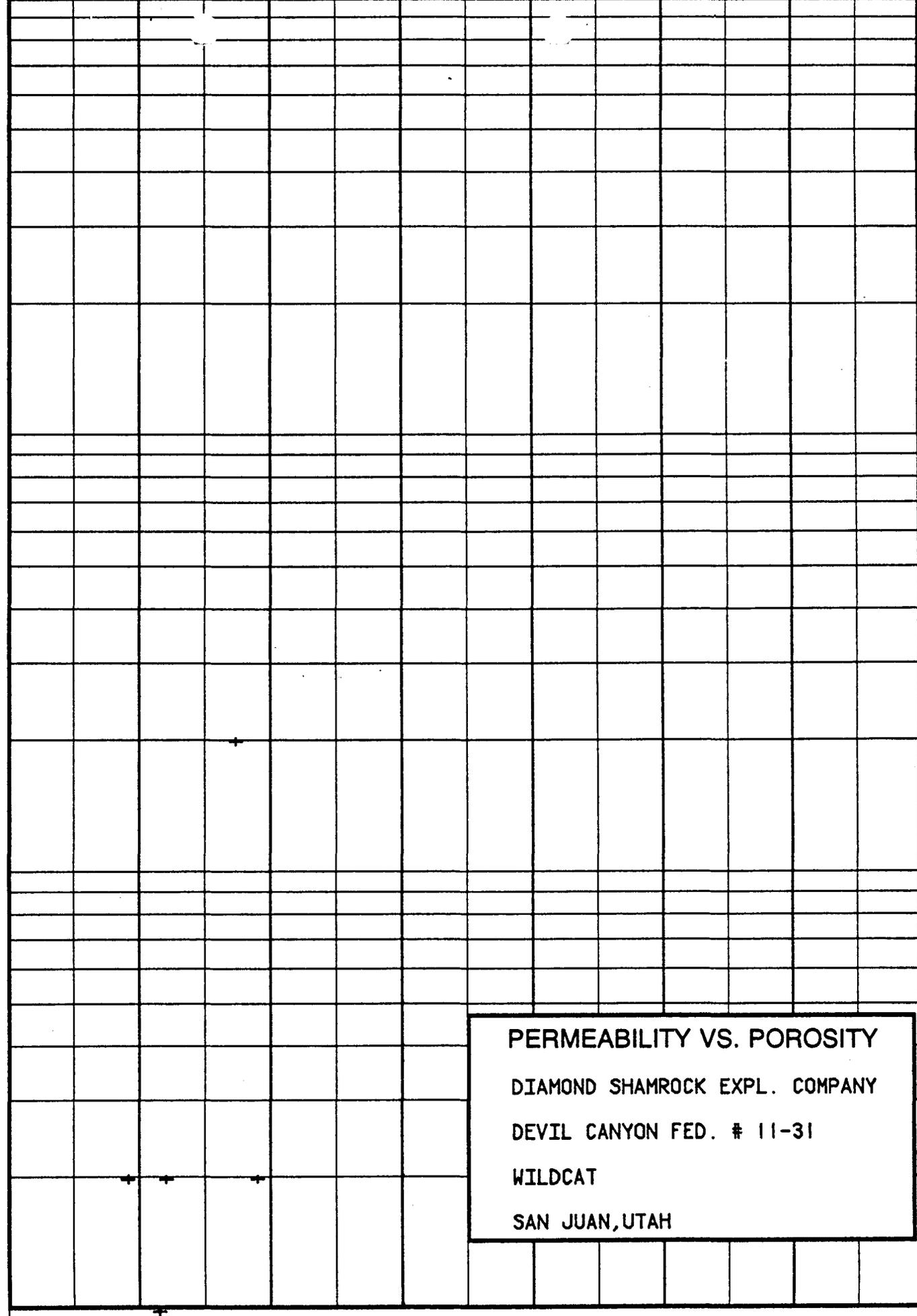


10

PERMEABILITY: MILLIDARCIES

0.1

0.01



0.0 2.0 4.0 6.0 8.0 10.0 12.0

POROSITY: PERCENT

PERMEABILITY VS. POROSITY  
 DIAMOND SHAMROCK EXPL. COMPANY  
 DEVIL CANYON FED. # 11-31  
 WILDCAT  
 SAN JUAN, UTAH

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: DIAMOND SHAMROCK EXPL. COMPANY      WELL                   : DEVIL CANYON FED. # 11-31  
 FIELD   : WILDCAT                                    COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD.           ( HORIZONTAL ) RANGE USED 0.000 TO 100.  
 POROSITY           : PERCENT   ( HELIUM        ) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS                   : 6140.0 - 6146.0      INTERVAL LENGTH : 6.0  
 FEET ANALYZED IN ZONE       : 6.0                   LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
2.5	0.05	0.02	0.03

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: DIAMOND SHAMROCK EXPL. COMPANY  
 FIELD : WILDCAT

WELL : DEVIL CANYON FED. # 11-31  
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY POROSITY RANGES

POROSITY RANGE	FEET IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
-----	-----	-----	-----	-----	-----	-----
0.0 - 2.0	2.0	1.7	0.020	0.020	33.3	33.3
2.0 - 4.0	4.0	2.9	0.030	0.062	66.7	100.0

TOTAL NUMBER OF FEET = 6.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: DIAMOND SHAMROCK EXPL. COMPANY  
 FIELD : WILDCAT

WELL : DEVIL CANYON FED. # 11-31  
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	FEET IN RANGE	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.010 - 0.020	1.0	0.010	0.010	2.2	16.7	16.7
0.020 - 0.039	4.0	0.020	0.020	2.3	66.7	83.3
0.156 - 0.312	1.0	0.200	0.200	3.4	16.7	100.0

TOTAL NUMBER OF FEET = 6.0

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
 DALLAS, TEXAS

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: DIAMOND SHAMROCK EXPL. COMPANY  
 FIELD : WILDCAT

WELL : DEVIL CANYON FED. # 11-31  
 COUNTY, STATE: SAN JUAN, UTAH

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
0.0	0.0	0.0	6.0	100.0	2.5	2.5
2.0	2.0	22.7	4.0	77.3	2.9	
4.0	6.0	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 15.0

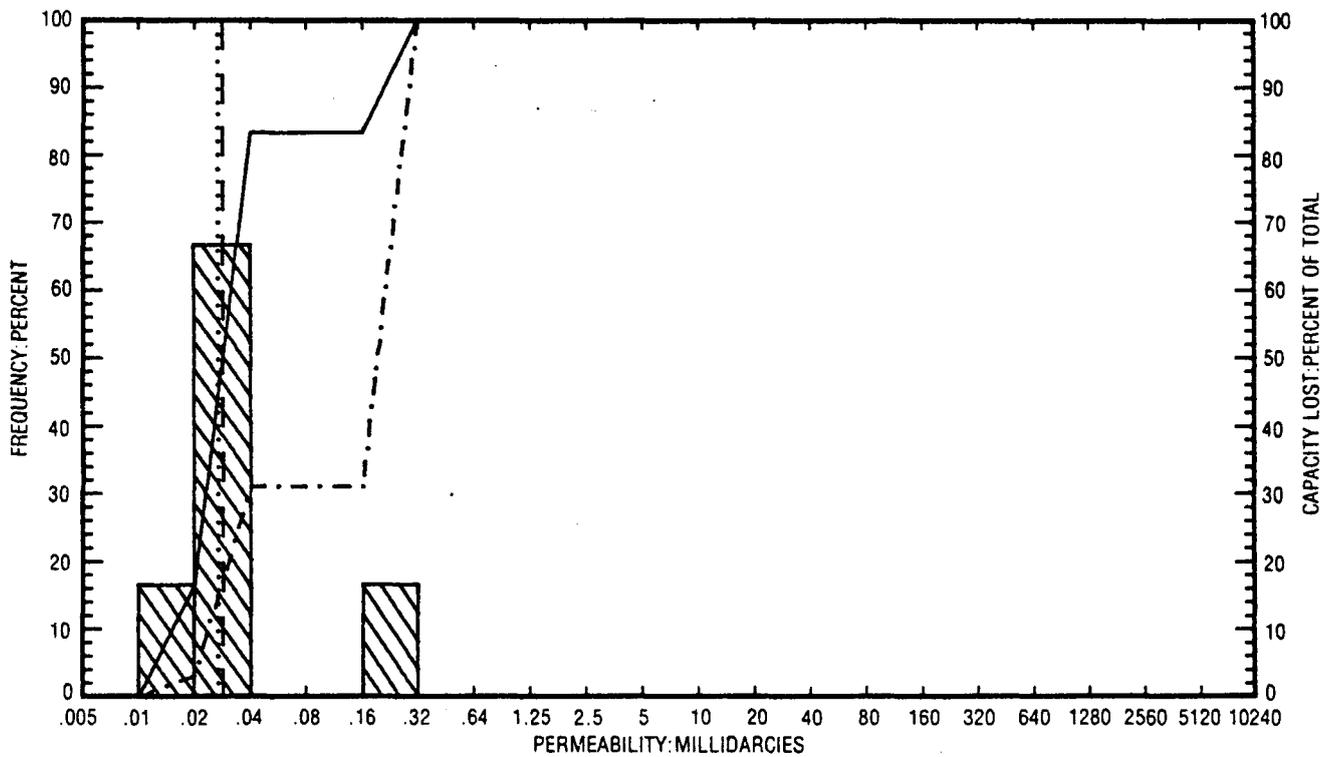
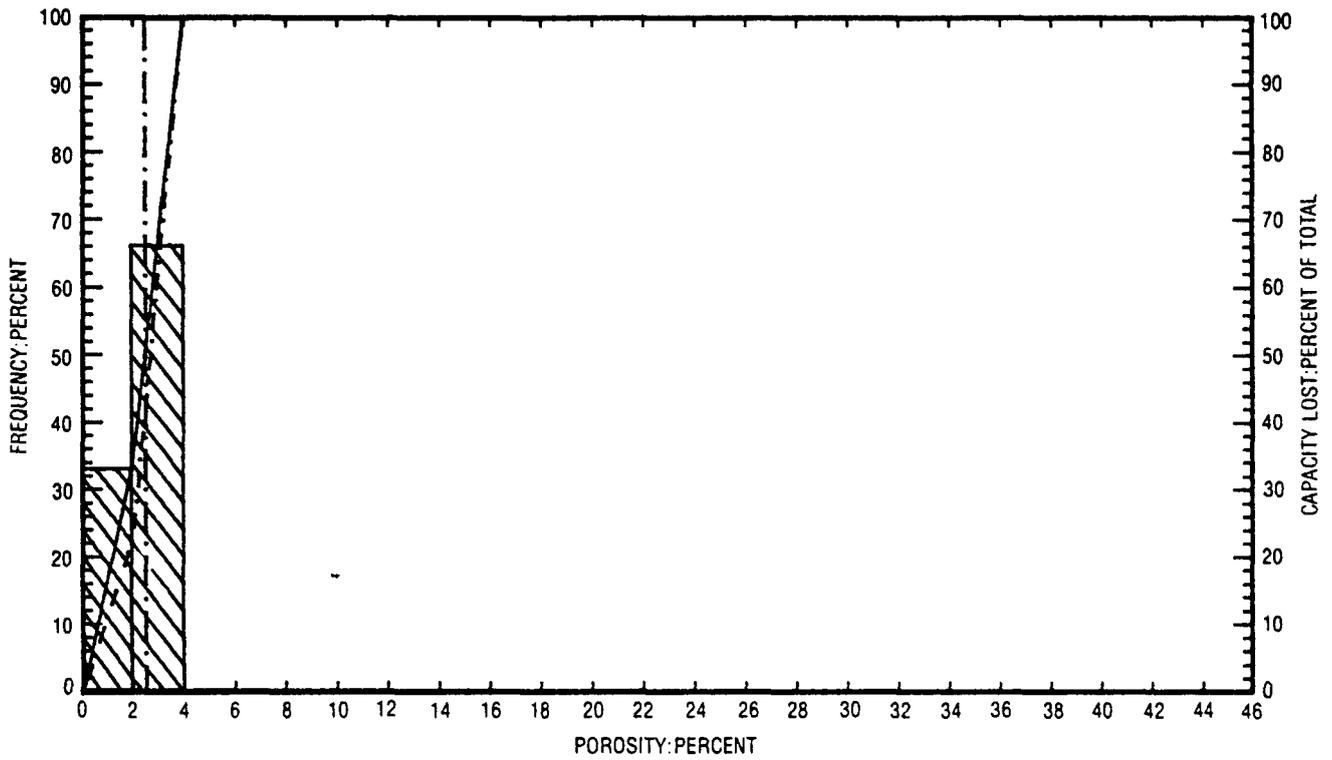
STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: DIAMOND SHAMROCK EXPL. COMPANY      WELL                   : DEVIL CANYON FED. # 11-31  
 FIELD   : WILDCAT                                    COUNTY, STATE: SAN JUAN, UTAH

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	GEO M MEAN	MEDIAN
0.005	0.0	0.0	6.0	100.0	0.03	0.03
0.010	0.0	0.0	6.0	100.0	0.03	0.03
0.020	1.0	3.4	5.0	96.6	0.03	
0.039	5.0	31.0	1.0	69.0	0.20	0.22
0.078	5.0	31.0	1.0	69.0	0.20	
0.156	5.0	31.0	1.0	69.0	0.20	
0.	6.0	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 0.29



### PERMEABILITY AND POROSITY HISTOGRAMS

DIAMOND SHAMROCK EXPL. COMPANY  
 DEVIL CANYON FED. # 11-31  
 WILDCAT  
 SAN JUAN, UTAH

#### LEGEND

- ARITHMETIC MEAN POROSITY      .....
- GEOMETRIC MEAN PERMEABILITY      .....
- MEDIAN VALUE      \_\_\_\_\_
- CUMULATIVE FREQUENCY      \_\_\_\_\_
- CUMULATIVE CAPACITY LOST      - . - . - .



**CORE LABORATORIES, INC.**

*Petroleum Reservoir Engineering*

COMPANY DIAMOND SHAMROCK EXPL. COMPANY FILE NO. 38030-003426  
 WELL DEVIL CANYON FED. # 11-31 DATE 10-DEC-1985 ENGRS. DS;EV  
 FIELD WILDCAT FORMATION PARADOX ELEV. 6097 KB  
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES \_\_\_\_\_

**CoRes Log**  
**CORE and RESISTIVITY EVALUATION**

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted) but Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proven operation or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

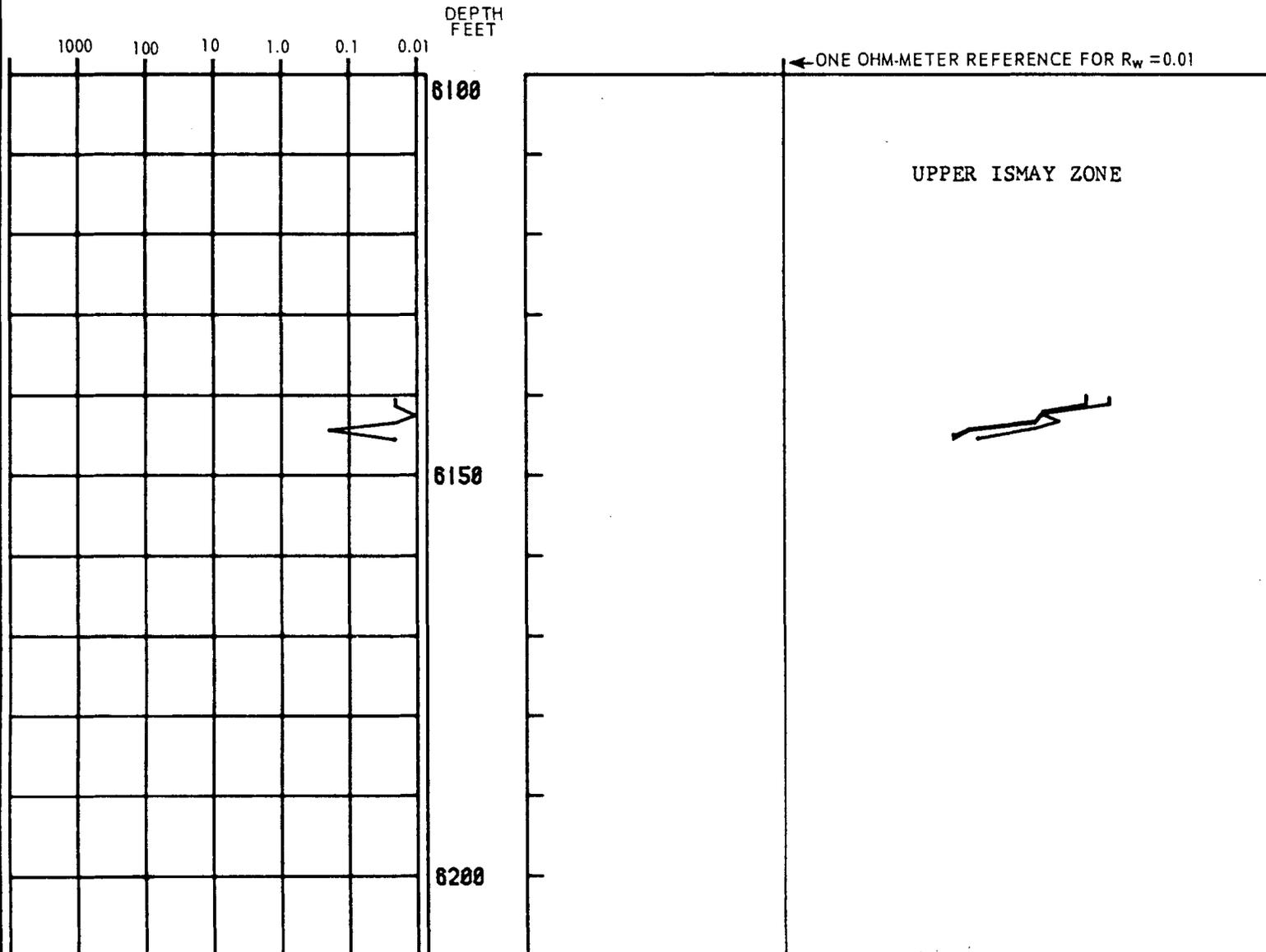
RESISTIVITY PARAMETERS: a = 1.0 m = 2.0 n = 2.0 . Depths 6140.0 to 6146.0 .  
 a = \_\_\_\_\_ m = \_\_\_\_\_ n = \_\_\_\_\_ . Depths \_\_\_\_\_ to \_\_\_\_\_ .

PERMEABILITY  
MILLIDARCIES

CORE ANALYSIS CALCULATED RESISTIVITY

R<sub>0</sub> = OHM-METERS AT 100% S<sub>w</sub> \_\_\_\_\_

R<sub>mp</sub> = OHM-METERS AT CRITICAL S<sub>w</sub> \_\_\_\_\_





**CORE LABORATORIES, INC.**

*Petroleum Reservoir Engineering*

COMPANY DIAMOND SHAMROCK EXPL. COMPANY FILE NO. 38030-003426  
 WELL DEVIL CANYON FED. # 11-31 DATE 10-DEC-1985  
 FIELD WILDCAT FORMATION PARADOX ELEV. 8097 KB  
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WBM CORES \_\_\_\_\_  
 LOCATION NW,NW SEC. 31-T36S-R24E

# CORRELATION COREGRAPH

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc., (all errors or omissions excepted); but Core Laboratories, Inc., and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

VERTICAL SCALE: 5" = 100'

**Total Water** \_\_\_\_\_  
 PERCENT PORE SPACE  
 100 80 60 40 20 0

**Oil Saturation** \_\_\_\_\_  
 PERCENT PORE SPACE

**Gamma Ray**

RADIATION INCREASE →

**Permeability  $\times 0.1$**

MILLIDARCIES

**Porosity** \_\_\_\_\_

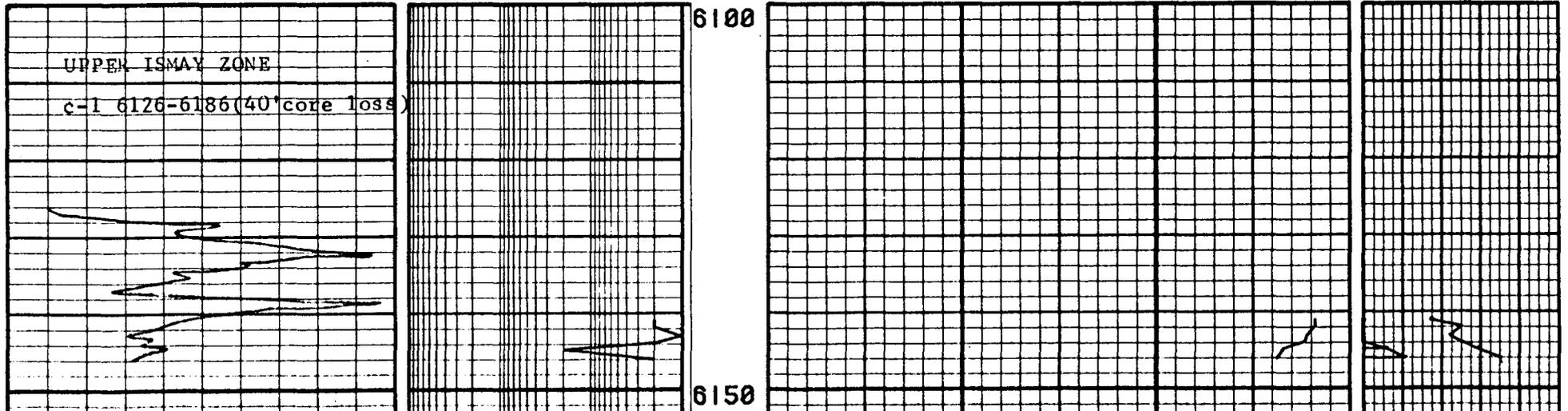
PERCENT

PARADOX FORMATION

100 10 1.0 .1 Depth Feet 30

20 10

0 0 20 40 60 80 100



**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

Form 3160-6  
(November 1983)  
(Formerly 9-329)

**MONTHLY REPORT  
OF  
OPERATIONS**

Lease No. U-51082  
 Communitization Agreement No. \_\_\_\_\_  
 Field Name Wildcat  
 Unit Name \_\_\_\_\_  
 Participating Area \_\_\_\_\_  
 County San Juan State Utah  
 Operator Diamond Shamrock Exploration Company  
 Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of December, 19 85

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396d), regulation (43 CFR 3162.4-3), and the terms of the lease. Failure to report can result in the assessment of liquidated damages, (43 CFR 3160), penalties, shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (43 CFR 3160).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
11-31	31 NW/NW	36S	24E	DRLG.					Devil Canyon 11-31
					12-1 thru 12-5	Drill to 6,132'.			
					12-6	Core #1. 6,132' to 6,186'.			
					12-7	Drill to 6,243'.			
					12-8	DST #1. Drill to 6,388'.			
					12-9	Drill to 6,494'. Log.			
					12-10	Log. WOO. Plug and abandon.			
					12-11	Plug and abandon. Rig released.			
						<u>FINAL REPORT</u>			

**RECEIVED**  
**JAN 21 1986**  
 DIVISION OF OIL  
 GAS & MINING

\*If none, so state.

**DISPOSITION OF PRODUCTION (Lease, Participating Area, or Communitized Area basis)**

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	_____	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Produced	_____	_____	_____
*Sold	_____	_____	XXXXXXXXXXXXXXXXXXXX
*Spilled or Lost	_____	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXXXX	_____	XXXXXXXXXXXXXXXXXXXX
*Used on Lease	_____	_____	XXXXXXXXXXXXXXXXXXXX
*Injected	_____	_____	_____
*Surface Pits	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	_____
*Other (Identify)	_____	_____	_____
*On hand, End of Month	_____	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*API Gravity/BTU Content	_____	_____	XXXXXXXXXXXXXXXXXXXX

Authorized Signature:  Address: P.O. Box 2530, Mills, Wyoming 82644  
 Title: Asst. Dist. Drlg. Supt. Page 1 of 1

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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  
DIAMOND SHAMROCK EXPLORATION COMPANY

3. ADDRESS OF OPERATOR  
P. O. BOX 1669, VERNAL, UTAH 84078

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 745' FWL & 643' FNL, NW/NW  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

5. LEASE  
U-51082

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
DEVIL CANYON

9. WELL NO.  
11-31

10. FIELD OR WILDCAT NAME  
WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SEC. 31, T36S, R24E

12. COUNTY OR PARISH | 13. STATE  
SAN JUAN | UTAH

14. API NO.  
43-037-31102

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
6085' 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 checked="" type="checkbox"/>
(other)		

(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.)\*

DIAMOND SHAMROCK EXPLORATION COMPANY respectfully informs the BLM that the abandoned location has been recontoured and reseeded as per BLM specifications during the month of December, 1986.



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 Russ Ivie TITLE PRODUCTION SUPERINTENDENT DATE Feb. 15, 1987  
Russ Ivie

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY: