

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1A. Type of Work: DRILL  DEEPEN   
 B. Type of Well: OIL  GAS  OTHER: SINGLE ZONE  MULTIPLE ZONE

2. Name of Operator:  
Ark Land Company

3. Address and Telephone Number:  
HC 35 Box 380, Helper, Utah 84526 1-435-448-2634

4. Location of Well (Footages)  
 At Surface: 1008' FNL, 666' FWL 4392666N  
 At Proposed Producing Zone: 1009 541913E

5. Lease Designation and Serial Number:  
Patented  
 6. If Indian, Allottee or Tribe Name:  
N/A  
 7. Unit Agreement Name:  
N/A  
 8. Farm or Lease Name:  
TD  
 9. Well Number:  
3  
 10. Field or Pool, or Wildcat:  
Wildcat  
 11. Qtr/Qtr, Section, Township, Range, Meridian:  
NW/4 NW/4, Section 19, T13S, R13E, SLB&M

14. Distance in miles and direction from nearest town or post office:  
10.8 miles northwest of East Carbon, Utah  
 12. County: Carbon 13. State: Utah

15. Distance to nearest property or lease line (feet): 4271'  
 16. Number of acres in lease: 3,749.78 acres  
 17. Number of acres assigned to this well: 40

18. Distance to nearest well, drilling, completed, or applied for, or None  
 19. Proposed Depth: 2,000'  
 20. Rotary or cable tools: Rotary

21. Elevations (show whether DF, RT, GR, etc.): 8378' GR  
 22. Approximate date work will start: September 2001

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55 ST&C	24 #	1,200'	(see Exhibit "D" for cement program details)
7-7/8"	5-1/2" J-55 LT&C	15.5 #	1,900'	(see Exhibit "D" for cement program details)

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.

**RECEIVED** **CONFIDENTIAL**  
 AUG 21 2001  
 DIVISION OF  
 OIL, GAS AND MINING **ORIGINAL**

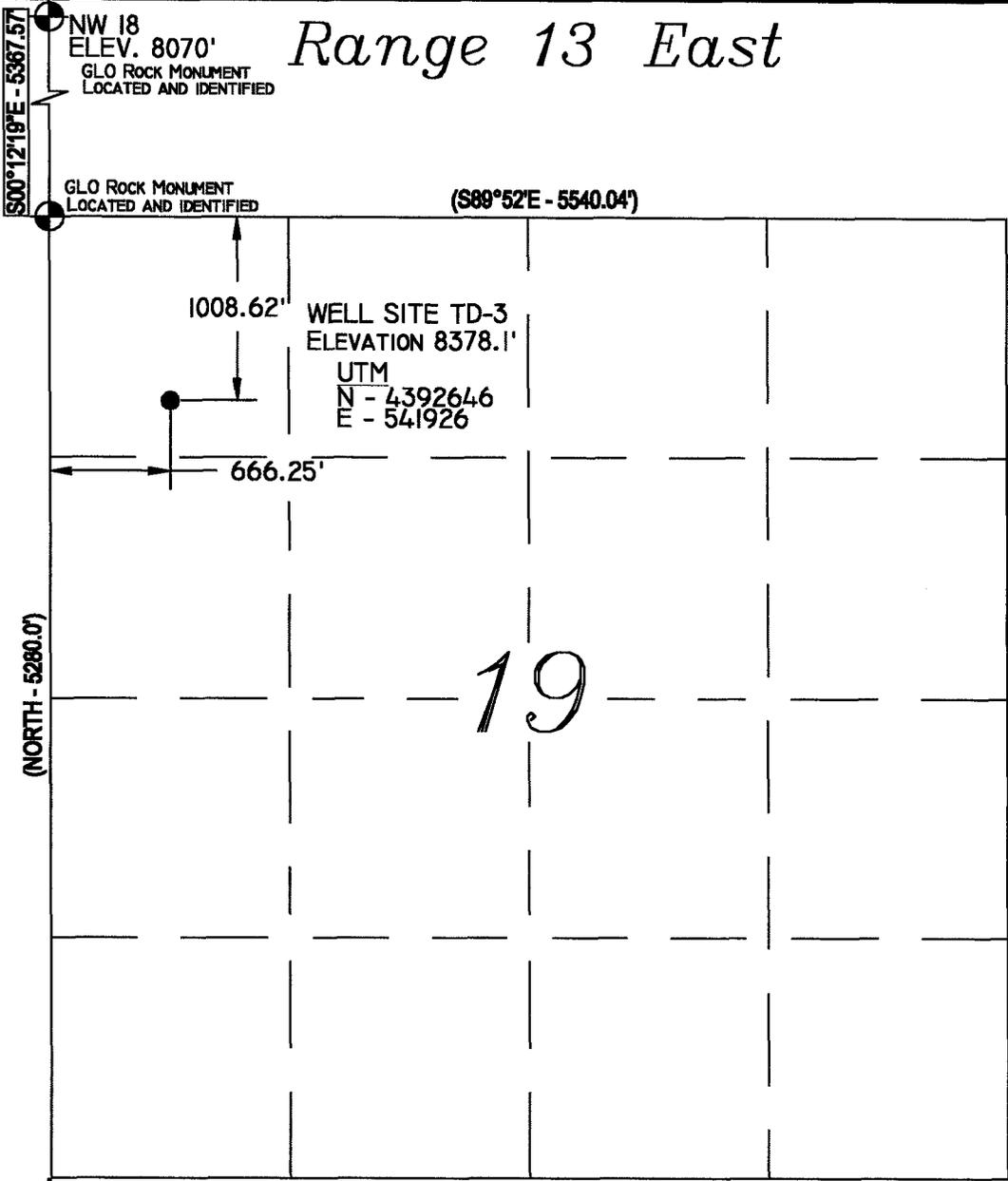
24. Name & Signature: Mike Stevenson Mike A. Stevenson Title: Senior Geologist Date: 8-20-01

(This space for state use only)  
 API Number Assigned: 43-007-30804

Approval: **APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING**  
 DATE: 9-13-01  
 BY: [Signature]

Township 13 South

Range 13 East



NW 18  
ELEV. 8070'  
GLO ROCK MONUMENT  
LOCATED AND IDENTIFIED

GLO ROCK MONUMENT  
LOCATED AND IDENTIFIED

WELL SITE TD-3  
ELEVATION 8378.1'  
UTM  
N - 4392646  
E - 541926

(S89°52'E - 5540.04')

(S89°47'E - 5553.24')

19

1008.62'

666.25'

(NORTH - 5280.07')

(N07°08'25" - 11630.00')

- Legend**
- Rebar Cap
  - Drill Hole Location
  - ⊙ Rock Monument (Found)
  - Brass Cap (Searched for, but not found)
  - △ Rock Pile
  - ( ) GLO
  - GPS Measured

**NOTES:**  
1. UTM AND LATITUDE / LONGITUDE COORDINATES  
ARE DERIVED USING A GPS PATHFINDER AND ARE  
SHOWN IN NAD 27 DATUM.

LAT / LONG  
39°41'04"N  
110°30'40"W

**Location:**  
THE WELL LOCATION WAS DETERMINED USING A TRIMBLE 4700  
GPS SURVEY GRADE UNIT.

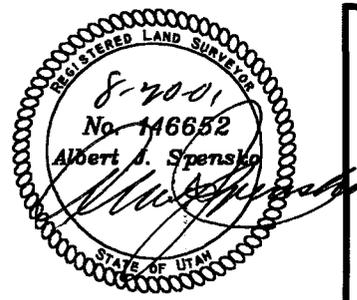
**Basis of Bearing:**  
THE BASIS OF BEARING IS GPS MEASURED.

**GLO Bearing:**  
THE BEARINGS INDICATED ARE PER THE RECORDED PLAT OBTAINED  
FROM THE U.S. LAND OFFICE.

**Basis of Elevation:**  
BASIS OF ELEVATION OF 8070' BEING AT THE NORTHWEST SECTION CORNER  
OF SECTION 18, TOWNSHIP 13 SOUTH, RANGE 13 EAST, SALT LAKE BASE  
AND MERIDIAN, AS SHOWN ON THE PINE CANYON QUADRANGLE 7.5 MINUTE  
SERIES MAP.

**Description of Location:**  
PROPOSED DRILL HOLE LOCATED IN THE NW1/4, NW1/4 OF SECTION 19,  
T13S, R13E, S.L.B.&M., BEING 1008.62' SOUTH AND 666.25' EAST  
FROM THE NORTHWEST SECTION CORNER OF SECTION 19, T13S, R13E,  
SALT LAKE BASE & MERIDIAN.

**Surveyor's Certificate:**  
I, Albert J. Spensko, a Registered Professional  
Land Surveyor, holding Certificate 146652  
State of Utah, do hereby certify that the  
information on this drawing is a true and  
accurate survey based on data of record and  
was conducted under my personal direction  
and supervision as shown hereon.



**GRAPHIC SCALE**  
0 500' 1000'  
( IN FEET )  
1 inch = 1000 ft.



**Talon Resources, Inc.**  
375 South Carbon Avenue, Suite 101  
Price, Utah 84501  
Ph: 435-637-8781  
Fax: 435-636-8603

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**ARK LAND COMPANY**  
WELL SITE TD-3  
Section 19, T13S, R13E, S.L.B.&M.  
Carbon County, Utah

Drawn By: J. STANSFIELD	Checked By: L.W.J./A.J.S.
Drawing No. A-1	Date: 08/20/01
	Scale: 1" = 1000'
Sheet 1 of 4	Job No. 378



*Talon Resources, Inc.*

Service, Quality and Accuracy

375 South Carbon Avenue A-10  
Suite 101  
Price, Utah 84501  
Phone: 435-637-8781  
435-637-5032 Ext 710/711

Cell: 801-650-1401  
801-650-1402  
Fax: 435-636-8603  
Email: talon@castlenet.com

August 20, 2001

Mr. John Baza  
State of Utah  
Division of Oil Gas and Mining  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Application for Permit to Drill—Ark Land Company; TD-3, Carbon County, Utah  
1009' FNL, 666' FWL, Section 19, T13S, R13E, SLB&M.

Dear Mr. Baza:

On behalf of Ark Land Company (Ark Land), Talon Resources, Inc. respectfully submits the enclosed original of the *Application for Permit to Drill (APD)* for the above referenced well. Included with the APD is the following supplemental information:

Exhibit "A" - Survey plats and layouts of the proposed well site;

Exhibit "B" - Proposed location maps with utility corridors and site photos;

Exhibit "C" - Drilling site layout;

Exhibit "D" - Drilling Program;

Exhibit "E" - Multi Point Surface Use Plan;

Exhibit "F" - Surface Use Agreement;

Exhibit "G" - Typical BOP diagram;

Exhibit "H" - Typical wellhead manifold diagram.

**RECEIVED**

AUG 21 2001

DIVISION OF  
OIL, GAS AND MINING

**CONFIDENTIAL**

**ORIGINAL**

Please accept this letter as Ark Land's written request for confidential treatment of all information contained in and pertaining to this application, if said information is eligible for such consideration.

Thank you very much for your timely consideration of this application. Please feel free to contact myself, or Mr. Mike A. Stevenson at Ark Land if you have any questions or need additional information.

Sincerely,

*Don Hamilton*

Don Hamilton

Environmental Manager / Project Coordinator

cc: Mr. Mike A. Stevenson, Ark Land (without Surface Use Agreement)  
Mr. Jim Cooper, JDC Resources (without Surface Use Agreement)  
Mr. Dave Levanger, Carbon County (without Surface Use Agreement)  
Ark Land Well File

EXHIBIT "D"  
DRILLING PROGRAM

Attached to UDOGM Form 3  
Ark Land Company  
TD-3  
NW/4 NW/4, Sec. 19, T13S, R13E, SLB & M  
1088' FNL, 666' FWL  
Carbon County, Utah

1. The Geologic Surface Formation

North Horn Formation

2. Estimated Tops of Important Geologic Markers

Castlegate Sandstone	1,283'
Sunnyside Coal	1,677'
Upper Sunnyside	1,696'
Lower Sunnyside	1,763'
Rock Canyon Seam	1,828'
Gilson Seam	1,875'

3. Projected Gas & Water Zones

Castlegate Sandstone	1,283' – 1,494'
Sunnyside Coal	1,677' – 1,679'
Upper Sunnyside	1,696' – 1,735'
Lower Sunnyside	1,763' – 1,810'
Rock Canyon Seam	1,828' – 1,836'
Gilson Seam	1,875' – 1,885'

Groundwater may be encountered within the North Horn Fm. and Price River Sandstones. Water encountered will be reported on a Form 7 "Report of Water Encountered During Drilling".

Casing & cementing will be done to protect potentially productive hydrocarbons, lost circulation zones, abnormal pressure zones, and prospectively valuable mineral deposits. All indications of usable water will be reported.

Surface casing will be tested to 1000 psi.

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#### 4. The Proposed Casing and Cementing Programs

##### Casing Program –

<u>HOLE SIZE</u>	<u>SETTING DEPTH (INTERVAL)</u>	<u>SIZE (OD)</u>	<u>WEIGHT, GRADE &amp; JOINT</u>	<u>CONDITION</u>
12-1/4"	1,200'	8-5/8"	24# J-55 ST&C	New
7-7/8"	1,900'	5-1/2"	15.5# J-55 LT&C	New

##### Cement Program –

Surface Casing: (Cement volumes calculated with 40% excess)

Lead -- 243 sacks Premium Lite FM + 0.25 lbs/sk Cello Flake + 1% bwoc  
Calcium Chloride + 0.4% bwoc Sodium Metasilicate + 8% Bentonite + 12.0%  
fresh water;

Weight: 12.0 # / gal  
Yield: 2.15 cu.ft / sk  
Mix water: 12.08 gal / sk

Tail -- 133 sacks Type III + 0.25 lbs/sk Cello Flake + 2% bwoc Calcium Chloride  
+ 60.6% fresh water;

Weight: 14.4 # / gal  
Yield: 1.41 cu.ft / sk  
Mix water: 6.84 gal / sk

Production Casing: (Cement volumes calculated with 30% excess)

Single Slurry -- 225 sacks Premium. Lite High Strength FM + 0.3% bwoc CD-32  
+ 1% bwoc FL-52 + 0.1% bwoc R-3 + 0.25 lbs/sk Cello Flake + 87.8 % fresh  
water;

Weight: 13.0 # / gal  
Yield: 1.76 cu.ft / sk  
Mix water: 8.82 gal / sk

The following shall be entered in the driller's log:

- 1) Blowout preventer pressure tests, including test pressures and results;
- 2) Blowout preventer tests for proper functioning;
- 3) Blowout prevention drills conducted;
- 4) Casing run, including size, grade, weight, and depth set;
- 5) How the pipe was cemented, including amount of cement, type, whether cement circulated, location of the cementing tools, etc.;
- 6) Waiting on cement time for each casing string;
- 7) Casing pressure tests after cementing, including test pressures and results.

5. The Operator's Minimum Specifications for Pressure Control

Exhibit "G" is a schematic diagram of the blowout preventer equipment. A 11" 3,000 psi Double gate Hydraulic BOP with one (1) blind ram and one (1) pipe ram and Annular Preventer; equipped with a 3,000 psi automatic choke manifold. This equipment will be tested to 2000 psi. All tests will be recorded in a Driller's Log Book. Physical operation of the BOP will be checked on each trip.

6. The Type and Characteristics of the Proposed Circulating Muds

0-1,200	12-1/4" hole	Drill with air, will mud-up if necessary.
1,200-TD	7-7/8" hole	Drill with air. 400 psi @ 1500-1800 Scf.

7. The Testing, Logging and Coring Programs are as followed

Testing –

DST's are planned in the Rock Canyon and Gilson Coals.  
Test intervals will be determined from logs.

Logging –

1,200' - TD                      Gamma Ray, Density, Neutron, Porosity, Induction, Caliper

Coring --

1 cored intervals within the Lower Sunnyside Coal:  
1,670' to 1,680'  
Final core intervals will be determined from logs.

1 cored intervals within the Lower Sunnyside Sandstone and Rock Canyon and  
Gilson Coal Seams:  
1,800' to 1,900'  
Final core intervals will be determined from logs.

Any Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures have been noted or reported in wells drilled in  
The area nor at the depths anticipated in this well. Bottom hole pressure expected is  
1000 psi max. No hydrogen sulfide or other hazardous gases or fluids have been found,  
reported or are known to exist at these depths in the area.

8. Anticipated Starting Date and Duration of the Operations.

The well will be drilled approx.: September 2001.

Verbal and/or written notifications listed below shall be submitted in accordance with instructions from the Division of Oil, Gas & Mining:

- (a) prior to beginning construction;
- (b) prior to spudding;
- (c) prior to running any casing or BOP tests;
- (d) prior to plugging the well, for verbal plugging instructions.

Spills, blowouts, fires, leaks, accidents or other unusual occurrences shall be reported to the Division of Oil, Gas & Mining immediately.

EXHIBIT "E"  
Multipoint Surface Use Plan

Attached to UDOGM Form 3  
Ark Land Company  
TD-3  
NW/4 NW/4, Sec. 19, T13S, R13E, SLB & M  
1099' FNL, 666' FWL  
Carbon County, Utah

**1. Existing Roads**

- a. The proposed access road will utilize the existing gravel-surfaced Pace Canyon Access Road under Carbon County Road Department maintenance in which approval has been received. The existing county road will be upgraded consistent with Carbon County Road Department specifications.
- b. We do not plan to change, alter or improve upon any other existing state or county roads. Existing roads will be maintained in the same or better condition (See Exhibit "B").
- c. An existing gravel-surfaced road exists from the County Road across private surface to access stock watering ponds, springs, and abandoned well sites. This road will be upgraded along its existing centerline for a distance of approximately 6 miles.

**2. Planned Access**

No new access will be required (See Exhibit "B")

- a. Maximum Width: N/A
- b. Maximum grade: N/A
- c. Turnouts: None
- d. Drainage design: 6 - 18" culvert may be required along the private portion of the road. Water will be diverted around the road as necessary and practical.
- e. If the well is productive, the road will be surfaced and maintained as necessary to prevent soil erosion and accommodate year-round traffic.
- f. Existing trees will be left in place where practical to provide screening and buffer areas.

### **3. Location of Existing Wells**

- a. See Exhibit "B". There is one proposed and one existing well within a one mile radius of the proposed location.

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

- a. If the well is a producer, installation of production facilities will be as shown on Exhibit "H".
- b. Rehabilitation of all pad areas not used for production facilities will be made in accordance with landowner stipulations.

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

- a. Water to be used for drilling will be obtained from a local water source Price River Water Improvement District (a local source of municipal water).
- b. Water will be transported by truck over approved access roads.
- c. No water well is to be drilled for this location.

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

- a. Any necessary construction materials needed will be obtained locally from a private source and hauled to the location on existing roads.
- b. No construction or surfacing materials will be taken from Federal/Indian land.

### **7. Methods for handling waste disposal**

- a. As the well is expected to be air drilled, a small reserve pit will be constructed with a minimum of one-half the total depth below the original ground surface on the lowest point within the pit. The pit will be lined with a synthetic liner. Three sides of the reserve pit will be fenced within 24 hours after completion of construction and the fourth side within 24 hours after drilling operations cease with four strands of barbed wire, or woven wire topped with barbed wire to a height of not less than four feet. The fence will be kept in good repair while the pit is drying.

- b. Following drilling, the liquid waste will be evaporated from the pit and the pit backfilled and returned to natural grade. No liquid hydrocarbons will be discharged to the reserve pit or location.
- c. In the event fluids are produced, any oil will be retained in tanks until sold and any water produced will be retained until its quality can be determined. The quality and quantity of the water will determine the method of disposal.
- d. Trash will be contained in a portable metal container and will be hauled from location periodically and disposed of at an approved disposal site. Chemical toilets will be placed on location and sewage will be disposed of at an appropriate disposal site.

#### **8. Ancillary Facilities**

- a. We anticipate no need for ancillary facilities with the exception of trailers to be located on the drill site.

#### **9. Well-site Layout**

- a. Available topsoil will be removed from the location and stockpiled. Location of the rig, reserve and blooie pits, and drilling support equipment will be located as shown on Attachment "C".
- b. A blooie pit will be located 100' from the drill hole. A line will be placed on the surface from the center hole to the blooie pit. The blooie pit will not be lined, but will be fenced on four sides to protect livestock/wildlife.
- c. Access to the well pad will be as shown on Exhibit "B".
- d. Natural runoff will be diverted around the well pad.

#### **10. Plans for Restoration of Surface**

- a. All surface areas not required for producing operations will be graded to as near original condition as possible and contoured to maintain possible erosion to a minimum.
- b. Available topsoil will be stockpiled and will be evenly distributed over the disturbed areas and the area will be reseeded as prescribed by the landowner.
- c. Pits and any other area that would present a hazard to wildlife or livestock will be fenced off when the rig is released and removed.

- d. Any oil accumulation on the pit will be removed or overhead flagged as dictated by then existed conditions.
- e. Rehabilitation will commence following completion of the well. Rat and mouse holes will be filled immediately upon release of the drilling rig from the location. If the well-site is to be abandoned, all disturbed areas will be recontoured to the natural contour as is possible.

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

- a. The well-site and access road will be constructed on lands owned by the Milton and Arding Thayn Trust; David Thayn, 7732 East Highway 6, Price, Utah 84501; 435-637-9396. A surface use agreement has previously been negotiated and is included in this application as Exhibit "F". The operator shall contact the landowner and the Division of Oil, Gas and Mining 48 hours prior to beginning construction activities.

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

- a. The primary surface use is wildlife habitat and grazing. The nearest dwelling is approximately 3,500' northwest. Nearest live water is in Pace Canyon 3,600' southeast.
- b. If there is snow on the ground when construction begins, it will be removed before the soil is disturbed, and piled downhill from the topsoil stockpile location.
- c. The back-slope and fore-slope will be constructed no steeper than 4:1.
- d. All equipment and vehicles will be confined to the access road and well pad.
- e. A complete copy of the approved Application for Permit to Drill (APD) including conditions and stipulations shall be on the well-site during construction and drilling operations.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the Division of Oil, Gas & Mining.

13. **Company Representative**

Mike A. Stevenson – Senior Geologist  
Ark Land Company  
HC-35 Box 380  
Helper, Utah 84526  
1-435-448-2634

**Permitting Consultant**

Don Hamilton  
Environ. Mgr. / Proj. Coord.  
Talon Resources, Inc.  
375 South Carbon Ave. (A-10)  
Price, Utah 84501  
1-435-637-8781

**Excavation Contractor**

Larry Jensen  
Owner / Operator  
Nelco Construction, Inc  
758 South Fairgrounds Road  
Price, Utah 84501  
1-435-637-3495

**Mail Approved A.P.D. To:**

Company Representative

14. **Certification**

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 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 Ark Land Company and its subcontractors in conformity with this plan and the terms and conditions under which it is approved.

8-20-01  
Date

Don S. Hamilton  
Don S. Hamilton  
Environmental Manager / Project Coord.  
Talon Resources, Inc.

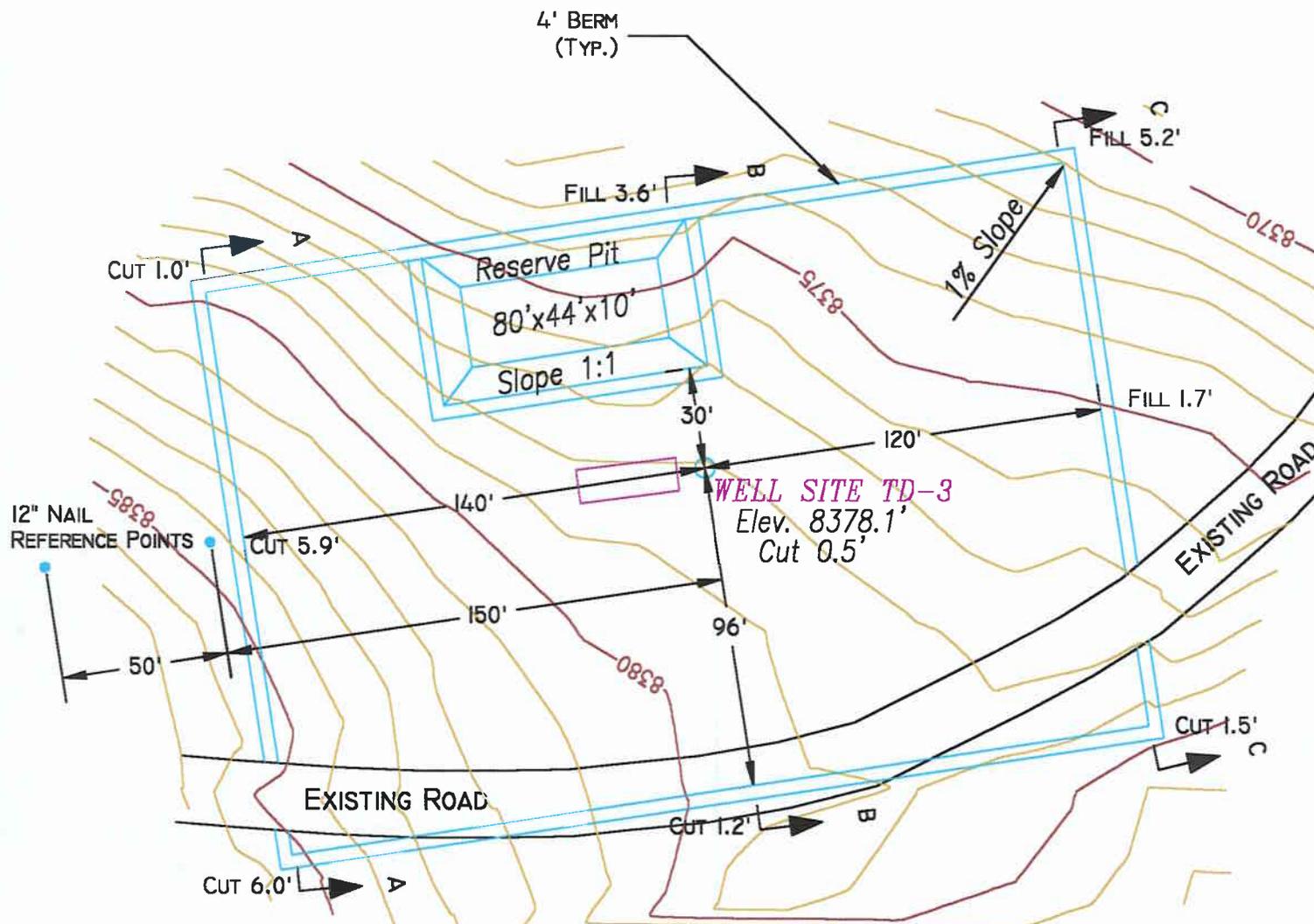
**ORIGINAL**

**CONFIDENTIAL**

EXHIBIT "F"  
Surface Use Agreement

ELEVATION OF UNGRADED GROUND AT LOCATION STAKE = 8378.1'

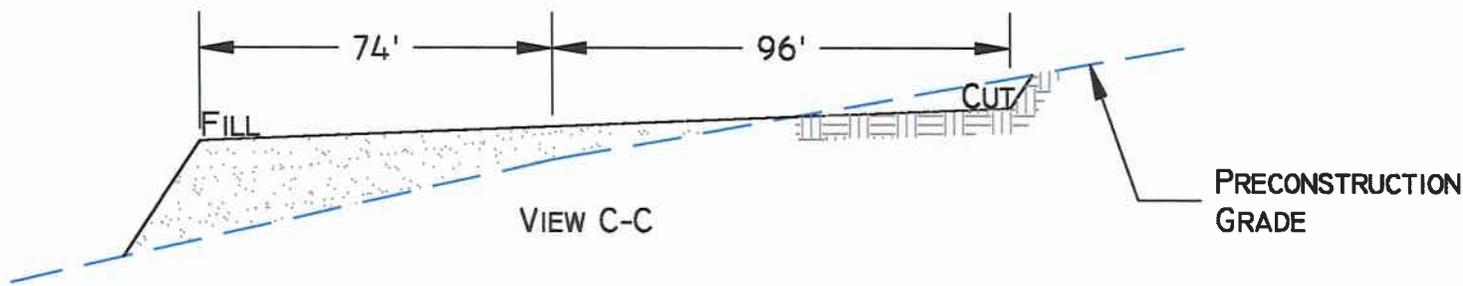
ELEVATION OF GRADED GROUND AT LOCATION STAKE = 8377.6'



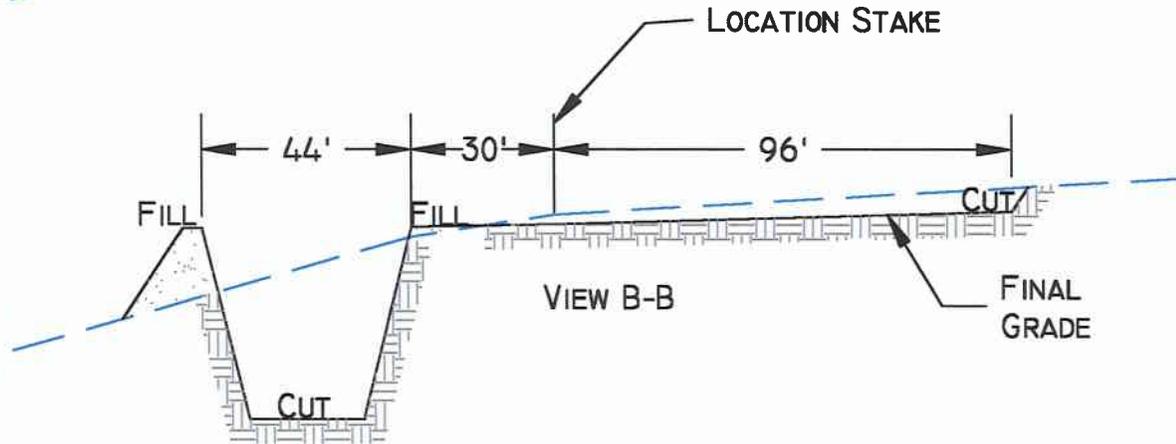
**Talon Resources, Inc.**  
375 South Carbon Avenue, Suite 101  
Price, Utah 84501  
Ph: 435-637-8781  
Fax: 435-636-8603

**Ark Land Company**  
**LOCATION LAYOUT**  
Section 19, T13S, R13E, S.L.B.&M.  
**WELL SITE TD-3**

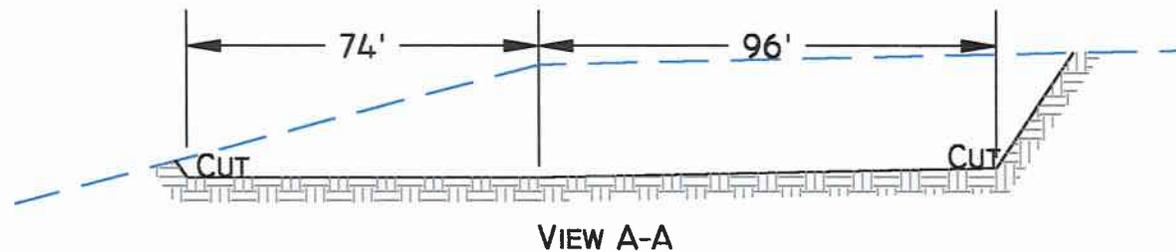
Drawn By: J. STANSFIELD	Checked By: L.W.J.
Drawing No. A-2	Date: 08/09/01
	Scale: 1" = 50'
Sheet 2 of 4	Job No. 378



1" = 10'  
X-Section  
Scale  
1" = 40'



SLOPE = 1 1/2 : 1  
(EXCEPT PIT)  
PIT SLOPE = 1 : 1



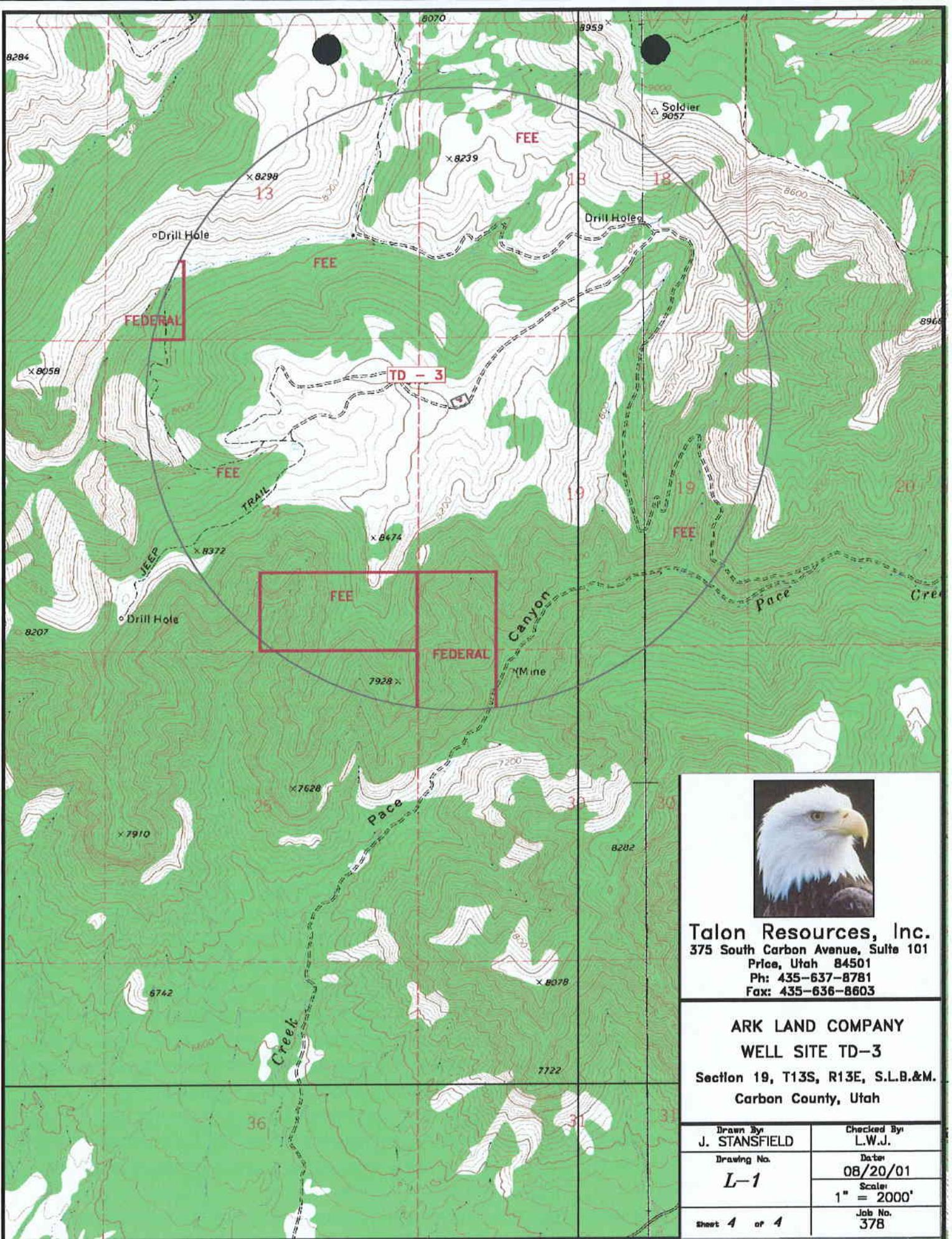
**Talon Resources, Inc.**  
375 South Carbon Avenue, Suite 101  
Price, Utah 84501  
Ph: 435-637-8781  
Fax: 435-636-8603

**Ark Land Company**  
**TYPICAL CROSS SECTION**  
**Section 19, T13S, R13E, S.L.B.&M.**  
**WELL SITE TD-3**

Drawn By: J. STANSFIELD	Checked By: L.W.J.
Drawing No. C-1	Date: 08/09/01
	Scale: 1" = 40'
Sheet 3 of 4	Job No. 378

APPROXIMATE YARDAGES

CUT  
(6") TOPSOIL STRIPPING = 750 Cu. Yds.  
REMAINING LOCATION = 3,881.2 Cu. Yds.  
TOTAL CUT = 4,531.2 Cu. Yds.  
TOTAL FILL = 715.8 Cu. Yds.

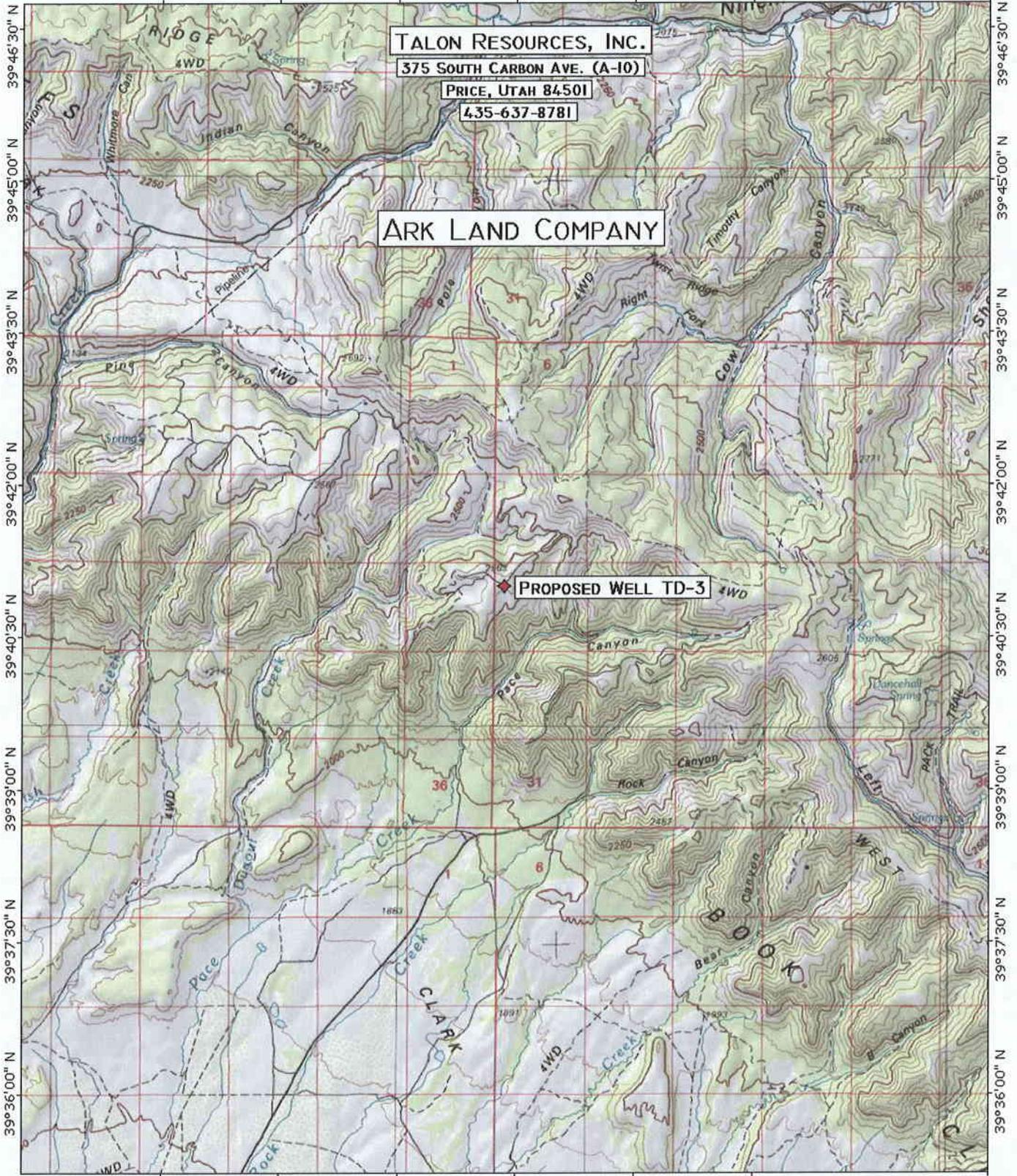


**Talon Resources, Inc.**  
 375 South Carbon Avenue, Suite 101  
 Price, Utah 84501  
 Ph: 435-637-8781  
 Fax: 435-636-8603

**ARK LAND COMPANY**  
**WELL SITE TD-3**  
 Section 19, T13S, R13E, S.L.B.&M.  
 Carbon County, Utah

Drawn By <b>J. STANSFIELD</b>	Checked By <b>L.W.J.</b>
Drawing No. <b>L-1</b>	Date <b>08/20/01</b>
	Scale <b>1" = 2000'</b>
Sheet <b>4</b> of <b>4</b>	Job No. <b>378</b>

110°35'00" W 110°33'30" W 110°32'00" W 110°30'30" W 110°29'00" W 110°27'30" W NAD27 110°24'30" W



**TALON RESOURCES, INC.**  
 375 SOUTH CARBON AVE. (A-10)  
 PRICE, UTAH 84501  
 435-637-8781

**ARK LAND COMPANY**

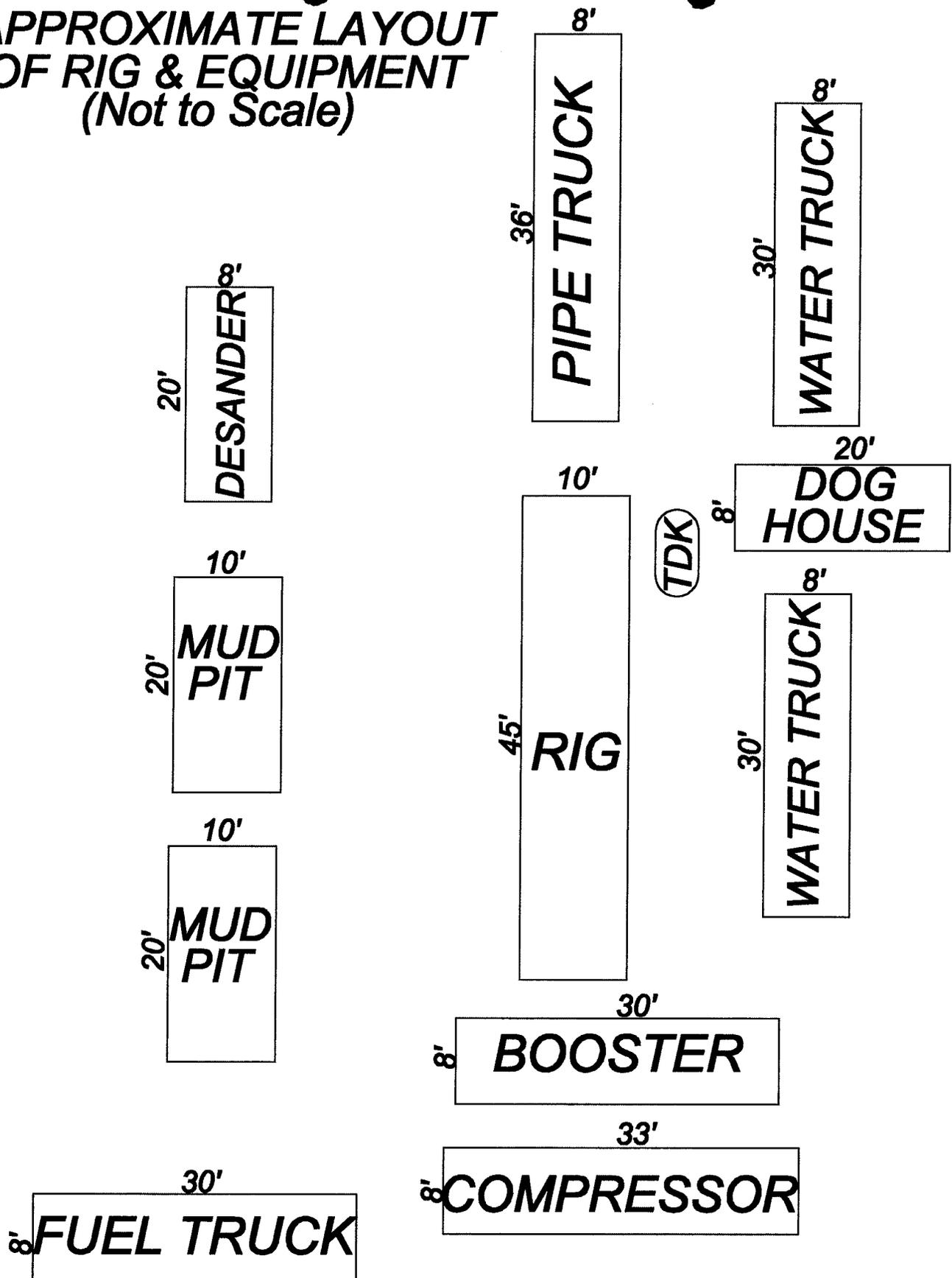
**PROPOSED WELL TD-3**

TN  
 MN  
 13°

110°35'00" W 110°33'30" W 110°32'00" W 110°30'30" W 110°29'00" W 110°27'30" W NAD27 110°24'30" W

0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 miles  
 0 1 2 3 4 5 km  
 Printed from TOPOI ©2000 National Geographic Holdings (www.topo.com)

**APPROXIMATE LAYOUT  
OF RIG & EQUIPMENT  
(Not to Scale)**



# BOP Equipment

3000psi WP

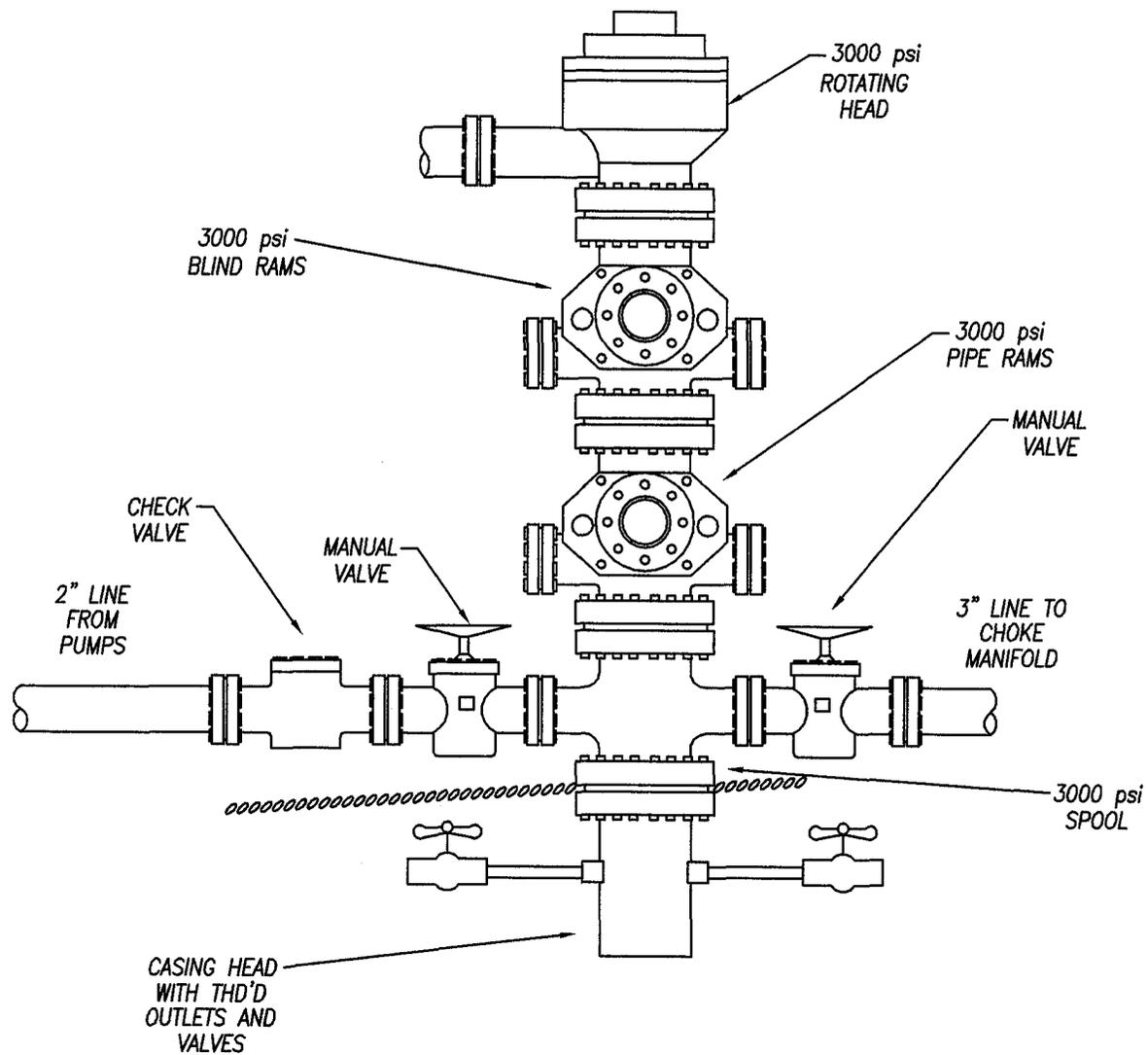
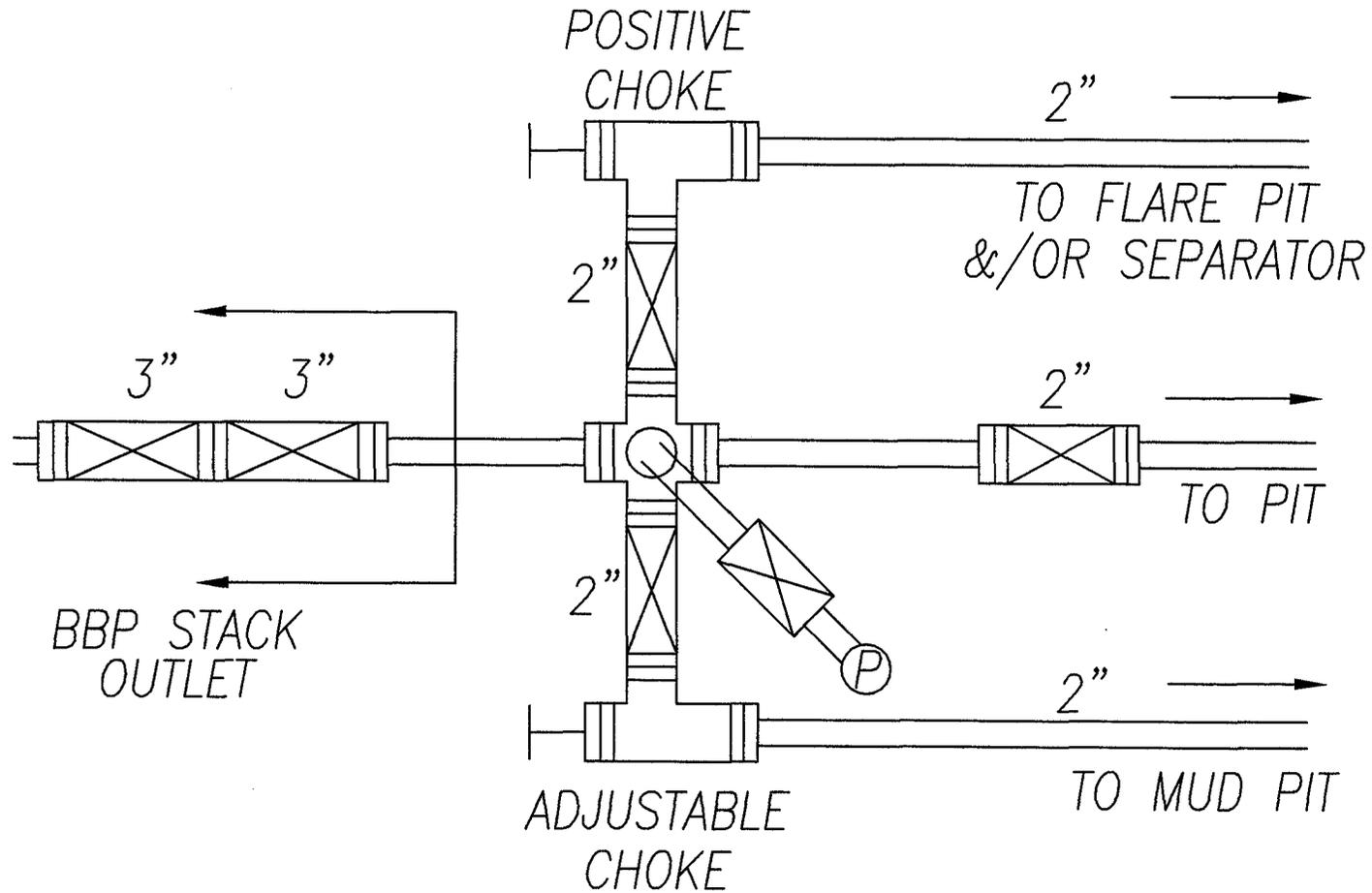


EXHIBIT "G"

# CHOKE MANIFOLD



## SURFACE USE AGREEMENT

THIS SURFACE USE AGREEMENT (this "Agreement"), dated as of November \_\_\_\_, 1999 ("Effective Date"), is by and between **Canyon Fuel Company, L.L.C.**, ("CFC"), whose mailing address is 6955 Union Park Center, Suite 540, Midvale, Utah 84047, and **Milton and Ardith Thayn Trust** ("Thayn"), whose mailing address is 7730 East Hwy 6, Price, Utah 84501.

### Recitals

Thayn is the surface owner of lands located in Carbon County, Utah, which are described on **Exhibit "A"** attached hereto (the "Thayn Lands"). CFC is a coal mining company and owns and operates the Soldier Canyon Mine and Dugout Canyon Mine (the "Mines"). CFC holds rights under Federal coal leases and pursuant to mine permits granted or to be granted by the Utah Division of Oil, Gas and Mining (the "Mine Permits") to develop and mine underground coal. Thayn has agreed to grant to CFC the nonexclusive use by CFC of the surface of the Thayn Lands to facilitate its coal mining operations in exchange for rights and services from CFC.

### Agreement

IN CONSIDERATION of the mutual covenants contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Grants and Services to Thayn.
  - (a) CFC shall lease to Thayn for farming and grazing the following lands and grazing and water rights described in **Exhibit "B"** attached hereto : (1) lands owned by CFC located in the Clark Valley (the "Clark Valley Lease Lands"); (2) water rights owned by CFC appurtenant to the Clark Valley Lease Lands (the "Clark Valley Water Rights"); (3) state and federal grazing rights held by CFC related to the Clark Valley Lease Lands (the "Grazing Rights"); and (4) water rights represented by 50 shares of water stock in the Wellington Canal Company owned by CFC (the "Water Shares"). The Clark Valley Lease Lands, the Clark Valley Water Rights, the Grazing Rights and the Water Shares shall all be leased to Thayn under the "Lease Agreement" attached hereto as **Exhibit "C."**

- (b) CFC hereby grants to Thayn, for the term of this Agreement and for so long thereafter as agreed in writing by the parties, the non-exclusive, limited use of the Dugout Canyon unimproved road lying north of the Dugout Canyon Mine as may be reasonable and necessary for Thayn's cattle ranching activities, provided that such use shall (i) not interfere with the regular activities of the Mines; (ii) comply with all CFC and applicable federal, state and local rules and regulations imposed on the use of the road; and (iii) not include use of the road by any third party including hunters, tourists or sight-seers.
- (c) Upon written notice to CFC, Thayn may request that CFC monitor the flow of springs, streams and seeps located on the Thayn Lands that Thayn reasonably believes may be impacted by CFC's underground mining operations. Upon receiving the written request, CFC shall meet with Thayn to discuss the monitoring sites and to reach a mutually acceptable schedule for such monitoring, provided that CFC shall only be required to monitor such sites for flow. Nothing in this Agreement shall modify CFC's water monitoring program as required by the Mine Permits.
- (d) Thayn shall have the non-exclusive right to submit bids as an independent contractor for earth-moving projects conducted on the Thayn Lands that CFC elects, in its sole discretion, to contract to a third party. Thayn shall have a preference for selection as the contractor for the project provided that Thayn can demonstrate to the reasonable satisfaction of CFC that (i) Thayn owns or has right to use the necessary equipment for the project, (ii) Thayn carries insurance coverage required by CFC's risk management procedures for the project, (iii) Thayn has the necessary licenses and permits to conduct the project, and (iv) Thayn's proposed bid is competitive with other bids solicited by CFC for the project. Notwithstanding the foregoing, nothing in this Agreement shall be construed to require CFC to use a third party contractor for any project on the Thayn Lands or to conduct a bid process to select a third party contractor for work conducted on the Thayn Lands or on behalf of Thayn.

2. Surface Use Grants to CFC. CFC shall have and is hereby granted an easement on, over, and through, and a right to use, the surface of the Thayn

Lands as may be necessary and appropriate for the following purposes in connection with mining coal by underground mining methods: (a) conduct subsidence and soil and water sampling, and carry out raptor, wildlife and other environmental studies; (b) conduct exploration drilling and analyses of subsurface conditions by all reasonable means; (c) place or install minor mechanical instruments such as geophones, geo-seismic lines and the like to monitor underground, mine-related activities and results; (d) drill production holes, place and relocate pipelines, and place surface facilities to develop, vent or remove coalbed methane gas, provided such use shall not interfere with regular activities of Thayn's ranching and hunting, and further provided, CFC shall coordinate such activities with Thayn to minimize disruption to Thayn's ranching and hunting activities; and (e) exclusively subside the surface of the Thayn Lands. Except as provided in Sections 3 and 5, CFC shall have no obligation to pay to Thayn any compensation for use of the Thayn Lands.

3. Compensation for Surface Facilities.

- (a) In the event CFC is required to place temporary or semi-permanent structures on the Thayn Lands (such as methane venting, exhausting equipment, methane drainage pump stations, pipelines and utilities) in connection with exercising its rights hereunder, CFC shall reasonably compensate Thayn for the use of the Thayn Lands for such structures at rates comparable to other operations in the area. (By way of example, coalbed methane venting and degasification wells are currently compensated at rates in the range of \$2,000 to \$3,500 per year until the well is plugged and reclaimed.) The parties shall use their best good faith efforts to negotiate compensation for any permanent structure placed on the Thayn Lands.
- (b) CFC shall pay Thayn \$2,000 for each exploration drill hole placed on the Thayn Lands. Thayn acknowledges that \$2,000 represents fair and reasonable compensation for each such drill hole, provided, however, if any such exploration drill hole is subsequently used for coalbed methane venting, Thayn shall be entitled to additional compensation in accordance with the provisions of Section 3(a).

4. Care of Thayn Lands.

- (a) CFC shall use and maintain the Thayn Lands in a careful, safe, and lawful manner and shall conduct its operations in compliance with all applicable federal, state and local laws, rules and regulations. CFC shall only use the Thayn Lands for the purposes set forth herein and shall not permit the use or occupancy of the Thayn Lands by any person other than CFC, its employees, agents and contractors.
- (b) CFC shall provide Thayn with written notice prior to undertaking any activities on the Thayn Lands. Thayn's concurrence shall be obtained regarding the location of any proposed material surface disturbance, including but not limited to drilling exploration boreholes. Thayn's permission shall not be unreasonably withheld.
- (c) CFC shall give special siting consideration to potential borehole locations near springs and seeps on the Thayn Lands.
- (d) CFC shall repair or replace any improvements upon the Thayn Lands damaged by CFC's operations. CFC shall reclaim all surface areas disturbed as a result of CFC's operations and shall implement a noxious weed control program for all such disturbed areas for a period of not less than four years from the date of reclamation reseeding.
- (e) All drilling or other similar activities and all CFC-related facilities, such as "mud pits," that could result in injury or death to livestock shall be fenced or otherwise isolated to protect livestock. CFC shall repair or reclaim to the extent technologically and economically feasible subsidence damage to the Thayn Lands that could be harmful to livestock.
- (f) CFC shall maintain insurance coverage for its activities conducted on the Thayn Lands consistent with coverages customary for the coal industry and in compliance with all applicable regulatory requirements and shall provide Thayn with a copy of all insurance certificates naming Thayn as an additional insured against CFC's operations conducted pursuant to this Agreement.
- (g) As required by and in conformance with applicable law, CFC shall replace any water supply owned and beneficially used by Thayn for

domestic, agricultural, or other legitimate use from an underground or surface source where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from CFC's mining operations.

5. Term.

- (a) This Agreement shall be for a term of years beginning on the Effective Date and continuing for a period for the life of the Mines plus two (2) years, but in no event longer than twenty (20) years. For purposes of this Agreement, the life of the Mines shall end upon permanent closure of the Mines and cessation of all operations for the production and sale of coal from the Mines.
- (b) CFC shall have no obligation to make any rental or other payment to maintain this Agreement in full force and effect. The parties acknowledge and agree that the Lease Agreement shall constitute full and fair consideration for this Agreement. In the event the Lease Agreement terminates or expires as provided therein prior to a date twenty (20) years from the Effective Date, CFC shall pay to Thayn the sum of \$5,000 annually on the anniversary date for the remaining term of this Agreement in lieu of the rights granted under the Lease Agreement ("Rental Payment").
- (c) The monetary payment terms set forth in Sections 3 and 5(b) of this Agreement ("Payment Terms") shall be adjusted for inflation on the seventh (7<sup>th</sup>) and fourteenth (14<sup>th</sup>) annual anniversaries after the Effective Date based on the cumulative changes in the Consumer Price Index (CPI), or other generally-recognized economic pricing index, for the preceding seven-year period. The proposed adjustments shall be calculated by CFC and communicated to Thayn in writing within thirty (30) days after the seventh and fourteenth anniversaries. All adjustments to Payment Terms shall be effective as of the seventh and fourteenth anniversary dates and shall otherwise apply prospectively and shall not apply to payments previously made under this Agreement. All other claims for adjustment of non-monetary terms of this Agreement, including allegations of non-compliance with any express term, shall be subject to the provisions of Section 7.

- (d) Nothing in this Section 5 shall, nor shall it be interpreted to, amend, modify or waive any term or provision of Section 2 that grants rights to CFC to the Thayn Lands. Thayn shall have no right to claim a default of or to terminate this Agreement based on the Payment Terms readjustment provisions of this Section 5.
6. Title. Thayn warrants generally the title to the surface of the Thayn Lands and represents that Thayn has all necessary right and authority to grant to CFC the property rights and privileges conveyed hereunder.
7. Breach of Obligations. If either party believes that the other party has not complied with any express term, obligation or covenant of this Agreement, then in such event such party shall notify the other party in writing setting out specifically the details regarding the alleged breach or default. The party in default shall have thirty (30) days after receipt of the notice within which to cure or commence to cure all or any part of the breach or default alleged by the other party. If the defaulting party fails to cure or commence to cure the alleged default or breach as required, then the non-defaulting party shall have the option, but not the obligation, to submit the matter to binding arbitration as provided in this Agreement.
8. Arbitration. Disputes arising under this Agreement between the parties based upon any alleged breach of any of the obligations hereunder, which the parties are unable to resolve, shall be finally settled in accordance with the provisions of the Utah Arbitration Act by a single arbitrator. The arbitrator shall have broad power to grant relief for any dispute submitted pursuant to this Section 8, including without limitation termination of this Agreement. The arbitration proceedings shall be conducted in Price, Utah. CFC shall be responsible for all costs incurred in arbitration, including all fees and expenses of the arbitrator. Either party may enforce any arbitration award by instituting an action in the appropriate state or federal district court.
9. Indemnification. CFC shall indemnify, defend and hold harmless Thayn from and against all claims, costs, losses and expenses of any and every kind or character (including without limitation, mechanic liens and additional taxes) that are caused by or arise out of CFC's operations conducted on the Thayn Lands pursuant to this Agreement, provided that Thayn shall not be indemnified for matters expressly covered by this

Agreement, including without limitation the grant to CFC to subside the surface as a result of its underground mining operations.

10. Assignment. CFC's rights under this Agreement may not be assigned or sublet without the prior written consent of Thayn, which consent shall not be unreasonably withheld, provided that CFC may assign or sublease its interest hereunder without consent if such assignment or sublease is to an affiliate, parent or subsidiary of CFC, or to a party which acquires all or substantially all of the assets of CFC or the Mines.
11. Notices. All notices shall be in writing and addressed as follows:

If to Canyon Fuel Company:

President  
Ark Land Company  
CityPlace One  
Suite 300  
St. Louis, MO 63141-7056  
(314) 994-2700

With a copy to:

Canyon Fuel Company, L.L.C.  
Soldier Canyon Mine  
P.O. Box 1029  
Wellington, UT 84542  
Attn: David G. Spillman  
(435) 636-2872

If to Thayn:

Milton and Ardith Thayn Trust  
7730 East Hwy 6  
Price, UT 84501  
Attn: David Thayn  
(435) 472-4251

Notices are sufficient if delivered by hand, sent by facsimile transmission or deposited in the United States mail, postage prepaid and addressed to the appropriate addresses.

12. CFC Permits. Thayn expressly agrees to not oppose CFC's application for or issuance of the Mine Permits or for such other permits or approvals necessary or required to conduct coal mining operations at the Mines that may relate to or involve the Thayn Lands. In the event that CFC's Mine Permits are materially revised to require access or use of the Thayn Lands not granted by this Agreement, the parties shall use their respective best good faith efforts to negotiate such required access or use.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

CANYON FUEL COMPANY L.L.C.

By James E. Floyd  
Its VP & Treasurer

Milton and Ardith Thayn Trust

By Milton Thayn  
Its Trustee

Missouri  
STATE OF UTAH )  
City )ss:  
COUNTY OF Blaine

The foregoing instrument was acknowledged before me this 22 day of November, by James E. Floyd who being by me duly sworn did say that he is the VP & Treasurer of Canyon Fuel Company, L.L.C.,

and that the foregoing Surface Use Agreement was signed on behalf of said limited liability company.

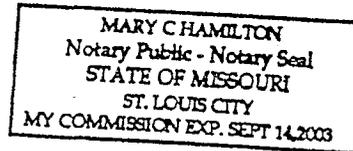
NOTARY PUBLIC

*Mary C. Hamilton*

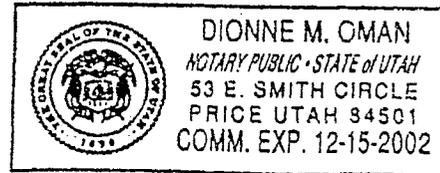
Residing at: City of St. Louis

My Commission Expires:

9-14-2003



STATE OF UTAH )  
 )ss:  
COUNTY OF CARBON )



The foregoing instrument was acknowledged before me this 15 day of NOVEMBER, by Milton Thayne, the signer of the foregoing Surface Use Agreement, who duly acknowledged to me that he executed the same as Trustee of and for the benefit of the Milton and Ardith Thayne Trust.

NOTARY PUBLIC

*Dionne M. Oman*

Residing at: Price, UT

My Commission Expires:

12-15-2002

**EXHIBIT "A"**  
**to**  
**Surface Use Agreement**

**Thavn Lands**

T13S, R12 E. Salt Lake Meridian, Utah

Sec. 12: E/2 SE/4;

Sec. 13: E/2; SE/4 NW/4; E2 SW/4; NW/4 SW/4;

Sec. 24: All;

Sec. 25: NW/4.

T13S, R13 E. Salt Lake Meridian, Utah

Sec. 7: S/2SW/4, NW/4SW/4;

Sec. 18: S/2, NW/4, S/2NE/4, NW/4NE/4;

Sec. 17: SW/4, S/2SE/4, NW/4SE/4;

Sec. 19: All Except Lot 4;

Sec. 20: All;

Sec. 21: S/2, S/2N/2, NW/4NW/4;

Sec. 22: SW/4, S/2NW/4;

Sec. 27: W/2;

Sec. 28: All;

Sec. 29: All;

Sec. 30: All Except Lots 1 and 2;

Sec. 33: N/2N/2.

**EXHIBIT "B"**  
to  
**Surface Use Agreement**

**CLARK VALLEY LEASE LANDS**

(approximately 4,461 acres):

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Description</u>
14 South	12 East	3	S½SE¼; S½SW¼
"	"	5	S½SE¼
"	"	8	NE¼NE¼; W½NE¼; SW¼; E½NW¼
"	"	9	SE¼
"	"	10	E½; SW¼; E½NW¼; SW¼NW¼
"	"	11	SE¼; NE¼; E½SE¼; SW¼SE¼; W½
"	"	13	W½; SW¼; S½NW¼; NE¼SW¼
"	"	14	All
"	"	15	E½; SW¼; E½NW¼
"	"	17	NW¼; SE¼; E½SW¼; NW¼SW¼
"	"	18	E½NE¼
"	"	20	N½NE¼
"	"	21	NE¼NW¼; W½NW¼; SE¼NE¼
"	"	22	NW¼

**CLARK VALLEY WATER RIGHTS**

Water Right No.  
(Irrigation &  
Stockwatering)

91-23  
91-85  
91-86  
91-409

Water Right No.  
(Stockwatering)

91-410 91-447  
91-411 91-448  
91-412 91-449  
91-413 91-450

**Exhibit B  
to Surface Use Agreement**

Water Right No.  
(Irrigation &  
Stockwatering)

Water Right No.  
(Stockwatering)

91-457	91-414	91-451
91-491	91-415	91-452
91-492	91-416	91-453
91-493	91-417	91-456
91-494	91-418	91-458
91-495	91-419	91-459
91-604	91-420	91-460
91-605	91-421	91-461
91-606	91-422	91-465
91-607	91-426	91-466
	91-427	91-467
	91-428	91-468
	91-429	91-469
	91-430	91-470
	91-443	91-591
	91-444	91-3729
	91-445	91-3730
	91-446	

**GRAZING RIGHTS**

BLM Grazing Allotment #4079 (North Clark Valley) Approx. (Acreage 9,480)  
Period of Use - March 20<sup>th</sup>-June 5<sup>th</sup>

State Grazing Permit #21722 (Approx. Acreage 680)

**WATER SHARES**

50 Shares of water stock in The Wellington Canal Company from Certificate No. 881

EXHIBIT "C"  
to  
Surface Use Agreement

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "Lease") is made and entered into as of November \_\_\_\_\_, 1999 ("Effective Date"), by and between CANYON FUEL COMPANY, L.L.C. ("Lessor"), and MILTON AND ARDITH THAYN TRUST ("Lessee").

Recitals

- A. Lessor is the owner of certain lands and water and grazing rights located in Carbon County, Utah, and more particularly described in Exhibit "A" attached hereto: (1) lands located in Clark Valley ("Clark Valley Lease Lands"); (2) water rights appurtenant to the Clark Valley Lease Lands ("Clark Valley Water Rights"); (3) state and federal grazing rights related to the Clark Valley Lease Lands ("Grazing Rights"); and (4) water rights represented by 50 shares of water stock in the Wellington Canal Company ("Water Shares"). The Clark Valley Lease Lands, the Clark Valley Water Rights, the Grazing Rights and the Water Shares are collectively referred to as the "Lease Interests."
- B. The parties have entered into that certain Surface Use Agreement dated \_\_\_\_\_ ("Surface Use Agreement") whereby Lessee grants to Lessor rights to use the surface of Lessee's lands to facilitate Lessor's coal mining operations in exchange for this Lease, Lessee desires to lease from Lessor and Lessor and other consideration.

Agreement

NOW, THEREFORE, in consideration of the mutual promises and obligations herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Lessor hereby leases to Lessee the Lease Interests subject to and conditioned upon the following agreement between the parties:

ARTICLE I  
AGREEMENT FOR WATER RIGHTS

1.1 Lessor's Right to Use Clark Valley Water Rights and Water Shares. Lessee shall have the right to use part or all of the Clark Valley Water Rights and the water represented by the Water Shares (collectively, the "Leased Water Rights") for the sole purposes of irrigation or stock watering on or for the benefit of the Clark Valley Lease Lands, or such additional uses

expressly allocated to the Leased Water Rights, upon the condition that Lessee notifies Lessor of its intention to use the Leased Water Rights at least one (1) month prior to the date of use by Lessee. Notwithstanding Lessee's exercise of its right granted hereunder, Lessee shall make beneficial use of the Leased Water Rights during the term of this Lease and shall take all necessary and reasonable actions so as to preserve the validity of the Leased Water Rights and prevent any reversion back to the State of Utah. Lessee's promise to make beneficial use of the Leased Water Rights provides an essential portion of the consideration given by Lessee to cause Lessor to enter into this Lease.

1.2 Interest in Clark Valley Water Rights. Lessor and Lessee expressly acknowledge that the interest of Lessee in the Leased Water Rights is that of a tenant, that Lessee shall acquire no ownership interest in the Leased Water Rights, and that Lessee shall have no right, title, or interest in the Leased Water Rights from and after the termination of this Lease. Lessee shall not in any way, intentionally or otherwise, directly or indirectly, take or encourage others to take any action which is inconsistent with or which will or may jeopardize the interests of Lessor in the Leased Water Rights.

1.3 Change of Diversion or Use. Without the prior written consent of Lessor, Lessee shall not file any change application or exchange application with the Utah State Engineer for purposes of changing the nature, point of diversion or use of the Leased Water Rights.

1.4 Voting Rights. Lessee shall have no right to vote the Water Shares and nothing contained in this Lease shall, nor shall it be interpreted to, grant to Lessee any rights to participate in meeting of the Wellington Canal Company or to act for or on behalf of Lessor as the record title owner of the Shares.

## ARTICLE II AGREEMENT FOR GRAZING RIGHTS

2.1 Conditions. Lessor shall have the right to use the Grazing Rights shall be subject to the following conditions:

- (a) Lessee shall comply with all applicable statutes and regulations and the terms and conditions of the Grazing Rights and shall perform all other duties or tasks necessary to preserve the Grazing Rights in good standing and prevent any cancellation or other loss of the Grazing Rights. Lessee shall preserve and protect the interest of the Lessor therein and shall not take any action which is inconsistent with or will jeopardize the interest of Lessor in the Grazing Rights. Lessee shall promptly provide Lessor with a copy of any notice of violation, cancellation, inquiry or rental requirement received by Lessee relating to the Grazing Rights and shall undertake all necessary and reasonable actions to

remedy, cure or otherwise remove the basis for the notice. Lessee shall fully cooperate with Lessor to perform such actions as are necessary and advisable to preserve in full force and effect the Grazing Rights.

- (b) Lessor shall remain responsible for and shall pay directly to the BLM and/or State, as appropriate, all fees, rents, costs, or other charges required by statute, regulation, or agreement to keep the Grazing Rights in good standing.
- (c) Lessee hereby expressly waives any right or claim that it may have pursuant to 43 C.F.R. Part 4100 as now enacted or as hereinafter amended to receive compensation for any interests lessee may have in authorized range improvements on the Grazing Rights; and Lessee expressly acknowledges that the mutual promises and obligations of Lessor as specified in this Lease shall be deemed to be adequate compensation for any interests that Lessee may have in authorized range improvements on the Grazing Rights.
- (d) The general terms and conditions of this Lease shall apply to Lessee's right to use the Grazing Rights and the lands governed thereby as though included within the Clark Valley Lease Lands. Any breach or failure by Lessee to satisfy the covenants or conditions relative to the Grazing Rights shall constitute a breach of this Lease.

2.2 Lessee's Cattle. At all times during the term of this Lease, Lessee shall own a minimum of forty percent (40%) of the cattle actively grazing on or using the Clark Valley Lease Lands. Lessee shall not permit grazing of third party livestock on the Clark Valley Lease Lands that would result in a breach of this provision.

### ARTICLE III GENERAL TERMS AND CONDITIONS

3.1 Term. The term of this Lease shall commence upon the Effective Date and continue for a primary term five (5) years or the equivalent of sixty (60) calendar months. Lessee at its option shall have the right to renew this Lease for three (3) additional extended terms of five (5) years each by giving Lessor written notice of Lessee's election to renew 60-days prior to the termination of the then effective term. Unless otherwise terminated, this Lease shall terminate at the end of the last extended term which termination in no event shall occur later than 20 years after the Effective Date.

3.2 Consideration.

- (a) Lessee shall have no obligation to pay any rental to maintain this Lease in full force and effect for the term hereof, the consideration for this Lease being represented by the covenants and obligations set forth in the Surface Use Agreement.
- (b) In the event that this Lease is terminated or expires prior to a date twenty (20) years from the Effective Date, Lessor shall pay to Lessee as continuing consideration for the Surface Use Agreement the sum of \$5,000 annually ("Rental Payment") in lieu of this Agreement, payable on the anniversary date of the Effective Date each year for twenty (20) years from the Effective Date, or until the Surface Use Agreement terminates as provided therein.

3.3 Use and Occupancy by Lessee. Lessee shall use the Clark Valley Lease Lands, Leased Water Rights the Grazing Rights and the water attributable to the Water Shares exclusively for the grazing of cattle and for the raising of forage for the feeding of livestock. Lessee shall not authorize or conduct mining, drilling operations or hunting on the Clark Valley Lease Lands or remove sand, gravel, dirt, minerals, water, or associated substances from the Clark Valley Lease Lands; shall not commit any waste upon the Clark Valley Lease Lands; and shall not conduct or allow any business, activity, or thing on the Clark Valley Lease Lands which is or becomes unlawful, prohibited, or a nuisance, or which may cause damage to lessor, to occupants of the vicinity, or to other third parties. Lessee shall comply with and abide by all laws, ordinances, and regulations of all municipal, county, state and Federal authorities which are now in force or which may hereinafter become effective with respect to the use and occupancy of the Clark Valley Lease Lands, the Leased Water Rights and the Grazing Rights. Lessee shall conduct operations of the Clark Valley Lease Lands in accordance with good grazing and range or husbandry practices with reference to practices of others in the geographic vicinity of the Clark Valley Lease Lands and in compliance with applicable law. Lessee shall not overgraze the Clark Valley Lease Lands. Lessee shall ensure that all main entrance gates are kept locked with locks provided by Lessor.

3.4 Use by Lessor. Use of the Clark Valley Lease Lands by Lessee shall be nonexclusive. Lessor shall be entitled, without compensation to Lessee, to use the Clark Valley Lease Lands or grant other parties the right to use the Clark Valley Lease Lands, including but not limited to rights for easements, licenses, and leases, but Lessor shall not grant rights for grazing or agricultural use of the Clark Valley Lease Lands to third parties or make use of the Clark Valley Lease Lands itself for such purposes. However, Lessor shall reimburse Lessee for any damages done to Lessee's crops as a result of the use of the Clark Valley Lease Lands by Lessor.

3.5 Improvements. Lessee shall not construct any permanent building on the Clark Valley Lease Lands and shall not construct any temporary building or advertising sign on the Clark Valley Lease Lands without the prior written consent of Lessor. Lessee shall provide

and/or pay for the labor, material, and equipment for any fences, gates, cattle guards, ditches, ponds, reservoirs, or other improvements for Lessee to make use of the Clark Valley Lease Lands, the Grazing Rights, or to make beneficial use of the Leased Water Rights. Unless otherwise agreed in writing, any improvements which Lessee shall make to the Clark Valley Lease Lands shall be made at no expense to Lessor and shall not be removed and shall remain on the Clark Valley Lease Lands upon the termination of this Lease unless otherwise directed by Lessor. Lessee may use whatever fences, gates, cattle guards, ditches, ponds, reservoirs, and other improvements which now exist on the Clark Valley Lease Lands.

3.6 Representation of Lessee. Lessee represents as follows:

- (a) Lessee is experienced in farming methods, farm equipment, and irrigation methods generally used in Carbon County Lessee shall cultivate grazing pastures and make beneficial use of the Clark Valley Water Rights and otherwise exercise Lessee's rights and privileges under this Lease.
- (b) Lessee has sufficient farming and construction equipment available for its use and shall continue to have such equipment available for its use during the term of this Lease for the construction and maintenance of ditches, roads, ponds, fences, and the performance of other tasks which may be needed to satisfy Lessee's obligations under this Lease.
- (c) Lessee has knowledge of the requirements necessary to preserve the Leased Water Rights in good standing and prevent any loss of nonuse or other reversion back to the State of Utah.

3.7 Right of Entry. At any time throughout the term of the Lease, Lessor shall have the right to enter upon the Clark Valley Lease Lands or any portion thereof for purposes of inspecting the same, determining whether Lessee is performing its obligations under the Lease, including but not limited to the obligation to make beneficial use of the Leased Water Rights, taking any action necessary or desirable to remedy any default by lessee in any of Lessee's obligations hereunder, showing or exhibiting the Clark Valley Lease Lands to existing or prospective mortgage lenders, purchasers, or lessees, placing "for sale" or "for lease" signs on the Clark Valley Lease Lands, performing environmental or analytical studies, or for any other purpose whatsoever.

3.8 Insurance. At all times during the term hereof, Lessee shall secure and maintain public liability insurance providing coverage against damage to persons or property resulting from acts or omissions of Lessor or Lessee respecting the Clark Valley Lease Lands, with limits of liability in such amounts as lessor may determine. All insurance required or permitted hereunder shall be written by reputable, responsible companies licensed in the State of Utah and shall name Lessor as insured. Lessor shall be furnished with copies of the insurance policies then

in force pursuant to this section, together with evidence that the premiums therefor have been paid.

3.9 Taxes. Throughout the term hereof Lessor shall pay all real property taxes, assessments, and special assessments, (all of which are hereinafter collectively referred to as "Taxes"), which are levied against or which apply with respect to the Clark Valley Lease Lands, the Grazing Rights or the Water Rights. Lessee shall pay all taxes, assessments, charges and fees which during the term hereof may be imposed, assessed, or levied by any governmental or public authority against or upon Lessee's use of the Clark Valley Lease Lands or any personal property, equipment, or fixtures kept or installed therein by Lessee.

3.10 Assignment and Subletting.

- (a) Lessee shall have the right to assign or sublet a portion of this Lease with the prior written consent of Lessor, which consent shall not be unreasonably withheld, provided, however, that such assignment or sublease shall expressly provide and require that Lessee own and maintain a minimum of forty percent (40%) of the cattle actively grazing on or using the Clark Valley Lease Lands (as required under Section 2.2 of this Agreement) and that such assignment or sublease shall automatically terminate if at any time Lessee breaches the covenant under Section 2.2. In the event of any such assignment or sublease with the consent of the Lessor, Lessee shall remain liable on all of its covenants and obligations hereunder unless the instrument whereby Lessor consents to the assignment or subletting contains a provision in which Lessor specifically releases Lessee from such further liability. Any purported assignment without the written consent of the Lessor shall constitute a default hereunder and shall be void and of no effect.
- (b) Lessor shall have the right to assign its interests under this Lease without the consent of Lessee. In the event Lessor assigns such interests, Lessor shall, from and after the Effective Date (irrespective of when the assignment occurs), be relieved of any and all liability or obligation to Lessee hereunder, and all such liability and obligation shall, as of the time of such assignment or on the Effective Date, whichever is later, automatically pass to Lessor's assignee, whether or not specifically assumed by it.

3.11. Default and Remedies. In the event Lessee breaches or fails to perform any of its obligations hereunder and Lessee does not within sixty (60) days, unless a lesser time is required by applicable law for the Grazing Rights, after the giving of written notice by Lessor cure the default or begin action to cure the default and thereafter diligently prosecute such action to completion if the default cannot be reasonably cured within sixty (60) days, or as required by applicable law, Lessor shall have the right, at its option, to exercise any of the following rights and remedies:

- (a) Lessor may itself perform or cause to be performed the obligation with respect to which Lessee is in default. In the event Lessor does so, its cost of such performance, including reasonable attorneys' fees and all expenses incurred by Lessor, plus interest thereon at the rate of eighteen percent (18%) per annum from the date of expenditure, shall be deemed to be additional rent and shall be immediately paid by Lessee.
- (b) Lessor may terminate this Lease, immediately enter the Clark Valley Lease Lands, and take possession of the Clark Valley Lease Lands, the Leased Valley Water Rights and the Grazing Rights with or without process of law, and remove all persons and property from the Clark Valley Lease Lands. No such action by Lessor shall be considered or construed to be a forcible entry. By taking such action, Lessor shall incur no liability to Lessee or to any other persons occupying or using the Clark Valley Lease Lands or using the Leased Water Rights or the Grazing Rights for any damage caused or sustained by reason of such entry and removal of persons and property, and Lessee hereby covenants and agrees to indemnify and save harmless Lessor from all costs, loss, or damage arising from or occasioned by such action. In the event Lessor terminates this Lease pursuant to this Subsection (b), it shall also have the right to recover from lessee all other amounts necessary to compensate Lessor for all damages caused by Lessee's default or which would be likely to result from such default.
- (c) Lessor may continue this Lease in effect and enforce all of its rights hereunder. If Lessor does so, it shall have the right to relet or sublet the Clark Valley Lease Lands, the Leased Water Rights, and the Grazing Rights or portions thereof, and any such reletting or subletting may be for a term which extends beyond the term of this Lease. Notwithstanding any election by Lessor to proceed under Subsections (a) or (b) above, so long as Lessee remains in default under this Lease, Lessor shall have the right at any time to terminate this Lease pursuant to Subsection (b) above and to exercise the rights therein provided. The remedies specified in this Section 3.11 are cumulative and are not intended to exclude any other remedy or means of redress to which Lessor may be entitled in the even of any default or threatened default by Lessee with respect to any of its obligations under this Lease.

3.12 Indemnification and Waiver. Lessee shall indemnify and shall hold harmless Lessor and all of Lessor's directors, partners, members, officers, agents, and employees, and each of them, from and against any and all obligations, debts, loss, damage, claims, demands, suits, controversies, costs, fees, liens, encumbrances, and liabilities whatsoever, including attorneys' fees, in any way resulting from or arising out of any failure by Lessee to abide by all of the terms of this Lease or any negligent or intentional act or omission by Lessee or any of its agents, employees, invitees, licensees, or contractors arising out of or in connection and occupancy of the

Clark Valley Lease Lands or use of the Leased Water Rights, or the Grazing Rights. Lessor shall not be responsible or liable for any loss or damage to Lessee or to Lessee's property or business that may be occasioned by or through the acts or omissions of persons occupying, using, or trespassing upon the Clark Valley Lease Lands. Lessee shall use the Clark Valley Lease Lands, the Leased Water Rights and the Grazing Rights at its own risk, and hereby releases Lessor, to the full extent permitted by law, from all claims of every kind or nature, including claims for loss of life, personal or bodily injury, or property damage.

3.13 Enforcement. If any action is brought to recover any rent under this Lease, or because of any breach of or to enforce or interpret any of the provisions of this Lease, or for recovery of possession of the Clark Valley Lease Lands, the party prevailing in such action shall be entitled to recover from the other party reasonable attorney's fees (including those incurred in connection with any appeal), the amount of which shall be fixed by the court and made a part of any judgment rendered.

3.14 Notices. Any notice required or permitted hereunder to be given or transmitted between the parties shall be either personally delivered or mailed, postage prepaid by certified or registered mail, addressed as follows:

TO LESSOR:            President  
                          Ark Land Company  
                          CityPlace One  
                          Suite 300  
                          St. Louis, MO 63141-7056

With a copy to:      Canyon Fuel Company, L.L.C.  
                          Soldier Canyon Mine  
                          P. O. Box 1029  
                          Wellington, UT 84542  
                          Attn: David G. Spillman  
                          (435) 636-2872

TO LESSEE:            Milton and Ardith Thayn Trust  
                          7730 East Highway 6  
                          Price, Utah 84501  
                          Attn: David Thayn  
                          (435) 472-4751

Any notice which is mailed shall be effective on receipt as evidenced by the registration certificate. Either party may, by notice to the other given as prescribed in this Section 3.14, change the above address for any future notices which are mailed under this Lease.

3.15 Liens and Encumbrances. Lessor shall keep the Clark Valley Lease Lands, Leased Water Rights, and Grazing Rights, free of all liens and encumbrances of every nature and kind arising after the Effective Date and shall proceed with all diligence to contest or discharge any lien or encumbrance that is filed or claimed.

3.16 Miscellaneous.

- (a) Neither this instrument nor any memorandum or notice concerning the same shall be recorded without the prior written consent of Lessor. Lessor may, at its option and at any time, file this Lease or a notice or short form concerning the same (which said notice or short form Lessee hereby agrees to execute upon Lessor's request) for record in Carbon County, Utah.
- (b) The captions which precede the sections of this Lease are for convenience only and shall in no way affect the manner in which any provision hereof is construed.
- (c) There are no representations or agreements between the parties except as set forth in this Lease, and this Lease supersedes any and all prior negotiations, agreements, or understandings between Lessor and Lessee in any way related to the subject matter hereof. None of the provisions of this Lease may be altered or modified except through an instrument in writing signed by both parties.
- (d) The liability of each person executing and delivering this Lease shall be joint and several. Each provision of this Lease to be performed by Lessee shall be construed to be both a covenant and a condition. To the extent permitted by the provisions hereof, all reservations, terms, conditions, and covenants herein contained shall be binding upon and shall inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the parties hereto.
- (e) Time is of the essence to the provisions of this Lease. Any waiver, either express or implied, by Lessor or any breach by Lessee of any promise, condition or term hereof shall not be construed or claimed to be a waiver of any other breach of any condition, promise, or term of this Lease.
- (f) Nothing in this Lease shall, nor shall it be interpreted to, amend, modify or waive any provision of the Surface Use Agreement. Except for the express provision to make the Rental Payments under Section 3.2(b), any default under or termination of this Lease shall not affect in any manner the terms, conditions or validity of the Surface Use Agreement, it being the intent and understanding of the parties that the Surface Use Agreement and this Lease shall constitute separate and independent legal agreements, enforceable in accordance with their respective terms.

IN WITNESS WHEREOF the parties hereto have executed this Lease as of the Effective Date.

LESSOR:

LESSEE:

CANYON FUEL COMPANY, L.L.C.

MILTON AND ARDITH THAYN TRUST

By \_\_\_\_\_  
Its \_\_\_\_\_

By \_\_\_\_\_  
Its Trustee

STATE OF UTAH       )  
                          )ss:  
COUNTY OF \_\_\_\_\_)

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, by \_\_\_\_\_, who being by me duly sworn did say that he is the \_\_\_\_\_ of Canyon Fuel Company, L.L.C., and that the foregoing Lease was signed on behalf of said limited liability company.

NOTARY PUBLIC

Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

STATE OF UTAH       )  
                          )ss:  
COUNTY OF CARBON )

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, by

\_\_\_\_\_, the signer of the foregoing Lease, who duly acknowledged to me that he executed the same as Trustee of and for the benefit of the Milton and Ardith Thayn Trust.

NOTARY PUBLIC

Residing at: \_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

**EXHIBIT "A"**  
to  
**Lease Agreement**

**CLARK VALLEY LEASE LANDS**

(approximately 4,461 acres):

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Description</u>
14 South	12 East	3	S½SE¼; S½SW¼
"	"	5	S½SE¼
"	"	8	NE¼NE¼; W½NE¼; SW¼; E½NW¼
"	"	9	SE¼
"	"	10	E½; SW¼; E½NW¼; SW¼NW¼
"	"	11	SE¼; NE¼; E½SE¼; SW¼SE¼; W½
"	"	13	W½; SW¼; S½NW¼; NE¼SW¼
"	"	14	All
"	"	15	E½; SW¼; E½NW¼
"	"	17	NW¼; SE¼; E½SW¼; NW¼SW¼
"	"	18	E½NE¼
"	"	20	N½NE¼
"	"	21	NE¼NW¼; W½NW¼; SE¼NE¼
"	"	22	NW¼

**CLARK VALLEY WATER RIGHTS**

<u>Water Right No.</u> <u>(Irrigation &amp;</u> <u>Stockwatering)</u>	<u>Water Right No.</u> <u>(Stockwatering)</u>
91-23	91-410 91-447
91-85	91-411 91-448
91-86	91-412 91-449
91-409	91-413 91-450
91-457	91-414 91-451

**Exhibit A  
to Lease Agreement**

<u>Water Right No. (Irrigation &amp; Stockwatering)</u>	<u>Water Right No. (Stockwatering)</u>
91-491	91-415 91-452
91-492	91-416 91-453
91-493	91-417 91-456
91-494	91-418 91-458
91-495	91-419 91-459
91-604	91-420 91-460
91-605	91-421 91-461
91-606	91-422 91-465
91-607	91-426 91-466
	91-427 91-467
	91-428 91-468
	91-429 91-469
	91-430 91-470
	91-443 91-591
	91-444 91-3729
	91-445 91-3730
	91-446

**GRAZING RIGHTS**

BLM Grazing Allotment #4079 (North Clark Valley) Approx. (Acreage 9,480)  
Period of Use - March 20<sup>th</sup>-June 5<sup>th</sup>

State Grazing Permit #22966 (Replacing Permit #21722) (Approx. Acreage 680)

**WATER SHARES**

50 Shares of water stock in The Wellington Canal Company from Certificate No. 881

Canyon Fuel Company LLC  
6955 Union Park Center, Suite 540  
Midvale, Utah 84047

RE: Soldier Canyon Mine  
Dugout Canyon Mine

Gentlemen:

The Milton and Ardith Thayn Trust ("Trust") is the record title owner of the surface to the lands described below that cover or otherwise relate to coal leases Canyon Fuel Company now or in the future intends to develop ("Lands"):

T13S, R12 E, Salt Lake Meridian, Utah

Sec. 12: E/2 SE/4;  
Sec. 13: E/2; SE/4 NW/4; E2 SW/4; NW/4 SW/4;  
Sec. 24: All;  
Sec. 25: NW/4.

T13S, R13 E, Salt Lake Meridian, Utah

Sec. 7: S/2SW/4, NW/4SW/4;  
Sec. 18: S/2, NW/4, S/2NE/4, NW/4NE/4;  
Sec. 17: SW/4, S/2SE/4, NW/4SE/4;  
Sec. 19: All Except Lot 4;  
Sec. 20: All;  
Sec. 21: S/2, S/2N/2, NW/4NW/4;  
Sec. 22: SW/4, S/2NW/4;  
Sec. 27: W/2;  
Sec. 28: All;  
Sec. 29: All;  
Sec. 30: All Except Lots 1 and 2;  
Sec. 33: N/2N/2.

Subject to the Surface Use Agreement dated effective November 22, 1999, between the parties, the Trust hereby consents to Canyon Fuel's underground mining activities below the Lands and access to the surface to repair subsidence.

Very truly yours,

Milton and Ardith Thayn Trust

By: Milton Thayn

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/21/2001

API NO. ASSIGNED: 43-007-30804
--------------------------------

WELL NAME: TD-3  
 OPERATOR: ARK LAND COMPANY ( N1905 )  
 CONTACT: MIKE STEVENSON

PHONE NUMBER: 435-448-2634

PROPOSED LOCATION:

NWNW 19 130S 130E  
 SURFACE: 1009 FNL 0666 FWL  
 BOTTOM: 1009 FNL 0666 FWL  
 CARBON  
 WILDCAT ( 1 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DRD	9/6/01
Geology		
Surface		

LEASE TYPE: 4 - Fee  
 LEASE NUMBER: FEE  
 SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: BLKHK

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[] Ind[] Sta[] Fee[4]  
(No. SB0072960 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. MUNICIPAL )
- RDCC Review: (Y/N)  
(Date: Comments due 9-6-01 )
- Fee Surf Agreement (Y/N)

LOCATION AND SITING:

- R649-2-3. Unit \_\_\_\_\_
- R649-3-2. General
- Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception#
- Drilling Unit
- Board Cause No: \_\_\_\_\_
- Eff Date: \_\_\_\_\_
- Siting: \_\_\_\_\_
- R649-3-11. Directional Drill

COMMENTS: Need Presite. (8-27-01)  
Need "Ex. Loc" info. (rec'd 8-31-01)  
R649-3-29, 50' below coal not applicable since coal is target zone. OK

STIPULATIONS: 1- SOB (Statement of Basis)  
2- RDCC comments



OPERATOR: ARK LAND COMPANY (N1905)  
 SEC. 19, T13S, R13E  
 FIELD: WILDCAT (001)  
 COUNTY: CARBON SPACING: R649-3-3/EX LOC

D u g o u t  C y n  M i n e	T13S R12E	T13S R13E		
	13	18	17	
	24	 TD-3 19	20	
	25	30	29	

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1A. Type of Work: DRILL  DEEPEN

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

2. Name of Operator:  
Ark Land Company

3. Address and Telephone Number:  
HC 35 Box 380, Helper, Utah 84526 1-435-448-2634

4. Location of Well (Footages)  
At Surface: 1008' FNL, 666' FWL  
At Proposed Producing Zone: 4392667N  
541913E

5. Lease Designation and Serial Number:  
Patented

6. If Indian, Allottee or Tribe Name:  
N/A

7. Unit Agreement Name:  
N/A

8. Farm or Lease Name:  
TD

9. Well Number:  
3

10. Field or Pool, or Wildcat:  
Wildcat

11. Qtr/Qtr, Section, Township, Range, Meridian:  
NW/4 NW/4, Section 19,  
T13S, R13E, SLB&M

12. County: Carbon 13. State: Utah

14. Distance in miles and direction from nearest town or post office:  
10.8 miles northwest of East Carbon, Utah

15. Distance to nearest property or lease line (feet): 4271'

16. Number of acres in lease: 3,749.78 acres

17. Number of acres assigned to this well: 40

18. Distance to nearest well, drilling, completed, or applied for, or None

19. Proposed Depth: 2,000'

20. Rotary or cable tools: Rotary

21. Elevations (show whether DF, RT, GR, etc.): 8378' GR

22. Approximate date work will start: September 2001

23. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55 ST&C	24 #	1,200'	(see Exhibit "D" for cement program details)
7-7/8"	5-1/2" J-55 LT&C	15.5 #	1,900'	(see Exhibit "D" for cement program details)

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.

**RECEIVED**      **CONFIDENTIAL**

AUG 21 2001

DIVISION OF  
OIL, GAS AND MINING

**ORIGINAL**

24. Name & Signature: Mike Stevenson Mike A. Stevenson Title: Senior Geologist Date: 8-20-01

(This space for state use only)

API Number Assigned: 43-007-30804

Approval:

Township 13 South

# Range 13 East

NW 18  
ELEV. 8070'  
GLO ROCK MONUMENT  
LOCATED AND IDENTIFIED

GLO ROCK MONUMENT  
LOCATED AND IDENTIFIED

(S89°52'E - 5540.04')

1008.62'  
WELL SITE TD-3  
ELEVATION 8378.1'  
UTM  
N - 4392646  
E - 541926

666.25'

# 19

(NORTH - 5280.07')

(NO°03'W - 5280.07')

(S89°47'E - 5553.24')

- Legend**
- Rebar Cap
  - Drill Hole Location
  - ⊕ Rock Monument (Found)
  - Brass Cap (Searched for, but not found)
  - △ Rock Pile
  - ( ) GLO
  - GPS Measured

**NOTES:**  
1. UTM AND LATITUDE / LONGITUDE COORDINATES  
ARE DERIVED USING A GPS PATHFINDER AND ARE  
SHOWN IN NAD 27 DATUM.

LAT / LONG  
39°41'04"N  
110°30'40"W

**Location:**  
THE WELL LOCATION WAS DETERMINED USING A TRIMBLE 4700  
GPS SURVEY GRADE UNIT.

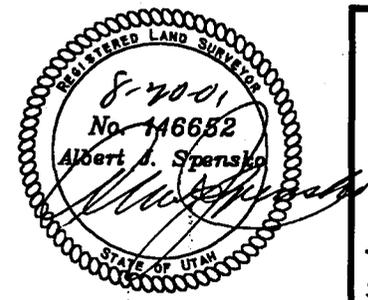
**Basis of Bearing:**  
THE BASIS OF BEARING IS GPS MEASURED.

**GLO Bearing:**  
THE BEARINGS INDICATED ARE PER THE RECORDED PLAT OBTAINED  
FROM THE U.S. LAND OFFICE.

**Basis of Elevation:**  
BASIS OF ELEVATION OF 8070' BEING AT THE NORTHWEST SECTION CORNER  
OF SECTION 18, TOWNSHIP 13 SOUTH, RANGE 13 EAST, SALT LAKE BASE  
AND MERIDIAN, AS SHOWN ON THE PINE CANYON QUADRANGLE 7.5 MINUTE  
SERIES MAP.

**Description of Location:**  
PROPOSED DRILL HOLE LOCATED IN THE NW1/4, NW1/4 OF SECTION 19,  
T13S, R13E, S.L.B.&M., BEING 1008.62' SOUTH AND 666.25' EAST  
FROM THE NORTHWEST SECTION CORNER OF SECTION 19, T13S, R13E,  
SALT LAKE BASE & MERIDIAN.

**Surveyor's Certificate:**  
I, Albert J. Spensko, a Registered Professional  
Land Surveyor, holding Certificate 146652  
State of Utah, do hereby certify that the  
information on this drawing is a true and  
accurate survey based on data of record and  
was conducted under my personal direction  
and supervision as shown hereon.



**GRAPHIC SCALE**  
0 500' 1000'  
( IN FEET )  
1 inch = 1000 ft.

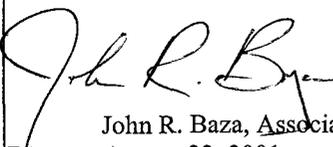


**Talon Resources, Inc.**  
375 South Carbon Avenue, Suite 101  
Price, Utah 84501  
Ph: 435-637-8781  
Fax: 435-836-8803

**ARK LAND COMPANY**  
WELL SITE TD-3  
Section 19, T13S, R13E, S.L.B.&M.  
Carbon County, Utah

Drawn By J. STANSFIELD	Checked By L.W.J./A.J.S.
Drawing No. A-1	Date: 08/20/01
	Scale: 1" = 1000'
Sheet 1 of 1	Job No. 378

**STATE ACTIONS**  
**State Clearinghouse Coordinator**  
**116 State Capitol, SLC, UT 84114**  
**538-1535**

<b>1. Administering State Agency</b> Oil, Gas and Mining 1594 West North Temple, Suite 1210 Salt Lake City, UT 84114-5801	<b>2. State Application Identifier Number: (assigned by State Clearinghouse)</b>  <b>3. Approximate date project will start:</b> Upon Approval
<b>4. Areawide clearinghouse(s) receiving state action: (to be sent out by agency in block 1)</b>  Southeastern Utah Association of Governments	
<b>5. Type of action: // Lease /X/ Permit // License // Land Acquisition</b>  // Land Sale // Land Exchange // Other _____	
<b>6. Title of proposed action:</b>  Application for Permit to Drill	
<b>7. Description:</b>  Ark Land Company proposes to drill the TD-3 well (wildcat) on a Patented lease, Carbon County, Utah. This action is being presented to the 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.	
<b>8. Land affected (site location map required) (indicate county)</b>  NW/4, NW/4, Section 19, Township 13 South, Range 13 East, Carbon County, Utah	
<b>9. Has the local government(s) been contacted?</b> No	
<b>10. Possible significant impacts likely to occur:</b>  Degree of impact is based on the discovery of oil or gas in commercial quantities.	
<b>11. Name and phone of district representative from your agency near project site, if applicable:</b>  	
<b>12. For further information, contact:</b>  Lisha Cordova <b>Phone:</b> (801) 538-5296	<b>13. Signature and title of authorized officer</b>   John R. Baza, Associate Director <b>Date:</b> August 22, 2001



*Talon Resources, Inc.*

Service, Quality and Accuracy

375 South Carbon Avenue A-10  
Suite 101  
Price, Utah 84501  
Phone: 435-637-8781  
435-637-5032 Ext 710/711

Cell: 801-650-1401  
801-650-1402  
Fax: 435-636-8603  
Email: talon@castlenet.com

August 20, 2001

Mr. John Baza  
State of Utah  
Division of Oil Gas and Mining  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Signed Civil Plat—Ark Land Company; TD-3,

Dear Mr. Baza:

Following submission of the above referenced APD it was noticed that an unsigned civil plat had been inserted into the APD. Please update the previously submitted APD with the following original signed civil plat and one copy. We apologize for any confusion that this may have caused and appreciate your patience on this matter.

Sincerely;

*Don Hamilton*

Don Hamilton  
Environmental Manager / Project Coordinator

Enc.

**RECEIVED**

AUG 23 2001

DIVISION OF  
OIL, GAS AND MINING

Township 13 South

Range 13 East

NW 18  
ELEV. 8070'

S00°12'19"E - 5387.57'

(S89°52'E - 5540.04')

1008.62'  
WELL SITE TD-3  
ELEVATION 8378.1'

UTM  
N - 4392646  
E - 541926

666.25'

19

REBAR CAP  
#5067

(NORTH - 5280.0')

(NO°03'W - 5280.0')

(S89°47'E - 5553.24')

- Legend**
- Rebar Cap
  - Drill Hole Location
  - ⊕ Brass Cap (Found)
  - Brass Cap (Searched for, but not found)
  - △ Rock Pile
  - ( ) GLO
  - GPS Measured

**NOTES:**  
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 ARE DERIVED USING A GPS PATHFINDER AND ARE  
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LAT / LONG
39°41'04"N
110°30'40"W

ORIGINAL

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 THE WELL LOCATION WAS DETERMINED USING A TRIMBLE 4700  
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**GLO Bearing:**  
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**Surveyor's Certificate:**  
 I, Albert J. Spensko, a Registered Professional  
 Land Surveyor, holding Certificate 146652  
 State of Utah, do hereby certify that the  
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 accurate survey based on data of record and  
 was conducted under my personal direction  
 and supervision as shown hereon.



**GRAPHIC SCALE**  
 0 500' 1000'  
 ( IN FEET )  
 1 inch = 1000 ft.



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 375 South Carbon Avenue, Suite 101  
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**ARK LAND COMPANY**  
 WELL SITE TD-3  
 Section 19, T13S, R13E, S.L.B.&M.  
 Carbon County, Utah

Drawn By: J. STANSFIELD	Checked By: L.W.J./A.J.S.
Drawing No. A-1	Date: 08/20/01
	Scale: 1" = 1000'
Sheet 1 of 4	Job No. 378

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

OPERATOR: Ark Land Company  
WELL NAME & NUMBER: TD-3  
API NUMBER: 43-007-30804  
LEASE: FEE FIELD/UNIT: Wildcat  
LOCATION: 1/4, 1/4NW/NW Sec: 19 TWP: 13S RNG: 13E  
1008 F N L 666 F W L  
LEGAL WELL SITING: Statewide 400 foot window in center of 40  
acre tract and no closer than 920 feet from  
another well.  
GPS COORD (UTM): 12 541860E; 4392848N  
SURFACE OWNER: Milton and Arding Thayn, contacted David Thayn

**PARTICIPANTS:**

Don Hamilton (Permitting Consultant, Talon Resources); Larry  
Johnson (Talon Resources); Mike Stevenson; Dennis L. Ingram  
(DOGM)

**REGIONAL/LOCAL SETTING & TOPOGRAPHY:**

Location proposed on southern rim of Book Cliffs above Clark  
Valley on northeast/southwest ridge in sagebrush habitat with  
quaking aspen pockets immediately north and approximately 1.0  
miles north of Pace Canyon. Access 15.0 miles north off Highway  
6 up Pace Canyon County Road, through locked gate and narrow  
canyon with three or miles of steep, narrow dugways.

**SURFACE USE PLAN:**

CURRENT SURFACE USE: Cattle grazing and wildlife use, also  
has future coal possibilities.

PROPOSED SURFACE DISTURBANCE: Location measuring 170'x 260'  
with existing access road that crosses location on southern  
portion.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: See map  
from GIS Data base

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: All  
production equipment shall remain on location, nearest gas  
pipeline is 4.5 miles northwest of site.

SOURCE OF CONSTRUCTION MATERIAL: Native cut and fill. Any

gravel needed will be purchased from a local source.

ANCILLARY FACILITIES: None required.

**WASTE MANAGEMENT PLAN:**

Provided to DOGM with Application to Drill on Exhibit "E" item 7.

**ENVIRONMENTAL PARAMETERS:**

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: Good sagebrush cover on location with single pine tree in oak, maple, and quaking aspen type habitat. Mule deer, elk, black bear, mountain lion, coyote, bobcat, rabbit, potential blue grouse and or chukker, with smaller mammals and birds typical of the region.

SOIL TYPE AND CHARACTERISTICS: Light brown fine, grained sandy loam.

EROSION/SEDIMENTATION/STABILITY: Minor erosion with good ground cover, some sedimentation, no stability problems anticipated.

PALEONTOLOGICAL POTENTIAL: None observed during onsite visit

**RESERVE PIT:**

CHARACTERISTICS: Proposed on northwest side of location and parallel to prevailing winds in cut measuring 80'x 44'x 10' deep. Outside berm in fill but access road presents a problem with spinning location 180 degrees. Adequate berming or dike necessary to assure stability of pit.

LINER REQUIREMENTS (Site Ranking Form attached): 25 points

**SURFACE RESTORATION/RECLAMATION PLAN:**

Was submitted to DOGM with Application to Drill under Exhibit "E" item 10.

SURFACE AGREEMENT: Yes

CULTURAL RESOURCES/ARCHAEOLOGY: None required, FEE lands

**OTHER OBSERVATIONS/COMMENTS:**

Steep pitched dugways up canyon to location. Mining exploration operations underway for coal with drilling rig in Pace Canyon along access road into proposed well site. Live water in Pace Canyon and finger or north fork of canyon to west and below site. Evidence of timber harvest on eastern slopes of Pace Canyon. Purpose of well is to deplete any gas bearing zones below coal seams for future mining operations.

**ATTACHMENTS:**

Photos of surface before disturbance.

Dennis L. Ingram  
DOGM REPRESENTATIVE

08/30/01 10:30 am  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and On-site Pit Liner Requirements**

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



Ark Land Company  
c/o Canyon Fuel Co., LLC  
Skyline Mines  
HC35Box 380  
Helper, Utah 84526  
435-448-2634

August 24, 2001

Mr. John Baza  
State of Utah  
Division of Oil Gas and Mining  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Request for Exception to State Spacing Rule—TD-3, Carbon County, Utah:  
1009' ~~FWL~~, 666' FWL, Section 19, T13S, R13E, SLB&M.

*FNL*

Dear Mr. Baza:

Ark Land Company hereby formally requests exception to the state spacing rule since the above referenced well is located within 460' of the drilling unit boundary. Additionally Ark Land respectfully submits the following information to supplement the previously submitted *APD* for the above referenced well.

**Ark Land Company. is the only owner and operator within 460' of the proposed well location.**

Thank you for your timely consideration of this request. Please feel free to contact myself or Mr. Don Hamilton with Talon Resources, Inc. at 435-637-8781 if you have any questions or need additional information.

Sincerely,

Mike A. Stevenson  
Senior Geologist

Enclosures

cc: Mr. Don Hamilton, Talon Resources, Inc.

**DIVISION OF OIL, GAS AND MINING  
APPLICATION FOR PERMIT TO DRILL  
STATEMENT OF BASIS**

**Operator Name:** Ark Land Company  
**Well Name & Number:** TD-3  
**API Number:** 43-007-30804  
**Location:** 1/4,1/4 NW/NW Sec. 19 T. 13S R. 13E

**Geology/Ground Water:**

A well spudded at this location will first encounter the undivided Flagstaff (Limestone?) - North Horn Formations. Any soil developed locally will most likely be sandy, silty and moderately permeable. Other subjacent strata which will be encountered in a well would most likely assignable to either the Price River Formation or Castlegate Sandstone. Water rights have been filed on 6 springs within a mile of the location so it is likely that a quality water will be encountered in these rock units. While no springs appear on the Pine Canyon Quadrangle 7.5 minute USGS topographic map, a mine site (coal?) is indicated about a mile south southwest of the proposed location. A drill hole also so indicated 3/4 of a mile northeast of the propose drill location. The mine is most likely inactive and abandoned. The well is not in the oil and gas well database so it is probably a coal exploratory hole. An active coal lease owned by Canyon Fuel, operator of the nearby Dugout Mine (portal in Dugout Creek Canyon about 1 3/4 miles to the west) covers the area and the mine plan of development reveals that the area is slated for mining during the time interval between 2004 and 2009. The proposed casing and cementing programs should provide adequate protection to the quality water resources, which might be encountered in a well drilled at this location.

**Reviewer:** Chris Kierst  
**Date:** 9/4/01

**Surface:**

An onsite investigation was done of the surface area to evaluate any potential problems related to surface issues while drilling said gas well. DOGM was given David Thayn name (435) 637-9369 as landowner of record of the surface. He was contacted by telephone on 08/27/01 and invited to participate at the onsite meeting. Ark Land has obtained a signed landowner agreement. Proposed well site is on northeast/southwest ridge that slopes to northeast at about 1 degrees with existing access road along southern portion from the east. Reserve pit would have remained in cut if location was rotated 180 degrees, but operator didn't want pit and blouie line across roadway. Therefore, adequate berming and reserve pit dike is required to contain any spills or to assure stability of the reserve pit. Most location stakes were down from cattle grazing so operator needs to fence pit upon construction to prevent livestock damage to pit liner. No other issues were noted during onsite meeting.

**Reviewer:** Dennis L. Ingram  
**Date:** September 4, 2001

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

1. A 12 mil synthetic liner shall be properly installed and maintained in the reserve pit.



UTAH DIVISION OF WATER RIGHTS  
NWPLAT POINT OF DIVERSION LOCATION PROGR

MAP CHAR	WATER RIGHT	QUANTITY CFS	AND/OR AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER DEPTH	YEAR LOG	POINT NORTH	EA
0	<u>91 1744</u>	.0110	.00	Unnamed Spring			
		WATER USE(S): Thayn, George M.					
1	<u>91 1743</u>	.0110	.00	Unnamed Spring			
		WATER USE(S): Thayn, George M.					
2	<u>91 1745</u>	.0000	.00	Unnamed Stream			
		WATER USE(S): STOCKWATERING Thayn, George M.					
3	<u>91 1740</u>	.0110	.00	Unnamed Spring			
		WATER USE(S): Thayn, George M.					
4	<u>91 1738</u>	.0000	.00	Spring Stream			
		WATER USE(S): Thayn, George M.					
5	<u>91 1739</u>	.0110	.00	Unnamed Spring			
		WATER USE(S): Thayn, George M.					
6	<u>t25914</u>	.0000	2.50	Pace Creek		N 1150	W
		WATER USE(S): OTHER Canyon Fuel Company LLC P.O. Box 1029					
7	<u>91 1736</u>	.0000	.00	Spring Stream			
		WATER USE(S): Thayn, George M.					
8	<u>91 2175</u>	.0000	.00	Pace Canyon Creek			
		WATER USE(S): Thayn, George M.					
9	<u>t25914</u>	.0000	2.50	Pace Creek		S 150	E
		WATER USE(S): OTHER Canyon Fuel Company LLC P.O. Box 1029					
A	<u>91 4680</u>	.0000	.00	Pace Creek			
		WATER USE(S): STOCKWATERING OTHER USA Bureau of Land Management (Price Fie 125 South 600 West					

**From:** Frances Bernards  
**To:** Lisha Cordova  
**Date:** 9/4/01 11:29AM  
**Subject:** wildcat wells

The following proposed wildcat well projects may require a permit, known as an Approval Order, from the Utah Division of Air Quality if any compressor stations are operating at the site. A permit application, known as a Notice of Intent (NOI) should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, SLC, UT, 84116 for review according to the Utah Air Conservation Rule R307-400, Permits, Notice of Intent and Approval Order. These requirements apply to TD-3, Dry Valley State 11-12 on State Lease NI46873; Dry Valley State 14-23 on State Lease MI47338; White River State 15-32 on State Lease MI46874; Dry Valley State 15-34 on State Lease MI47338; Pugh #3; Pugh #6, Pugh #12; Pugh #18, Alker #1, Pugh #19, and Pugh #22.

If you have any questions, feel free to contact Frances Bernards at (801) 536-4056.

Frances Bernards, Planner  
Utah Division of Air Quality  
[fbernard@deq.state.ut.us](mailto:fbernard@deq.state.ut.us)  
(801) 536-4056

Project Number: 1146

Sponsor: Division of Oil, Gas and Mining

SLB&M: Sec. 33, T38S, R5W

Counties Affected: Kane

Description: Application for Permit to Drill - proposal to drill a wildcat well, the Pugh #6 on a Fee lease.

Comments Due to Sponsor 09/07/2001

---

Project Number: 1144

Sponsor: Division of Oil, Gas and Mining

SLB&M: Sec. 26, T38S, R5W

Counties Affected: Kane

Description: Application for Permit to Drill - proposal to drill a wildcat well, the Pugh #18 on a Fee lease.

Comments Due to Sponsor 09/07/2001

---

Project Number: 1152

Sponsor: Division of Oil, Gas and Mining

SLB&M: Sec. 19, T13S, R13E

Counties Affected: Carbon

Description: Application for Permit to Drill - proposal to drill a wildcat well, the TD-3 on a Patented lease.

Comments Due to Sponsor 09/07/2001

---

Project Number: 1145

Sponsor: Division of Oil, Gas and Mining

SLB&M: Sec. 27, T38S, R5W

Counties Affected: Kane

Description: Application for Permit to Drill - proposal to drill a wildcat well, the Pugh #12 on a Fee lease.

Comments Due to Sponsor 09/07/2001

---

Project Number: 1151

Sponsor: Division of Oil, Gas and Mining

SLB&M: Sec. 11, T11S, R7E

Counties Affected: Utah

Description: Application for Permit to Drill - proposal to drill a wildcat well, the Dry Valley State 11-12 on a State Lease NL46873.

Comments Due to Sponsor 09/07/2001

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Project Number: 1150

Sponsor: Division of Oil, Gas and Mining

SLB&M: Sec. 14, T11S, R7E

Counties Affected: Utah

Description: Application for Permit to Drill - proposal to drill a wildcat well, the Dry Valley State 14-23 on a State Lease ML47338.

Comments Due to Sponsor 09/07/2001

---

## **Stream Alterations**

Project Number: 1140

Sponsor: Division of Water Rights

SLB&M: Sec. 3, T9N, R1E

09-01 Ark TD-3  
Casing Schematic

Surface

North Horn

TOC @ 0.

BOP

$$\frac{BHP}{(0.052)(8.33)(2000)} = 867 \text{ psi}$$
 Anticipated = 1000 psi max

$$\frac{Gas}{(0.12)(2000)} = 240 \text{ psi}$$
 MASP = 760 psi

3M SRRA proposed

Adequate

DRD 9/6/01



8-5/8"  
MW 8.3  
Frac 19.3  
1283'  
Curtlegate

Surface  
1200. MD

W/10% washout

1679' -  
Sumysdelia  
1696' -  
Upper Sumysdelia  
1763' -  
Lower Sumysdelia  
1828' -  
Buckingham  
1875' -  
C5-172  
MW 8.3

Production  
1900. MD

W/15% washout

Well name:	<b>09-01 Ark TD-3</b>	
Operator:	<b>Ark Land Company</b>	Project ID:
String type:	Surface	43-007-30804
Location:	Carbon Co.	

**Design parameters:**

**Collapse**

Mud weight: 8.330 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: 65 °F  
 Bottom hole temperature: 82 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 300 ft

Cement top:

Surface

**Burst**

Max anticipated surface pressure: 0 psi  
 Internal gradient: 0.433 psi/ft  
 Calculated BHP 519 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 air weight.  
 Neutral point: 1,050 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 1,900 ft  
 Next mud weight: 8.330 ppg  
 Next setting BHP: 822 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 1,200 ft  
 Injection pressure 1,200 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 (ft³)
1	1200	8.625	24.00	J-55	ST&C	1200	1200	7.972	57.8
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	519	1370	2.64	519	2950	5.68	29	244	8.47 J

Prepared by: Dustin K. Doucet  
 Utah Dept. of Natural Resources

Phone: 801-538-5281  
 FAX: 801-539-3940

Date: September 6, 2001  
 Salt Lake City, Utah

**ENGINEERING STIPULATIONS: NONE**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.  
 Collapse is based on a vertical depth of 1200 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes.  
 Burst strength is not adjusted for tension.

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

Well name:	<b>09-01 Ark TD-3</b>	
Operator:	<b>Ark Land Company</b>	Project ID:
String type:	Production	43-007-30804
Location:	Carbon Co.	

**Design parameters:**

**Collapse**

Mud weight: 8.330 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: 65 °F  
 Bottom hole temperature: 92 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 368 ft

Cement top:

497 ft

**Burst**

Max anticipated surface pressure: 0 psi  
 Internal gradient: 0.433 psi/ft  
 Calculated BHP: 822 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)

Non-directional string.

Tension is based on air weight.

Neutral point: 1,660 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	1900	5.5	15.50	J-55	LT&C	1900	1900	4.825	59.6
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	822	4040	4.91	822	4810	5.85	29	217	7.37 J

Prepared by: Dustin K. Doucet  
 Utah Dept. of Natural Resources

Phone: 801-538-5281  
 FAX: 801-539-3940

Date: September 6, 2001  
 Salt Lake City, Utah

**ENGINEERING STIPULATIONS: NONE**

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.  
 Collapse is based on a vertical depth of 1900 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes.  
 Burst strength is not adjusted for tension.

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



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

Michael O. Leavitt  
Governor

Kathleen Clarke  
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)

September 13, 2001

Ark Land Company  
HC 35 Box 380  
Helper, UT 84526

Re: TD-3 Well, 1009' FNL, 666' FWL, NW NW, Sec. 19, T. 13 South,  
R. 13 East, Carbon 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.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby 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 43-007-30804.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Baza".

John R. Baza  
Associate Director

dm

Enclosures

cc: Carbon County Assessor

Operator: Ark Land Company

Well Name & Number TD-3

API Number: 43-007-30804

Lease: Fee

Location: NW NW Sec. 19 T. 13 South R. 13 East

### 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

The operator is required to notify the Division of Oil, Gas and Mining 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

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

#### 3. Reporting Requirements

All required reports, forms and submittals will 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)

#### 5. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.

TRANSACTION REPORT

P.01

SEP-18-2001 TUE 04:59 PM

FOR: OIL, GAS & MINING

801 359 3940

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
SEP-18	04:55 PM	2570416	3'22"	8	SEND	OK	243	
TOTAL :						3M 22S	PAGES:	8



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

Michael O. Leavitt  
 Governor  
 Kathleen Clarke  
 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)

UTAH DIVISION OF OIL, GAS AND MINING  
 FACSIMILE COVER SHEET

DATE: 9/18/01

FAX #: ~~944-7504~~ 257-0416

ATTN: Jim Cooper

COMPANY: Ark Land Company

DEPARTMENT: \_\_\_\_\_

NUMBER OF PAGES: (INCLUDING THIS ONE) 8

FROM: Earlene Russell (801)538-5277

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**CONFIDENTIAL**

5. Lease Designation and Serial Number:

Patented

6. If Indian, Allottee or Tribe Name:

N/A

7. Unit Agreement Name:

N/A

8. Well Name and Number:

TD-3

9. API Well Number:

43-007-30804

10. Field or Pool, or Wildcat:

Undesignated

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL  GAS  OTHER:

2. Name of Operator:

Ark Land Company.

3. Address and Telephone Number:

HC 35 Box 380, Helper, Utah 84526

4. Location of Well  
Footages:

1009' FNL, 666' FWL

QQ, Sec., T., R., M.:

NW/4 NW/4, Section 19, T13S, R13E, SLB&M

County: Carbon

State: Utah

11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**NOTICE OF INTENT**  
(Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandon                   | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Repair Casing             | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans           | <input type="checkbox"/> Recomplete           |
| <input type="checkbox"/> Convert to Injection      | <input type="checkbox"/> Reperforate          |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion       | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____               |   |
- Approximate date work will start \_\_\_\_\_

**SUBSEQUENT REPORT**  
(Submit Original Form Only)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandon *                           | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Repair Casing                       | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans                     | <input type="checkbox"/> Reperforate          |
| <input type="checkbox"/> Convert to Injection                | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat or Acidize           | <input type="checkbox"/> Water Shut-Off       |
| <input checked="" type="checkbox"/> Other <u>Spud Notice</u> |   |
- Date of work completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The TD-3 was spud at 7:00 pm on October 1, 2001.

Bob Beeman Drilling is the drilling contractor.

Drilling Reports will follow under a separate sundry notice.

**RECEIVED**

OCT 09 2001

DIVISION OF  
OIL, GAS AND MINING

**FILE COPY**

13.

Name & Signature: Don Hamilton *Don Hamilton* Title: Agent for Ark Land Date: 10-4-01

(This space for state use only)

ENTITY ACTION FORM

Operator: Ark Land Company

Operator Account Number: N 1905

Address: HC-35 Box 380

Helper, Utah 84526

Phone Number: 435-448-2634

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
43-007-30804	TD-3		NW NW	19	13	13	Carbon
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
A	99999	13327	10-01-01			10-9-01	
Comments: <u>10-9-01 New well for a new operator</u>							

**CONFIDENTIAL**

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

**ORIGINAL**

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Don Hamilton  
Name (Please Print)

Don Hamilton  
Signature

Agent for Arkland  
Title

\_\_\_\_\_  
Date

OCT 29 2001

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER:		5. Lease Designation and Serial Number: Patented
2. Name of Operator: Ark Land Company.		6. If Indian, Allottee or Tribe Name: N/A
3. Address and Telephone Number: HC 35 Box 380, Helper, Utah 84526		7. Unit Agreement Name: N/A
4. Location of Well Footages: 1009' FNL, 666' FWL QQ, Sec., T., R., M.: NW/4 NW/4, Section 19, T13S, R13E, SLB&M		8. Well Name and Number: TD-3
		9. API Well Number: 43-007-30804
		10. Field or Pool, or Wildcat: Undesignated
		County: Carbon State: Utah

**CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other _____ Approximate date work will start _____	<input type="checkbox"/> Abandon * <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input checked="" type="checkbox"/> Other <u>Weekly Activity Report</u> Date of work completion _____
<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recomplete <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.  
\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Attached please find a Weekly Activity Report for the TD-3.

RECEIVED

OCT 18 2001

DIVISION OF  
OIL, GAS AND MINING

ORIGINAL

13.

Name & Signature: Don Hamilton Don Hamilton Title: Agent for Ark Land Date: 10-9-01

(This space for state use only)

CONFIDENTIAL

Ark Land Company  
TD-3 43-007-30804  
NW/4 NW/4, Sec. 19, T13S, R13E, SLB & M  
1009' FNL, 666' FWL  
Carbon County, Utah

WEEKLY REPORT

10-01-01 - Present Operations: Drilling surface hole; Current Depth: 120'; MIRU Bob Beeman Drilling Company. Rig No. 26. Set 30' of 12" conductor pipe and cemented to surface. Spud 12-1/4" surface hole at 7:00 pm. Drilled from 30' to 120'.

10-02-01 - Present Operations: Drilling surface hole; Current Depth: 760'; Drilled from 120' - 760', 640' of progress.

10-03-01 - Present Operations: Drilling surface hole; Current Depth: 1350'; Drilled from 760' to 1350'. TD surface hole at 12:30 am 10-04-01. Contacted UDOGM - Gil Hunt at 801-538-5297 and left message on his phone for cementing surface pipe at 8:45 on 10-03-01.

10-04-01 - Present Operations: Running 8-5/8" surface casing. Current Depth: 1350'; Ran 28 jts. of 8-5/8", 24#, J-55, 8 rd ERW new casing (1237"). Landed at 1244'. Could not get casing to bottom because of hole problems, unable to circulate casing below 1244'. RU BJ Services. Cemented 8-5/8" casing with 80 bbls fresh water + 60 bbls Flo-gard L + 20 bbls fresh water + 400 sks Premium II Cement with 3% Sodium Chloride + 2.5% Sodium Metasilicate + 5 lb/sk KOL Seal mixed at 12.0 ppg, 2.52 yield. Displaced cement and wiper plug to the float collar @ 1199' with 76.3 bbls fresh water. Bumped plug. Job complete and cement in place at 6:00 pm 10-04-01. Did not circulate cement.

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OCT 16 2001

DIVISION OF  
OIL, GAS AND MINING

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. Lease Designation and Serial Number: <b>Patented</b>
		6. If Indian, Allottee or Tribe Name: <b>N/A</b>
		7. Unit Agreement Name: <b>N/A</b>
		8. Well Name and Number: <b>TD-3</b>
Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.		9. API Well Number: <b>43-007-30804</b>
1. Type of Well: <b>OIL</b> <input type="checkbox"/> <b>GAS</b> <input checked="" type="checkbox"/> <b>OTHER:</b> <input type="checkbox"/>	10. Field or Pool, or Wildcat: <b>Wildcat</b>	
2. Name of Operator: <b>Ark Land Company</b>		County: <b>Carbon</b>
3. Address and Telephone Number: <b>HC 35 Box 380, Helper, Utah 84526</b>		State: <b>Utah</b>
4. Location of Well Footages: <b>1009' FNL, 666' FWL</b> QQ, Sec., T., R., M.: <b>NW/4 NW/4, Section 19, T13S, R13E, SLB&amp;M</b>		

<b>11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>																											
<p style="text-align: center;"><b>NOTICE OF INTENT</b> (Submit in Duplicate)</p> <table border="0"> <tr> <td><input type="checkbox"/> Abandon</td> <td><input type="checkbox"/> New Construction</td> </tr> <tr> <td><input type="checkbox"/> Repair Casing</td> <td><input type="checkbox"/> Pull or Alter Casing</td> </tr> <tr> <td><input type="checkbox"/> Change of Plans</td> <td><input type="checkbox"/> Recomplete</td> </tr> <tr> <td><input type="checkbox"/> Convert to Injection</td> <td><input type="checkbox"/> Reperforate</td> </tr> <tr> <td><input type="checkbox"/> Fracture Treat or Acidize</td> <td><input type="checkbox"/> Vent or Flare</td> </tr> <tr> <td><input type="checkbox"/> Multiple Completion</td> <td><input type="checkbox"/> Water Shut-Off</td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td></td> </tr> </table> <p>Approximate date work will start _____</p>	<input type="checkbox"/> Abandon	<input type="checkbox"/> New Construction	<input type="checkbox"/> Repair Casing	<input type="checkbox"/> Pull or Alter Casing	<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Reperforate	<input type="checkbox"/> Fracture Treat or Acidize	<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> Other _____		<p style="text-align: center;"><b>SUBSEQUENT REPORT</b> (Submit Original Form Only)</p> <table border="0"> <tr> <td><input type="checkbox"/> Abandon *</td> <td><input type="checkbox"/> New Construction</td> </tr> <tr> <td><input type="checkbox"/> Repair Casing</td> <td><input type="checkbox"/> Pull or Alter Casing</td> </tr> <tr> <td><input type="checkbox"/> Change of Plans</td> <td><input type="checkbox"/> Reperforate</td> </tr> <tr> <td><input type="checkbox"/> Convert to Injection</td> <td><input type="checkbox"/> Vent or Flare</td> </tr> <tr> <td><input type="checkbox"/> Fracture Treat or Acidize</td> <td><input type="checkbox"/> Water Shut-Off</td> </tr> <tr> <td><input checked="" type="checkbox"/> Other <u>Weekly Activity Report</u></td> <td></td> </tr> </table> <p>Date of work completion _____</p> <p style="font-size: small;">Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form. * Must be accompanied by a cement verification report.</p>	<input type="checkbox"/> Abandon *	<input type="checkbox"/> New Construction	<input type="checkbox"/> Repair Casing	<input type="checkbox"/> Pull or Alter Casing	<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Reperforate	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Fracture Treat or Acidize	<input type="checkbox"/> Water Shut-Off	<input checked="" type="checkbox"/> Other <u>Weekly Activity Report</u>	
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**Attached please find a Weekly Activity Report for the TD-3.**

RECEIVED

OCT 19 2001

DIVISION OF  
OIL, GAS AND MINING

ORIGINAL

13.

Name & Signature: Don Hamilton *Don Hamilton* Title: Agent for Ark Land Date: 10-15-01

(This space for state use only)

Ark Land Company  
**TD-3 43-007-30804**  
NW/4 NW/4, Sec. 19, T13S, R13E, SLB & M  
1009' FNL, 666' FWL  
Carbon County, Utah

### WEEKLY REPORT

**10-01-01** - Present Operations: Drilling surface hole; Current Depth: 120'; MIRU Bob Beeman Drilling Company. Rig No. 26. Set 30' of 12" conductor pipe and cemented to surface. Spud 12-1/4" surface hole at 7:00 pm. Drilled from 30' to 120'.

**10-02-01** - Present Operations: Drilling surface hole; Current Depth: 760'; Drilled from 120' - 760', 640' of progress.

**10-03-01** - Present Operations: Drilling surface hole; Current Depth: 1350'; Drilled from 760' to 1350'. TD surface hole at 12:30 am 10-04-01. Contacted UDOGM - Gil Hunt at 801-538-5297 and left message on his phone for cementing surface pipe at 8:45 on 10-03-01.

**10-04-01** - Present Operations: Running 8-5/8" surface casing. Current Depth: 1350'; Ran 28 jts. of 8-5/8", 24#, J-55, 8 rd ERW new casing (1237'). Landed at 1244'. Could not get casing to bottom because of hole problems, unable to circulate casing below 1244'. RU BJ Services. Cemented 8-5/8" casing with 80 bbls fresh water + 60 bbls Flo-gard L + 20 bbls fresh water + 400 sks Premium II Cement with 3% Sodium Chloride + 2.5% Sodium Metasilicate + 5 lb/sk KOL Seal mixed at 12.0 ppg, 2.52 yield. Displaced cement and wiper plug to the float collar @ 1199' with 76.3 bbls fresh water. Bumped plug. Job complete and cement in place at 6:00 pm 10-04-01. Did not circulate cement.

**10-05-01** - Present Operations: Drilling cement and float equipment. Current Depth: 1350'; WOC for 14 hours. Cutoff 8-5/8" casing. Weld on 8-5/8" X 11" 3M casing head. Test casing head and welds to 600 psi. - test okay. RU BJ Services. Mixed and pumped 168 sacks Class G cement with 2.5 % CaCl<sub>2</sub> @ 15.8 ppg; 1.16 % yield down 8-5/8" casing X 12-1/4" hole. Filled annulus to surface. Notified Dennis Ingram with UDOGM of cementing results and BOP testing at 4:19 pm 10-05-01. NU 11" 5M hydraulic BOP, choke manifold and rotating head. NU blooie line. Test blind rams, choke manifold, casing and wellhead to 250 psi. and 1000psi. respectively. Held pressure test for 1/2 hour, test good, TIH with 7-7/8" hammer bit, Hammer and DC's on 3-1/2" DP. Drilled cement and float equipment.

Ark Land Company  
**TD-3 43-007-30804**  
NW/4 NW/4, Sec. 19, T13S, R13E, SLB & M  
1009' FNL, 666' FWL  
Carbon County, Utah

WEEKLY REPORT

- 10-06-01** – Present Operations: Drilling ahead. 9:00 am D/O from under the surface. Drilling rate approx. 40' / hour for first 40'. Drilling slowed to approx. 20' / hour next 20'. PU and make connection, pipe stuck. Work pipe for 2 hours with full circulation. Worked pipe free. Start drilling at 2:30 pm making approximately 20' / hour. Crew change at 6:45pm drilling slow. Suggestion was made to Ferron (driller) and Gary (toolpusher) to dry up hole or trip pipe @ 6:00 pm.
- 10-07-01** – Present Operations: Drilling ahead. Drilling slowed to less than 10' / hour. Made 80' in 12 hours. TO @ 9:00 am.
- 10-08-01** – Present Operations: Drilling ahead. Drilling ahead slow. Cored and reamed.
- 10-09-01** – Present Operation: Drilling ahead. TIH with core barrel. coring 1800' to 1819'. Reaming and Drilling ahead with 7-5/8" bit.
- 10-10-01** – Present Operation: Coring. TOH (booster down). Reamed 1806' – 1840'. 1864' – 1874' Core #6. TOH / TIH 1874' – 1884' Core #7. TOH.
- 10-11-01** – Present Operation: Standby. Reaming and drilling to TD 2002 LD DP.
- 10-12-01** – Present Operation: Standby. Schlumberger ran logs (Com Neutron, Density, Gamma Ray and GR – Hi) Logged TD – 2002 ran 1996.60' of 5-1/2". 15.5 ob J-55 casing. Cemented with 185 sacks 58 bbls. of 127 neat slurry. Set head and tested to 2000 psi..

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	5. Lease Designation and Serial Number: <b>Patented</b>
Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.	6. If Indian, Allottee or Tribe Name: <b>N/A</b>
1. Type of Well: <b>OIL</b> <input type="checkbox"/> <b>GAS</b> <input checked="" type="checkbox"/> <b>OTHER:</b>	7. Unit Agreement Name: <b>N/A</b>
2. Name of Operator: <b>Ark Land Company.</b>	8. Well Name and Number: <b>TD-3</b>
3. Address and Telephone Number: <b>HC 35 Box 380, Helper, Utah 84526</b>	9. API Well Number: <b>43-007-30804</b>
4. Location of Well Footages: <b>1009' FNL, 666' FWL</b> QQ, Sec., T., R., M.: <b>NW/4 NW/4, Section 19, T13S, R13E, SLB&amp;M</b>	10. Field or Pool, or Wildcat: <b>Wildcat</b>  County: <b>Carbon</b> State: <b>Utah</b>

11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other _____ Approximate date work will start _____	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recomplete <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off <input checked="" type="checkbox"/> Other <u>Final Activity Report</u> Date of work completion _____  <small>Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form. * Must be accompanied by a cement verification report.</small>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

**Attached please find a final Activity Report for the TD-3.**

**RECEIVED**

DEC 03 2001

DIVISION OF  
OIL, GAS AND MINING

**ORIGINAL**

13.

Name & Signature: Don Hamilton *Don Hamilton* Title: Agent for Ark Land Company Date: 11-29-01

(This space for state use only)

Ark Land Company  
TD-3

**Drilling Report**

10/01/2001

MIRU Becman Drilling Co. Rig No.26. Set 30' of 12" casing surface pipe cemented with readi-mix to surface. Spud 12 1/4" hole @ 7:00 PM, 10/01/2001. Drilled from 30'-120'. Drilled into fresh water zone @ 82' and started mist drilling.

10/02/2001

Operation: Drilling. Drilled from 120'-760'. Made 640' progress.

10/03/2001

Operation: Drilling. Drilled from 760'-1350'. TD'd 12 1/4" surface hole @ 12:30 AM, 10/04/2001. Contacted UDOGM (Gail Hunt) @ 801-538-5297 and left message on his phone for cementing the 8 5/8" surface pipe @ 8:45 am, 10/03/2001.

10/04/2001

Operation: Running casing. Ran 28 jts 8 5/8" 24#/ft J55 8RD ERW LTC new casing (1237') landed @1244'. Could not get to bottom (1350') with casing because of hole problems. Unable to circulate casing down below 1244'. RU BJ Services. Cemented 8 5/8" casing with 80 bbls fresh water + 60 bbls Flo-Gard L + 20 bbls fresh water + 400 sx Premium II cement with 3% sodium chloride + 2.5% sodium metasilicate + 5 lbs/sk Kol Seal mixed @12.0 ppg, 2.52 yield. Displaced cement and wiper plug to FC @ 1199' with 76.3 bbls fresh water. Bumped plug. Released pressure and checked float, held ok. Job complete and cement in place @ 6:00 pm, 10/04/2001. Did not circulate cement.

10/05/2001

Operation: WOC. WOC for 14 hrs. Cut off 8 5/8" casing. Weld on 8 5/8" SOW X 11" 3M casinghead. Test casinghead and weld to 600 psi for 30 mins. Test ok. RU BJ Services. Mixed and pumped 168 sx CL G with 2.5% CaCl<sub>2</sub> @ 15.8 ppg, 1.16 yield down 8 5/8" X 1 1/4" hole. Filled annulus to surface. Notified Dennis Ingram with UDOGM of cementing results and BOP test @ 4:19 PM, 10/05/2001. NU 5M hydraulic BOP, choke manifold, rotating head. Built blooey line. Test blind rams, choke manifold, casing, and wellhead to 250 psi (low) and 1000 psi (high) respectively. Held pressure tests for 30 mins, test good. TIH w/7 7/8" hammer bit, hammer, DC's, and 3/2" DP. Drilled cement and float equipment.

10/06/2001

Operation: Dilled out surface casing shoe. ROP 40'/hr. ROP slowed to 20'/hr. PU to make connection and DP was stuck. Worked DP free for 2 hrs with full circ returns. Rresumed drilling. 20'/hr. Suggestions was made to driller and toolpusher to either dry up hole or trip DP and bit.

10/07/2001

Operation: Drilling. Drilling slowed to less than 10'/hr. Made 80' in 12 hrs. TOH with DP and bit for core point.

10/08/2001

Operation: Drilling. Drilling ahead slow. TOH with core barrel to LD core. TIII with bit, reaming.

10/09/2001

Operation: TIII with core barrel, coring 1800'-1819'. TOH and LD core. TIII with bit. Reaming and drilling ahead with 7 5/8" bit.

10/10/2001

Operation: TOH (booster down). Reamed from 1806'-1840'. Cored from 1864'-1874' (core no.6). TOH with core. TIII with core barrel. Cut core no.7 from 1874'-1884'. TOH with coring assy.

10/11/2001

Operation: Reaming and drilling to TD @2002'. TOH LD DP & DC's.

10/12/2001

Operation: RU Schlumberger. Ran Compensated Neutron-Density / Gamma ray / Resistivity log from 2002'- surface. Ran 45 jts 5 1/2" 15.5#/ft J55 8RD I.T&C ERW new casing (1991.60') set @ 1996'. RU Dowell cementing crew. Cemented 5 1/2" casing with 185 sx 35:65 POZ. G cement, 1/4 #/sx celloflake, 12.7 ppg, 1.76 yield. Had problems displacing cement and wiper plug to FC @ 1992' and lost prime on cement pump. Cement locked up in casing leaving approximately 1262' of cement in casing. Cut off 5 1/2" casing. Set 5 1/2" casing slips. NU 11" 3M X 7 1/16" 3M tubinghead. Test all seals to 1400 psi, test ok.

10/13/2001

Operation: Shut Down

10/14/2001

Operation: Shut Down

10/15/2001

Operation: Attempt to run gyro and tagged cement @ 730'. Changed out DP from 3 1/2" to 2 7/8" DP.

10/16/2001

Operation: Changing out DP and BOPE.

10/17/2001

Operation: TIII and drilled cement from 730'-1400'.

10/18/2001

Operation: Drilled out cement from 1400'-1992'. TOH LD DP. RDMO rig.

## Completion Report

10/19/2001

Operation: RU Schlumberger wireline truck and mast truck. Ran GR-CBL from 1980'-surface. Showed good cement bond from 1980'-1300'. RIH and perforated 5 1/2" casing in the Gilson Formation with 4 jspf .42 diameter holes 90 degree phasing from 1876'-1885' (36 holes). RIII with tandem memory gauges in slickline and set gauges @ 1895'. RU Schlumberger pump truck. Held safety meeting. Pressure tested lines to 5000 psi. Pumped into perms 1876'-1885' with fresh water @ 1-2 bpm @ 310-325 psi. Shut down. Well went on vacuum immediately. SWI-SDON.

10/20/2001

Operation: POH with tandem memory gauges and slickline. RU Stinger wellhead isolation tool. RU Schlumberger. Performed step rate test: First step: 20 bpm @ 488 psi, second step: 20 bpm @ 730 psi, third step: 15.8 bpm @ 758 psi. Foamed frac'd Gilson Coal seam with 233 bbls 25# XL gelled fresh water foamed with N2 to 70Q foam + total of 41,383 lbs 16/30 sand, 1/2 #-5#. Max: 1600 psi. Min: 800 psi. AIR: 40 BPM Fm rate. ISIP: 490. 5 min: 300. 10 min: 269. 15 min: 246 psi. RU Schlumberger. RIH with SVEZ CIBP on wireline. Set CIBP @ 1865'. Perforated 5 1/2" casing in Rock Canyon Coal seam with 4 jspf .42 diameter holes 90 degree phasing from 1831'-1838'. RIII with tandem memory gauges on slickline. Set gauges @ 1849'. Broke perms 1831'-1838' with fresh water @ 2.1 bpm @ 550 psi. Pressure increased from 550 - 605 psi. Shut down. ISIP: 527 psi. Frac'd Rock Canyon perms 1831'-1838' with 161 bbls 25 # XL gelled fresh water foamed with N2 to 70Q foam + 37,361 lbs 16/30 sand 1/2 #-5#. Max: 2150 Min: 1530 psi. AIR: 40 bpm Fm rate. ISIP: 3230. 5 min: 2996 psi. 10 min: 2952 psi. 15 min: 2930 psi. RD Schlumberger. SWI-SDON.

10/21/2001

Operation: MIRU workover rig. MIRU Key Energy rig no. 242. Checked pressure on well. SICP: 2400 psi. Opened well to pit on a 1/4" choke. Flowed well down to 0 psi in 45 mins. ND frac valve. NU 5M hydraulic BOP. Built blooey line. SWI-SDON.

10/22/2001

Operation: Clean out frac sand. SICP: 100 psi. TIH with 4 3/4" bit, bit sub w/float, (6) 3 1/8" OD DC's, XO on 2 3/8" tbg. Tagged sand @ 1696'. Did not have the correct XO for the tubing to swivel connection. Unloaded hole with mist and cleaned out sand from 1696'-1789'. SWI-SDON.

10/23/2001

Operation: SIP: 100 psi. Bled well down. Unloaded hole with mist. Cleaned out frac sand from 1785' to 1865' (CIBP). Well was making moderate to large amount of sand while cleaning out to 1865'. Circ'd well clean. Cut mist and blew hole with air only. For

first hour, well made 21 bbls/hr water. Blew hole for 5 1/2 hrs, well made 27-31 bbls water per hour with 1 quart to 1 pint of sand in a 5 gal bucket test. SWI-SDON.

10/24/2001

Operation: Cleaning out frac sand. SIP: 120 psi. Bled well down. Had 2 1/2' fill in wellbore. Blew hole with air from 8 to 9 am, Bucket test showed 41 bbls/hr water. Shut well in for 1 hour. Built up to 60 psi. Bled well down through 1/4" choke in 15 mins. Drilled CIBP from 1865'-1867'. Pushed CIBP to 1990'. Circ'd hole clean. Cut mist. Bucket test showed well making 29 bbls/hr water with trace of sand only. Bucket test next 2 hrs showed 23 & 21 bbls/hr water with trace of sand. SWI-SDON.

10/25/2001

Operation: TOH & LD tbg & DC's. SIP: 100 psi. Bled well down, all gas. Unloaded hole with air and blew hole for 1 1/2 hrs. TOH LD DC's and 2 3/8" tbg. SWI-SDON.

10/26/2001

Operation: RUN tbg, rods, pump. SICP: 60 psi. Bled well down. TIH w/ 2 7/8" orange peeled joint of tubing, 4' 2 7/8" perforated tubing sub, 2 7/8" SN, & 59 jts 2 7/8" 6.5 #/ft J55 8RD EUE new tubing. Landed tubing with a 2 7/8" 8rd EUE pin X 7 1/16" 3M FE B-1 adapter. SN @ 1902'. PU & RIH with 2 1/2" x 2" x 16' insert rod pump, (4) 1 1/4" sinker bars, (70) 7/8" sucker rods, (1) 7/8" x 6', (1) 7/8" x 8', (3) 7/8" x 2' pony subs, & 1 1/4" spray metal polish rod. Hung rods off on clamp. RDMO Key rig no.242. Left well shut in pending installation of pumping equipment.

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NO.  
Patented

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
N/A

7. UNIT AGREEMENT NAME  
Undesignated

8. FARM OR LEASE NAME  
TD

9. WELL NO.  
3

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
NW/4 NW/4, Section 19  
T13S, R13E, S1B&M

12. COUNTY  
Carbon

13. STATE  
Utah

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.

2. NAME OF OPERATOR  
Ark Land Company

3. ADDRESS OF OPERATOR  
HC 35 Box 380, Helper, Utah 84526 435-448-2634

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

At surface 1009' FNL, 666' FWL

At top prod. interval reported below

At total depth

14. API NO. 43-007-30804 DATE ISSUED 9-13-01

15. DATE SPUNDED 10-01-01 16. DATE T.D. REACHED 10/11/01 17. DATE COMPL. (Ready to prod. or Plug & Abd.) 10/26/01 18. ELEVATIONS (DF, REB, RT, GR, ETC.) GR 8378 19. ELEV. CASINGHEAD N/A

20. TOTAL DEPTH, MD & TVD 2002' 21. PLUG BACK T.D., MD & TVD 1998' 22. IF MULTIPLE COMPL., HOW MANY N/A 23. INTERVALS DRILLED BY to TD 24. ROTARY TOOLS N/A 25. CABLE TOOLS N/A

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD OR TVD)  
1876'-1885', 1831'-1838'

26. TYPE ELECTRIC AND OTHER LOGS RUN  
Resistivity, Gamma Ray, Compensated Density, & Neutron

27. WAS WELL CORED YES  NO  DRILL STEM TEST YES  NO  (Submit analysis) (See reverse side)

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENT RECORD	AMOUNT PULLED
8-5/8"	24	1244'	12-1/4"	400 sacks Premium II + 3% sodium chloride + 2.5% sodium metasilicate + 5#/sx Kol seal	
5-1/2"	15.5	1996'	7-7/8"	185 sacks 35:65 POZ G cement + 1/4 #/sx celloflake	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	1938.82'	N/A

31. PERFORATION RECORD (Interval, size and number)

Gilson: 1876' - (36 holes) 4jspf .42"  
Rock Canyon: - 1838' 4jspf .42"

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
Gilson	
1876'-1885'	41,383#, 16/30, 1/2# -5#; 223 bbls fluid
Rock Canyon	
1831'-1838	37,361#, 16/30, 1/2#-5#; 161 bbls fluid

33. PRODUCTION

DATE FIRST PRODUCTION 11-8-01 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Pumping - 2 1/2" x 2" x 16' Top hold down cup type WELL STATUS (Producing or shut-in) Shut-in

DATE OF TEST 11-15-01 HOURS TESTED 24hrs. CHOKER SIZE ----- PROD'N FOR TEST PERIOD N/A OIL--BBL. N/A GAS--MCF. TSTM WATER--BBL. 757 GAS-OIL RATIO

FLOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE N/A OIL--BBL. N/A GAS--MCF. TSTM WATER--BBL. 257 OIL GRAVITY - API (CORR.) N/A

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented TEST WITNESSED BY Jim Woosely

35. LIST OF ATTACHMENTS  
Table of Geologic Information

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

SIGNED Don Hamilton TITLE Environmental Manager/Project Coordinator DATE December 6, 2001

RECEIVED ORIGINAL

Ark Land Company  
 TD-3  
 43-007-30804  
 Attached to Form 8

*CONFIDENTIAL*

Summary of Porous Zones				Formation (Log) Markers	
Formation	Top (MD)	Bottom (MD)	Description, Contents, etc.	Name	Top (MD)
Black Hawk	1800'	1886'	Cored Interval, Rock Canyon and Gilson Seams	Rock Canyon Seam	1831'
Black Hawk	1640'	1696'	Cored Interval, Sunnyside Coal Seams	Gilson Seam	1876'

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER:		5. Lease Designation and Serial Number: Patented
2. Name of Operator: Ark Land Company		6. If Indian, Allottee or Tribe Name: N/A
3. Address and Telephone Number: HC 35 Box 380, Helper, Utah 84526		7. Unit Agreement Name: N/A
4. Location of Well Footages: 1009' FNL, 666' FWL County: Carbon QQ, Sec., T., R., M.: NW/4 NW/4, Section 19, T13S, R13E, SLB&M State: Utah		8. Well Name and Number: TD-3
		9. API Well Number: 43-007-30804
		10. Field or Pool, or Wildcat: Wildcat

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandon	<input type="checkbox"/> Abandon *
<input type="checkbox"/> Repair Casing	<input type="checkbox"/> Repair Casing
<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Convert to Injection
<input type="checkbox"/> Fracture Treat or Acidize	<input type="checkbox"/> Fracture Treat or Acidize
<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Other _____
<input checked="" type="checkbox"/> Other <u>Convert to Temporarily Shut-in Status</u>	Date of work completion _____
Approximate date work will start _____	
<input type="checkbox"/> New Construction	<input type="checkbox"/> New Construction
<input type="checkbox"/> Pull or Alter Casing	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Recomplete	<input type="checkbox"/> Reperforate
<input type="checkbox"/> Reperforate	<input type="checkbox"/> Vent or Flare
<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Water Shut-Off	

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.  
\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

**Ark Land Company wishes to convert the existing TD-3 well to temporarily shut-in status while an economic evaluation of the well is performed.**

RECEIVED  
NOV 21 2002  
DIVISION OF  
OIL, GAS AND MINING

COPY SENT TO OPERATOR  
Date: 11-18-02  
Initials: CHD

ORIGINAL

13. Name & Signature: Don Hamilton *Don Hamilton* Title: Agent for Ark Land Company Date: 11/1/02

(This space for state use only)

The well is currently producing. In accordance with R649-3-36-1, the well may remain shut-in or temporarily abandoned until December 1, 2003 at which time the operator shall file a Sundry Notice providing the information specified in R649-3-36

ACCEPTED BY: *[Signature]* November 18, 2002  
Utah Division of Oil, Gas and Mining

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

RECEIVED

MAY 20 2003

DIV. OF OIL, GAS & MINING

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4. Location of Well Footages: 1009' FNL, 666' FWL County: Carbon State: Utah	8. Well Name and Number: TD-3
QQ, Sec., T., R., M.: NW/4 NW/4, Section 19, T13S, R13E, SLB&M	9. API Well Number: 43-007-30804
	10. Field or Pool, or Wildcat: Wildcat

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<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Convert to Injection
<input type="checkbox"/> Fracture Treat or Acidize	<input type="checkbox"/> Fracture Treat or Acidize
<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Other _____
<input type="checkbox"/> Other _____	Date of work completion _____
Approximate date work will start _____	
<input type="checkbox"/> New Construction	<input type="checkbox"/> New Construction
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<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Water Shut-Off	

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**Ark Land Company wishes to plug and abandon the TD-3 well.  
Attached please find a well-bore diagram of the existing temporarily abandon well.**

**Following is a description of the plugging procedure:**  
 Cement from TD (2,002') to 1,730' (100' above the Rock Canyon Coal Seam)  
 82 sks Class G cement (14 bbls)  
 Bentonite from 1,730' to 1,300'  
 Cement 1,300' to 1,200' across the bottom of the surface casing at 1,244'  
 30 sks Class G cement (6 bbls)  
 Bentonite from 1,200' to 350'  
 Cement from 350' to surface  
 73 sks Class G cement (15 bbls) (4 bbls to surface)

**A dry hole marker meeting state specifications will be welded to the casing.  
Reclamation will commence as soon as practical by Ark Land Company.**

13. Name & Signature: Don Hamilton *Don Hamilton* Title: Agent for Ark Land Company Date: 11/1/02

(This space for state use only)

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: 5/21/03  
BY: [Signature]  
\* See Conditions of Approval

COPY SENT TO OPERATOR  
Date: 5-21-03  
Initials: CHD

ORIGINAL



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

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 telephone

(801) 359-3940 fax

(801) 538-7223 TTY

www.nr.utah.gov

Michael O. Leavitt  
Governor

Robert L. Morgan  
Executive Director

Lowell P. Braxton  
Division Director

***CONDITIONS OF APPROVAL  
TO PLUG AND ABANDON WELL***

Well Name and Number: TD-3  
API Number: 43-007-30804  
Operator: Ark Land Company  
Reference Document: Original Sundry Notice dated November 1, 2002,  
received by DOGM on May 20, 2003

Approval Conditions:

1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.
2. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.
3. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.
4. If there are any changes to the plugging procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 prior to continuing with the procedure.
5. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

Dustin K. Doucet  
Petroleum Engineer

May 21, 2003

Date

API Well No: 43-007-30804-00-00 Permit No:

Well Name/No: TD-3

Company Name: ARK LAND COMPANY

Location: Sec: 19 T: 13S R: 13E Spot: NWNW

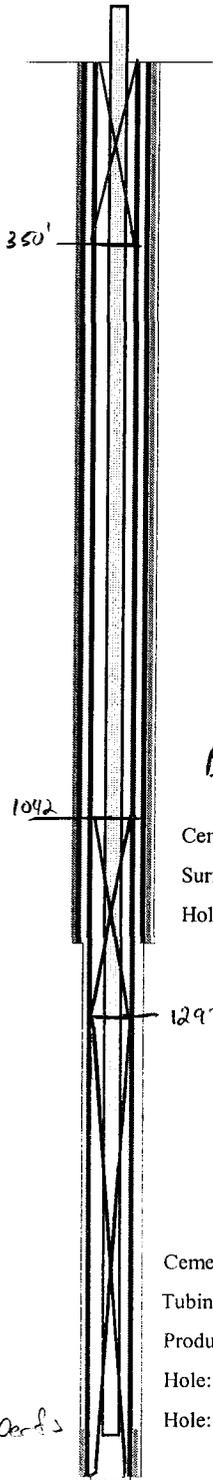
Coordinates: X: 541913 Y: 4392666

Field Name: WILDCAT

County Name: CARBON

String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)
HOL1	1244	12.25		
SURF	1244	8.625	24	1244
HOL2	1996	7.875		
PROD	1996	5.5	15.5	1996
T1	1938	2.875		



Plug #3  
 $(73 \text{ sks})(1.15)(7.483) = 628'$

Plug #2  
 $(30 \text{ sks})(1.15)(7.483) = 258'$

Cement from 1244 ft. to surface  
 Surface: 8.625 in. @ 1244 ft.  
 Hole: 12.25 in. @ 1244 ft.

Plug #1  
 $(82 \text{ sks})(1.15)(7.483) = 705'$

Cement from 1996 ft.  
 Tubing: 2.875 in. @ 1938 ft.  
 Production: 5.5 in. @ 1996 ft.  
 Hole: 7.875 in. @ 1996 ft.  
 Hole: Unknown

Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
PROD	1996		PC	185
SURF	1244	0	PM	400

Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Squeeze
1831	1885			

Formation Information

Formation	Depth	Formation	Depth
ROCYN	1831		

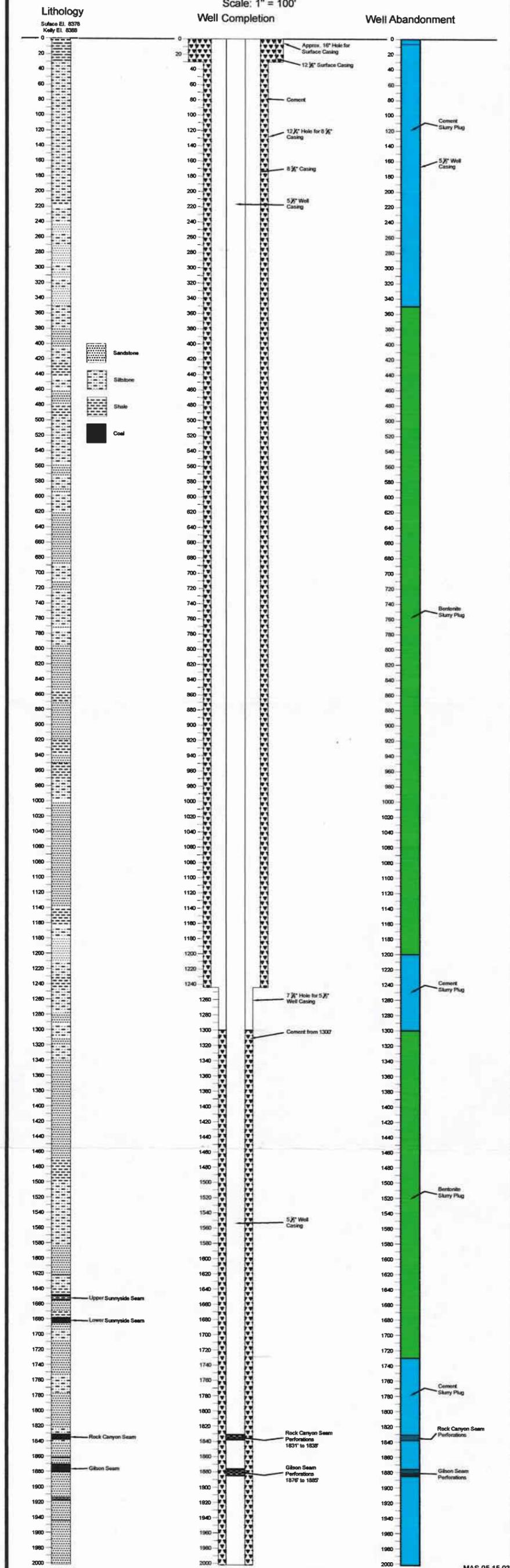
Capacity  
 $5.5, 15.5\# = 7.483 \text{ ft/cut}$

TD: 2002 TVD: PBTD: 1998

# Ark Land Company

## TD-3 Well

Scale: 1" = 100'



STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:  
**Patented**

6. If Indian, Allottee or Tribe Name:  
**N/A**

7. Unit Agreement Name:  
**N/A**

8. Well Name and Number:  
**TD-3**

9. API Well Number:  
**43-007-30804**

10. Field or Pool, or Wildcat:  
**Wildcat**

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2. Name of Operator:  
**Ark Land Company**

3. Address and Telephone Number:  
**HC 35 Box 380, Helper, Utah 84526**

4. Location of Well  
Footages: **1009' FNL, 666' FWL**  
County: **Carbon**  
QQ, Sec., T., R., M.: **NW/4 NW/4, Section 19, T13S, R13E, SLB&M**  
State: **Utah**

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input checked="" type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other <u>Convert to Plugged and Abandon Status</u> Approximate date work will start _____	<input checked="" type="checkbox"/> Abandon * <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Other _____ Date of work completion _____
<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recomplete <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.  
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

**Ark Land Company requests a change of well status to Plugged and Abandoned for the TD-3 well.**

**The casing was reperforated in four zones to assure complete cementing behind the casing and to meet MSHA requirements. The zones of additional perforation are:**

1. 1,550' to 1,552'
2. 1,735' to 1,737'
3. 1,780' to 1,782'
4. 1,977' to 1,979'

**The cement was pumped in 4 stages as follow:**

1. 1,700' to 2,002'; 34 sacks
2. 1,200' to 1,700'; 57 sacks
3. 700' to 1,200' 57 sacks
4. 0' to 700' 76 sacks

**Top of the hole after pipe pulled from hole 24 sacks**

**The cementing was witnessed by Mark Jones of the Division of Oil, Gas and Mining—Price Field Office.**

**Chevron has cutoff the casing and welded an identifying plate to the cutoff to State specifications.**

**Attached please find the Daily Report for the Plugging procedure.**

13. Name & Signature: Don Hamilton *Don Hamilton* Title: Agent for Ark Land Company Date: 8-1-03

(This space for state use only)

**RECEIVED**  
**AUG 04 2003**  
**DIV. OF OIL, GAS & MINING**



		<b>JOB LOG</b>		TICKET # <b>2502444</b>	TICKET DATE <b>06/15/03</b>
REGION <b>USA</b>		NWA / COUNTRY <b>ROCKIES</b>		BDA / STATE <b>UT</b>	COUNTY <b>Carbon</b>
MRU ID / EMPL # <b>FA0206 121486</b>		H.E.S. EMPLOYEE NAME <b>Dan Auld</b>		PSL DEPARTMENT <b>CEMENT</b>	
LOCATION <b>FARMINGTON</b>		COMPANY <b>Stewart Bros.</b>		CUSTOMER REP / PHONE <b>Joe Sanchez 1-214-912-6481</b>	
TICKET AMOUNT		WELL TYPE <b>13</b>		APRUM # <b>43-007-30804</b>	
WELL LOCATION <b>Wellington</b>		DEPARTMENT <b>CEMENT</b>		JOB PURPOSE CODE <b>115</b>	
LEASE / WELL # <b>TD-3</b>		WELL No.		SEG / TRF / RING <b>19-13S-13E</b>	

Chart No	Time	Rate (GPM)	Volume (GAL)	Pressure (PSI)	Job Description / Remarks
	0730				On Location
	0845				Safety Meeting
	0745				Spot Trucks
1st	0900	2.0		20	Start Pump
	0901	4.0	5.0	448	H2O in Start CMT 34 sk Mix @ 15.6 Y 1.18 W 5.2
	0903	4.0	7.1	230	CMT in Start Disp 1.4 H2O & 2.3 Mud
	0904	4.0	3.7	270	Disp in Plug 1680-1980
2nd	1204	2.0		250	Start Pump
	1207	3.0	5.0	380	H2O in Start CMT 57 sk Mix @ 15.6 Y 1.18 W 5.2
	1210	3.0	11.9	80	CMT in Start Disp 1.4 H2O & 2.5 Mud
	1212	2.0	3.9	20	Disp in Plug 1180-1680
3rd	1254	3.0		15	Start Pump
	1258	2.5	5.0	220	H2O in Start CMT 57 sk Mix @ 15.6 Y 1.18 W 5.2
	1304	3.0	11.9	30	CMT in Start Disp 1.4 H2O & 1.3 Mud
	1305	3.0	2.7	140	Disp in Plug 1180-680
	1345	3.0		65	Start Pump
	1350	3.0	16.0	35	H2O in Hole Circulated
4th	1547	2.5		75	Start Pump
	1549	2.5	5.0	100	H2O in Start CMT 76 sk Mix @ 15.6 Y 1.18 W 5.2
	1558	2.0	16.0	140	CMT in Pull Pipe Plug 680-0
	1650	0.5	3.0	25	Top Out 24 sk Mlx @ 15.6 Y 1.18 W 5.2
	1700				Job Completed
					Thank You
					Dan & Crew

