

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  
 Walter D. Broadhead

3. ADDRESS OF OPERATOR  
 1645 N. 7th St., Grand Junction, Colorado 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface 900 feet from North Line and West 2140 feet from east line of Section 21, T20S, R24E, S1BLM.  
 At proposed prod. zone

5. LEASE DENIGATION AND SERIAL NO.  
 U-32179

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
 Abby Corporation

9. WELL NO.  
 Fed Harris No.1

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA  
 Sec.21 T20S, R24E, NW $\frac{1}{4}$ , NE $\frac{1}{4}$

12. COUNTY OR PARISH  
 Grand

13. STATE  
 Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Six miles North East of Cisco, Utah.

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 900 ft.

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  $\frac{1}{2}$  mile

19. PROPOSED DEPTH  
 1,000 feet

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DP, RT, GR, etc.)  
 4591

22. APPROX. DATE WORK WILL START\*  
 Nov. 1, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8 3/4"	7" new	17 lb.	100'	25 SX Circulated
6 1/4"	4 1/2" new	9.5 lb.	1000'	40 SX

Propose to test Salt Wash Member of Morrison Formation  
 Surface Use Plan Attached: Note: Water Sands are not anticipated  
 Surface FMN - Mancos Shale  
 Estimated Tops:  
 Dakota: 350 - Gas  
 Buckhorn: 650 - Oil and/or Gas  
 Salt Wash: 870 - Oil and/or Gas  
 Pressure Control: Schematic attached showing BOP, Kill Lines, check valves & Pressure Ratings, Seven Point Plan attached.  
 Logging: IES & FCS-CNL, No Coring Planned  
 Hazards: Experience does not indicate that abnormal pressures or Hydrogen Sulfide will be encountered.  
 Starting Date: Nov. 1, 1980, 30 days operating time.

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 Walter D. Broadhead TITLE Operator DATE Sept. 15, 1980

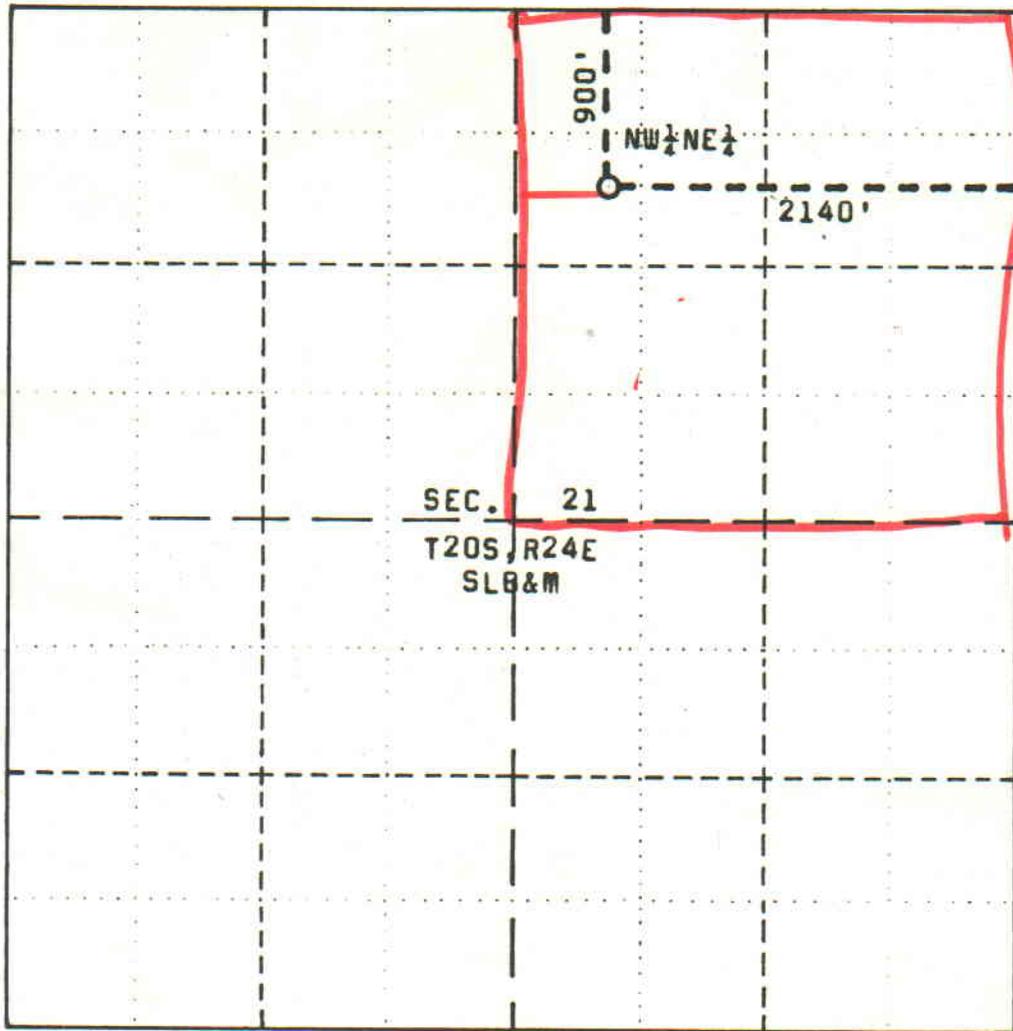
(This space for Federal or State office use)

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

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE 10/15/80

CONDITIONS OF APPROVAL, IF ANY:

*W.D. Broadhead*



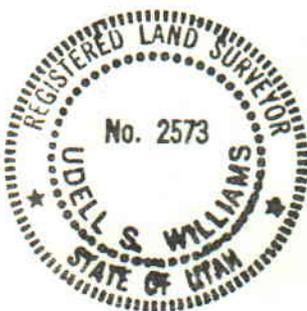
SCALE: 1" = 1000'

FEDERAL HARRIS #21-1

Located South 900 feet from the North boundary and West 2140 feet from the East boundary of Section 21, T20S, R24E, SLB&M.

Elev. 4591

Grand County, Utah



SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED 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

*Udell S. Williams*  
UTAH R.L.S. NO. 2573



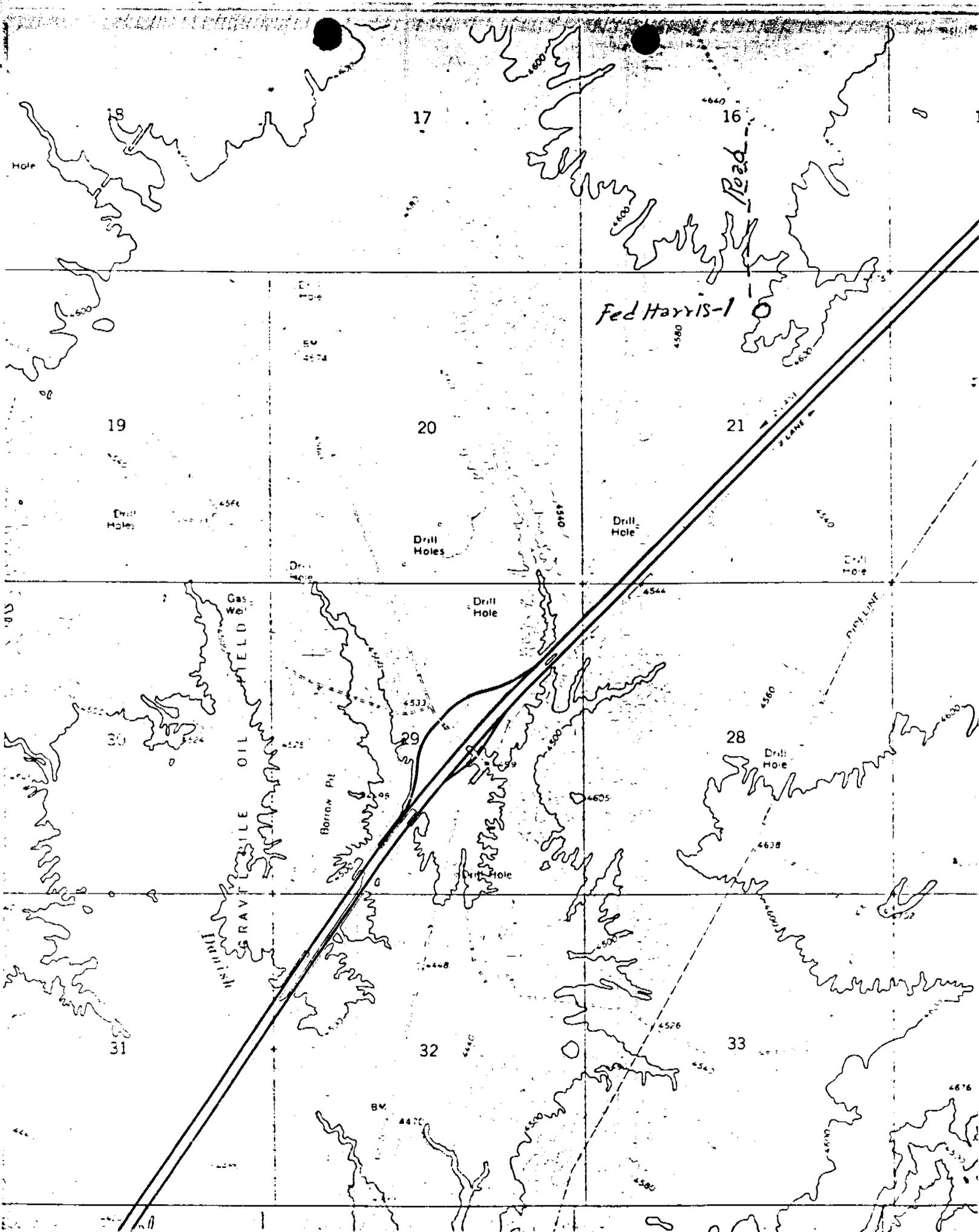
**UDELL S. WILLIAMS**

751 Rood Avenue  
GRAND JUNCTION, COLORADO 81501

PLAT OF  
PROPOSED LOCATION

FEDERAL HARRIS #21-1  
NW 1/4 NE 1/4 SECTION 21  
T20S, R24E, SLB&M

SURVEYED BY: USW DATE: 7/24/80  
DRAWN BY: DSW DATE: 8/28/80



Danish Flat, Utah

\*\* FILE NOTATIONS \*\*

DATE: Oct 10, 1980

OPERATOR: Walter D. Broadhead

WELL NO: Fuel Harris #1

Location: Sec. 21 T. 20S R. 24E County: Grand

File Prepared:

Entered on N.I.D:

Card Indexed:

Completion Sheet:

API Number 43-019-30719

CHECKED BY:

Petroleum Engineer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Director: OK as per order issued in case 102-14B  
Old 9/24/79

Administrative Aide: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. 102-14B 9/24/79

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.

October 17, 1980

Walter D. Broadhead  
1645 N. 7th St.  
Grand Junction, Colorado 81501

Re: Well No. Bederal Harris #1  
Sec. 21, T. 20S, R. 24E  
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to ~~o/gg~~ well is hereby granted in accordance with the Order issued in Cause No. 102-16B dated September 26, 1979.

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 43-019-30719.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

*Cleon B. Feight /ka*  
Cleon B. Feight  
Director

/ka  
cc: USGS

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

U-32179

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.

Federal Harris #1

10. FIELD AND POOL, OR WILDCAT

Greater Cisco Area

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

S21, T20S, R24E

12. COUNTY OR PARISH 13. STATE

Grand

Utah

1.  OIL WELL  GAS WELL  OTHER *Dry Hole*

2. NAME OF OPERATOR  
Walter D. Broadhead

3. ADDRESS OF OPERATOR  
1645 N. 7th St. Grand Jct., Colo....81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
900 Ft RNL & 2140 FEL of Sec. 21  
T20S. R24E S1M & B

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
4591

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 checked="" type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(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.)\*

Formation	top	shows
Mancus	surface	no
Dakota	660	<i>Plugs ?</i>
Cedar Mt.	825	
Saltwash		
I have submitted log in person		

*6/30/82*  
*[Signature]*

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

SIGNED *Walter D. Broadhead* TITLE Operator DATE Nov 1980

(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**

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-32179

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.

Federal Harris No. 1

10. FIELD AND POOL, OR WILDCAT

Greater Cisco Area

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

S21, T20 R24E SLM

12. COUNTY OR PARISH 13. STATE

Grand Utah

1. OIL WELL  GAS WELL  , OTHER Dry

2. NAME OF OPERATOR  
Walter D. Broadhead

3. ADDRESS OF OPERATOR  
1645 No. 7th. St. Grand Jct., Colo....81501

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

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
4591

16. 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.)\*

Verbal permission requested and approval granted

7' casing 100' cement to surface (ten pound mud in hole)

from 200' to surface 40SX

from 700 to 500 27 SX

10 SX regulation marker on surface

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

SIGNED Walter D. Broadhead TITLE Operator DATE Nov. 1980

(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  
 2000 Administration Building  
 1745 West 1700 South  
 Salt Lake City, Utah 84104

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator/Project Name Walter Broadhead Federal Harris No. 1  
 Project Type Development Oil/Gas Test  
 Project Location 900' FNL, 2140' FEL, Section 21, T20S, R24E, Grand Co., UT  
 Date Project Submitted September 22, 1980

**RECEIVED**

FIELD INSPECTION Date November 24, 1980

JAN 7 1981

Field Inspection  
 Participants

Walter Broadhead	Operator
Elmer Duncan, Mical Walker	Bureau of Land Management
Glenn Doyle	U. S. Geological Survey
Craig Ivie	Northwest Pipeline

DIVISION OF  
 OIL, GAS & MINING

Typing In: 12/30  
 Out: 12/31

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.

December 15, 1980  
 Date Prepared

*Glenn M. Doyle*  
 Environmental Scientist

I concur

1/5/81  
 Date

*E. W. [Signature]*  
 District Supervisor  
 Rec 1/5/81

CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency			Local and private corre- spondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Corre- spondence (date)	Phone check (date)	Meeting (date)						
1. Public health and safety					1, 2			11/24/80	
2. Unique characteristics					1, 2				
3. Environmentally controversial					1, 2				
4. Uncertain and unknown risks						4			
5. Establishes precedents					1, 2				
6. Cumulatively significant					1, 2				
7. National Register historic places	1- 12/23/80						6		
8. Endangered/threatened species	1- 12/23/80								
9. Violate Federal, State, local, tribal law						4			3

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JAN 7 1981

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COMMON REFERENCE LIST

NEPA Categorical Exclusion Review

1. SMA Input
2. Reviews, reports, or information received from Geological Survey (CD, GD, WRD, TD).
3. Lease Stipulations/Terms
4. Application to Drill
5. Operator correspondence
6. Field observation
7. Private Rehabilitation Agreement

RECEIVED

JAN 7 1981

DIVISION OF  
OIL, GAS & MINING



# United States Department of the Interior

IN REPLY REFER TO

3100  
(U-603)

BUREAU OF LAND MANAGEMENT

Moab District  
Grand Resource Area  
P. O. Box M  
Moab, Utah 84532

## Memorandum

To: Oil & Gas Office, USGS Conservation Division  
P. O. Box 3768  
Grand Junction, Co. 81502

From: Acting Area Manager, Grand

Subject: Walter D. Broadhead  
Fed. Harris #1, Lease #U-32179  
NW/NE Section 21, T. 20 S., R. 24 E., SLB&M  
Grand County, Utah

On November 24, 1980 a representative from this office met with Glenn Doyle, USGS, and Walter Broadhead agent of Walter Broadhead for an inspection of the above referenced location. Subject to the attached conditions and written approval from USGS, I am approving the surface management portion of the Application for Permit to Drill.

The archaeological requirement has been fulfilled on this location. No threatened or endangered flora or fauna are indicated in the area.

Please forward the enclosed information to Walter Broadhead.

*M. Scott Parker*

Enclosures: (3)  
1-Reclamation Procedures  
2-Seed Mixture  
3-Suggested Colors - Production Facilities

230

As agreed upon at the pre-drill field examination-

Access -

1) Approximately 250 feet of new road construction is needed from the south section line of Section 16 to the well location in NW/NE Section 21, T. 20 S., R. 24 E., SLB&M.

Any soils and vegetation removed from the road will be wind-rowed along the east side.

2) If production is obtained, the access road will be up-graded to BLM specifications for long-term roads as outlined in the surface use standards section of the "Oil and Gas" pamphlet (joint BLM, USGS, USFS publication).

3) If production is obtained, all production facilities will be painted. (see enclosed suggested colors to paint Production Facilities).

4) The "blooey" line will be centered and directed into the pit.

5) Rehabilitation of the well site and access road will be in accordance to enclosed restoration procedures and "Oil & Gas" pamphlet.

6) Notify the BLM District Archaeologist if cultural materials from subsurface deposits is exposed during the operation.

The archaeological requirement has been fulfilled on this location. No threatened or endangered flora or fauna are identified on this location.

Please forward the enclosed information to Walter D. Broadhead.

## RECLAMATION PROCEDURES IN GRAND RESOURCE AREA

1. Disk or rip pads and access roads.
  - a. Overlap passes in order to insure complete treatment.
2. Contour pads and access roads.
  - a. Lay berms into centers.
  - b. Use cut material for fill areas.
  - c. Lay stockpiled surface soil over top of pads and spread evenly.
  - d. On highly erosive soils, it may be more beneficial to grade slopes to reduce steepness.
  - e. Do not smooth pads out, leave a roughened surface. On steeper slopes and slopes with clayey soils, scarify or serrate the ground in order to increase water infiltration and reduce erosion.
3. Water bar roads where required by the BLM.

* 2%	Grade	-	200 ft. intervals
2-4%	Grade	-	100 ft. intervals
4-5%	Grade	-	75 ft. intervals
5%	Grade	-	50 ft. intervals

\* Actual spacing may vary according to soil stability. Lighter textured soils will require more frequent water bars. When natural drainage ways are present, water bars will be constructed to make maximum use of them. Plan operations so that natural drainage ways do not become blocked.
4. Seed roads and pads in the fall (October through mid-December).

JAN 7 1981

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OIL, GAS & MINING

SEED MIXTURE

Species		lbs/acre
<u>Grasses</u>		
Oryzopsis hymenoides	Indian Rice Grass	1
Hilaria jamesii	Curley Grass	1
<u>Forbs</u>		
Sphaeralcea coccinia	Globemallow	1
<u>Shrubs</u>		
Atriplex confertifolia	Shadscale	1
Atriplex corrugata	Matt Salt Bush	1
Ceretoides lanata	Winterfat	1
	Total	<u>6</u>



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

### SUGGESTED COLORS TO PAINT OIL & GAS PRODUCTION FACILITIES

#### Cisco Desert and Flats below the Bookcliffs:

- Dynasty Green (Sears)
- Tumbleweed (Pratt & Lambert)
- Desert Tan -----
- Sage Gray (Pratt & Lambert)

#### Bookcliffs Region:

- Sage Gray (Pratt & Lambert)
- Sea Life (Pratt & Lambert)
- Dynasty Green (Sears)

Similar hues other than the ones mentioned above must be approved by the Grand Resource Area Manager.

**RECEIVED**

JAN 7 1981

DIVISION OF  
OIL, GAS & MINING

*Glenn*

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

LEASE NO. U-32179

OPERATOR: WALTER D. BROADHEAD WELL NO. FED. HARRIS # 1

LOCATION: C 1/2 NW 1/2 NE 1/2 sec. 21, T. 20S, R. 24E,  
GRAND County, UTAH

1. Stratigraphy: OPERATOR'S TOPS SEEM REASONABLE.  
                   MANCOS SHALE - SURFACE  
                   DAKOTA - 350'  
                   BUCKHORN - 650'  
                   SALT WASH - 870'  
                   T.D.                   1,000'
2. Fresh Water: POSSIBLE IN MANCOS SHALE AND DAKOTA - 0-650'
3. Leasable Minerals: Coal possible in Dakota - probably thin, discontinuous beds. Potential geothermal area (Cisco Dome)
4. Additional Logs Needed: NONE. RUN LOGS THROUGH POTENTIAL COAL ZONE (DAKOTA FORMATION)
5. Potential Geologic Hazards: NONE.
6. References and Remarks: \_\_\_\_\_

Signature: *Larry R. ...*

Date: 10 - 30 - 80

05 NOV 1980

Memorandum

To: Glenn  
District Oil and Gas Engineer, Mr. Edward Guyne

From: Mining, Supervisor, Mr. Jackson W. Moffitt

Subject: Application for Permit to Drill (form 9-331c) Federal oil and gas lease No. U-32179 Well No. Fed. Name No. 1

1. The location appears potentially valuable for:
  - strip mining\*
  - underground mining\*\*
  - has no known potential.
  
2. The proposed area is
  - under a Federal lease for \_\_\_\_\_ under the jurisdiction of this office.
  - not under a Federal lease under the jurisdiction of this office.
  
3.  Please request the operator to furnish resistivity, density, Gamma-Ray, or other appropriate electric logs covering all formations containing potentially valuable minerals subject to the Mineral Leasing Act of 1920.

\*If location has strip mining potential:

Surface casing should be set to at least 50 feet below the lowest strip minable zone at \_\_\_\_\_ and cemented to surface. Upon abandonment, a 300-foot cement plug should be set immediately below the base of the minable zone.

\*\*If location has underground mining potential:

The minable zones should be isolated with cement from a point 100 feet below the formation to 100 feet above the formation. Water-bearing horizons should be cemented in \_\_\_\_\_ Except for salines or water-bearing horizons \_\_\_\_\_ for mixing aquifers, a depth of 4,000 feet has been deemed the lowest limit for cementing.

RECEIVED

JAN 7 1931

Signed Allen J. [Signature] DIVISION OF OIL & GAS & MINING

05 NOV RECD

# DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: SALT LAKE CITY, UTAH  
SERIAL No.: U-32179

and hereby designates

NAME: WALTER D. BROADHEAD  
ADDRESS: 1645 NORTH 7TH, GRAND JUNCTION CO 81501

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

T20 SOUTH, RANGE 24 EAST, SLM, UTAH  
SECTION 21: NE $\frac{1}{4}$

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

ABBY CORPORATION



(Signature of lessee)

SCOTT A. HARRIS, VICE-PRESIDENT

JULY 30, 1980  
(Date)

P. O. BOX 1629, GRAND JUNCTION CO 81502  
(Address)

WALTER BROADHEAD  
1645 North 7th Street  
Grand Junction, Colorado 81501

Re: Well No. Fed Harris No-21-1  
Sec. 21 T20S. R24 E. SLB&M  
Grand County, Utah  
Lease: U-32179

1. Surface Casing: Set at 100'  
Size 7"  
Weight 17 lb.  
Length Range 2  
Grade J-55 new. Tested to 3000 psig.
2. Casing Heads:  
Series 600 - 1500 psi working pressure.
3. Production Casing:  
Size 4-1/2"  
Weight 9.5 lb.  
Length Range 3  
Grade J-50 new. Tested to 3000 psig.
4. Pressure Control:  
BOP Regan Torus BOP  
Series 600 - Tested to 3000 psig.  
Rams One size fits all - even blind.  
Will use fill, kill and choke lines.
5. Auxiliary Pressure Control:
  - a. Kelly cocks.
  - b. Check valve at bit.
  - c. Monitoring equipment on mud system.
  - d. A sub on floor with a full opening valve to be stabbed into drill pipe when Kelly is out of string.
6. Anticipated Bottom Hole Pressure:  
550 psig.
7. The Type of Drilling Fluid:  
Air until gas encountered.  
Mud up with Gel and Barite as weighting agent - 10.5 to 11.00 lb.  
per gal. as required.

WALTER BROADHEAD  
1645 North 7th Street  
Grand Junction, Colorado 81501

Re: Well No. Fed Harris No 21-1  
Sec. Sec 21 T20 S. R24E  
Grand County, Utah  
Lease: U-32179

SURFACE USE PLAN

Geographical: 5 miles Northeast of Cisco, Utah.

Terrain: Low, rolling hills of Mancos shale.

Vegetation: Very sparse.

Surface Water: None. This is dry, desolate, desert country.

1. Existing Roads: Existing roads are 15-18 feet wide, with native ground as surface material. This is primarily Mancos shale with a little Cretaceous gravel in some places.

The included map shows all access roads and roads within a several mile radius of the location.

There are no immediate plans for improvement of existing roads. If commercial production is found and road improvement is needed, it will be considered at the appropriate time.

2. Planned Access Roads: The map indicates all necessary access roads be constructed which will be to the same physical characteristics as existing roads -- 15-18 feet wide with native Mancos shale as surface with maximum grades not to exceed 3-4%. There will be no culverts required and no major cuts and fills required for access to the well applied for. No fence cuts or cattle guards will be required.

A turnout off the County Road will be required for the 250' of road across Federal Land to the referenced location. No drainage design is needed as land is flat.

3. Location of Existing Wells: As you can see from the map, existing wells have been located upon the map. The status of the wells is generally indicated on the map by the manner in which the well is marked. There are no water wells or disposal wells.

The well applied for in this application has been referenced in two directions with reference stakes set at 100 and 150 feet in two directions giving a total reference of 300 feet for the well.

## Surface Use Plan (cont'd)

### 4. Location of Existing and/or Proposed Facilities:

- a. There are no tank batteries off of well locations within a one mile radius of the proposed location. Gas gathering lines are indicated on the attached map. All lines in the area are surface lines.
- b. If production is found, storage facilities will be located on the location. If gas is discovered in commercial quantities, necessary pipelines will be applied for at that time.

Complete protective measures such as fences will be used to protect livestock and wildlife in the area.

- c. Rehabilitation of all disturbed areas no longer needed after construction is completed will be returned to smooth contour and all debris will be cleaned up. All pits will be covered and cleaned up after drill operations. Those pits required for production will be fenced.
5. Water will be acquired either from Colorado River or Cisco Springs and will be transported by truck. Existing roads will be used.

No water well will be drilled on the lease.

6. Source of Construction Materials: No construction materials such as sand, gravel, stone and soil will be used other than that found in the native location.

In the event that tanks and production equipment are required, gravel will be hauled from Grand Junction, Colorado or Moab, Utah to set tanks on. This gravel will be purchased from private enterprise.

### 7. Methods for handling Waste Disposal:

- a. Cuttings - The hole will be mud drilled and cuttings will be contained in pit. These cuttings will be integrated into the pit when covered.
- b. Drilling Fluids - Will be contained in pits. A dirt pit will be dug to contain excess flow out of the well during cementing and completion operations. Of course, these pits will be cleaned up and covered up.
- c. Produced Fluids such as Oil and Water - will be properly disposed of with oil being stored in tanks and water being diverted to the pit and disposed of as required.
- d. Sewage - A portable chemical toilet will be provided on location during drilling operations.

- e. Garbage and Other Waste Material - Will be contained in 30 gallon galvanized garbage cans and hauled off the location.
  - f. As stated before, the entire well site area will be properly cleaned up and restored to smooth contour when the rig moves out. Only that part of the location required for production operations will be kept in use. In the event of a dry hole, the only appurtenance left at the location will be the required dry hole marker.
- 8. Ancillary Facilities: There will be no camps or air strips required for this drilling operation.
  - 9. Well Site Layout: A plat on a scale of 1" = 40' is included with the application showing location and orientation of the drilling rig, mud tanks, reserve pit, pipe racks and other appurtenances to the operation. For the time being pits will be unlined as allowed by present law. The only water introduced into these pits will be fresh water used in the drilling operation.
  - 10. Plans for Restoration of Surface: As stated before, the entire location will be restored to smooth contour. Plan to broadcast Crested Wheat Grass at 4 lbs. per acre and harrow in seed. Crested Wheat will provide nurse crop for establishment of native grasses and shrubs.

It is intended to have all locations cleaned up within 30 days after operations are concluded.

- 11. Other Information:
  - a. The topography of these locations near Harley Dome, Utah is a very gentle rolling, flat characteristic. The soil is raw Mancos shale with extremely sparse vegetation. A few coyotes, prairie dogs and cottontail rabbits occupy the entire area.
  - b. The only other surface use activities other than petroleum exploration in the area is in spring grazing of the sparse vegetation by cattle and sheep.
- 12. Operator's Representative:

Walter D. Broadhead  
1645 North 7th Street  
Grand Junction, Colorado 81501  
303-242-7717

13. 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 Walter D. Broadhead in conformity with this plan and the terms and conditions under which it is approved.

Sept 15, 1980

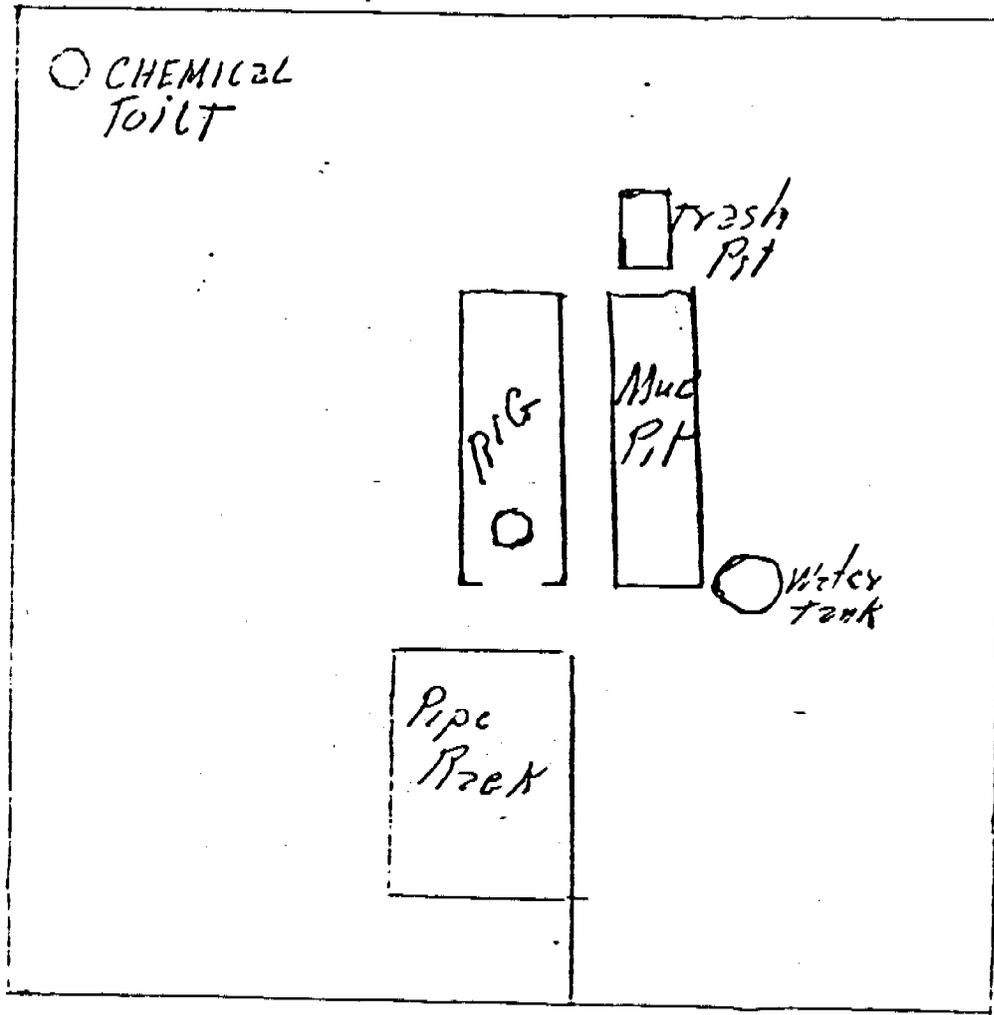
Date

Walter D Broadhead

Walter D. Broadhead

# Rig 124 out Plan

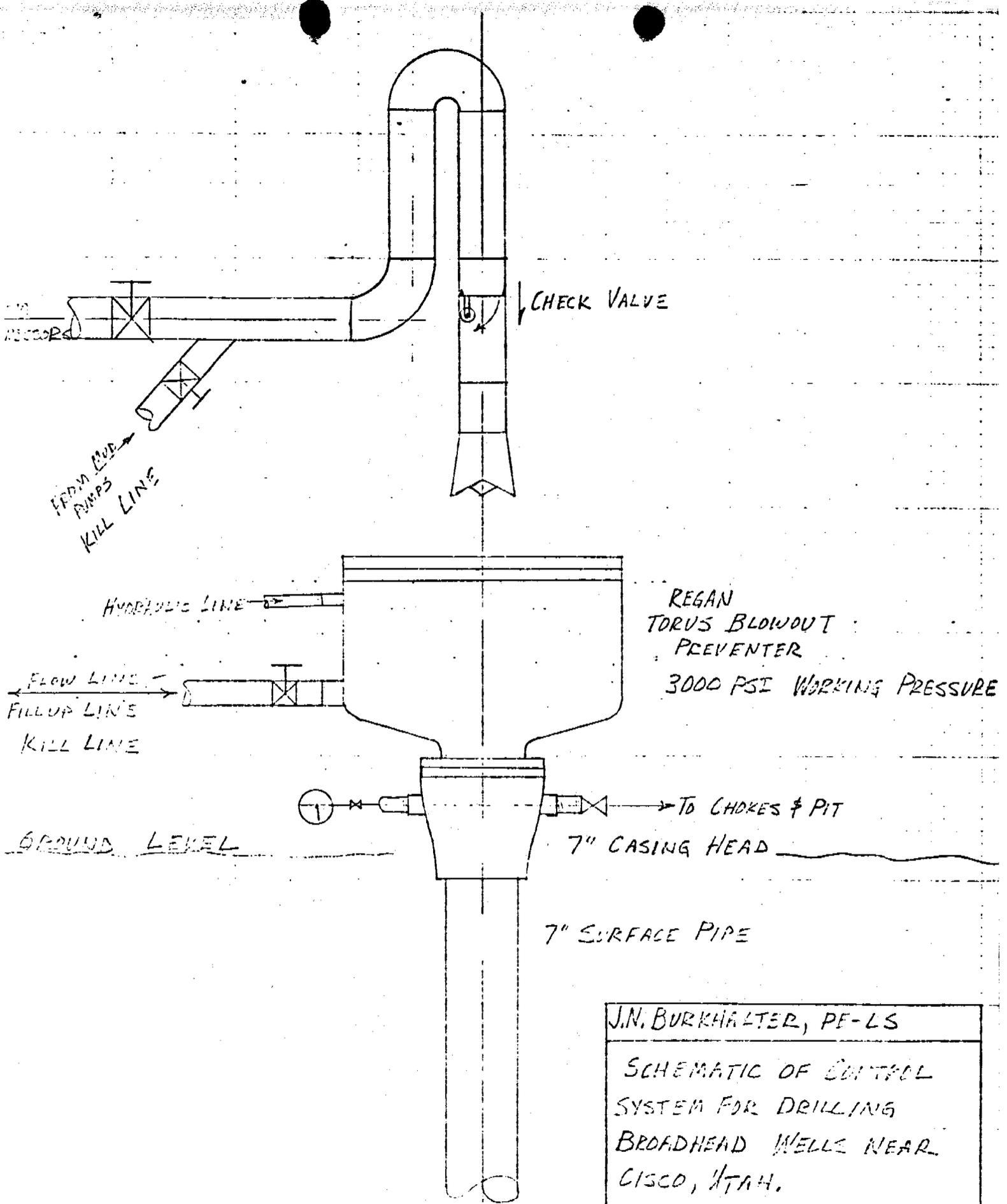
NO CUTS OR FILLS



NW NE

Sec 21 T26S R24E

Grand County Utah



J.N. BURKHALTER, PE-LS  
 SCHEMATIC OF CONTROL  
 SYSTEM FOR DRILLING  
 BROADHEAD WELLS NEAR  
 CISCO, UTAH.

April 8, 1981

Walter D. Broadhead  
1645 N. 7th Street  
Grand Junction, Colorado 81501

Re: SEE ATTACHED SHEET

Gentlemen:

In reference to above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If you plan on drilling these locations at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING



SUNDRY BATES  
CLERK-TYPIST

1. Well No. Federal Harris #1  
Sec. 21, T. 20S. R. 24E.  
Grand County, Utah
  
2. Well No. Lansdale Federal #4  
Sec. 29, T. 20S. R. 24E.  
Grand County, Utah
  
3. Well No. Lansdale Federal #31-1  
Sec. 31, T. 18S. R. 25E.  
Grand County, Utah
  
4. Well No. Lansdale State #32-2  
Sec. 32, T. 18S. R. 25E.  
Grand County, Utah
  
5. Well No. Lansdale Federal #34-1  
Sec. 34, T. 18S. R. 25E.  
Grand County, Utah

December 22, 1981

*called  
4-9-82  
in 2 min  
suve d*

Walter Broadhead  
1645 N. 7th Street  
Grand Junction, Colorado 81501

Re: See Attached

Gentlemen:

In reference to the above mentioned wells, ~~typ~~ considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill these wells, and action will be taken to terminate the application. If you plan to drill this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

*Cari Furse*

Cari Furse  
Clerk Typist

Well No. Federal Harris #1  
Sec. 21, T. 20S, R. 24E  
Grand County, Utah

Well No. Lansdale Federal #4  
Sec. 29, T. 20S, R. 24E.  
Grand County, Utah

Well No. Lansdale State #32-2  
Sec. 32, T. 18S, R. 25E  
Grand County, Utah

Well No. Lansdale Federal #31-1  
Sec. 31, T. 18S, R. 25E  
Grand County, Utah

SECOND NOTICE ON ALL ABOVE.

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

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R3556.

2

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG\***

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
**Walter D. Broadhead**

3. ADDRESS OF OPERATOR  
**1645 No. 7th. St. Grand Jct., Colo... 81501**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface **900' FNL & 2140' FEL of S21 T20S R24E SLM & B**  
At top prod. interval reported below  
At total depth

5. LEASE DESIGNATION AND SERIAL NO.  
6. IF INDIAN, ALLOTTED OR TRIBE NAME  
**U-32179**  
7. UNIT AGREEMENT NAME  
8. FARM OR LEASE NAME  
9. WELL NO.  
**Federal Harris #1**  
10. FIELD AND POOL, OR WILDCAT  
**Greater Cisco Area**  
11. SEC. T. R., M., OR BLOCK AND SURVEY OR AREA  
**S21 T20S R24E  
NE $\frac{1}{4}$  NW $\frac{1}{4}$  NE $\frac{1}{4}$**   
12. COUNTY OR PARISH  
**Grand**  
13. STATE  
**Utah**

14. PERMIT NO. \_\_\_\_\_ DATE ISSUED \_\_\_\_\_

15. DATE SPUNDED **Feb. 1, 1981** 16. DATE T.D. REACHED **4/24/81** 17. DATE COMPL. (Ready to prod.) \_\_\_\_\_ 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* **4591** 19. ELEV. CASINGHEAD \_\_\_\_\_

20. TOTAL DEPTH, MD & TVD \_\_\_\_\_ 21. PLUG, BACK T.D., MD & TVD \_\_\_\_\_ 22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_ 23. INTERVALS DRILLED BY **rotary** ROTARY TOOLS \_\_\_\_\_ CABLE TOOLS \_\_\_\_\_

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* \_\_\_\_\_ 25. WAS DIRECTIONAL SURVEY MADE  
**no**

26. TYPE ELECTRIC AND OTHER LOGS RUN  
**Dual induction** 27. WAS WELL CORED  
**no**

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7"	17Lb	100'	8 3/4	circulated	none

29. LINER RECORD      30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.\* PRODUCTION

DATE FIRST PRODUCTION \_\_\_\_\_ PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) \_\_\_\_\_ WELL STATUS (Producing or shut-in) **P/A**

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS. \_\_\_\_\_ CASING PRESSURE \_\_\_\_\_ CALCULATED 24-HOUR RATE \_\_\_\_\_ OIL—BBL. \_\_\_\_\_ GAS—MCF. \_\_\_\_\_ WATER—BBL. \_\_\_\_\_ OIL GRAVITY-API (CORR.) \_\_\_\_\_

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) \_\_\_\_\_ TEST WITNESSED BY \_\_\_\_\_

35. LIST OF ATTACHMENTS \_\_\_\_\_

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

SIGNED Walter D. Broadhead TITLE Operator DATE 5/28/82

\*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.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

**37. SUMMARY OF POROUS ZONES:**

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Mancos	surface		
Dakota	660		
Cedar Mtn.	825		

**38. GEOLOGIC MARKERS**

NAME	MEAS. DEPTH	TRUE VERT. DEPTH
Dakota	660	