

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS WELL LOG ELECTRIC LOGS FILE X WATER SANDS LOCATION INSP SUB REPORT/abd

990203 Sta - 2nd Land Exchange; Well now on 2nd Land; Lease From  
Sta ML-45333;

DATE FILED OCTOBER 1, 1998

LAND FEE & PATENTED STATE LEASE NO. ~~ML 45333~~ UTU 78079 PUBLIC LEASE NO. INDIAN

DRILLING APPROVED: NOVEMBER 3, 1998

SPUDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: 12-6-99 LA'D

FIELD: WILDCAT

UNIT:

COUNTY: GARFIELD

WELL NO. DEATH HOLLOW STATE 32 #1 API NO. 43-017-30141

LOCATION 859 FNL FT. FROM (N) (S) LINE. 747 FEL FT. FROM (E) (W) LINE. NE NE 1/4 - 1/4 SEC. 32

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
34S	7E	32	CONOCO INC.				

**From:** "Mankin, Mike L." <MIKE.L.MANKIN@usa.conoco.com>  
**To:** 'Chris Kierst' <nrogm.ckierst@state.ut.us>  
**Date:** 9/15/98 7:44am  
**Subject:** RE: Well Names

I need to amend the well names one more time, sorry. Please see changes to the original email.

Thanks  
Mike

-----Original Message-----

From: Mankin, Mike L.  
Sent: Tuesday, September 15, 1998 7:50 AM  
To: 'Chris Kierst'  
Subject: Well Names

Please make note of name changes for the wells that we staked last week.

Death Hollow State 32-#1  
Section 32, T34S, R7E  
Garfield County, Utah

*4301730141*

Studhorse State 36-#1  
Section 36, T33S, R7E  
Garfield County, Utah

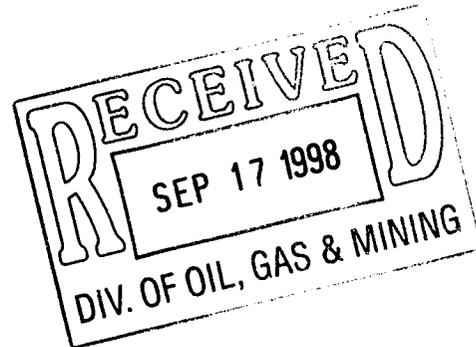
Thanks  
Mike



Mike L. Mankin  
Right of Way Agent  
Right of Way and Claims

Conoco Inc.  
10 Desta Drive, Suite 430E  
Midland, Texas 79705  
(915) 686-5794

September 15, 1998



State of Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

Attn: Christopher J. Kierst, Oil & Gas Field Specialist

Re: **Photos of Well Sites**  
**Death Hollow State 32-1**  
**Studhorse State 36-1**  
**Garfield County, Utah**

Dear Mr. Kierst:

Please find enclosed copies of photos that you requested on the wells that we conducted onsite on last week. I also provided you photos of the access to the Studhorse location.

If you have any questions, please contact me at 915-686-5794.

Sincerely,

Mike L. Mankin

cc: file



"East View"  
Death Hollow  
State 32-1



"North View"

Death Hollow  
State 32-1



"West View"

Death Hollow  
State 32-1



"South View"

Death Hollow

State 32-1

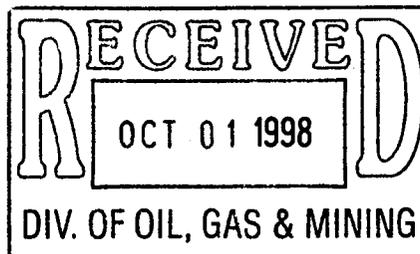


**Mike L. Mankin**  
Right of Way Agent  
Right of Way and Claims

**Conoco Inc.**  
10 Desta Drive, Suite 430E  
Midland, Texas 79705  
(915) 686-5794

September 29, 1998

Utah Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
P. O. Box 145801  
Salt Lake City, Utah 84114-5811



Attn: Brad Hill

Re: **Application To Drill Permits**  
**Studhorse State 36-1, Section 36, T33S, R7E**  
**Death Hollow State 32-1, Section 32, T34S, R7E**  
**Garfield County, Utah**

Dear Mr. Hill:

Please find enclosed completed drilling permits for the above referenced wells. Archaeological and Paleo studies have been completed and forwarded to the appropriate agencies. We conducted onsite inspections with Mr. Chris Kierest on 10/9/98. Please expedite if possible.

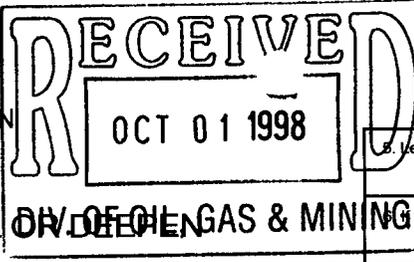
If you have any questions, please contact me at 915-686-5794.

Sincerely,

Mike L. Mankin

Cc: file

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING



APPLICATION FOR PERMIT TO DRILL OR DEEPEN GAS & MINING

Lease Designation and Serial Number:  
ML 45333  
Indian, Allottee or Tribe Name:

1A. Type of Work: DRILL  DEEPE

B. Type of Well: OIL  GAS  OTHER: \_\_\_\_\_ SINGLE ZONE  MULTIPLE ZONE

2. Name of Operator: \*\*  
Conoco Inc. **CONFIDENTIAL**

3. Address and Telephone Number:  
10 Desta Dr. Ste 430E Midland, Tx. 79705-4500 (915) 686-5794

4. Location of Well (Footages)  
At Surface: 261.89 227.74  
859' FNL & 747' FEL  
At Proposed Producing Zone: 859' FNL & 747' FEL

7. Unit Agreement Name:  
8. Farm or Lease Name: Death Hollow State 32  
9. Well Number: #1  
10. Field and Pool, or Wildcat: Wildcat  
11. Qtr/Otr, Section, Township, Range, Meridian: NE4NE4 Section 32, T34S, R7E S.L. B. & M.  
12. County: Garfield 13. State: UTAH  
14. Distance in miles and direction from nearest town or post office: 20 miles southeast of Boulder, Utah  
15. Distance to nearest property or lease line (feet): 747'  
16. Number of acres in Lease: 640 +/-  
17. Number of acres assigned to the well: 640 +/-  
18. Distance to nearest well, drilling, completed, or applied for on this lease Feet: N/A  
19. Proposed Depth: 6,615'  
20. Rotary or Cable tools: Rotary  
21. Elevations (show whether DF, RT, GR etc.): RKB: 5963' est; GL: 5950' est.  
22. Approximate date work will start: When Approved

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8", K-55 LTC	36#	500'	282 sxs, 333 cuft
8-3/4"	7", L-80 BTC	26#	5,020'	378 sxs, 1035 cuft
6-1/8"	4-1/2", L-80 LTC	11.6#	6,615'	182 sxs, 249 cuft

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

Conoco proposes to this well as a vertical wildcat to a depth of 6616'.  
Drilling Plan, Surface Use Plan and Hazardous Material Declaration for subject well is attached.

486605.49  
21,84985.45

Lease Description: Section 32, T34S, R7E, S.L.B. & M., Containing 640 acres +/-  
Mineral Ownership: State of Utah  
Surface Ownership: State of Utah  
This well will be drilled under Conoco's Utah Statewide Bond. # 8140-60-24

24. Name & Signature: Mike L. Mankin \*\* Title: Right of Way Agent Date: 9/28/98

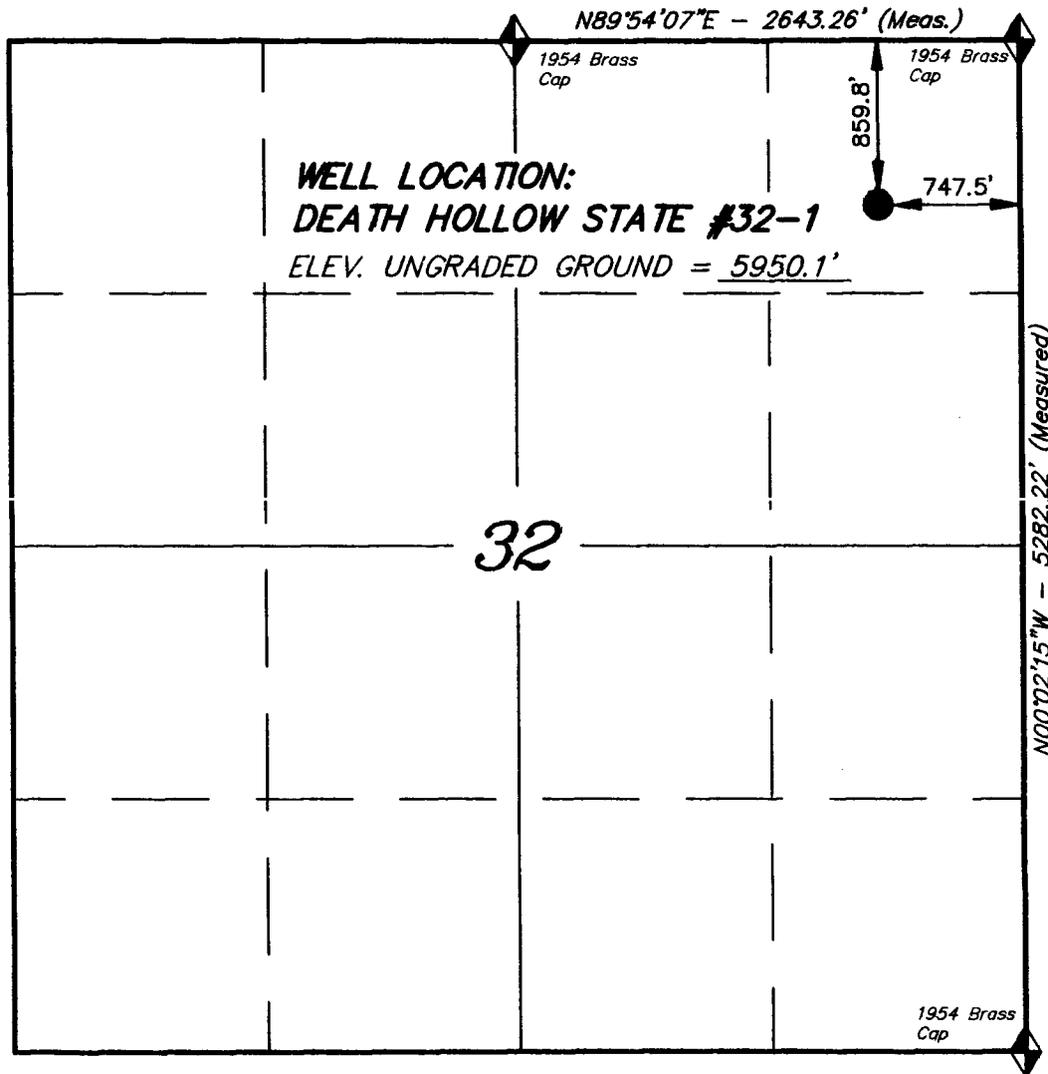
(This space for State use only)  
API Number Assigned: 43-017-30141

Approval: Buddy [Signature]  
11/3/98

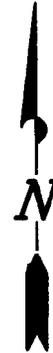
UOGM(3), BRK, TJK, LAND, Ponca, Fileroom

T34S, R7E, S.L.B.&M.

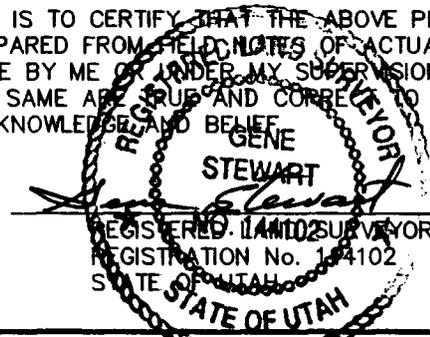
CONOCO, INC.



WELL LOCATION, DEATH HOLLOW STATE #32-1, LOCATED AS SHOWN IN THE NE 1/4 NE 1/4 OF SECTION 32, T34S, R7E, S.L.B.&M. GARFIELD COUNTY, UTAH.



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.



**TRI STATE LAND SURVEYING & CONSULTING**  
 38 WEST 100 NORTH - VERNAL, UTAH 84078  
 (801) 781-2501

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (PIONEER MESA)

SCALE: 1" = 1000'	SURVEYED BY: D.S.
DATE: 9-6-98	WEATHER:
REVISIONS:	FILE #

**DEATH HOLLOW STATE 32-1 SECTION 32, T34S, R7E  
GARFIELD COUNTY, UTAH  
859' FNL + 747' FEL**



**NORTH VIEW**



**SOUTH VIEW**

**CONOCO INC.**

**DEATH HOLLOW STATE 32-1 SECTION 32, T34S, R7E  
GARFIELD COUNTY, UTAH  
859' FNL + 747' FEL**



**EAST VIEW**



**WEST VIEW**

**CONOCO INC.**

**ATTACHMENT TO FORM 3-APD**

LEASE NO: ML 45333  
WELL NAME & NO: Death Hollow State 32-1  
LOCATION: 859' FNL & 747' FEL (NE4NE4), Section 32, T34S, R7E, S.L.B. & M.  
COUNTY & STATE: Garfield, Utah

**HAZARDOUS MATERIAL DECLARATION FOR APPLICATION TO DRILL SUBJECT WELL**

No chemical subject to reporting under SARA Title III in the amount equal to or greater than 10,000 pounds will be used, stored, produced, transported or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported or disposed of in association with the drilling of this well.

## H2S DRILLING OPERATIONS PLAN

Conoco, Inc. will comply with Onshore Order No. 2 for working in an H2S environment or a potential H2S environment.

### I. Hydrogen Sulfide Training

All contractors and subcontractors employed by Conoco will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. Safety precautions.
3. Operations of safety equipment and life support systems.

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

1. The effect of H2S on metal components in the system, especially where high tensile strength tubulars are to be used.
2. Corrective action and shutdown procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

### II. H2S EQUIPMENT AND SYSTEMS

#### 1. Safety Equipment

The following minimum safety equipment will be on location:

- A. Wind direction indicators placed near rig floor/mud return lines and at points along the perimeter of the location to allow visibility of at least one indicator from any point on location.
- B. Automatic H2S detection alarm equipment (both audio and visual).
- C. Clearly visible warning signs. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the doghouse and at briefing areas on location.

#### 2. Well Control Systems

##### A. Blowout Prevention Equipment

Equipment includes but is not limited to:

1. Pipe rams to accommodate all pipe sizes
2. Blind rams
3. Choke manifold
4. Closing Unit
5. Flare line and means of ignition

#### **B. Communication**

The rig contractor will be required to have two-way communication capability. Conoco will have either land-line, satellite phone, microwave phone, or mobile (cellular) telephone capabilities.

#### **C. Mud Program**

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers when appropriate will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

#### **D. Drill Stem Tests**

Any planned drill stem test will be cancelled if H<sub>2</sub>S is detected prior to such test. In the event that H<sub>2</sub>S is detected during testing, the test will be terminated immediately.

DRILLING PLAN – Death Hollow State No. 32-1

1. **Location:** Section 32, R7E, T34S 859' FNL & 747' FEL
2. **Geological Marker Tops:** (RKB: 5963' est. - GL: 5950' est.)

Formation	Drilled Depth (RKB)	Datum	Estimated Pressure	Fluid / Mineral
RKB	0.00	+5963		
Moenkopi	0.00	+5950	Normal / Subnormal	
Kaibab	443.00	+5520	"Ditto"	
Coconino	498.00	+5465	"Ditto"	
Organ Rock	974.00	+4989	"Ditto"	
Cedar Mesa	1126.00	+4837	"Ditto"	
Hermosa	2,713.00	+3250	"Ditto"	
Molas Redbeds	3,179.00	+2784	"Ditto"	
Redwall	3,305.00	+2658	"Ditto"	
Ouray	4,110.00	+1853	"Ditto"	
Elbert	4,248.00	+1715	"Ditto"	
Lynch	4,609.00	+1354	"Ditto"	
Bright Angel	5,931.00	+32	"Ditto"	
Tapeats	6,203.00	-240	"Ditto"	Oil / Gas
Sixtymile Redbeds	6,407.00	-444	"Ditto"	
Granite	6,465.00	-502	"Ditto"	
TD	6,615.00	-652	"Ditto"	

3. Casing Program: (all new):

Depth	Size	Weight	Grade	Thread	Collapse	Burst	Tension
0 - 500'	9-5/8"	36#	K-55	LTC	2020	3520	423,000
0 - 5,020	7"	26#	L-80	BTC	5410	7240	604,000
4,590 - 6,615'	4-1/2"	11.6#	L-80	LTC	6350	7780	223,000

4. Cementing Program:

Casing	Coverage	Slurry	Weight (#/gal)	Volume	Type & Additives
Surface 9 5/8"	500-0' 19%	Lead/ Tail	15.6	282 sx 333 cuft 1.18	Class B + 2% CACL2 + .25#/sx cello flake
Interm 7"	5020-0'	Lead	11.4	278 sx 915 cuft 3.29	Class G + 3% Extender + .25#/sx cello flake + .1% Antifoam
		Tail	14.2	100sx 120cuft 1.20	50/50 Poz Class G + 2% gel 5#/sx Kolite + .25#/sx cello flake + .1% Antifoam
Liner 4 1/2"	6615-4590'	Lead/ Tail	13.5	182 sx 249 cuft 1.37	50/50 Poz Class G + 2% gel 5#/sx Kolite + .25#/sx cello flake + .1% Antifoam + 0.5% Fluid Loss + 0.1% Dispersant

Note: 1. Actual Cement Volumes will be calculated from caliper logs.

5. Pressure Control Equipment:

- A. BOP: 3000 psi w.p. Double ram blowout preventer with appropriate extension handwheels to 6615'. The pipe rams will be on top and blind rams on the bottom.
- B. A function test and visual inspection of the BOP will be performed daily.
- C. BOP equipment will be tested at least every 14 days. The BOP and casing test will conform to Onshore order No. 2.

6. **Auxiliary Equipment:**

- A. Kelly cock
- B. Drill pipe float
- C. Visual monitoring of the mud system.
- D. Rotating head

7. **Variance Request:**

- A. Conoco request a variance from the requirement to use a straight run blooie line. Where possible a straight blooie line will be used. Where it is not possible, any tees or ells in the lines will be targeted.

8. **Drilling Fluids Program:**

Interval	Mud Type	Density (lb/gal)	Rotational Velocity (RPM)	Water Loss
0 - 500'	Gel/Lime / Aerated Mud	8.5-8.8	28 - 50	30 cc
500 - 5,020'	Gel/Lime / Aerated Mud	8.5-8.8	28 - 50	20 cc
5,020 - 6,615'	Gel/Lime	8.5-8.8	32 - 50	10 cc

9. **Testing, Logging and Coring:**

- A. Logging - Open hole:  
 DIL/GR/Sonic/LDT/CNL from TD to 4890'  
 Dipmeter - Tapeats to TD  
 Rotary Sidewall Cores - As per Geologist
- B. No Cores planned
- C. Possible DST in the Tapeats Sandstone
- D. Final determination of the completion interval will be made by analysis of logs.
- E. Directional control shall be maintained by running a drift shot survey after every 1,000' of drilling.

**DRILLING PLAN**

**Death Hollow State #32-1**

**September 22, 1998**

**Page 4**

10. **Abnormal Pressure or Temperatures: Potential Hazards.**

- A. Lost circulation is possible throughout wellbore.
- B. Due to the exploratory nature of the well an H<sub>2</sub>S contingency planned will be developed and implemented prior to reaching spud. H<sub>2</sub>S monitoring and air breathing apparatus will be rigged up and available prior to spud.

11. **Additional Information:**

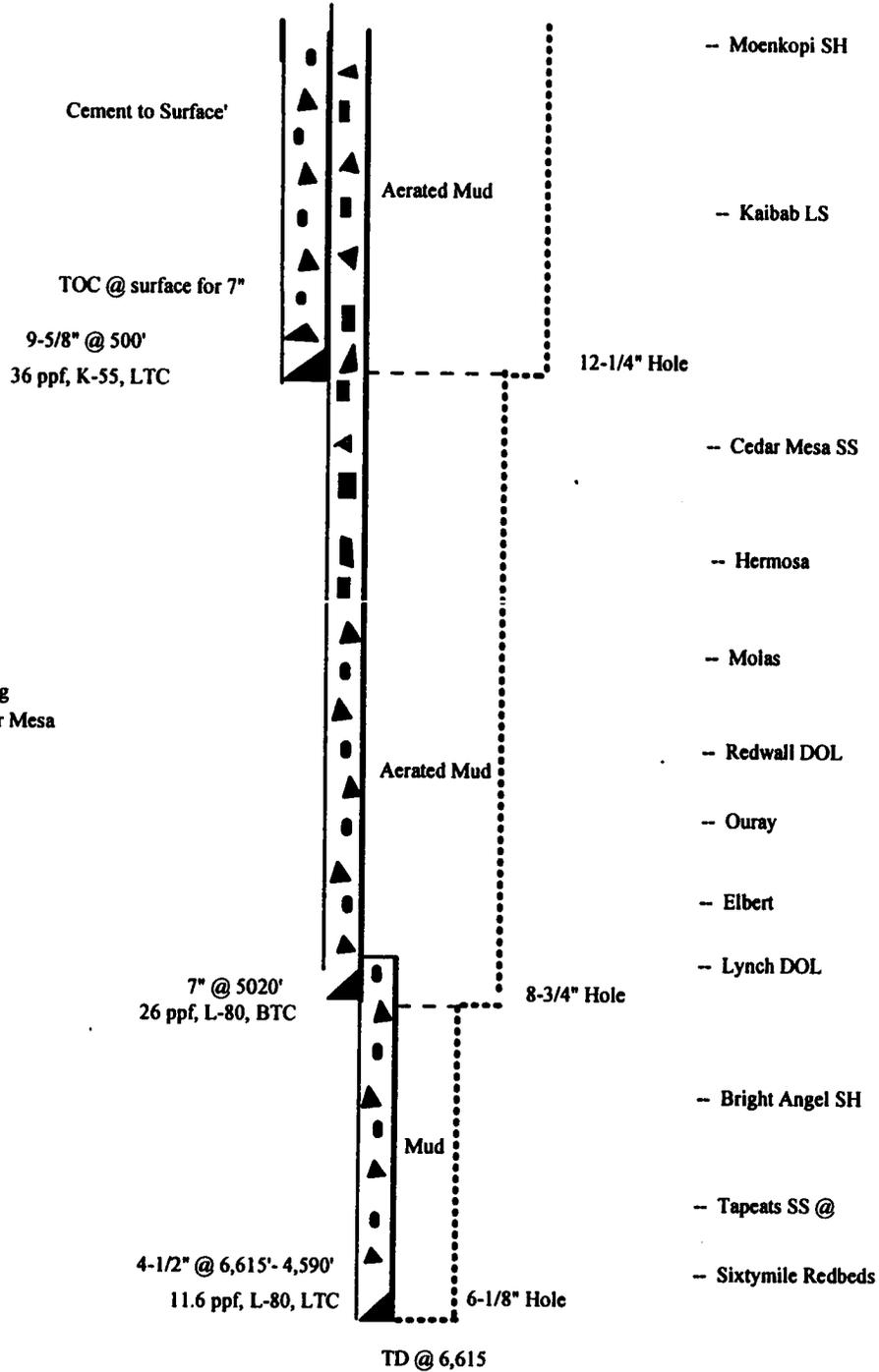
It is Conoco's intention to bury the cuttings on location once the pit has evaporated naturally.

Death Hollow State 32-1  
Section 32, R7E, T34S

Note: All Lead Cement Slurries  
Must exceed 500 psi compressive  
and must have lab test showing  
compressive strength.

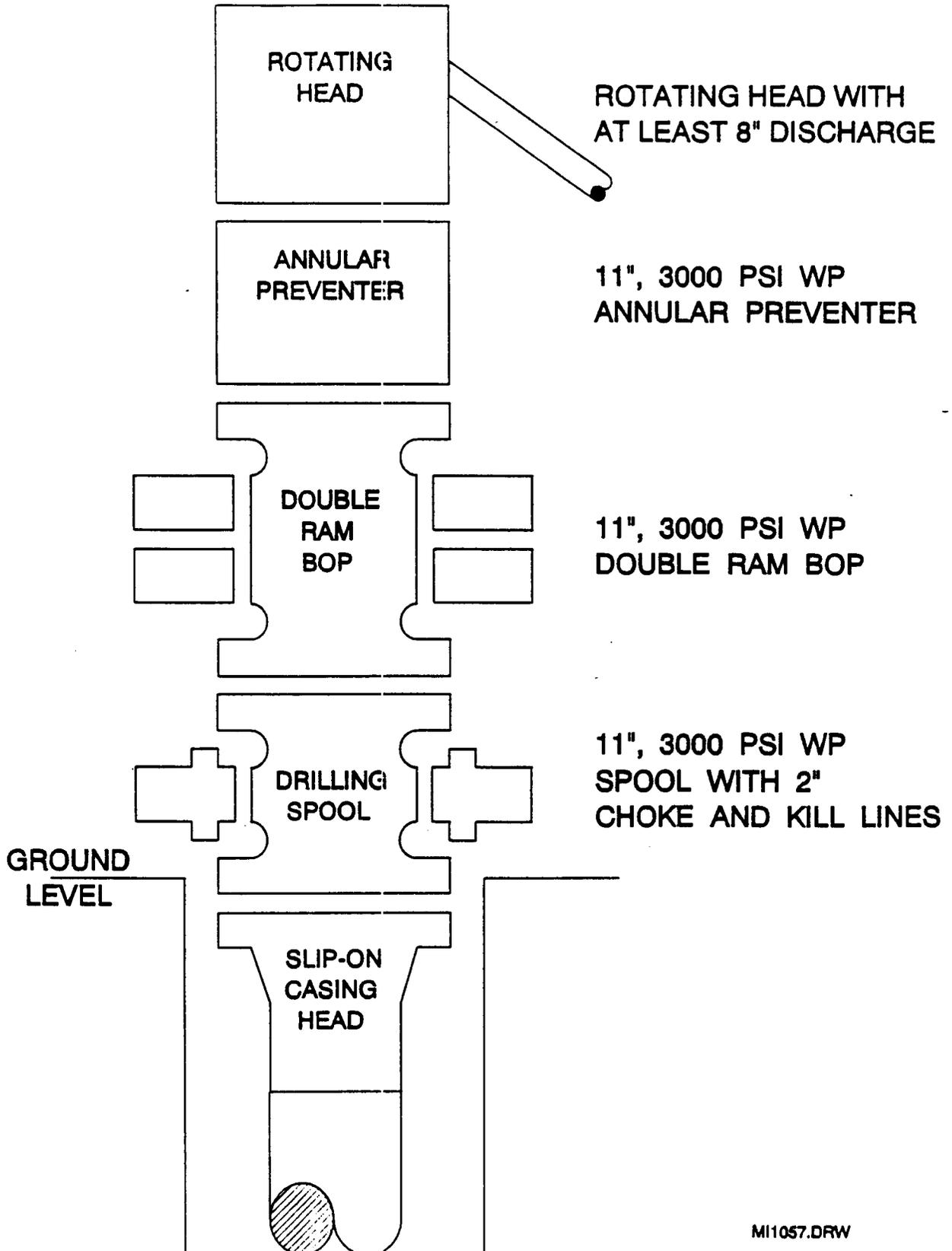
Note: State Requiring  
Cement across Navajo

Note: State Requiring  
Cement across Cedar Mesa

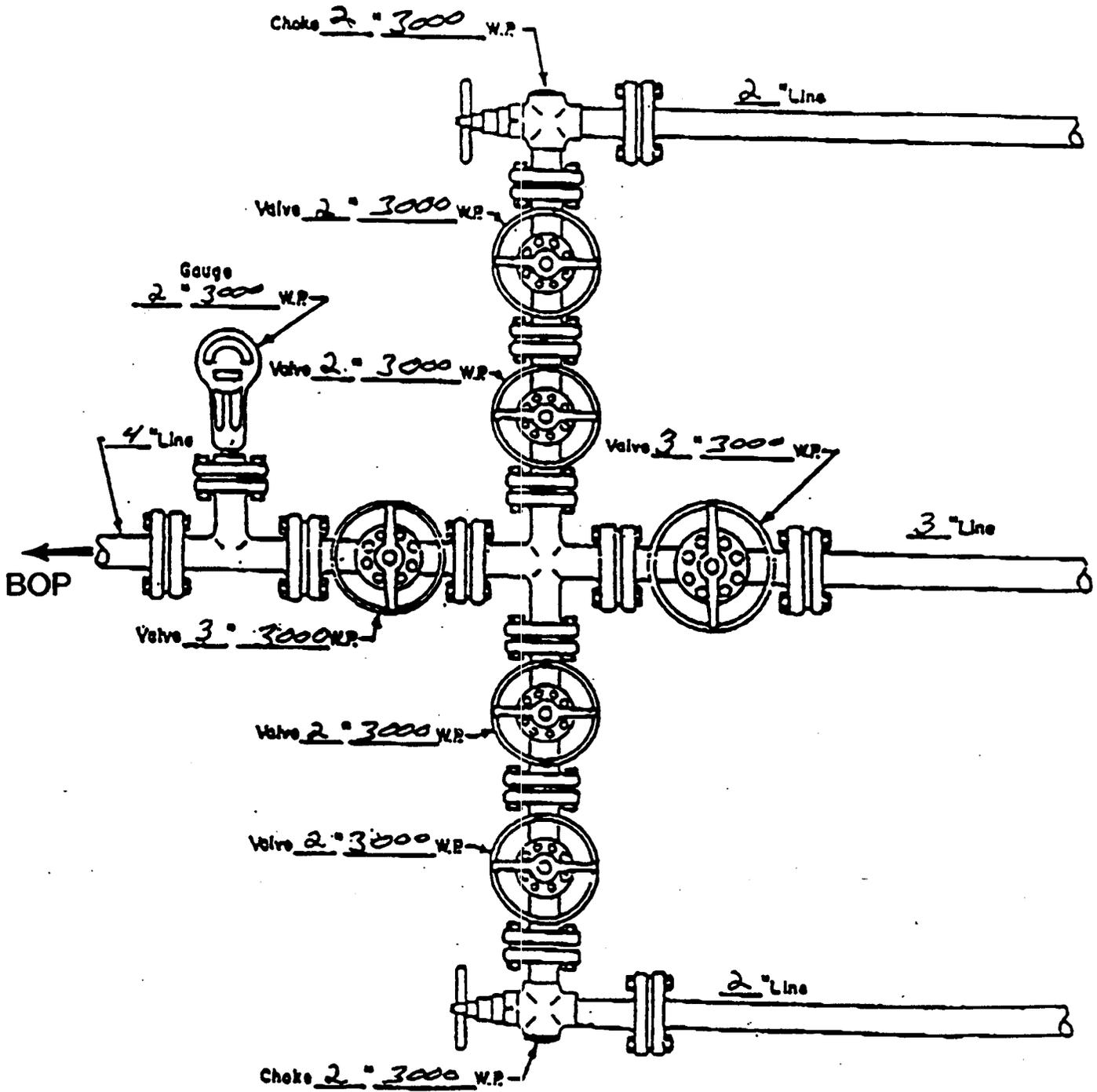


TD @ 6,615

# BOP SPECIFICATIONS



# CHOKE MANIFOLD DIAGRAM



MANIFOLD  
3000 # W.P.

- Manual
- Hydraulic

## Multi-Point Surface Use and Operations Plan

CONOCO INCORPORATED  
DEATH HOLLOW STATE #32-1  
NE4 NE4 SEC. 32, T34S, R7E  
GARFIELD COUNTY, UTAH

### **1. EXISTING ROADS: Refer to maps "A" & "B"**

- A. The proposed wellsite is staked reference stakes are present.
- B. The Death Hollow State #32-1 is located 20 miles Southeast of Boulder Utah in the NE1/4 NE1/4 Sec. 32, T34S, R7E, S.L.B.&M. Garfield County Utah. To reach the Death Hollow State #32-1 proceed East from Boulder on Burr Trail road for 29.6 miles to the intersection of this road and a county road. Turn right and continue 6.7 miles to proposed access road sign. Follow flags 1.3 miles to location.
- C. Access roads - refer to maps "A" and "B"
- D. Access roads within a one mile radius - refer to map "B"
- E. The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the well location.

### **2. PLANNED ACCESS ROADS: Refer to Map "B"**

Approximately 1.3 miles of new road construction will be required for access to the proposed well location.

- A. Width - maximum 30-foot overall right-of-way with an 18-foot road-running surface, crowned & ditched and/or sloped and dipped.
- B. Construction standard - the access road will be constructed to same standards as previously accepted in this area.

The road will be constructed to meet the standards of the anticipated traffic flow and all weather requirements. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

Prior to construction/upgrading, the roadway shall be cleared of any snow cover and allowed to dry completely.

Traveling off of the thirty (30) foot right-of-way will not be allowed.

Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or the accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of the drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts.

Upgrading shall not be allowed during muddy conditions.

Should mud holes develop, they will be filled in and detours around them avoided.

- C. Maximum grade - less than 10%
- D. Drainage design - the access road will be crowned and ditched or sloped and dipped, and water turnouts installed as necessary to provide proper drainage along the access road route.
- E. Turnouts - none required
- F. Culverts - none
- G. Surface materials - any surfacing materials required will be purchased from a local contractor having a permitted source of materials in the area. None are anticipated at this time.
- H. Gates, cattleguards or fence cuts - none required
- I. Road maintenance - during both the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and useable condition and will be maintained in accordance with the original construction standards. The access road right-of-way will be kept free of trash during operations.
- J. The proposed access road has been centerline flagged.
- K. Dust will be controlled on the roads and locations during construction and drilling by periodic watering of the roads and locations.

**3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS**

- A. Water wells - none known
- B. Abandoned wells - none known
- C. Temporarily abandoned wells - none known
- D. Disposal wells - none known
- E. Drilling wells - none known
- F. Producing wells - none known
- G. Shut-in wells - none known
- H. Injection wells - none known
- I. Monitoring wells - none known

**4. Location of Existing and/or Proposed Facilities Owned by Conoco Incorporated within a One Mile Radius:**

A. Existing

- 1. Tank batteries - none
- 2. Production facilities - none
- 3. Oil gathering lines - none
- 4. Gas gathering lines - none
- 5. Injection lines - none
- 6. Disposal lines - none

B. New Facilities Contemplated: in the event of production the following will be shown.

- 1. Proposed location and attendant lines, by flagging, if off well pad.
- 2. Dimensions of facilities.
- 3. Construction methods and materials.
- 4. Protective measures and devices to protect livestock and wildlife.
- 5. All buried pipelines will be buried to depth of 3 feet except at road crossings where they will be buried to a depth of 4 feet.
- 6. Construction width of the right-of-way/pipeline route shall be restricted to 50 feet of disturbance.
- 7. Pipeline location warning signs shall be installed within 90 days after construction is completed.
- 8. Conoco Inc. shall condition pipeline right-of-ways in a manner to preclude vehicular travel upon said rights-of-way, except for access to pipeline drips and valves.
- 9. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable arrangements will be made to acquire appropriate materials from private sources.
- 10. A dike will be constructed completely around any those production facilities which contain fluids (i.e.

production tanks, produced water tanks etc.). These dikes will be constructed of compacted subsoil, be impervious, hold 110% of the capacity of the largest tank and be independent of the back cut.

11. All permanent (onsite for six months or longer) above-the-ground constructed or installed, including pumping units, will be painted a flat non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Five State Rocky Mountain Interagency Committee. All production facilities will be painted within six months of installation. Facilities required complying with Occupational Health and Safety Act Rules and Regulations will be excluded from this painting requirement.

The required paint color for this well will be as stipulated by the State of Utah.

- C. The production (emergency) pit will be 8 feet in diameter and 8 feet deep. It will be lined with corrugated steel with a steel mesh cover.
- D. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right-of-way and any additional areas as specified in the approved Application for Permit to Drill.
- E. Reclamation of disturbed areas no longer needed for operation will be accomplished by grading, leveling and seeding as recommended by the State of Utah.
- F. The proposed pipeline will be submitted to the authorized officer via Sundry Notice for approval of subsequent operations.
- G. Conoco Inc. will be responsible for road maintenance from the beginning to completion of operations.

##### **5. Location and Type of Water Supply**

- A. Water to be used for the drilling of these wells will be hauled by truck over the roads described in item #1 and item #2, from the Boulder City water supply (which is approximately 20 miles Northwest of the proposed location).
- B. A water well may be drilled on this location if it is determined to be more viable than hauling water.

## **6. Source of Construction Materials**

- A. 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 a local gravel pit over existing access roads to the area. No special access other than for drilling operations and pipeline construction is needed.
- B. All access roads are described under item #2, and shown on Map #A.

All construction material for these location sites and access roads shall be borrow material accumulated during the construction of the location sites and access roads. No additional construction material from other sources is anticipated at this time, if in the future it is required the appropriate actions will be taken to acquire it from private sources.

- C. All surface disturbance area is on State surface.
- D. All trees on the locations, access roads, and proposed pipeline routes shall be purchased prior to construction from the State of Utah, and disposed of by one of the following methods:
  - i. Trees shall be cut with a maximum stump height of six inches (6"), and cut to 4' lengths and stacked off location. Trees will not be dozed off the location or, access road, unless approval is specifically granted by the authorized officer. Trees may also be dozed on pipeline routes and then pulled back onto right-of-way as part of final reclamation.
  - ii. Limbs may be scattered off location, access road or along the pipeline, but not dozed off.

Rootballs shall be buried or placed off location, access road, or pipeline route to be scattered back over the disturbed area as part of final reclamation.

## **7. Methods of Handling Waste Materials:**

- A. Cuttings - the cuttings will be deposited in the reserve/bloolie pit.
- B. Drilling fluids - including salts and chemicals will be contained in the reserve/bloolie pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within ninety (90) days

after termination of drilling and completion activities.

In the event adverse weather conditions prevent removal of the fluids from the reserve pit within this time period, an extension may be granted by the Authorized Officer upon receipt of a written request from Conoco Incorporated.

The reserve pit will be constructed so as not to leak, break, or allow discharge.

- C. Produced fluids - liquid hydrocarbons produced during completion operations will be placed in test tanks on the location. Produced waste water will be confined to a lined pit (reserve pit) or storage tank for a period not to exceed ninety (90) days after initial production. During the ninety (90) day period, in accordance with NTL-2B, an application for approval of a permanent disposal method and location, along with the required water analysis shall be submitted for the Authorized Officer's approval. Failure to file an application within the time frame allowed will be considered an incidence of noncompliance.

Any spills of oil, gas, salt water or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

- D. Sewage - self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of in the nearest, approved, sewage disposal facility.
- E. Garbage and other waste material - garbage, trash and other waste materials will be collected in a portable, self-contained and fully enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be burned on location or placed in the reserve pit.
- F. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location. Any open pits will be fenced during the drilling operation and the fencing will be maintained until such time as the pits are backfilled.
- G. The reserve and/or production pit will be constructed on the existing location and will not be located in natural

drainage's where a flood hazard exists or surface runoff will destroy or damage the pit walls. All pits will be constructed so as not to leak, break, or allow the discharge of liquids therefrom.

**8. Ancillary Facilities:**

None anticipated.

**9. Wellsite Layout:**

- A. Plat #1A shows the drill site layout as staked. Plat #1B has been drafted to visualize the planned cuts and fills across the location. An average minimum of eight (8) inches of topsoil will be stripped from the location (including areas of cut, fill, and/or subsoil storage) and stockpiled for future reclamation of the well site. Refer to Plat #1A for the location of the topsoil and subsoil stockpiles.
- B. Plat #2 is a diagram showing the rig layout. No permanent living facilities are planned. There will be two(2) trailers on location during drilling operations. If it is determined to be more feasible a man camp may be set up on location during drilling operations.
- C. A diagram showing the proposed production facility layout will be submitted to the Authorized Officer via Sundry Notice (Form 3160-5) for approval of subsequent operations.
- D. If determined to be necessary the reserve pit will be lined with a plastic liner.
- E. Prior to the commencement of drilling operations, the reserve pit will be fenced on three (3) sides using three strands of barbed wire according to the following minimum standards:
  - 1. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
  - 2. Standard steel, wood, or pipe posts shall be used between the corner braces. The maximum distance between any two (2) posts shall be no greater than sixteen (16) feet.
  - 3. All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The fourth side of the reserve pit will be fenced immediately upon removal of the drilling rig and the fencing will be maintained until the pit is backfilled.

- F. Any hydrocarbons on the pit will be removed from the pit as soon as possible after drilling operations are completed.

#### **10. Plans for Reclamation of the Surface:**

The State of Utah will be contacted prior to commencement of any reclamation operations.

##### **A. Production**

1. Immediately upon well completion, the well location and surrounding area(s) will be cleared of all debris, materials, trash and junk not required for production.
2. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.
3. If a plastic or nylon reinforced pit liner is used, it shall be removed at the mud line and disposed of in an approved landfill. Remaining liner shall be perforated before backfilling the reserve pit.
4. Before any dirt work to restore the location takes place, the reserve pit will be completely dry and all cans barrels, pipe, etc. will be removed.

Other waste and spoil materials will be disposed of immediately upon completion of drilling and workover activities.

5. The reserve pit and that portion of the location and access road not needed for production facilities/operations will be reclaimed within ninety (90) days from the date of well completion, weather permitting.
6. If the well is a producer, Conoco will:  
Upgrade and maintain access roads as necessary to prevent soil erosion, and accommodate year round traffic. Reshape areas unnecessary to operations, distribute topsoil, disk and seed all disturbed areas outside the work area according to the State of Utah recommended seed mixture.

If the well is abandoned/dry hole, Conoco will:  
Restore the access road and location to approximately the original contours. During reclamation of the site, push the fill material into cuts and up over the backslope. Leave no depressions that will trap water or form ponds. Distribute topsoil evenly over the location, and seed according to the recommended seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

Seedbed will be prepared by disking. Seed will be drilled on contours at a depth no greater than one-half inch (1/2"). In areas that cannot be drilled, seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed will be used whenever available.

Fall seeding will be completed after September 1 and prior to prolonged ground frost. Spring seeding, to be effective, will be completed after the frost has left the ground and prior to May 15th.

7. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed area(s). Prior to reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depressions will be left that would trap water and form ponds. All disturbed surfaces will be reseeded with a seed mixture to be recommended by the State of Utah.

Seed will be drilled on the contour to an approximate depth of one-half (1/2) inch. All seeding will be conducted after September 1 and prior to ground frost. Spring seeding will be done after the frost leaves the ground and no later than May 15. If the seeding is unsuccessful, Conoco Incorporated may be required to make subsequent seedings.

#### B. Dry Hole/Abandoned Location

1. On lands administered by the State of Utah abandoned well sites, roads, or other disturbed areas will be restored to near their original condition. This procedure will include:
  - (a) Re-establishing drainage patterns where applicable,
  - (b) Re-establishing soil conditions in such a way as to

ensure revegetation of disturbed areas.

2. All disturbed surfaces will be recontoured to the approximate natural contours and reseeded according to State specifications. Reclamation of the well pad and access road will be performed as soon as practical after final abandonment and reseeded operations will be performed in the fall or spring following completion of reclamation operations.

#### **11. Surface Ownership:**

All well sites and proposed access roads are situated on surface lands administered by the State of Utah.

#### **12. Other Information:**

- A. Topographic and geologic features of the area (reference Topographic Map #A) are:

The Death Hollow area lies East of Boulder Utah. The area is bounded on the East by Waterpocket Fold and Capitol Reef National Park, on the West by the Circle Cliffs and on the South by Glen Canyon National Recreation Area.

Numerous small drainages drain the area southerly from the top of the Boulder Mountain. This area has a steep gradient and is highly eroded, typical of the semi-arid rimrock and canyon regions of south central Utah.

The Escalante River carries most drainage from this area Southerly to the Colorado River (Lake Powell).

The Gulch and Horse Canyon provide major intermittent drainage to the Escalante River and the Burr Tail Roadway provides access to the area.

The area is accessed via the Burr Trail road from Boulder to the West. (See Maps #A and #B).

The area slopes from the top of Boulder Mountain to the North to the Colorado River to the South. The area is interlaced with numerous canyons and ridges which are extremely steep with numerous ledges formed in sandstone, conglomerates and shale deposits.

The soils in the semi-arid area of the Williams Fork Formation (Upper Cretaceous) and Wasatch Formation (Eocene) consist of light brownish gray clay (OL) to sand soil (SM-ML) type with poorly graded gravels.

Outcrops of sandstone ledges, conglomerate deposits and shale are common in this area.

The topsoil's in the area range from a sandy clay (SM-ML) type soil to a clayey (OL) soil.

The majority of the numerous washes and draws in the area are of a non-perennial nature flowing during the early spring run-off and heavy rain storms of long duration which are rare as the normal annual rainfall in the area is only 8".

The flora of the area includes pinon and juniper trees, sagebrush, mountain mahogany, serviceberry, rabbit brush, greasewood, four-wing saltbush, Gambel scrub oak, willow, tamarack, shadscale, Spanish bayonet, indian rice grass, cheatgrass, wheatgrass, curly grass, crested wheatgrass, sweet clover, gum weed, foxtail, mustard, Canadian thistle, Russian thistle, Kochia, sunflowers and cacti.

The fauna of the area includes cattle, horses, elk, deer, coyotes, rabbits, rodents, lizards, bull snakes, rattle snakes, water snakes and horned toads. Birds of the area are ground sparrows, bluejays, bluebirds, magpies, ravens, raptors, morning doves, swallows, nighthawks, hummingbirds, and chukar.

- B. The surface ownership is State. The surface use is grazing.
- C.
  1. The nearest live water is the Escalante River, which lies approximately 20 miles Southwesterly of the area.
  2. There are no known occupied dwellings in the area.
  3. An archaeological report will be forwarded upon completion.
  4. There are no reported restrictions or reservations noted on the oil and gas lease.

**13. Lessee's or Operator's Representative:**

Mike L. Mankin  
Right of Way Agent  
Conoco Inc.  
10 Desta Drive, Suite 430E  
Midland, Texas 79705-4500  
(915) 686-5794

**Certification:**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Conoco Incorporated will be fully responsible for the actions of their subcontractors.

A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site 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 Conoco Incorporated 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.

Mike L Mankin  
Authorized Signature

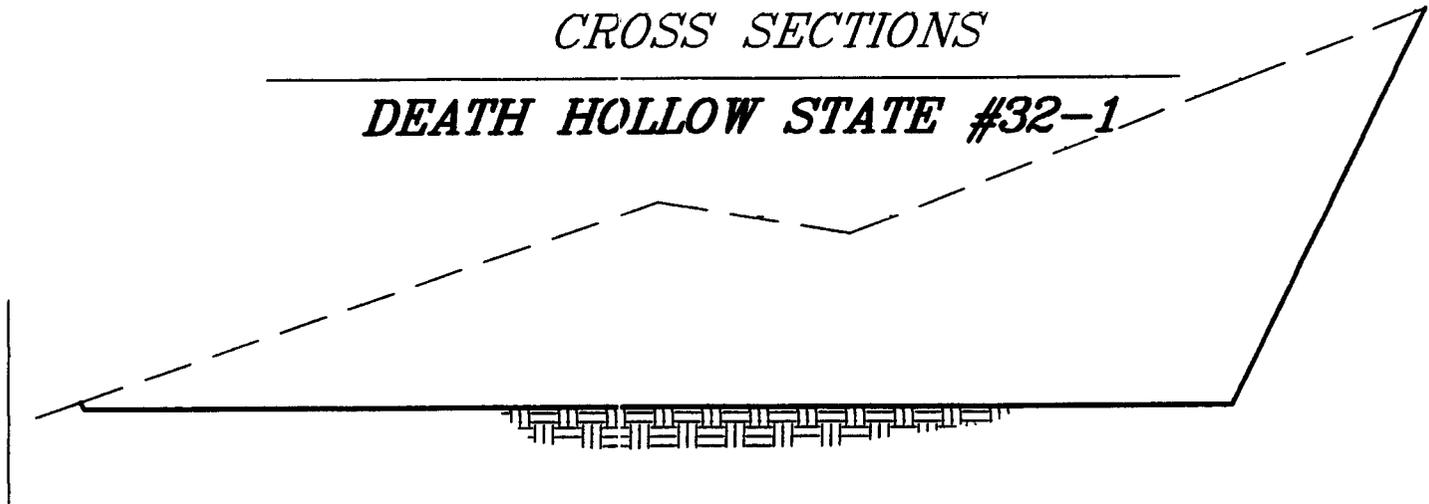
9/24/98  
Date

Right-of-Way Agent  
Title



*CROSS SECTIONS*  
*DEATH HOLLOW STATE #32-1*

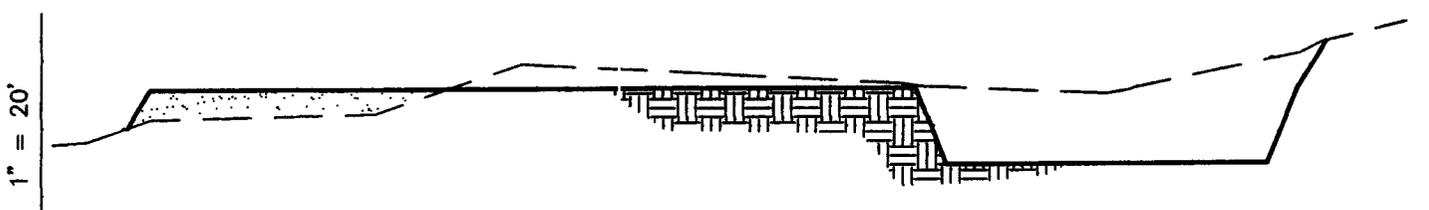
1" = 20'



1" = 50'

**STA. 3+00**

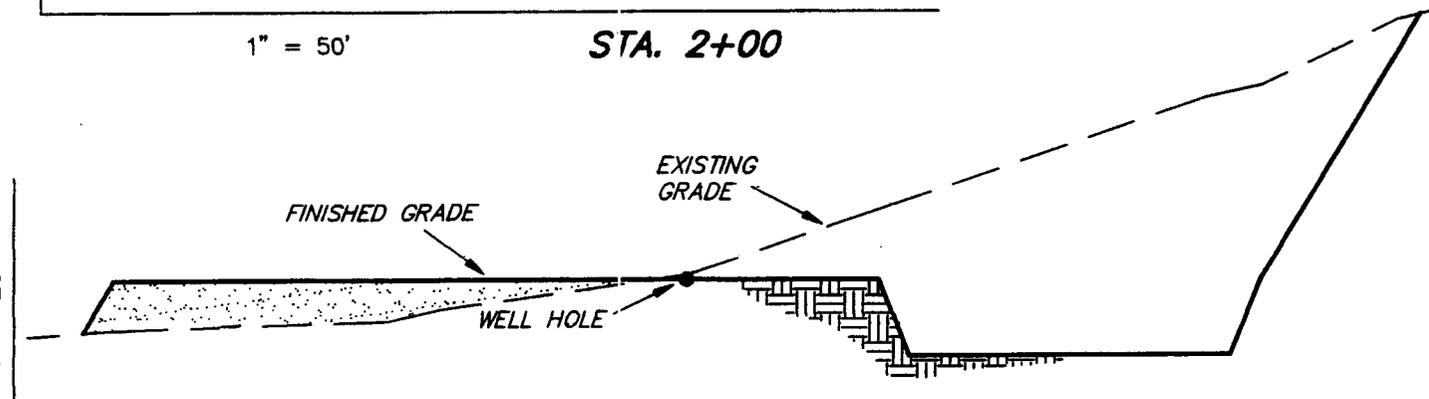
1" = 20'



1" = 50'

**STA. 2+00**

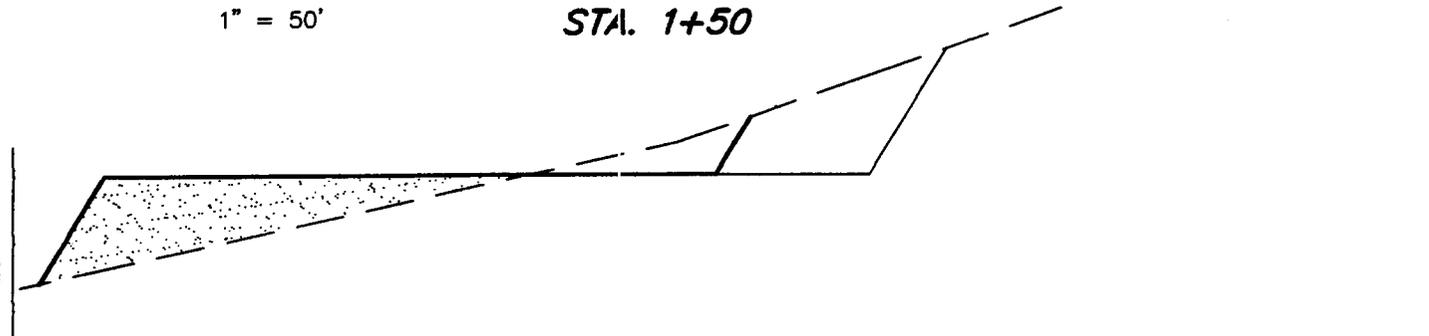
1" = 20'



1" = 50'

**STA. 1+50**

1" = 20'

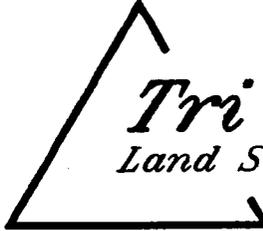


1" = 50'

**STA. 0+00**

**APPROXIMATE YARDAGES**

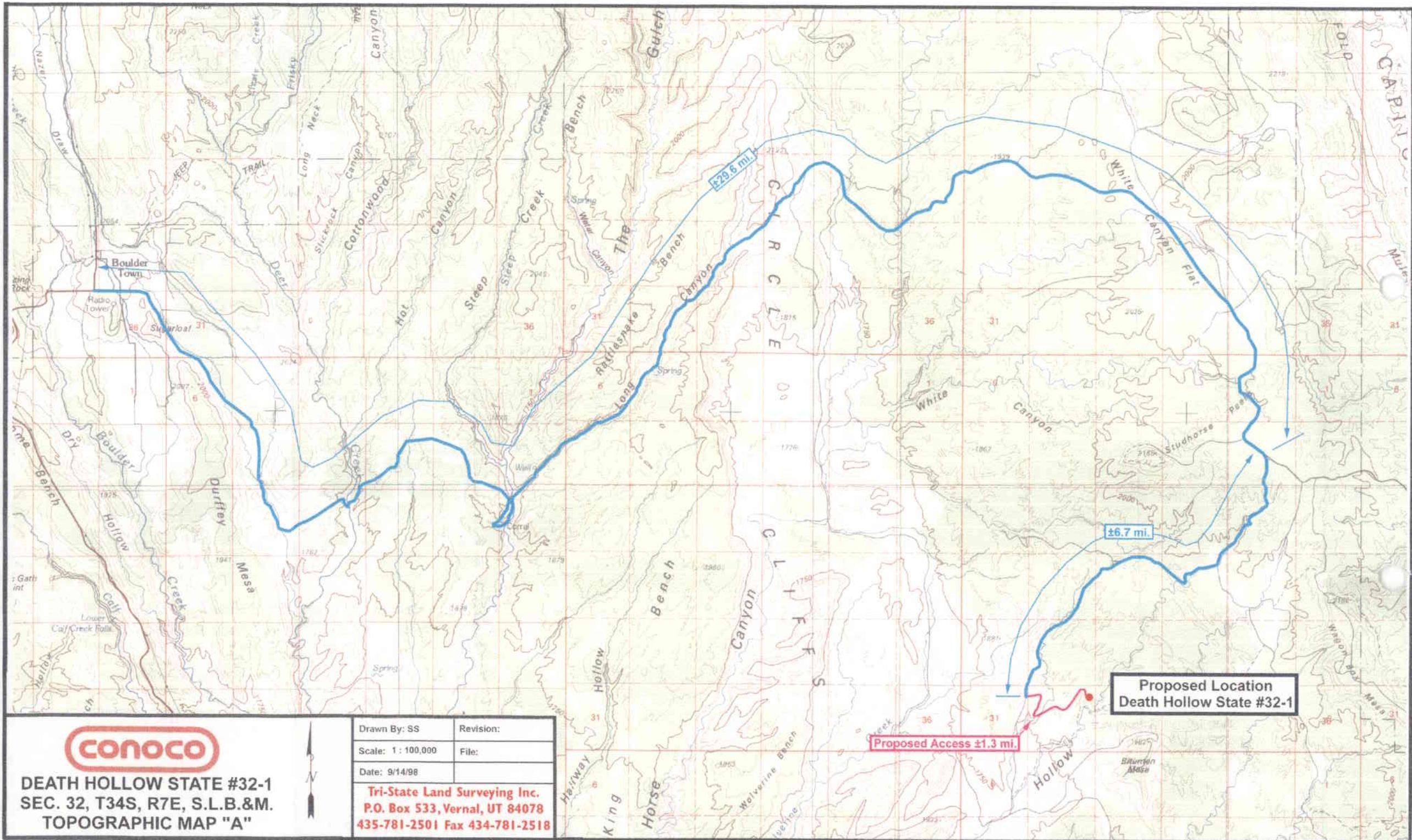
- CUT = 15,770 Cu. Yds.
- FILL = 4,850 Cu. Yds.
- PIT = 4,550 Cu. Yds.
- 6" TOPSOIL = 1,440 Cu. Yds.



*Tri State*  
*Land Surveying, Inc.*

(801) 781-2501

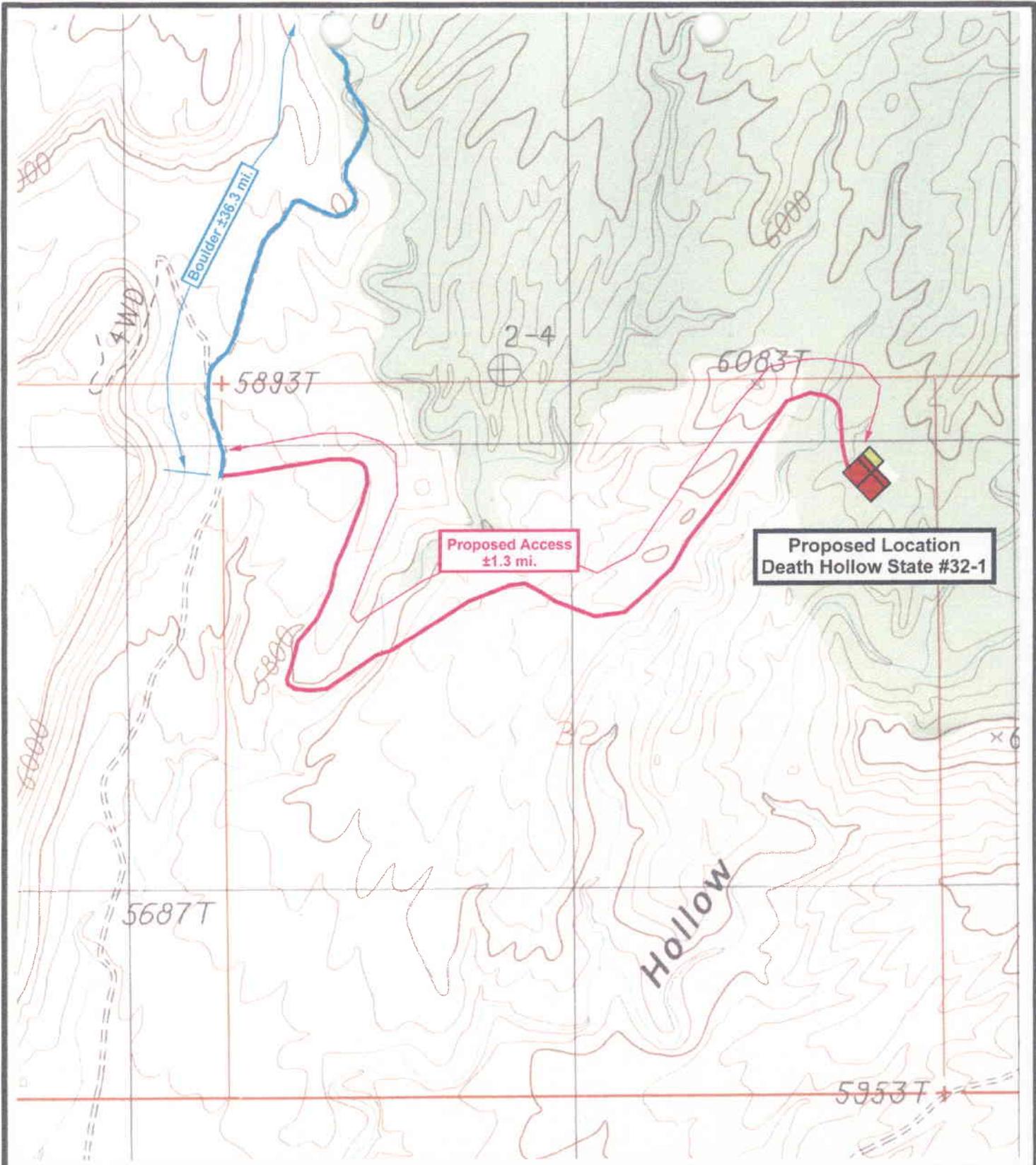
38 WEST 100 NORTH VERNAL, UTAH 84078



**DEATH HOLLOW STATE #32-1**  
**SEC. 32, T34S, R7E, S.L.B.&M.**  
**TOPOGRAPHIC MAP "A"**



Drawn By: SS	Revision:
Scale: 1 : 100,000	File:
Date: 9/14/98	
<b>Tri-State Land Surveying Inc.</b> <b>P.O. Box 533, Vernal, UT 84078</b> <b>435-781-2501 Fax 434-781-2518</b>	



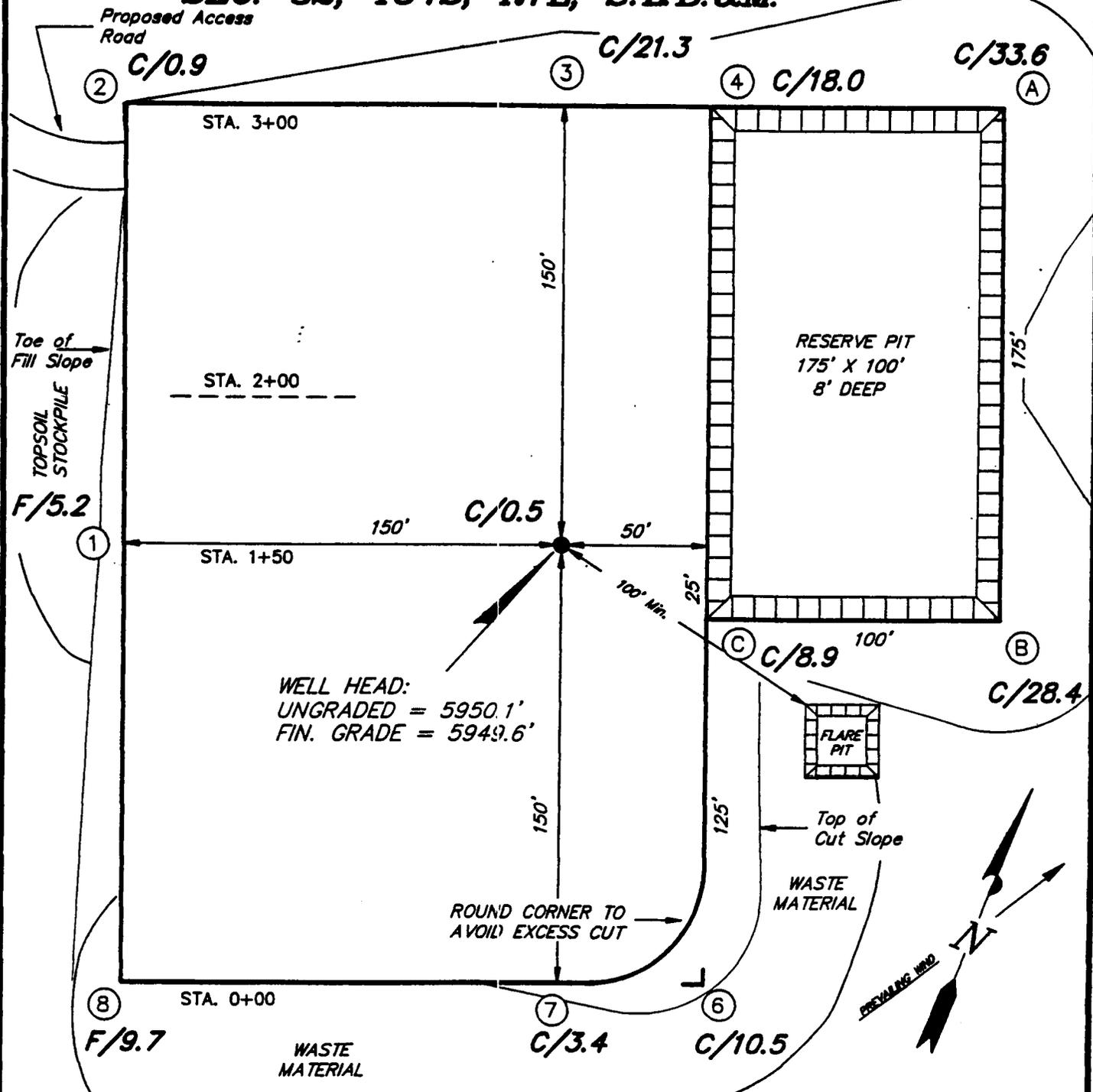
DEATH HOLLOW STATE #32-1  
 SEC. 32, T34S, R7E, S.L.B.&M.  
 TOPOGRAPHIC MAP "B"



Drawn By: SS	Revision:
Scale: 1" = 1000'	File:
Date: 9/14/98	
<b>Tri-State Land Surveying Inc.</b> <b>P.O. Box 533, Vernal, UT 84078</b> <b>435-781-2501 Fax 434-781-2518</b>	

# CONOCO, INC.

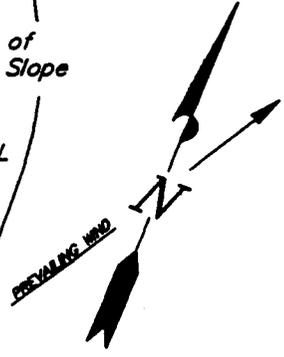
## DEATH HOLLOW STATE #32-1 SEC. 32, T34S, R7E, S.L.B.&M.



WELL HEAD:  
UNGRADED = 5950.1'  
FIN. GRADE = 5949.6'

RESERVE PIT  
175' X 100'  
8' DEEP

FLARE PIT



**REFERENCE POINTS**  
200' WEST = 5943.1'  
250' WEST = 5944.5'

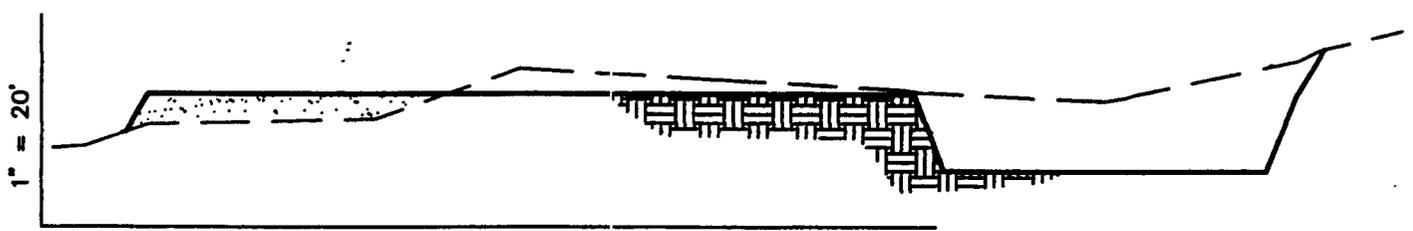
SURVEYED BY:	D.S.
DRAWN BY:	J.R.S.
DATE:	9-7-98
SCALE:	1" = 50'
FILE:	

**Tri State**  
Land Surveying, Inc.  
(801) 781-2501  
38 WEST 100 NORTH VERNAL, UTAH 84078

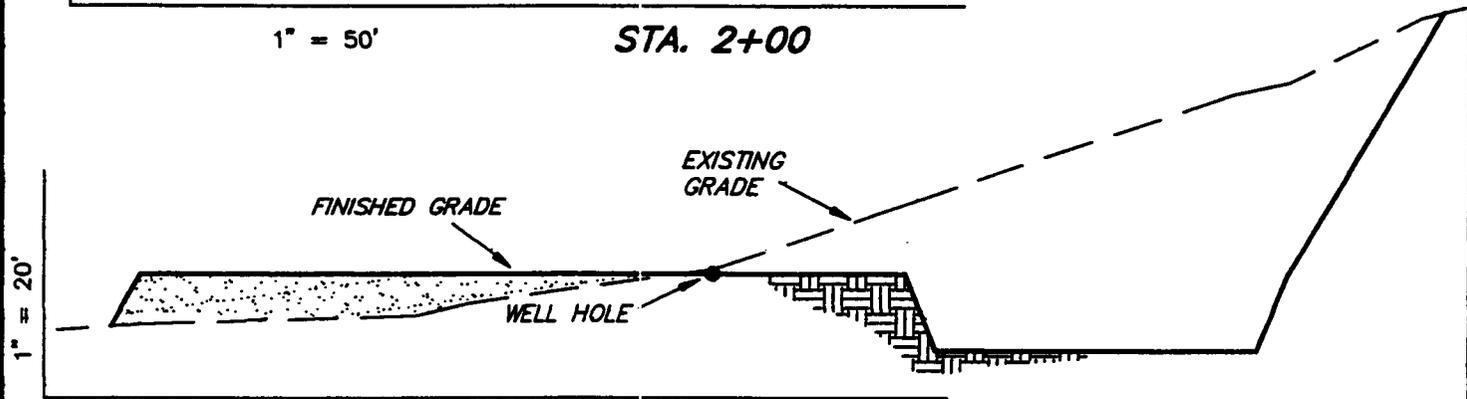
# CROSS SECTIONS DEATH HOLLOW STATE #32-1



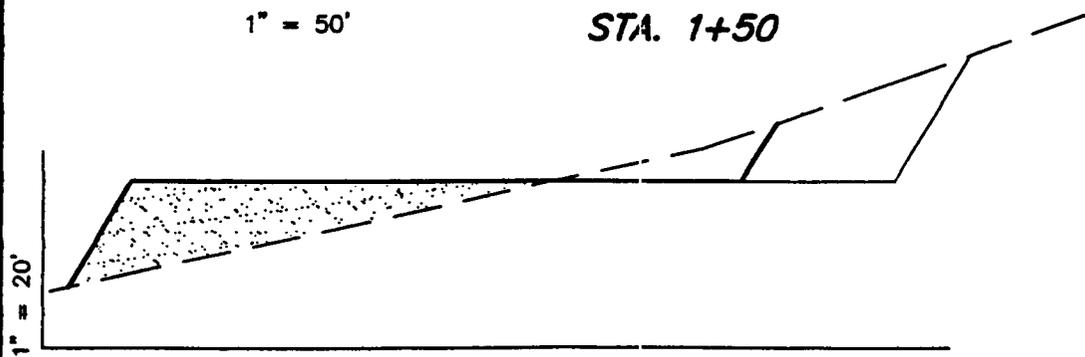
1" = 50' STA. 3+00



1" = 50' STA. 2+00



1" = 50' STA. 1+50



1" = 50' STA. 0+00

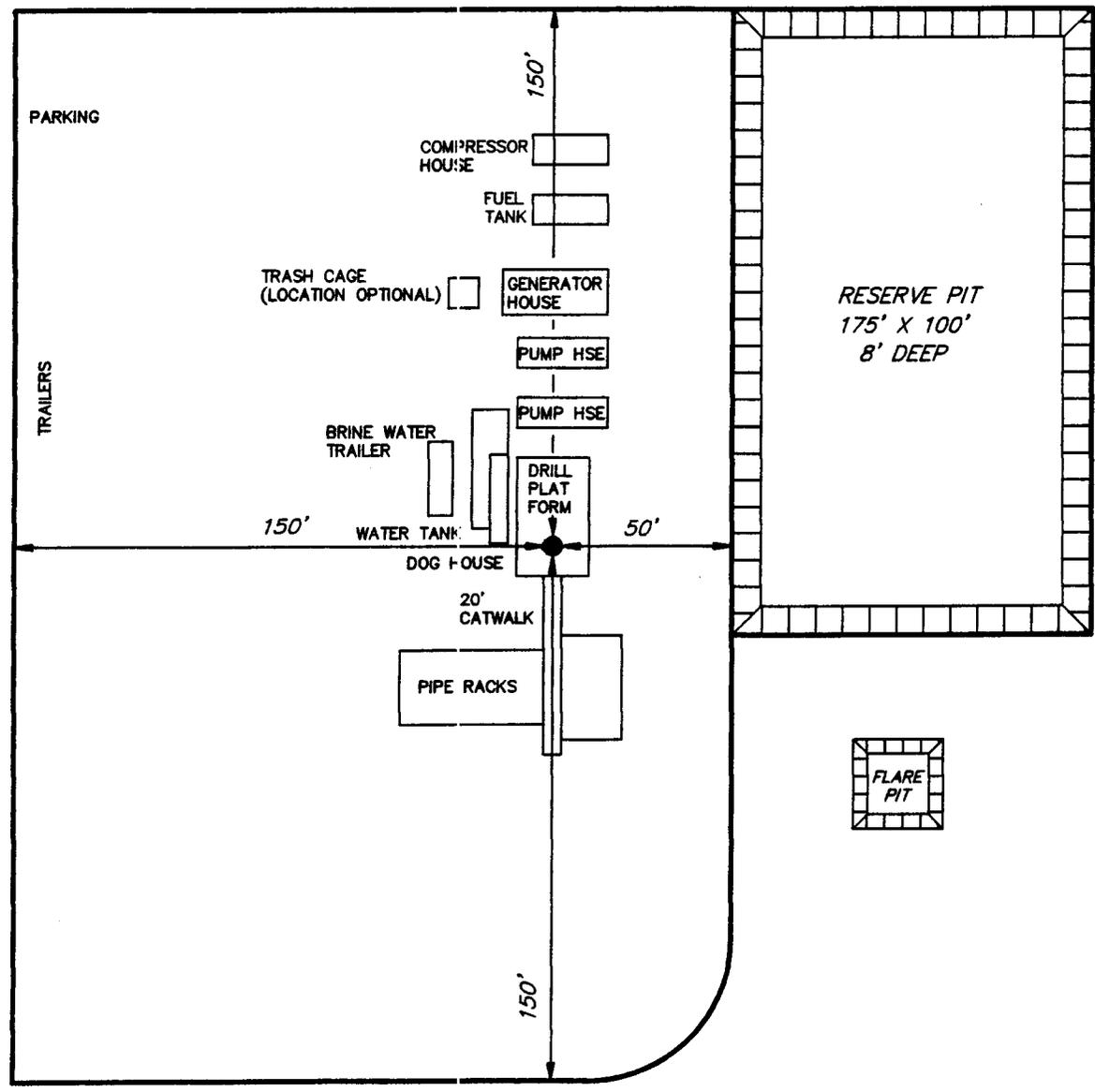
### APPROXIMATE YARDAGES

- CUT = 15,770 Cu. Yds.
- FILL = 4,850 Cu. Yds.
- PIT = 4,550 Cu. Yds.
- 6" TOPSOIL = 1,440 Cu. Yds.

**Tri State**  
Land Surveying, Inc.  
(801) 781-2501  
38 WEST 100 NORTH VERNAL, UTAH 84078

# TYPICAL RIG LAYOUT

## DEATH HOLLOW STATE #32-1



**Tri State**  
Land Surveying, Inc.  
(801) 781-2501  
38 WEST 100 NORTH, VERNAL, UTAH 84078

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/01/98

API NO. ASSIGNED: 43-017-30141

WELL NAME: DEATH HOLLOW ST 32#1  
 OPERATOR: CONOCO INC (N0260)  
 CONTACT: Mike Munkin (915) 686-5794

PROPOSED LOCATION:  
 NENE 32 - T34S - R07E  
 SURFACE: 0859-FNL-0747-FEL  
 BOTTOM: 0859-FNL-0747-FEL  
 GARFIELD COUNTY  
 WILDCAT FIELD (001)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering	11/3/98	RTK
Geology		
Surface		

LEASE TYPE: STA  
 LEASE NUMBER: ML-45333  
 SURFACE OWNER: State

PROPOSED FORMATION: TAPTS

RECEIVED AND/OR REVIEWED:

Plat  
 Bond: Federal  State  Fee   
 (No. 8140-60-24)

Potash (Y/N)  
 Oil Shale (Y/N) \*190-5(B)  
 Water Permit  
 (No. Boulder City Wtr Supply)

RDCC Review (Y/N)  
 (Date: DOGm Ltr. 10-5-98 / Comments due 10-27-98)

St/Fee Surf Agreement (Y/N)

LOCATION AND SITING:

R649-2-3. Unit \_\_\_\_\_

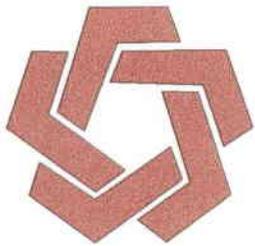
R649-3-2. General

R649-3-3. Exception

Drilling Unit  
 Board Cause No: \_\_\_\_\_  
 Date: \_\_\_\_\_

COMMENTS: \* Presite conducted 9-9-98.

STIPULATIONS: Engr. See Review Sheet.  
① STATEMENT OF BASIS



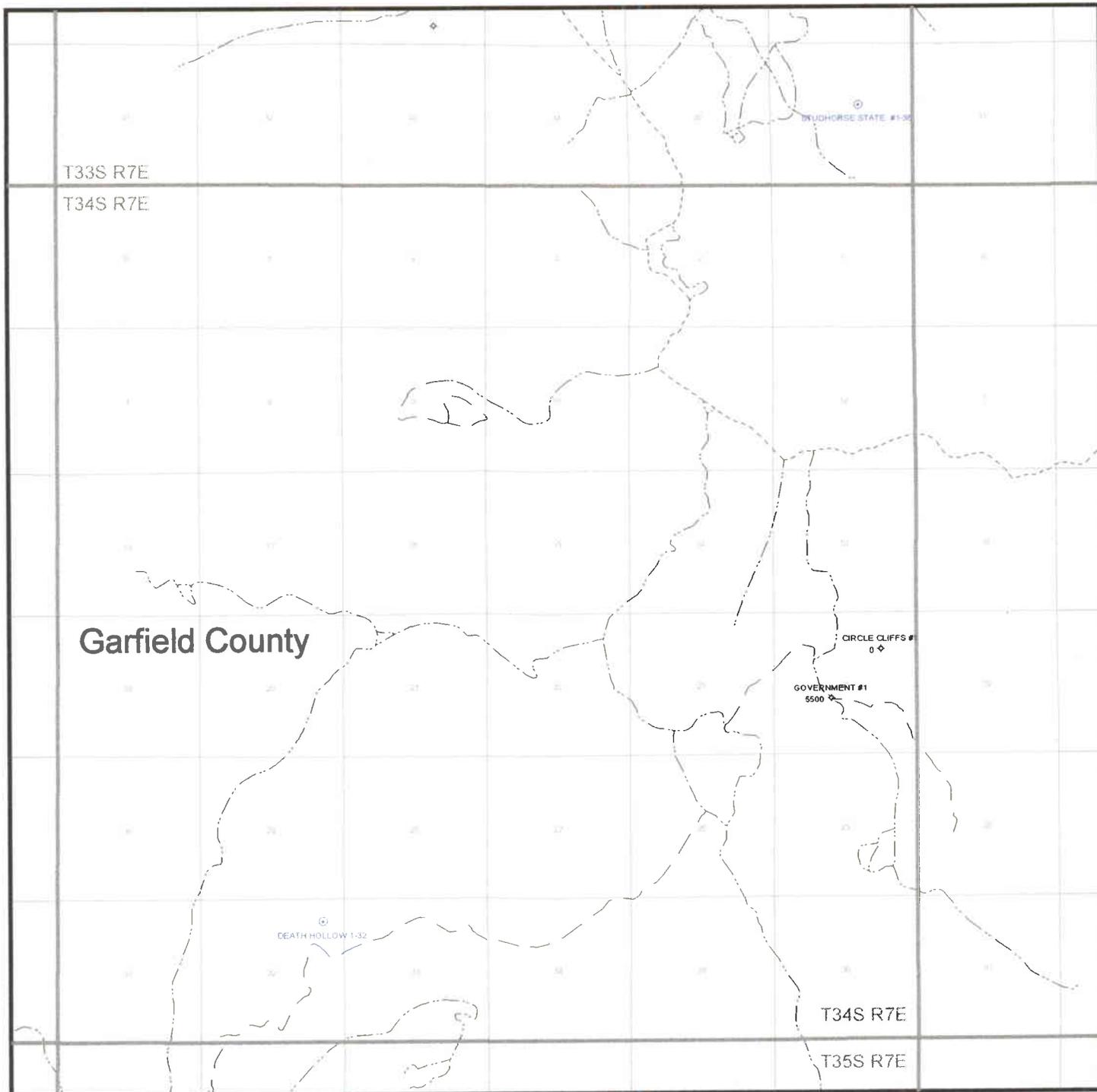
DIVISION OF OIL, GAS & MINING

OPERATOR: CONOCO INC. (N0260)

FIELD: WILDCAT (001)

SEC. 36, TWP 33S, RNG 7E, & SEC. 32, TWP 34S, R7E

COUNTY: GARFIELD STATE LANDS



DATE PREPARED:  
2-OCT-1998

# DIVISION OF OIL, GAS AND MINING

## APPLICATION FOR PERMIT TO DRILL STATEMENT OF BASIS

**Operator Name:** Conoco, Inc.

**Name & Number:** Death Hollow State 32-1

**API Number:** 43-017-30141

**Location:** 1/4, 1/4 NENE Sec. 32 T. 34S R. 7E

### **Geology/Ground Water:**

"Fresh" ground water resources may be encountered in the Permian Kaibab Limestone, White Rim Sandstone and Cedar Mesa Sandstone and the Pennsylvanian Honaker Trail Formation(?). Moderately fracture, joint and/or weathering cracking permeability may be developed on the thin "soil" on the Triassic Moenkopi Formation. Fresh water bearing zones should be included within the surface cased interval. The operator will respond to protect the fresh water zones by extending the surface casing string as needed. Extending the proposed casing and cement will adequately isolate any shallow zones containing water.

**Reviewer:** Christopher J. Kierst **Date:** 9/17/98

### **Surface:**

There is no nearby surface water documented. Precipitation will be deflected around the location with ditches around cuts and berms and culverts. There are no nearby culinary or irrigation water supply wells. The site was photographed and characterized on 9/9/98. Provision was made to ensure site rehabilitation, litter and waste control, preservation of drainage patterns and the integrity of local infrastructure, groundwater and other resources. The well utilities and gas gathering system will follow the approach roadway.

**Reviewer:** Christopher J. Kierst **Date:** 9/17/98

### **Conditions of Approval/Application for Permit to Drill:**

- 1) Culverts sufficient to manage expected runoff, standing and surface water shall be installed in crossed drainages.
- 2) Berms shall be constructed around location and pit.
- 3) Site infrastructure shall be constructed as per drilling location plat.
- 4) A synthetic pit liner with a minimum thickness of 12 mils shall be installed in the reserve pit.
- 5) Conductor, surface and intermediate casing strings shall be cemented over their entire lengths.

## Conoco Death Hollow State 32 #1

Well name:  
 Operator: **Conoco**  
 String type: **Surface**  
 AFE No.:  
 Location: **Garfield Co.**

Project ID:  
**43-017-30141**

**Design parameters:**

**Collapse**

Mud weight: 8.800 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature: 82 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 500 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: -5 psi  
 Internal gradient: 0.468 psi/ft  
 Calculated BHP: 228 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Tension is based on buoyed weight.  
 Neutral point: 435 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 7,500 ft  
 Next mud weight: 8.800 ppg  
 Next setting BHP: 3,429 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 7,500 ft  
 Injection pressure: 7,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft <sup>3</sup> )
1	500	9.625	36.00	K-55	LT&C	500	500	8.765	35.6
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	228	2020	8.84	228	3520	15.41	16	489	31.25 J

Prepared by: RJK  
 Department of Natural Resources

Phone:  
 FAX:

Date: November 3, 1998  
 State of Utah

**Engineering Stipulations:** Conductor, surface, and intermediate casing strings; and, production liner shall be cemented over their entire lengths. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension. Collapse is based on a vertical depth of 500 ft, a mud weight of 8.8 ppg. The casing is considered to be evacuated for collapse purposes. In addition, burst strength is biaxially adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

## Conoco Death Hollow State 32 #1

Well name:	<b>Conoco Death Hollow State 32 #1</b>	
Operator:	<b>Conoco</b>	Project ID:
String type:	Intermediate	43-017-30141
AFE No.:		
Location:	Garfield Co.	

**Design parameters:**

**Collapse**  
 Mud weight: 8.800 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**  
 Design factor 1.125

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature: 145 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 500 ft

**Burst:**  
 Design factor 1.00

Cement top: Surface

**Burst**

Max anticipated surface pressure: 0 psi  
 Internal gradient: 0.457 psi/ft  
 Calculated BHP 2,295 psi

**Tension:**  
 8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Non-directional string.

No backup mud specified.

Tension is based on buoyed weight.  
 Neutral point: 4,354 ft

**Re subsequent strings:**

Next setting depth: 7,500 ft  
 Next mud weight: 8.800 ppg  
 Next setting BHP: 3,429 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 7,500 ft  
 Injection pressure 7,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft <sup>3</sup> )
1	5020	7	26.00	L-80	Buttress	5020	5020	6.151	263.2
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2295	5410	2.36	2295	7240	3.15	113	604	5.34 B

Prepared by: RJK  
 Department of Natural Resources

Phone:  
 FAX:

Date: November 3, 1998  
 State of Utah

Engineering Stipulations: Conductor, surface, and intermediate casing strings; and, production liner shall be cemented over their entire lengths. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension. Collapse is based on a vertical depth of 5020 ft, a mud weight of 8.8 ppg. The casing is considered to be evacuated for collapse purposes. In addition, burst strength is biaxially adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

## Conoco Death Hollow State 32 #1

Well name:

Operator: **Conoco**  
 String type: **Liner: Production**  
 AFE No.:  
 Location: **Garfield Co.**

Project ID:  
**43-017-30141**

**Design parameters:**

**Collapse**

Mud weight: 8.800 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature 168 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 420 ft

Cement top: 3,967 ft

Liner top: 4,590 ft  
 Non-directional string.

**Burst**

Max anticipated surface pressure: 0 psi  
 Internal gradient: 0.457 psi/ft  
 Calculated BHP 3,024 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Tension is based on buoyed weight.  
 Neutral point: 6,350 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2015	4.5	11.60	L-80	LT&C	6615	6615	3.875	46.7
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3024	6350	2.10	3024	7780	2.57	20	212	10.44 J

Prepared by: RJK  
 Department of Natural Resources

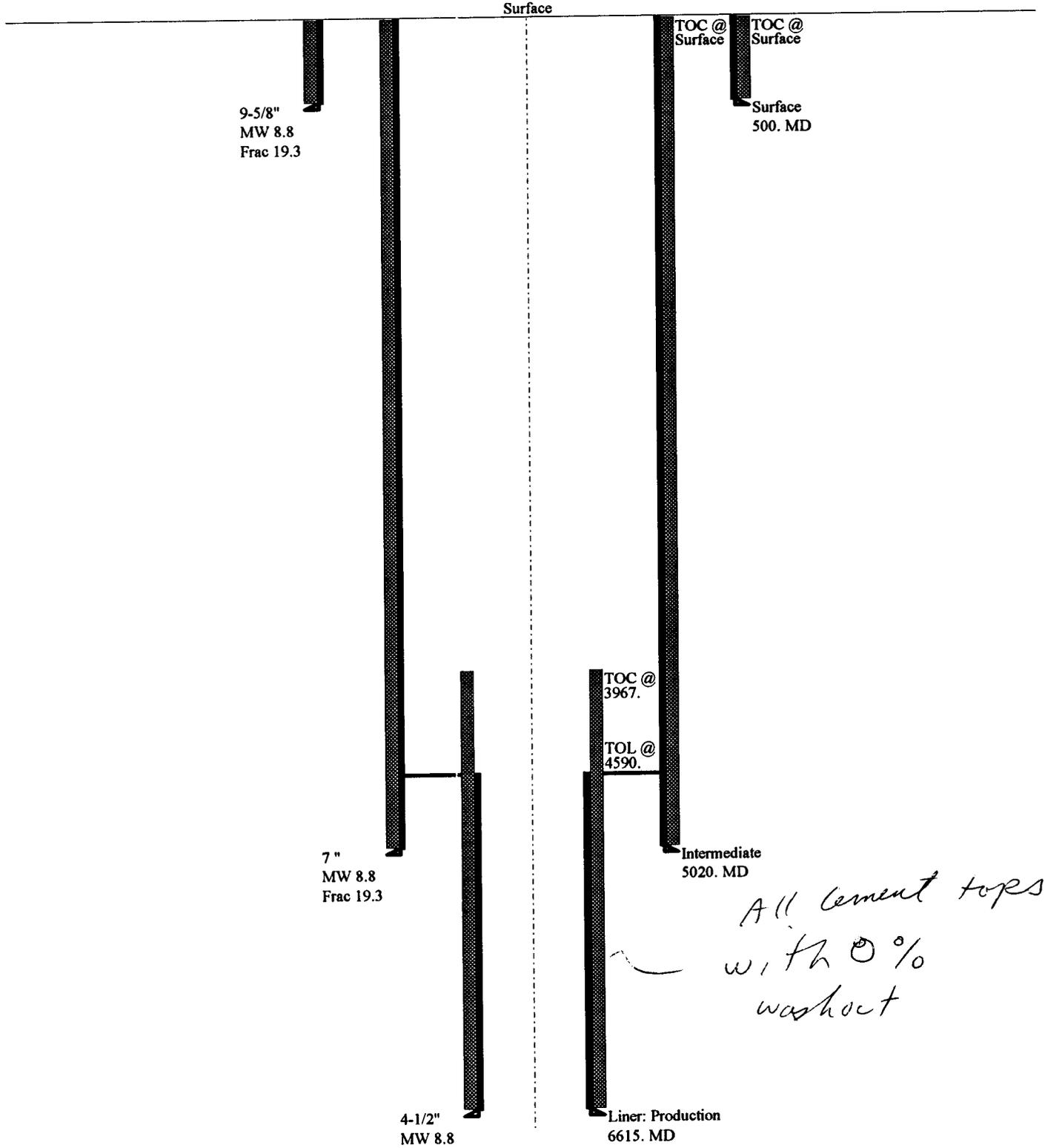
Phone:  
 FAX:

Date: November 3, 1998  
 State of Utah

Engineering Stipulations: Conductor, surface, and intermediate casing strings; and, production liner shall be cemented over their entire lengths. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension. For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 6615 ft, a mud weight of 8.8 ppg. The casing in addition, burst strength is biaxially adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Conoco Death Hollow State #2 #1  
Casing Schematic



B. Federal

6. UT981007-020 USDA/Forest Service: Fishlake National Forest - Old Woman Plateau - proposed electronic site. Comments due 11/23/98.
7. UT981014-020 USDA/Forest Service: Ashley National Forest - Proposed Land and Resource Management Forest Plan - fire management activities. This is not the complete document; if additional information is needed please contact GOPB. Comments due 11/9/98.
8. UT981016-020 USDA/Forest Service: Dixie National Forest - Marshall Canyon - Water Development - scoping. Comments due 11/10/98.

V. Short Turnaround

**Please note! Due to the short turnaround please comment directly to the Agency with a copy to GOPB.**

A. State

9. UT981006-010 DOGM/Garfield County: Application for Permit to Drill - proposal to drill a wildcat well on state lease ML-45333 (Sec. 32, T34S, R7E) (contact person - John Baza 801/538-5334). Comments due 10/27/98.
10. UT981006-020 DOGM/Garfield County: Application for Permit to Drill - proposal to drill a wildcat well on state lease ML-45298 (Sec. 36, T33S, R7E). Comments due 10/27/98.
11. UT981019-010 DOGM/Carbon County: Application for Permit to Drill - proposal to drill a wildcat well, the Utah 32-276, on state lease ML-43209 (Sec. 11/3/98.

# Five County Association of Governments

906 North 1400 West  
St. George, Utah 84770

Fax (435) 673-3540



SOUTHWEST UTAH

Post Office Box 1550  
St. George, Utah 84771

Office (435) 673-3548

## AREAWIDE CLEARINGHOUSE A-95 REVIEW

Type of Action: Pre-Application \_\_\_\_\_ Notification of Intent   x   Application \_\_\_\_\_  
Notice of Federal Action \_\_\_\_\_

Receipt Date   10-06-98   SAI Number \_\_\_\_\_ ACH Number \_\_\_\_\_

Applicant Identification, Address

Oil, Gas and Mining  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

Funding:

Federal N/A  
Supplemental  
State  
Local  
Other

Applicant's Project Title:

**APPLICATION FOR PERMIT TO DRILL**

Description: **Conoco, Inc. proposes to drill the Death TOTAL  
Hollow State 32 #1 well (wildcat) on state lease ML-45333,  
Garfield County, Utah.**

## AREAWIDE CLEARINGHOUSE COMMENTS ON PROPOSAL FOR FEDERAL AID

Staff review completed (date): **10-06-98**

Screening Committee review completed (date) **10-14-98**

Executive Board Review Completed (date)

Referred to original for additional information (date)

- Recommend Approval   x   Comments (see reverse side of page)   x
- Conditionally approved as follows (see reverse side of page) \_\_\_\_\_
- Recommend Disapproval \_\_\_\_\_ Comments (see reverse side of page) \_\_\_\_\_
- The project described above ( x ) does ( ) not conform with the policy or planning of the multijurisdictional area it directly impacts. Additional information ( ) Is ( x ) Is not needed.
- We also serve notice that all requirements of the Project Notification and Review System for this multijurisdictional area have been met. Therefore, attach this letter to your application and forward to the federal funding agency.
- If this project will be a renewal or continuation grant, please submit your application next year to this areawide clearinghouse for re-review 30 days prior to submission to federal funding agency.
- We would anticipate reviewing final project application 30 days prior to submission for funding.

If any Clearinghouse Comments go unresolved, Federal law requires the Applicant to attach a copy of all negative comments to the project application and forward them both to the Federal Funding Agency(ies).

  
\_\_\_\_\_  
Authorizing Official

  10-14-98    
\_\_\_\_\_  
Date

Copy of review sent to applicant

## AREAWIDE CLEARINGHOUSE COMMENTS

**Conoco, Inc. has applied to the Division of Oil, Gas and Mining to drill two wells on state land in Garfield County. The first, Death Hollow State 32 #1 (ML-45333), is located in Section 32, Township 34 South, Range 7 East. The second well, Studhorse State 36 #1, is located in Section 36, Township 33 South, Range 7 East. The Garfield County Commission has consistently supported the development of natural resources, especially the development of the county's oil and gas potential. With so much of the county under more restrictive federal regulations, it is imperative that the opportunity offered by State Lands, not be wasted. It has therefore been the position of the current County Commission to strongly endorse the development of wildcat wells on state lands so as to "prove-up" potential oil and gas reserves in Garfield County. Recommend approval. (Robert Hugie)**

STATE ACTIONS

Mail to:  
RDCC Coordinator  
116 State Capitol  
Salt Lake City, Utah 84114

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1. ADMINISTERING STATE AGENCY OIL, GAS AND MINING 1594 West North Temple, Suite 1210 P.O. Box 145801 Salt Lake City, Utah 84114-5801	2. STATE APPLICATION IDENTIFIER NUMBER: (assigned by State Clearinghouse)
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4. AREAWIDE CLEARING HOUSE(S) RECEIVING STATE ACTIONS: (to be sent out by agency in block 1) Five Counties Association of Governments	3. APPROXIMATE DATE PROJECT WILL START: Upon Approval
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5. TYPE OF ACTION: <input type="checkbox"/> Lease <input checked="" type="checkbox"/> Permit <input type="checkbox"/> License <input type="checkbox"/> Land Acquisition <input type="checkbox"/> Land Sale <input type="checkbox"/> Land Exchange <input type="checkbox"/> Other _____
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6. TITLE OF PROPOSED ACTION: Application for Permit to Drill
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7. DESCRIPTION: Conoco, Inc. proposes to drill the Death Hollow State 32 #1 well (wildcat) on state lease ML-45333, Garfield County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.
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8. LAND AFFECTED (site location map required) (indicate county) NE/4, NE/4, Section 32, Township 34 South, Range 7 East, Garfield County, Utah
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9. HAS THE LOCAL GOVERNMENT(S) BEEN CONTACTED? No
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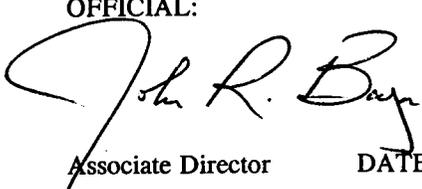
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10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR: Degree of impact is based on the discovery of oil or gas in commercial quantities.
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11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:
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12. FOR FURTHER INFORMATION, CONTACT:	13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:  Associate Director	DATE: October 5, 1998
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John R. Baza PHONE: 538-5334
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ON-SITE PREDRILL EVALUATION

Division of Oil, Gas and Mining

OPERATOR: Conoco, Inc.

WELL NAME & NUMBER: Death Hollow State 32-1

API NUMBER: 43-017-30141

LEASE: State FIELD/UNIT: Wildcat

LOCATION: 1/4,1/4 NENE Sec: 32 TWP: 34S RNG: 7E 860 FNL 748 FEL

LEGAL WELL SITING:      F SEC. LINE;      F 1/4,1/4 LINE;      F ANOTHER WELL.

GPS COORD (UTM): X =486,607; Y =4,184,927

SURFACE OWNER: SITLA

PARTICIPANTS

C. Kierst (DOGM), M. Mankin (Conoco), Stacy Stewart (surveyor), Auer Warren (surveyor)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Western margin of Colorado Plateau/On the west side of the Circle Cliffs Upwarp, the location is on the northeast end of Death Hollow, a drainage feeding the Escalante River. It is nearly at 6000' of elevation and is ~16.5 air miles southeast of Boulder, Utah, and approachable off the Burr Trail. The pad is proposed for an arid, relatively unvegetated, rugged, erosional landscape which generally drains to the southwest. The surrounding land surface is moderately incised upon Mesozoic sediments.

SURFACE USE PLAN

CURRENT SURFACE USE: Grazing, wildlife habitat

PROPOSED SURFACE DISTURBANCE: 200' X 300' pad with 100' X 175' X 8' deep attached reserve pit and 1.3 miles of new approach road off an existing access road network.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: None

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: none nearby.

SOURCE OF CONSTRUCTION MATERIAL: Gravel location and approach road with native material from road and site prep; soil stored in berm.

ANCILLARY FACILITIES: none but operator may opt for a camp location.

WASTE MANAGEMENT PLAN:

Portable toilets; garbage cages on location will be emptied into an approved landfill; cuttings will be evaporated and buried in pit.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: none

FLORA/FAUNA: rabbitbrush(?), pinon-juniper(sparse)/birds, lizards, coyotes, rodents, occasional deer.

SOIL TYPE AND CHARACTERISTICS: Thin to absent; silty to sandy if present (soil classification not applicable), moderately-permeable soil(?-due to jointing/weathering cracking of siltstone) developed on the Triassic Moenkopi Formation.

SURFACE FORMATION & CHARACTERISTICS: Triassic Moenkopi Formation; reddish-brown siltstones with superjacent, interbedded tan sandstones observed nearby.

EROSION/SEDIMENTATION/STABILITY: stable

PALEONTOLOGICAL POTENTIAL: None observed (paleo survey will be made).

RESERVE PIT

CHARACTERISTICS: Dugout pit, as above.

LINER REQUIREMENTS (Site Ranking Form attached): Minimum 12 mil synthetic liner

SURFACE RESTORATION/RECLAMATION PLAN

No Surface Agreement yet.

SURFACE AGREEMENT: No Surface Agreement yet.

CULTURAL RESOURCES/ARCHAEOLOGY: Archaeology is surveyed and will be filed when report is made available.

OTHER OBSERVATIONS/COMMENTS

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ATTACHMENTS:

4 photographs taken-order of photos is NESW.

Chris Kierst  
DOGM REPRESENTATIVE

9/9/98/ 12:00Noon  
DATE/TIME

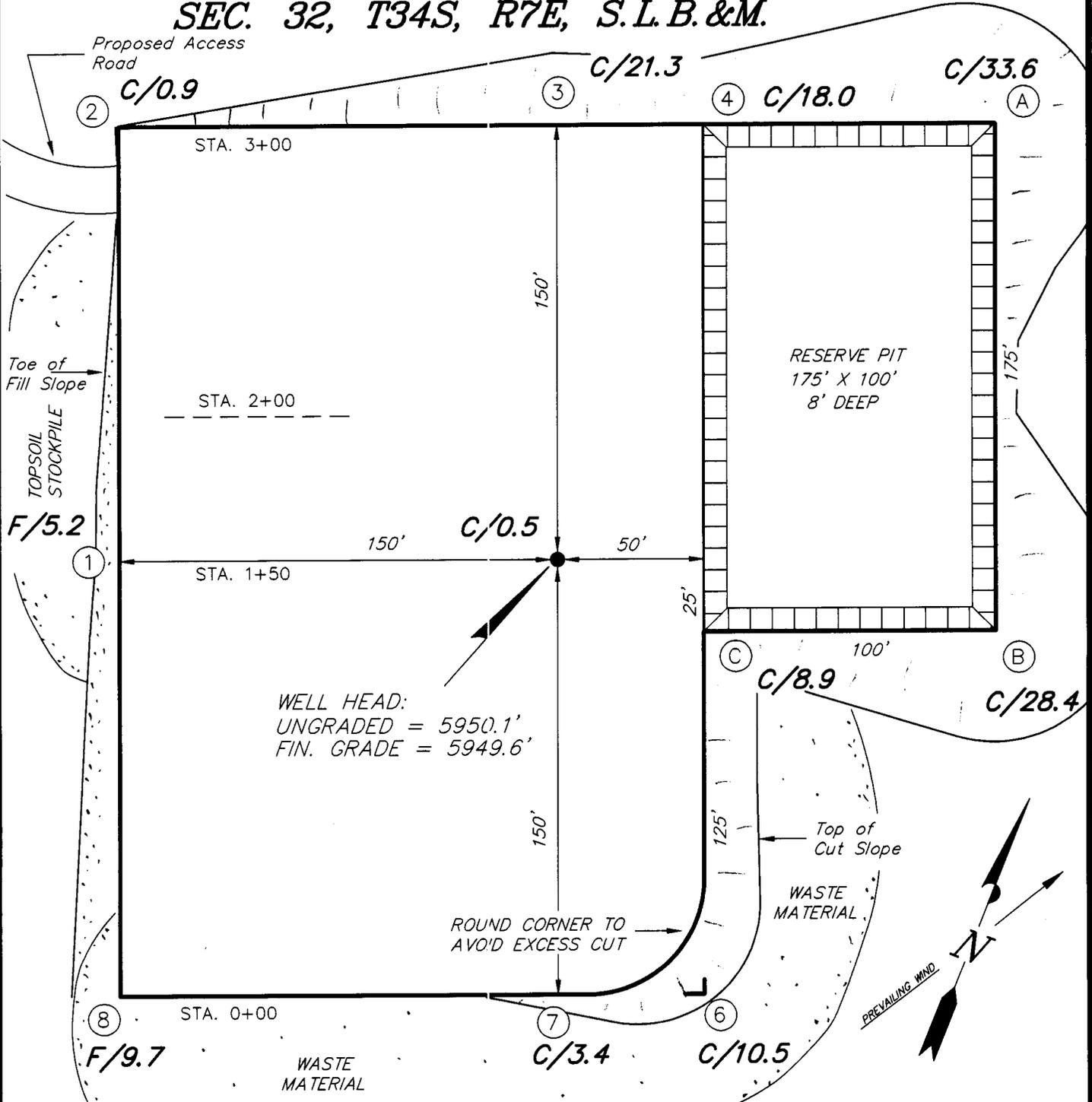
**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>15</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>0</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>10</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>0</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

**Final Score**      25      (Level I Sensitivity)

# CONOCO, INC.

## WELL SEC. 32 SEC. 32, T34S, R7E, S.L.B.&M.



### REFERENCE POINTS

200' WEST = 5943.1'  
250' WEST = 5944.5'

SURVEYED BY:	D.S.
DRAWN BY:	J.R.S.
DATE:	9-7-98
SCALE:	1" = 50'
FILE:	

**Tri State**  
Land Surveying, Inc.

(801) 781-2501

38 WEST 100 NORTH VERNAL, UTAH 84078





State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

November 3, 1998

Conoco, Inc.  
10 Desta Drive, Suite 430E  
Midland, Texas 79705-4500

Re: Death Hollow State 32 #1 Well, 859' FNL, 747' FEL, NE NE,  
Sec. 32, T. 34 S., R. 7 E., Garfield County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-017-30141.

Sincerely,

A handwritten signature in cursive script that reads "John R. Baza".

John R. Baza  
Associate Director

lwp

Enclosures

cc: Garfield County Assessor  
Bureau of Land Management, Cedar City Field Office

Operator: Conoco, Inc.  
Well Name & Number: Death Hollow State 32 #1  
API Number: 43-017-30141  
Lease: State Surface Owner: State  
Location: NE NE Sec. 32 T. 34 S. R. 7 E.

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division of the following actions during drilling of this well:

- . 24 hours prior to cementing or testing casing
- . 24 hours prior to testing blowout prevention equipment
- . 24 hours prior to spudding the well
- . within 24 hours of any emergency changes made to the approved drilling program
- . prior to commencing operations to plug and abandon the well

Division contacts (please leave a voice mail message if person is not available to take the call):

- . Dan Jarvis at (801) 538-5338
- . Robert Krueger at (801) 538-5274 (plugging)
- . Carol Daniels at (301) 538-5284 (spud)

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

**From:** Teresa Thompson <t3thomps@ut.blm.gov>  
**To:** NRDOMAIN.NROGM(JBAZA)  
**Date:** Wed, Feb 3, 1999 10:47 AM  
**Subject:** Conoco Well Files

CONFIDENTIAL

John,

As you are aware, the State Land Exchange was approved on January 7, 1999.

Under this exchange, the Conoco Wells: Stud Horse Peaks #1-16 (UTU78085), Death Hollow #1-32 (UTU78077) and Smokey Mountain State 36 #1 (UTU78054) are located on Federal lands. We would appreciate copies of the three wells approved by your Division for our records. We understand that these files have been requested to be held confidential and all information will be held confidential.

Thank you for your assistance.

43 017 30141  
345 07E 32  
CONFIDENTIAL

**From:** John Baza  
**To:** Vicky Dyson  
**Date:** Wed, Feb 3, 1999 10:56 AM  
**Subject:** Fwd: Conoco Well Files

Vicky,

I feel that the attached e-mail from the BLM handles our concerns about well confidentiality for the referenced wells. At this point, I have no problem with Jim copying the files and delivering them to the BLM. You should copy the e-mail from the BLM and place it in the referenced well files for documentation.

Thanks,  
JRB

**CC:** Brad Hill, Gil Hunt, Jim Thompson, Lisha Cordov...



# State of Utah

GOVERNOR'S OFFICE OF PLANNING AND BUDGET  
Resource Development Coordinating Committee



Michael O. Leavitt  
Governor

Brad T. Barber  
State Planning Coordinator

James L. Dykmann  
Committee Chairman

John A. Harja  
Executive Director

116 State Capitol Building  
Salt Lake City, Utah 84114  
(801) 538-1027  
Fax: (801) 538-1547

November 9, 1998

John Baza  
Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

**CONFIDENTIAL**

SUBJECT: Application for permit to drill wildcat well on State lease  
ML45333 *Sec. 32, T. 34S, R. 7E 43-017-30141*  
State Identification Number: UT981006-010  
*Death Hollow St. 32 #1*

Dear Mr. Baza:

The Resource Development Coordinating Committee (RDCC), representing the State of Utah, has reviewed this proposal. The Division of State History comments:

After review of the material provided, the Utah Preservation Office recommends that there would be **No Effect** upon cultural resources by the project.

If you have questions, please contact Jim Dykmann at (801) 533-3555 (Please refer to Case No. 98-1318).

The Committee appreciates the opportunity to review this proposal. Please direct any other written questions regarding this correspondence to the Utah State Clearinghouse at the above address or call Carolyn Wright at (801) 538-1535 or John Harja at (801) 538-1559.

Sincerely,

*for* Brad T. Barber  
State Planning Coordinator

BTB/ar



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155

RECEIVED

DEC - 6 1999

DIVISION OF OIL, GAS & MINING

IN REPLY REFER TO:

3162.3  
(U-931)

December 2, 1999

CERTIFIED MAIL - Return Receipt Requested

Conoco Inc.  
10 Desta Dr. Suite 100W  
Midland, TX 79705-4500

Re: Smoky Mountain State 36-1 (43-025-30031) NE ¼ SE ¼, Sec. 36, T. 40 S., R. 3 E., SLB Kane County, Utah Lease UTU-78054 (ML-45707)  
Studhorse State 36-1 (43-017-30142) SW ¼ NE ¼, Sec. 36, T. 33 S., R. 7 E., SLB Garfield County, Utah Lease UTU-78085 (ML-45298)  
\* Death Hollow State 32-1 (43-017-30141) NE ¼ NE ¼, Sec. 32, T. 34 S., R. 7 E., SLB Garfield County, Utah Lease UTU-78077 (ML-45333)

Gentlemen:

With the Utah Schools and Lands Exchange Act of 1998 (Public Law 105-335), the administration of the Applications for Permit to Drill (APDs) for the referenced wells now falls within the regulatory authority of the Bureau of Land Management (BLM). The Smoky Mountain State 36-1 APD was approved by the State of Utah, Division of Oil, Gas and Mining (DOG M) on September 10, 1998, and the Studhorse State 36-1 and the Death Hollow State 32-1 APDs on November 3, 1998. Each approval contained the following provision:

"This approval shall expire one year from the [approval date] unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date."

No requests for extensions of time were received, and no known activity has transpired at the approved locations. Therefore, approval of these referenced applications expired effective the end of their respective one-year periods. If you intend to drill at any of these locations at a future date, new APDs must be submitted.

Sincerely,

*Robert A. Bennett*

*for* Sally Wisely  
State Director

cc: Utah DOGM

bcc: Well Files (3)  
McKee  
Thayn  
U-932  
GSENM (Attn: Doug Powell)

AmcKee:jt:12/2/99  
McKee\Rescind2

