

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      phone # 303-242-7717

3. ADDRESS OF OPERATOR  
 1645 North 7th St., Grand Jct., Co. 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface: North 1409' FSL & West 1581' FEL of Sec. 5, T20S R24E SLB&M  
 At proposed prod. zone

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

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)      1409'

16. NO. OF ACRES IN LEASE      480

17. NO. OF ACRES ASSIGNED TO THIS WELL      10A Oil & 40A Gas

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.      1320'

19. PROPOSED DEPTH      1900'

20. ROTARY OR CABLE TOOLS      Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 4601

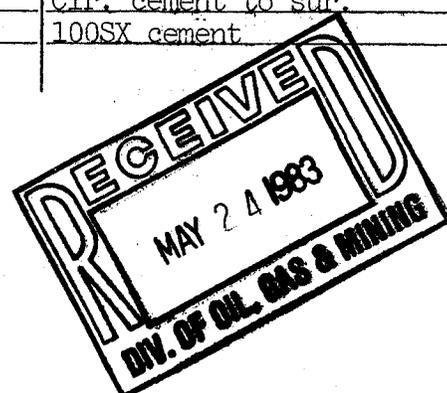
22. APPROX. DATE WORK WILL START\*

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8 5/8	7"	17lb.	100'	Cir. cement to sur.
6 3/4	4 1/2	9 1/2 lb.	TD	100SX cement

EXHIBITS ATTACHED:

- A location and elevation plat
- B Ten-point compliance program
- C Blowout preventor diagram
- D Multi-point requirements for APD
- E Route and distance road map
- F Access road and radius map of wells in area
- G Drill pad layout
- H Drill rig layout
- I Production facility layout



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

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on new 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 5/17/83

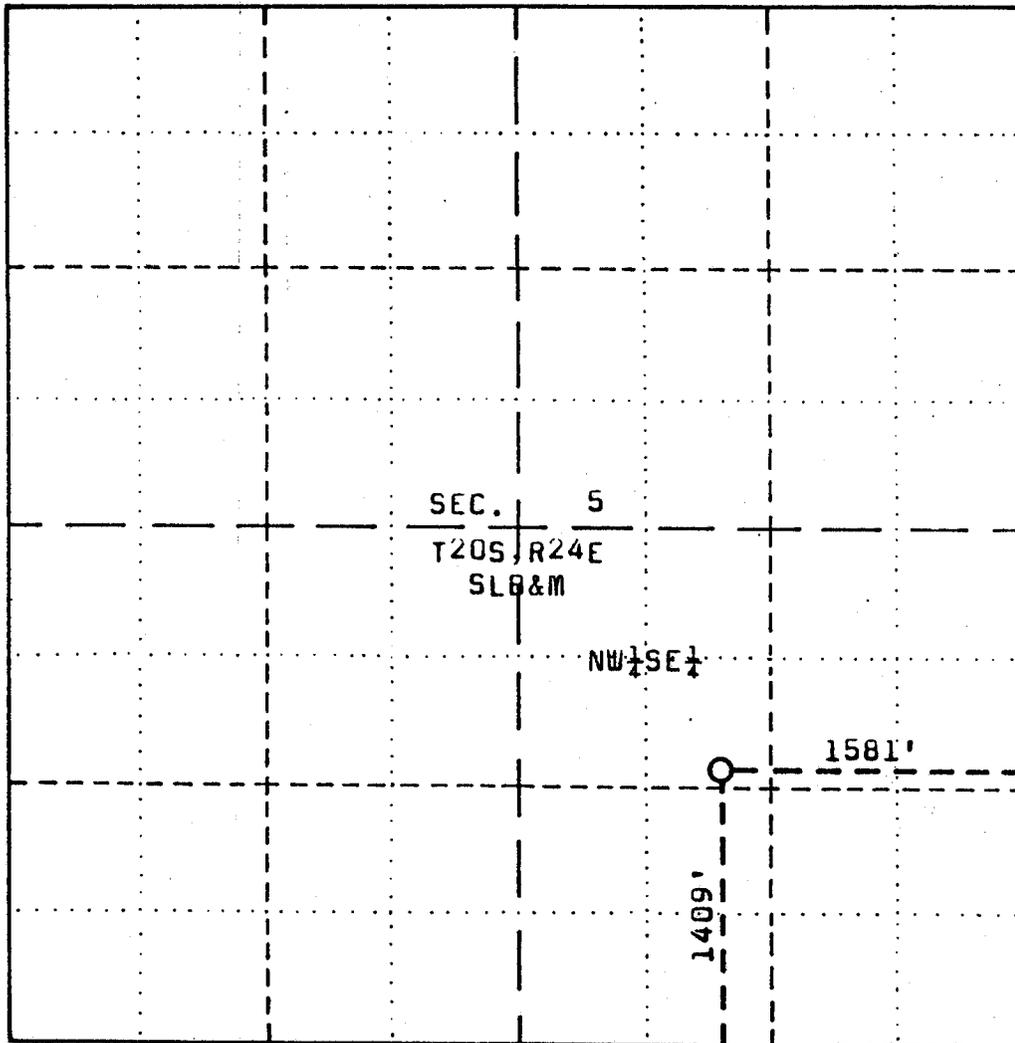
(This space for Federal or State office use)

PERMIT NO. 43-019-31087 APPROVAL DATE \_\_\_\_\_

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

CONDITIONS OF APPROVAL, IF ANY:

Exhibit "A"



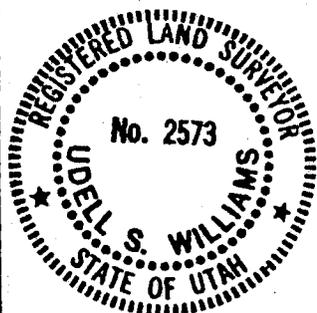
SCALE: 1" = 1000'

FEDERAL KEAS #7

Located North 1409 feet from the South boundary and West 1581 feet from the East boundary of Section 5, T20S, R24E, SLB&M.

Elev. 4601

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 KEAS #7  
NW 1/4 SE 1/4 SECTION 5  
T20S, R24E, SLB&M

SURVEYED BY: USW DATE: 5/14/83  
DRAWN BY: USW DATE: 5/14/83

Exhibit "B"

May 17, 1983

Ten point plan to comply with NTL-6  
(Supplement to 9-331 C)

Well Name: Walter D. Broadhead  
Federal Keas #7  
NW SE Sec. 5-T20S-R24E, SLB&M  
Federal Oil & Gas Lease U-070752  
Grand County, Utah

1. Geological name of surface formation

Mancus shale

2. Estimated tops of important geological markers

Base of Dakota silt	1380'
Dakota	1434'
Morrison	1570'
Salt Wash	1800'

3. Estimated depth at which water, oil and/or gas is anticipated

Water - from scattered gravel beds from surface to 100' if any

Oil or gas - any of the geological sections noted above

4. Proposed casing program

See Paragraph 23 of 9-331 C

5. Pressure control details

a. Shaffer double BOP with rams 3,000 psi (Hyd closing unit) tested to 1,000 psi after surface pipe is cemented, then daily thereafter (Exhibit "C")

b. Grant rotating head above BOP

c. Full shut-off valve on wellhead and exhaust line, see attached diagram

6. Drilling mud and weight material program

Plans call for air drilling to total depth, adding soap to mist if necessary. If excessive formation water, oil or gas is encountered, the hole will be mudded up with 100 Vis. 8.2 to 10# starch base drilling mud with KCL added. Well will then be drilled to total depth.

7. Auxiliary Equipment to be Used

- (a) Kelly Cock will be kept in the string.
- (b) A full opening stabbing valve will be on the floor for use, when the Kelly is not in the string.
- (c) A float will be run at the bit.
- (d) Monitoring equipment will be installed and used on the mud system.

8. The Testing, Logging and Coring Programs

- (a) Drill stem tests are not planned at this time.
- (b) The logging program will consist of Induction Electric & Compensated Nuclear Density.
- (c) No coring is planned.
- (d) Drilling samples will be caught at 30' intervals BSC to 1000; from 1000' to TD samples at 5' intervals.

9. Any Anticipated Abnormal Pressures or Temperatures Expected

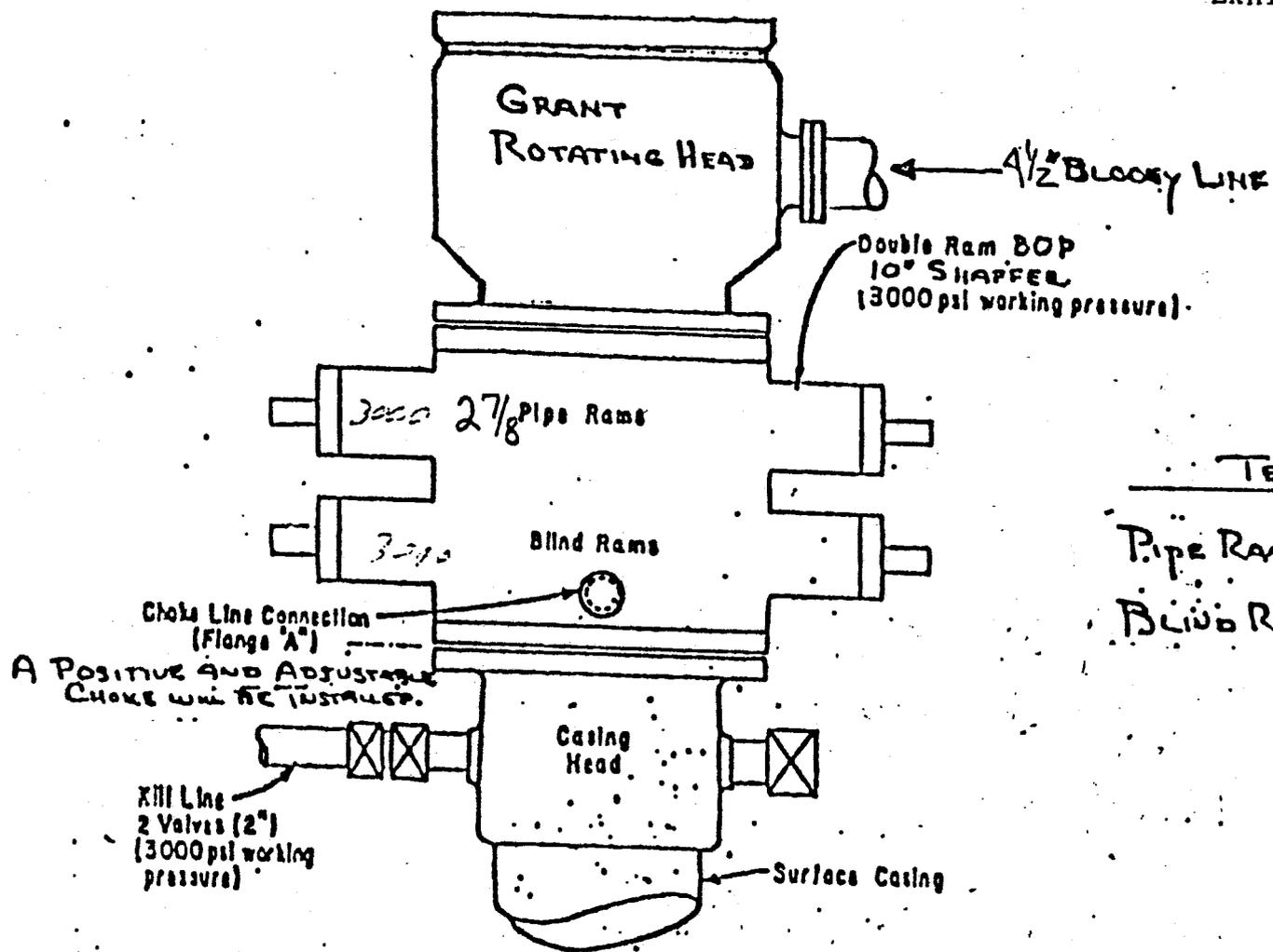
No abnormal gas pressures or temperatures are expected. No hydrogen sulfide or other hazardous gasses or fluids have been reported in the area.

10. Anticipated Starting Date and Duration of Operations

The anticipated starting date is June 15th, 1983 or as soon as possible after approval of all drilling requirements.

Drilling operations should be completed 7 to 10 days after spudding.

EXHIBIT "C"



TESTING FREQUENCY

Pipe Rams: Daily  
Blind Rams: Every Trip

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY APD

1. Existing Roads

- A. Exhibit "A" is the proposed well site as staked by Odell Williams and the ground elevation is shown thereon.
- B. Exhibit "E" is the route and distance road map. The location is 8 miles northeasterly from Cisco, Utah, and approximately 1/4 mile from the Agate Field on the northerly side,
- C. Exhibit "F" is a print of the Cisco Quadrangle and shows the access road to the location.
- D. All known existing roads appear on Exhibits "E" & "F"
- E. This is considered a Development Well.
- F. All roads from Cisco to the Location are in good condition and carry heavy truck traffic regularly. The next 0.3 mile of existing roadway will be maintenance graded as equipment moves in to construct well pad.

2. Planned Access Roads

The 0.3 mile of new access road will be of minimum disturbance. The brush will be bladed off and windrowed along the Northerly side of the road.

- (1) The typical section of the proposed access road will be 16' in width.
- (2) Maximum grade will be 2% to 4%.
- (3) No turnouts are required.
- (4) (5) No culverts are necessary.
- (6) Surface material will be that native to the area.
- (7) No gates or cattleguards are required.
- (8) The proposed access road has been flagged.

### 3. Location of Existing Wells

For all existing wells within a one-mile radius of the development well, see Exhibit "F".

- (1) There are no water wells.
- (2) Abandoned wells - see Exhibit "F".
- (3) There are no temporarily abandoned wells.
- (4) There are no disposal wells.
- (5) There are no drilling wells.
- (6) Producing wells - see Exhibit "F".
- (7) There are no shut-in wells.
- (8) There are no injection wells.
- (9) There are no monitoring or observation wells for other resources.

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

- A. Within a one-mile radius of this location are existing facilities owned or controlled by lessee/operator as shown on Exhibit "F".
- B.
  - (1) Exhibit "I" shows all anticipated production facilities.
  - (2) The dimensions of production facilities shown on Exhibit "I" are drawn to a scale of 1" = 40'.
  - (3) The only construction materials needed from outside the location would be gravel for a pad under separator and/or dehydrator unit. Gravel would be trucked into the location over the access road by the dirt contractor from the nearest commercial pit in the Cisco area.
  - (4) If a small pit is required, it will be fenced and flagged.
- C. Rehabilitation, whether the well is productive or not, will be made on unused areas as soon as practical in accordance with the restoration plans presented in Item 10 following.

### 5. Location and Type of Water Supply

- A. Water will be trucked from Cisco Springs, 11 road miles Westerly of the location.
- B. Water will be trucked over the access road by oilfield water trucks.
- C. No water well is planned.

### 6. Source of Construction Materials

A., B., C., D.

No construction materials are needed for drilling operations. In the event of production, the small amount of gravel needed for facilities will be hauled in by truck from local gravel pit in the Cisco area. No special access other than for the drilling operation is needed.

## 7. Methods for Handling Waste Disposal

- (1) Drill cuttings will be buried in the reserve pit when covered.
- (2) Drilling fluids will be contained in steel mud pits and the reserve pit. These fluids will be disposed of in the reserve pit.
- (3) Any hydrocarbon liquids produced while drill stem testing or production testing will be collected in a test tank set near the pipe baskets or near the wellhead. Any unavoidable spills of oil or other adverse substances or materials will be covered or removed immediately during drilling progress or during completion operations.
- (4) Chemical toilet facilities will be provided for human waste.
- (5) Garbage and trash will be collected in a trash cage and its contents hauled to the nearest designated landfill.
- (6) The entire site will be cleaned up and restored to a smooth contour when the rig moves out. Only that part of the location required for production will be used.

## 8. Ancillary Facilities

No air strips, camps or other living facilities will be built off the location. The normal trailers will be on the location as seen on Exhibit "H".

## 9. Well Site Layout

- (1) Exhibit "G" is the drill pad layout. Topsoil will be stockpiled to specifications determined at the pre-drill inspection.
- (2) (3) The mud tanks, reserve pit, trash cage, pipe racks, living facilities, and soil material stockpiled, rig orientation, parking areas and access road are all shown on Exhibit "H".
- (4) The reserve pits will not be lined. Steel mud tanks will be used, and are shown on Exhibit "H". If water is produced in production, an NTL-2b study will be initiated.

## 10. Plans for Restoration

- (1) Backfilling, leveling, and recontouring will be accomplished as soon as possible after plugging of the well, and on those unused areas if production is obtained. Waste disposal and spoils materials will be buried or hauled away.
- (2) Rehabilitation will be accomplished by recontouring as best practical back to blend with original contours. The stockpiled topsoil will be spread, along with ripping of the pad and road area (if so desired by surface owner). Revegetation will be accomplished using grasses chosen by B.L.M.

- (3) Three sides of the reserve pit will be fenced prior to drilling operations. Upon rig release, the reserve pit will be fenced on the fourth side and will remain until recontouring and cleanup operations are completed.
- (4) Any oil spills will be immediately reported, cleaned up, or flagged.
- (5) Rehabilitation operations will commence as soon as practical after rig moves off location. Earth work and seeding will be done during spring of 1983 if possible.

11. Other Information

As indicated on Exhibit "F", the topography of the location vicinity has very little relief. The location lies on a gentle plain which slopes Southeasterly 1-2%. This location lies Northwesterly of the existing Agate Oil Field.

The soil is a light tan to grey shallow soil, typical of Mancos formation.

The vegetation in the immediate area surrounding the location is sagebrush, Matt saltbush, shadscale, prickly pear cactus, Russian thistle, greasewood, and cheatgrass.

The fauna of the area consists of cattle, sheep, antelope, rabbits, lizards, ravens, meadow lark, killdeer, ground sparrows and martens.

The surface ownership is B.L.M. The surface use is grazing, petroleum production, and recreation.

The nearest live water is Cisco Springs, 10 air miles Westerly of the location.

The nearest occupied dwelling is in Cisco, Utah, 8 road miles Southwesterly of the location, as shown on Exhibit "E".

There are no visible archaeological, historical, or cultural sites within any reasonable proximity to the proposed location site.

There are no reported restrictions or reservations noted on the oil and gas lease.

12. Lessee's or Operator's Representative

Walter D. Broadhead  
1645 North 7th. St.  
Grand Junction, Co...81501  
Telephone (303) 242-7717

13. Certification

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

Walter D. Broadhead

Date

operator

Name and Title



ONJ R 24 E.

47

17'30"

48

2 630 000 FEET

50

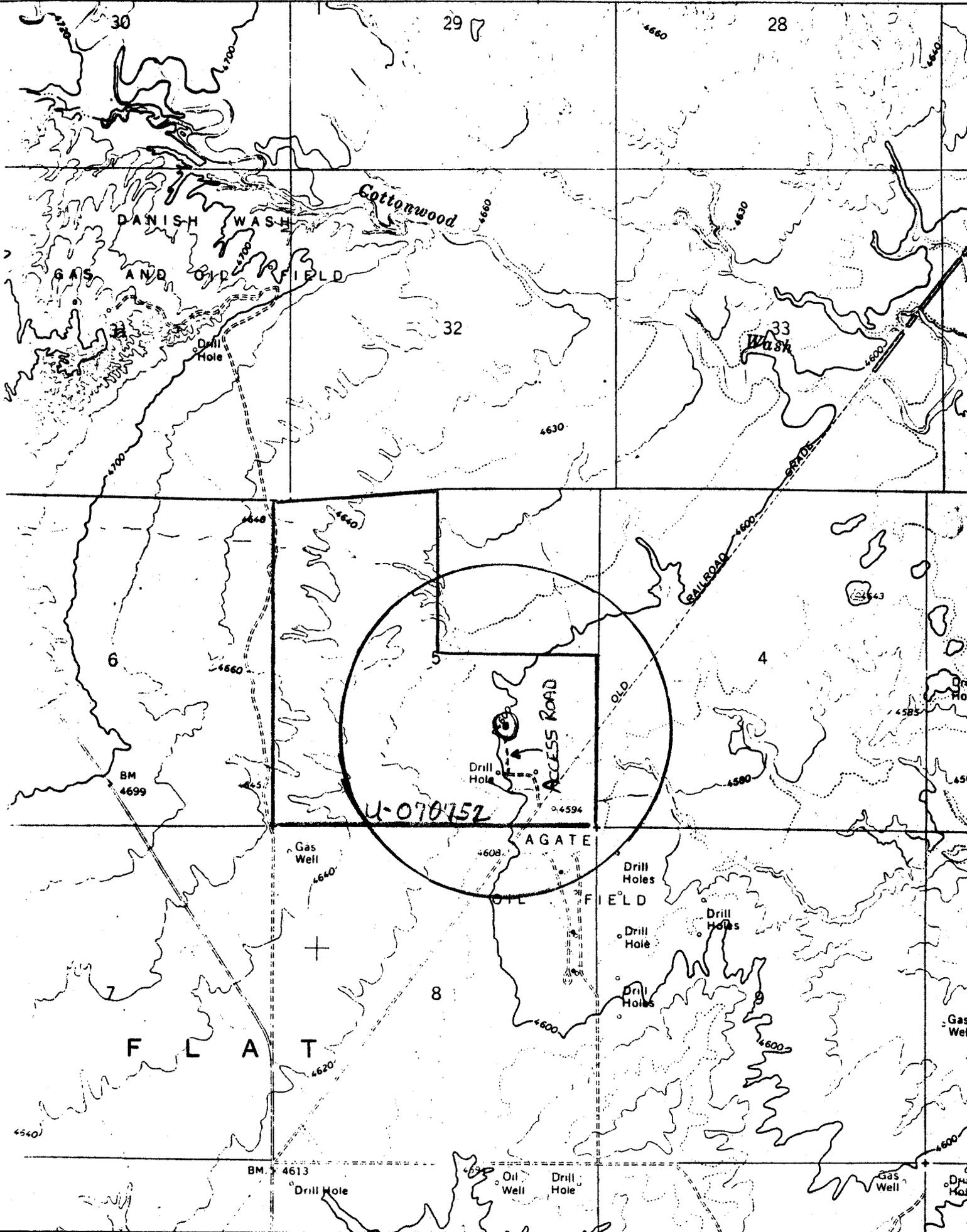


Exhibit "G"  
Drill Pad Layout  
Grand County, Utah

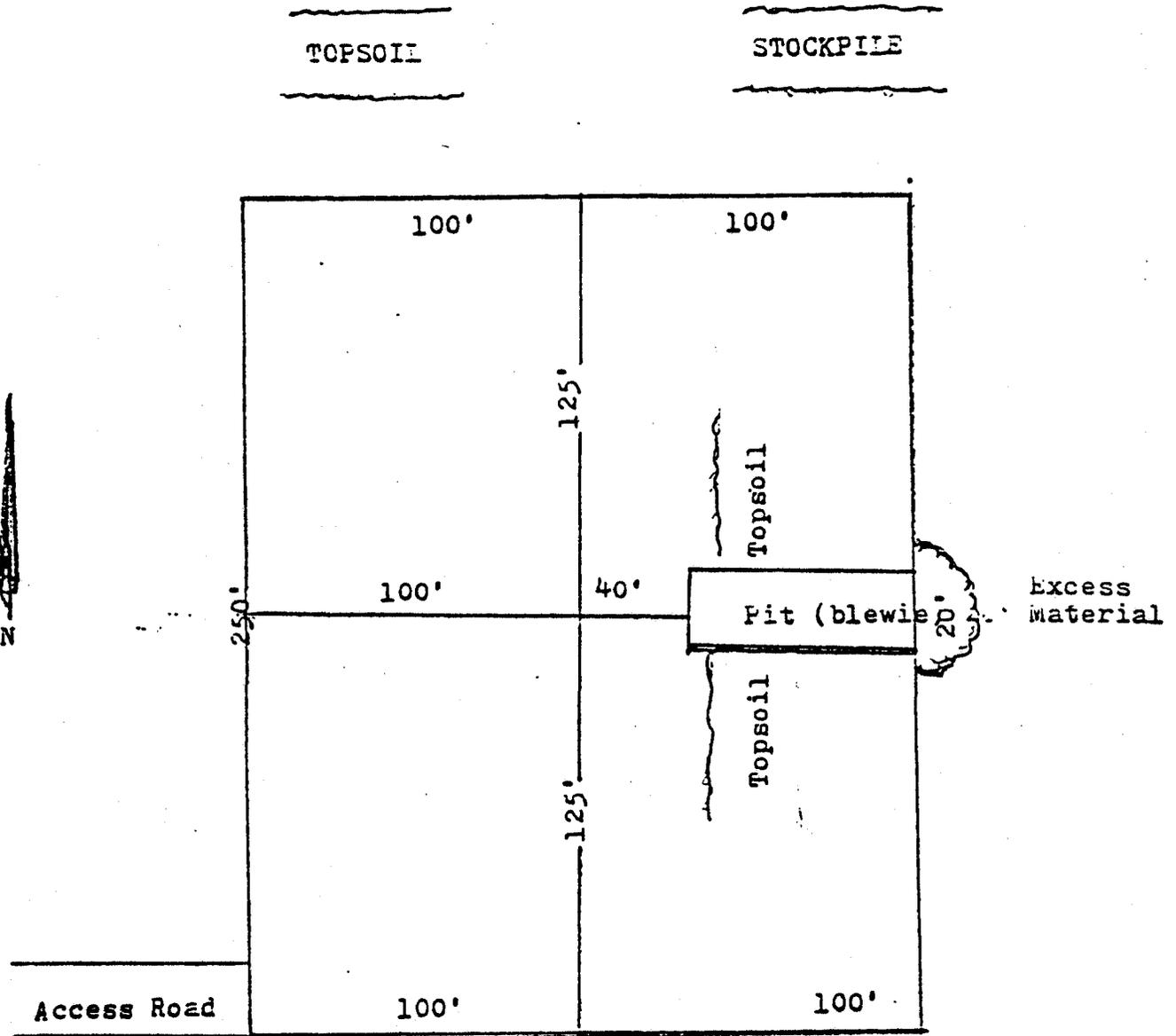


Exhibit "H"  
Drill Rig Layout

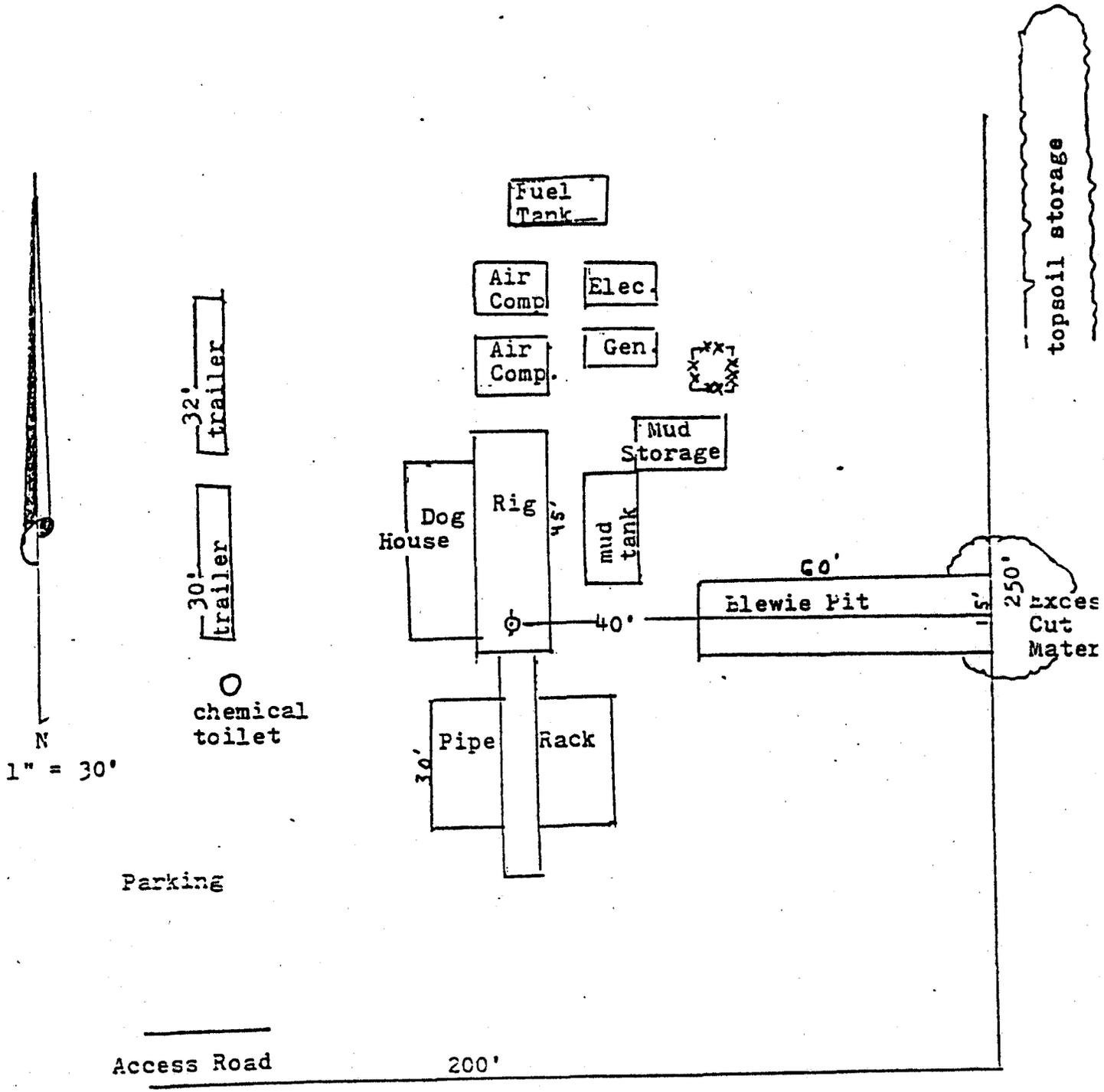
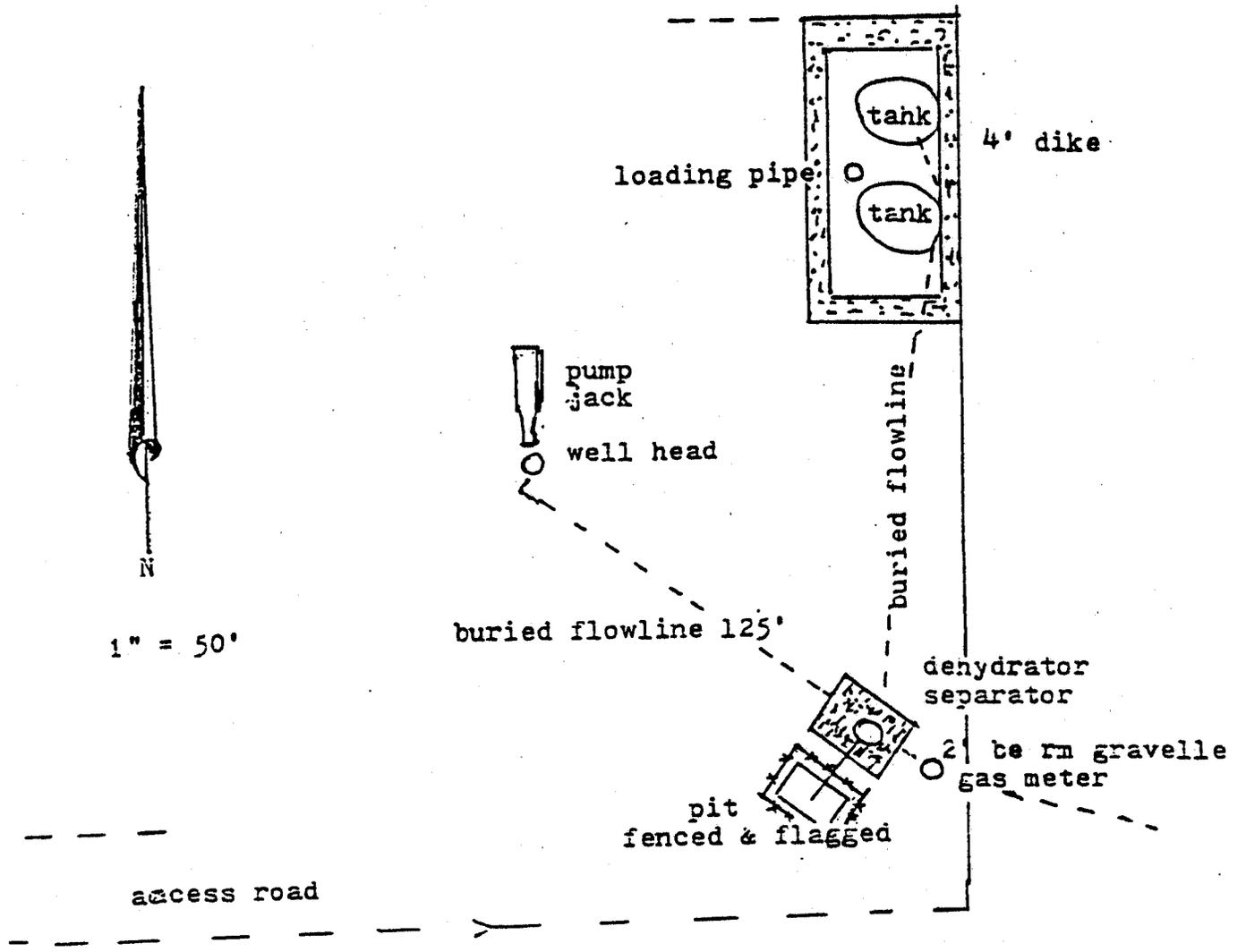


Exhibit "I"  
Production facilities



<b>NOTICE OF STAKING</b> (Not to be used in place of Application to Drill Form 9-331-C)		<b>RMOGA</b> 8/8/82	<b>5. Lease Number</b> U-070752	
<b>1. Oil Well</b> <input checked="" type="checkbox"/> <b>Gas Well</b> <input checked="" type="checkbox"/> <b>Other</b> <input type="checkbox"/>		<b>6. If Indian, Allottee or Tribe Name</b> None		
<b>2. Name of Operator</b> Walter D. Broadhead		<b>7. Unit Agreement Name</b> None		
<b>3. Address of Operator or Agent</b> 1645 North 7th St. Grand Junction, Colo. 81501		<b>8. Farm or Lease Name</b> C.L. Keas		
<b>4. Surface Location of Well</b> (Governmental 1/4 or 1/4 1/4) NW 1/4 SE 1/4 Sec. 5-T20S-R24E <b>Attach: Topographical or other acceptable map</b> <b>showing location, access road, and lease boundaries.</b>		<b>9. Well No.</b> Federal Keas No. 7		
<b>14. Formation Objective(s)</b> Salt Wash		<b>10. Field or Wildcat Name</b> Agate		
<b>15. Estimated Well Depth</b> 1800'		<b>11. Sec., T., R., M., or Blk and Survey or Area</b> Sec. 5-T20S-R24E SLB&M		
		<b>12. County or Parish</b> Grand	<b>13. State</b> Utah	
<b>16. To Be Completed by Operator Prior to Onsite</b>				
a. Location must staked				
b. Access Road Flagged				
c. Sketch and/or map of location, showing road, pad dimensions, reserve pit, cuts, and fills (To be provided at onsite)				
<b>17. To Be Considered By Operators Prior to Onsite</b>				
a. H <sub>2</sub> S Potential None				
b. Private Surface Ownership Federal Surface & Minerals				
c. Cultural Resources (Archaeology) Presently being surveyed				
d. Federal Right of Way None				
<b>18. Additional Information</b>				
<b>19. Signed</b> <u>Walter D. Broadhead</u> <b>Title</b> <u>Operator</u> <b>Date</b> <u>5/17/83</u> Walter D. Broadhead				

BEFORE THE BOARD OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
IN AND FOR THE STATE OF UTAH

-----  
IN THE MATTER OF THE APPLICATION  
OF WALTER D. BROADHEAD FOR AN ORDER  
APPROVING THE LOCATION OF APPLI-  
CANT'S FEDERAL KEAS NO. 7 WELL IN  
THE NW1/4 SE1/4 OF SECTION 5,  
TOWNSHIP 20 SOUTH, RANGE 24 EAST,  
S.L.M., GRAND COUNTY, UTAH, AS AN  
EXCEPTION TO THE ESTABLISHED ORDER  
ENTERED IN CAUSE NO. 102-16B

\*  
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\*  
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\*  
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ORDER TO SHOW CAUSE AND  
NOTICE OF HEARING  
  
CAUSE NO. 102-52

-----  
THE STATE OF UTAH TO ALL OPERATORS, TAKERS OF PRODUCTION, MINERAL AND  
ROYALTY OWNERS, AND PARTICULARLY ALL PERSONS INTERESTED IN THE NW1/4 SE1/4 OF  
SECTION 5, TOWNSHIP 20 SOUTH, RANGE 24 EAST, S.L.M., GRAND COUNTY, UTAH.

Notice is hereby given that the Board of Oil, Gas and Mining, State  
of Utah, will conduct a hearing on Thursday, July 28, 1983, at 10:00 A.M., or  
as soon thereafter as possible, in Room 426 of the State Capitol Building,  
Salt Lake City, Utah, in the above entitled matter, at which time all persons,  
firms and corporations interested may, if they so desire, appear and be heard.

Notice is further given that the purpose of said hearing will be to  
determine whether or not the Board should enter an Order granting an exception  
to the provisions of the Order issued in Cause No. 102-16B, so as to permit:

The drilling of Federal Keas No. 7 Well within the NW1/4 SE1/4 of  
Section 5, Township 20 South, Range 24 East, S.L.M., Grand County, Utah.

By drilling this well at the above described location, 1409 feet from  
the South line and 1581 feet from the East line, the well will be closer than  
200 feet from the boundry of the legal subdivision comprising a governmental  
quarter-quarter section.

Any interested firms, persons or corporations shall be entitled to  
appear at the time and place aforesaid to be heard by the Board. The  
Application may be inspected in the office of the undersigned, 4241 State  
Office Building, Salt Lake City, Utah, 84114.

If there are any protests in this matter, please make such known to  
the Secretary at least three (3) working days before the hearing.

DATED this 8th day of July, 1983.

STATE OF UTAH  
BOARD OF OIL, GAS AND MINING

\_\_\_\_\_  
MARJORIE L. LARSON  
Secretary to the Board

Walter D. Broadhead  
Well No. 7  
Section 5, T. 20 S., R. 24 E.  
Grand County, Utah  
Lease U-070752

Supplemental Stipulations

- 1) The dirt contractor will be furnished with an approved copy of the surface use plan and any additional BLM stipulations prior to any work.
- 2) If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the Grand Resource Area Office will be contacted. Salvage or excavation of identified archaeological sites will only be done if damage occurs.
- 3) The proposed access road will be on the southeast end of the location.
- 4) All vegetation will be removed from the access route and pad location in order to minimize fire hazards. This material will be windrowed on the uphill side of the access route and stockpiled on the west side of the pad.
- 5) An additional blade and one-half width of vegetation will be removed behind the blooie pit to minimize fire hazards.
- 6) The reserve pit will be fenced with 36 inch woven wire with a single strand of barbed wire on top for support.
- 7) Any topsoil removed during the clearing of vegetation will be stockpiled along the west or south edge of the location.

SEED MIXTURE

<u>Species</u>		<u>Rate</u> <u>lbs/acre</u>
<u>Grasses</u>		
Hilaria jamesii	Galleta (Curlygrass)	2
Sporobolus airoides	Alkali sacaton	1
<u>Forbs</u>		
Sphaeralcea coccinea	Scarlet globemallow	1
<u>Shrubs</u>		
Eurotia lanata	Winterfat (Whitesage)	<u>2</u>
		6 lbs/acre

Broadcast seed will be applied at double the above rate.

Seeding will be done in the fall of the year (Oct. - Dec.)



# 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.

## ADDITIONAL STIPULATIONS FOR PRODUCTION FACILITIES

Your Application for Permit to Drill also included a submittal for production facilities. These production facilities are approved for the lessee and his designated operator under Section 1 of the Oil and Gas Lease with the following conditions:

(1) The oil and gas measurement facilities must be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy are to be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. Please provide this office with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports are to be submitted to the Salt Lake City District Oil and Gas Supervisor. Royalty payments will be made on all production volume as determined by the meter measurements or the tank measurements. All measurement facilities must conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

(2) 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 500 feet downstream of the meter run or any production facilities. Meter runs must be housed and/or fenced.

(3) All disturbed areas not required for operations will be rehabilitated.

(4) All produced liquids must be contained including the dehydrator vent/condensate line effluent. All production pits must be fenced.

(5) The well activity, the well status and the date the well is placed on production must be reported on Lessee's Monthly Report of Operations, Form 9-329.

(6) All off-lease storage, off-lease measurement, or commingling on lease or off-lease must have written approval.

(7) All product lines entering and leaving hydrocarbon storage tanks must be locked/sealed.

(8) You are reminded of the requirements for handling, storing, or disposing of water produced from oil and gas wells under NTL-2B.

(9) All materials, trash, junk, debris, etc. not required for production must be removed from the well site and production facility site at the completion of these operations.

(10) A copy of the Gas Sales Contract will be provided to this office and the Royalty Accounting Department as directed.

(11) Construction and maintenance for surface use approved under this plan should be in accordance with the surface use standards as set forth in the BLM/GS Oil and Gas Brochure entitled, "Surface Operating Standards for Oil and Gas Exploration and Development." This includes, but is not limited to, such items as road construction and maintenance, handling of top soil and rehabilitation.

(12) "Sundry Notice and Reports on Wells" (form 9-331) will be filed for all changes of plans and other operations in accordance with 30 CFR 221.58. Emergency approval may be obtained verbally, but such approval does not waive the written report requirement. Any additional construction, reconstruction, or alternations of facilities, including roads, gathering lines, batteries, measurement facilities, etc., will require the filing of a suitable plan and prior approval by the survey.

OPERATOR WALTER D BROADHEAD DATE 5-25-83

WELL NAME FED KEAS #7

SEC NW SE 5 T 20S R 24E COUNTY GRAND

43-019-31087  
API NUMBER

FED  
TYPE OF LEASE

POSTING CHECK OFF:

- INDEX
- MAP
- HL
- NID
- PI

PROCESSING COMMENTS:

Not the required 200 ft FSOOL - could move north  
without being too close to another well

Air drilling

✓ CHIEF PETROLEUM ENGINEER REVIEW:  
7/28/83 ✓ Exception 102-52/

APPROVAL LETTER:

- SPACING:  A-3 \_\_\_\_\_ UNIT  c-3-a 102-52 7-28-83  
CAUSE NO. & DATE
- c-3-b  c-3-c

SPECIAL LANGUAGE:

This approval is contingent upon verification  
of water rights for any water used at  
the drilling site.

RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON FLAT MAP.

AUTHENTICATE LEASE AND OPERATOR INFORMATION

VERIFY ADEQUATE AND PROPER BONDING *FED*

AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

APPLY SPACING CONSIDERATION

*102-52*

ORDER *102-1615*

UNIT \_\_\_\_\_

c-3-b

c-3-c

CHECK DISTANCE TO NEAREST WELL.

CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS. *Several 1st notices*

IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER

IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.



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

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

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

May 26, 1983

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

Dear Mr. Broadhead:

Your application (copy attached) to drill the Federal Keas #7 well in Grand County cannot be approved, since the proposed location is not within spacing tolerances prescribed by the order in Cause No. 102-16B.

The location will need to be surveyed 111 feet north of the current location in order to comply with required distance from quarter-quarter section lines; or, as an alternative to changing location, you may choose to come before the Board to request an exception location.

The Federal Keas #7 application will be held for a reasonable period of time until you take action to change the location, or request a hearing for an exception location.

Respectfully,

A handwritten signature in black ink, appearing to read 'Norman C. Stout'.

Norman C. Stout  
Administrative Assistant

NCS/as

State of Utah  
Natural Resources & Energy  
Oil, Gas, & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Atten: Norman C. Stout

June 1, 1983

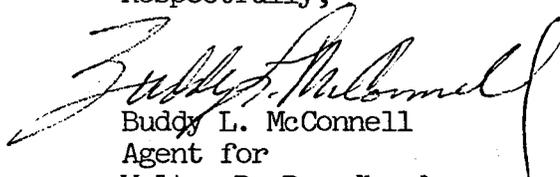
Re: APD Walter D. Broadhead  
Federal Keas #7  
Greater Cisco Area  
Sec 5-T20S-R24E SLB&M  
Grand County, Utah

Dear Mr. Stout,

For geologic purposes, We would request the spacing for the Federal Keas #7 be presented to the Board for an exception. We are trying to stay within the channel oil sand found in the Agate Field.

If we can be of other assistance or present additional information in this matter, please advise us.

Respectfully,

  
Buddy L. McConnell  
Agent for  
Walter D. Broadhead

GRAND COUNTY  
JUN 9 1983  
DIVISION OF  
OIL, GAS & MINING

July 28, 1983

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

RE: Well No. Federal Keas #7  
NWSE Sec. 5, T. 20S, R. 24E  
1409' FSL, 1581' FEL  
Grand County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to oil/gas well is hereby granted in accordance with the Order issued in Cause No. 102-52 dated July 28, 1983. This approval is contingent upon verification of water rights for any water used at the drilling site.

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

RONALD J. FIRTH - Chief Petroleum Engineer  
Office: 533-5771  
Home: 571-6068

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 43-019-31087.

Sincerely,



Norman C. Stout  
Administrative Assistant

NCS/as  
cc: Branch of Fluid Minerals  
Encl.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: W.D. BROADHEAD

WELL NAME: FEDERAL KEAS # 7

SECTION 5 TOWNSHIP 20S RANGE 24E COUNTY GRAND

DRILLING CONTRACTOR DON RICHARDSON

RIG # 1

SPUDED: DATE 8/20/83

TIME 4:00 AM

How ROTARY

DRILLING WILL COMMENCE 8/20/83

REPORTED BY Walter Broadhead

TELEPHONE # 303-242-7717

DATE 8/22/83 SIGNED S.B.

NOTICE OF SPUD

RECEIVED

Company: W.D. Broadhead  
Caller: Walter Broadhead AUG 24 1983

Phone: \_\_\_\_\_ DIVISION OF OIL, GAS & MINING

Well Number: Lease #7

Location: NW SE Section 5, T.20S, R.24E

County: Grand State: Utah

Lease Number: U-070752

Lease Expiration Date: \_\_\_\_\_

Unit Name (If Applicable): \_\_\_\_\_

Date & Time Spudded: 8-20-83 4:00 p.m.

Dry Hole Spudder/Rotary: \_\_\_\_\_

Details of Spud (Hole, Casing, Cement, etc.) 8 5/8" hole,  
set 100' of 7" cc.

Rotary Rig Name & Number: \_\_\_\_\_

Approximate Date Rotary Moves In: \_\_\_\_\_

FOLLOW WITH SUNDRY NOTICE

Call Received By: tal

Date: 8-22-83

ORAL APPROVAL TO PLUG AND ABANDON WELL

Operator Walter Broadhead Representative GALEN HELMKE  
 Well No. 7 Location 1/4 1/4 Section 5 Township 20S Range 24E  
 Lease No. 11-070752 Field \_\_\_\_\_ State GRAND

Unit Name and Required Depth \_\_\_\_\_ Base of fresh water sands \_\_\_\_\_

T.D. 1760' Size hole and Mud Weight  
 Fell per sack \_\_\_\_\_ and Top 8.6 #/gal. \_\_\_\_\_

Casing Size	Set At	Top of Cement	To Be Pulled	Plugging Requirements		
				From	To	Sacks Cement
<u>9 5/8"</u>	<u>94'</u>	<u>CTS</u>		<u>105x</u>	<u>@ Surface + Marker</u>	
Formation	Top	Base	Shows	<u>150'</u>	<u>50'</u>	
<u>DAKOTA</u>	<u>1470'</u>					
<u>Membran</u>	<u>1590'</u>			<u>1590'</u>	<u>1400'</u>	
<u>Water Sand</u>	<u>1580'</u>					

REMARKS

DST's, lost circulation zones, water zones, etc., clean location,  
level holes, fence pit, and schab as per APD.

Approved by [Signature] Date 8-24-83 Time 9:06 a.m.  
p.m.

cc: oper. w/cond. of approval  
..BLM NOAB w/cond. of approval

MER  
 CONTROL BOOK  
 WELL FILE

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

\*REPORT OF WATER ENCOUNTERED DURING DRILLING\*

Well Name & Number Walter D. Broadhead Meas #7 (43-019-31087)  
Operator Walter D. Broadhead Address 1645 N 7th Grand Junction Colo. 81501  
Contractor Richardson D-19 Address 385 Kirby Lane Grand Junction, Colo 81501  
Location NW 1/4 SE 1/4 Sec. 5 T. 20 S R. 24 E County Grand

Water Sands

<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
From	To	Flow Rate or Head	Fresh or Salty
1.	<u>1580 - 1585</u>	<u>est 2-4 gal. per min.</u>	<u>Brackish.</u>
2.	<u>1430</u>	<u>Less than 1 gal. per min</u>	<u>Very Salty</u>
3.			
4.			
5.			

(Continue of reverse side if necessary)

Formation Tops Dakota @ 1470  
Morrison @ 1590

Remarks

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

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other **DRY HOLE**

2. NAME OF OPERATOR  
**WALTER D. BROADHEAD**

3. ADDRESS OF OPERATOR (81501)  
**1645 North 7th St. GRAND JUNCTION, COLO.**

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: **1409 FSL & 1581 FEL SEC 5, T20S; R24E.**  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: **1760'**

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 checked="" type="checkbox"/>	<input type="checkbox"/>
(other)		

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.)\*

94' 26# 9-5/8" CASING set AUGUST 20 1983 WITH 100 sacks

6 1/4" hole drilled to 1430 with air

6 1/4" hole drilled to 1760 with air - mist

T.D.. @ 1760 ON AUGUST 24 , 1983

PLUGS

1590 - 1400' WITH 45 sacks  
150 - 50 WITH 35 SACKS  
10 SACKS AT SURFACE & DRY HOLE MARKER  
Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

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

SIGNED Galen Helmke TITLE GEOLOGIST DATE SEPT 3, 1983

(This space for Federal or State office use)

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

5. LEASE U # 070852

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
G.L. KEAS

9. WELL NO.  
FEDERAL KEAS #7

10. FIELD OR WILDCAT NAME  
AGATE FIELD EXTENTION

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SEC. 5, T 20 S, R 24 E.

12. COUNTY OR PARISH GRAND 13. STATE UTAH

14. API NO.  
43-019-31087

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

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

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

DATE: 9/13/83 Set @ \_\_\_\_\_ Ft.  
BY: \_\_\_\_\_

*Original Signed by Ronald J. Firth*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

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

4  
10

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 North 7th St., GRAND JUNCTION, COLORADO 81501**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface: **1409' FSL & 1581' FEE SEC. 5, T20 S; R. 24 E. S1M**  
At top prod. interval reported below  
At total depth: **NWSE**

14. PERMIT NO. **43-09-31087** DATE ISSUED **MAY 23 1983**

5. LEASE DESIGNATION AND SERIAL NO.  
**U-070752**

6. IF INDIAN ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
**C.L. KEAS**

9. WELL NO.  
**FEDERAL KEAS # 7**

10. FIELD AND POOL, OR WILDCAT  
**AGATE**

11. SEC., T., R., N., OR BLOCK AND SURVEY OR AREA  
**SEC. 5, T20 S, R24 E**

12. COUNTY OR PARISH  
**GRAND**

13. STATE  
**UTAH**

15. DATE SPUNDED **8-20-1983** 16. DATE T.D. REACHED **8-24-1983** 17. DATE COMPL. (Ready to prod.)  
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* **4601 GR.** 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD **1760'** 21. PLUG, BACK T.D., MD & TVD  
22. IF MULTIPLE COMPL., HOW MANY\*  
23. INTERVALS DRILLED BY **ALL** ROTARY TOOLS CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
**NONE** 25. WAS DIRECTIONAL SURVEY MADE?

26. TYPE ELECTRIC AND OTHER LOGS RUN  
**NONE** 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
<b>9-5/8</b>	<b>26#</b>	<b>94'</b>		<b>100 sacks</b>	<b>NONE</b>

29. LINER RECORD

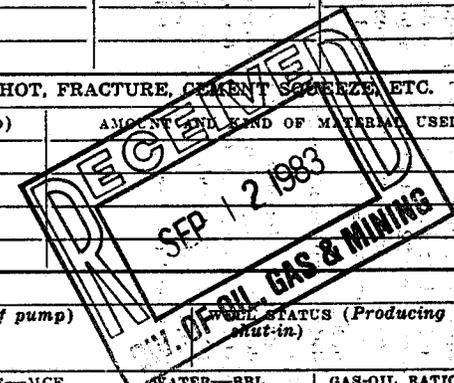
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)  
**PLUGS**  
**1590 - 1400 WITH 45 SACKS**  
**150 - 50 WITH 35 SACKS**  
**10 SACKS @ SURFACE & DRY HOLE MARKER**

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.  
DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED



33.\* PRODUCTION  
DATE FIRST PRODUCTION PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) TEST STATUS (Producing or shut-in)

**NONE**

DATE OF TEST	HOURS TESTED	CHOKED 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 **Helen Helms** TITLE **GEORGETT** DATE **9-3-1983**

\*(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.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	GEOLOGIC MARKERS
ALLUVIAL	0	15'	SURFACE SOIL		
MANCOS SHALE	15	1470'	GRAY MARINE SHALE		
DAKOTA SANDSTONE	1470'	1590'	SANDSTONE, GRAY & GREEN & CARBONACEOUS SHALE, COAL		
MORRISON ( BRUSHY BASIN)	1570'	1760'	SHALE GREEN & RED, SANDSTONE TAN SMALL AMOUNT OF WATER @ 1580' EST. 4 GAL. PER MIN.		
<b>NO SHOWS OF OIL OR GAS WERE FOUND</b>					