

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG _____ ELECTRIC LOGS _____ WATER SANDS _____ LOCATION INSPECTED _____ SUB. REPORT/abd. _____

990914 LA'D eff 9-13-99!

DATE FILED AUGUST 4, 1998

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. U-65632 INDIAN

DRILLING APPROVED: AUGUST 13, 1998

SPUDDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION: ~~4112~~

DATE ABANDONED: 9-13-99 LA'D

FIELD: UNDESIGNATED

UNIT:

COUNTY: DUCHESNE

WELL NO. WEST DESERT SPRING 1-30-10-17 API NO. 43-013-32113

LOCATION 462 FNL FT. FROM (N) (S) LINE, 634 FEL FT. FROM (E) (W) LINE NE NE 1/4 - 1/4 SEC. 30

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
10S	17E	30	CHANDLER & ASSOCIATES				

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Chandler & Associates, Inc. (303) 295-0400

3. ADDRESS AND TELEPHONE NO.
 475 Seventeenth Street, Suite 1000 Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface: 462' FNL 634' FEL
 At proposed prod. zone: 193

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 See Topo Map "A" (attached)

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 462'

16. NO. OF ACRES IN LEASE
 1240

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40

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

19. PROPOSED DEPTH
 5500'

20. ROTARY OR CABLE TOOLS
 A.S.A.P.

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6232' GR

22. APPROX. DATE WORK WILL START*
 A.S.A.P.

5. LEASE DESIGNATION AND SERIAL NO.
 U-65632

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

7. UNIT AGREEMENT NAME
 N/A

8. FARM OR LEASE NAME, WELL NO.
 West Desert Spring #1-30-10

9. API WELL NO.
 17

10. FIELD AND POOL, OR WILDCAT
 Desert Spring

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 30, T10S, R17E, SLB&M

12. COUNTY OR PARISH
 Duchesne

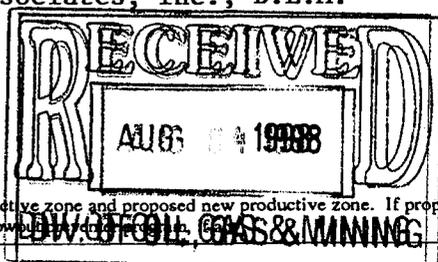
13. STATE
 Utah

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"	24#	250'	(See attached drilling plan)
7 7/8"	5 1/2"	15.5#	5500'	(See attached drilling plan)

- M.I.R.U.
- Drill to T.D. 5500'
- Run 5 1/2" casing if commercial production is indicated.
- If dry hole, well will be plugged and abandoned as instructed by the B.L.M.
- Well will be drilled with water; KCL water; LSND as needed to T.D.

I hereby certify that I am responsible by the terms and conditions of the lease to conduct lease operations. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Chandler & Associates, Inc., B.L.M. Bond #124290364 with CNA.



IN ABOVE SPACE 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 blowdown data on all casing.

24. SIGNED Tracy D. Henline TITLE Agent DATE Aug. 3, 1998

(This space for Federal or State office use)

PERMIT NO. 43013-32113 APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY: **Federal Approval of this Action is Necessary**

APPROVED BY Bradley G. Hill TITLE RECLAMATION SPECIALIST III DATE 8/13/98

*See Instructions On Reverse Side

T10S, R17E, S.L.B.&M.

CHANDLER & ASSOCIATES, INC.

Well location, WEST DESERT SPRING #1-30-10-17, located as shown in the NE 1/4 NE 1/4 of Section 30, T10S, R17E, S.L.B.&M. Duchesne County, Utah.

R
16
E

NORTH (G.L.O.)

1910 Brass Cap
1.0' High, Pile
of Stones N89°56'E - G.L.O. (Basis of Bearings)
2603.94' (Measured) 1910 Brass Cap

WEST DESERT SPRING #1-30-10-17
Lot 1 Elev. Ungraded Ground = 6232'

462'
634'

N00°14'34"W 2639.86' (Meas.)

Lot 2

30

1910 Brass Cap
1.6' High, Pile
of Stones

Lot 3

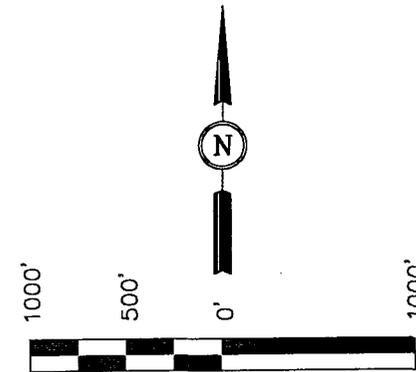
N00°03'W (G.L.O.)

Lot 4

N89°58'E - 79.87 (G.L.O.)

BASIS OF ELEVATION

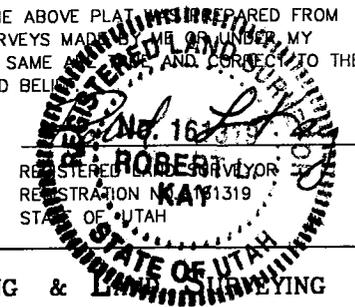
SPOT ELEVATION AT A HILL TOP IN THE NW 1/4 SW 1/4 OF SECTION 20, T10S, R17E, S.L.B.&M. TAKEN FROM THE WILKIN RIDGE QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6275 FEET.



SCALE

CERTIFICATE

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



UINTAH ENGINEERING & SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

SCALE 1" = 1000'	DATE SURVEYED: 6-19-98	DATE DRAWN: 6-23-98
PARTY G.S. J.C. C.B.T.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE CHANDLER & ASSOCIATES, INC.	

**CHANDLER & ASSOCIATES, INC.
DRILLING PLAN FOR THE
WEST DESERT SPRING #1-30-10-17**

I. DRILLING PLAN:

1. Geological Surface Formation: Uintah

2. Estimated Tops:

<u>Name</u>	<u>Top</u>	<u>Prod. Phase Anticipated</u>
Green River	1800'	
Uteland Butte	4925'	Gas/Oil
Wasatch	5120'	

3. CASING PROGRAM:

	<u>Depth</u>	<u>Hole Size</u>	<u>Csg. Size</u>	<u>Type</u>	<u>Weight</u>
Surface	250'	12-1/4"	8-5/8"	J-55 (ST&C)	24#/ft (new)
Prod.	5500'	7-7/8"	5-1/2"	K-55 (LT&C)	15.5#/ft (new)

4. Operator's Specification for Pressure Control Equipment:

- A. 2,000 psi W.P. Double Gate BOP or Single Gate BOP (Schematic attached).
- B. Functional test daily.
- C. All casing strings shall be pressure-tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- D. All ram-type precentors and related control equipment shall be tested at the rated working pressure of the stack assembly or at 70 percent of the minimum internal yield pressure of the casing, whichever is less. Tests shall be done at the time of installation, prior to drilling out, and weekly. All tests shall be for a period of 15 minutes.

Chandler & Associates, Inc.
West Desert Spring #1-30-10-17

5. Auxiliary Equipment:

- A. Kelly Cock - yes.
- B. Float at the bit - no.
- C. Monitoring equipment on the mud system - visually.
- D. Full opening safety valve on rig floor - yes.
- E. Rotating head - yes.

6. Proposed Circulating Medium:

<u>Depth</u>	<u>Mud Type</u>	<u>Density (lb./gal)</u>	<u>Viscosity</u>	<u>Water Loss</u>
0'- T.D.	Water; KCL Water; LSND as needed			

7. Testing, Logging, and Coring Program:

- A. Cores - None anticipated.
- B. DST - none anticipated.
- C. Logging - CNL/FDC PE GR CAL (TD to base of surface casing).
Induction SP (TD to base of surface casing).

Chandler & Associates, Inc.
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- D. Formation and Completion Interval: Uteland Butte member of the Green River interval, final determination of completion will be made by analysis of logs.
Stimulation - Stimulation will be designed for the particular area of interest as encountered.
- E. Frac gradient - approximately .80 psi/ft.

8. Cementing Program:

<u>Casing</u>	<u>Volume</u>	<u>Type & Additives</u>
Surface	180 sx	Class "G" w/2% CaCl ₂ (based on 100% access)
Production	900 sx*	450 sx "Lite" followed by 415 sx 50/50 poz. mix.

Cement Characteristics:

Class "G" - yield = 1.18 cu.ft. per. sack
weight = 15.8 lb./gal
strength = 3200 psi in 72 hrs @135 degrees

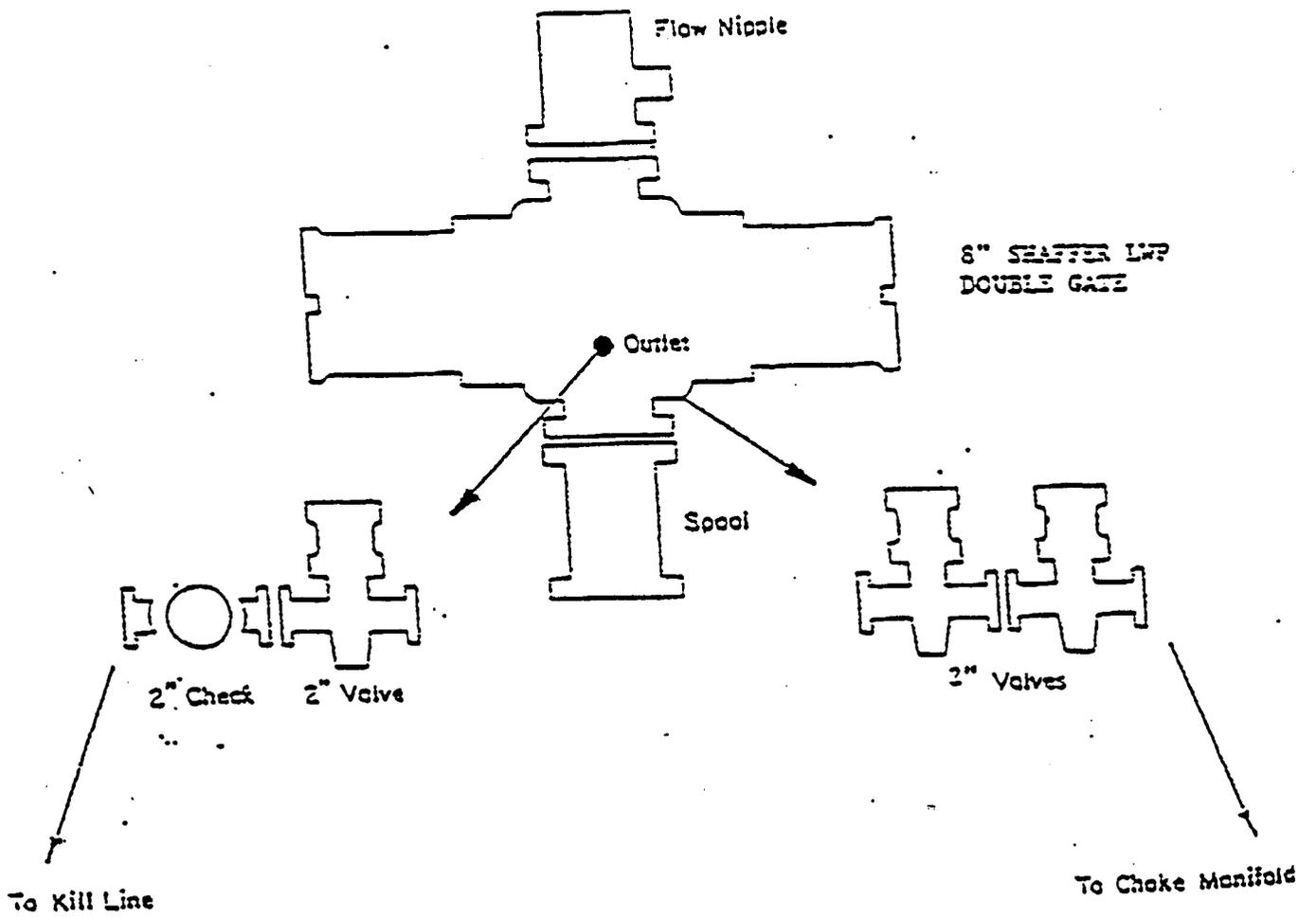
* Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

Chandler & Associates, Inc.
West Desert Spring #1-30-10-17

9. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards:

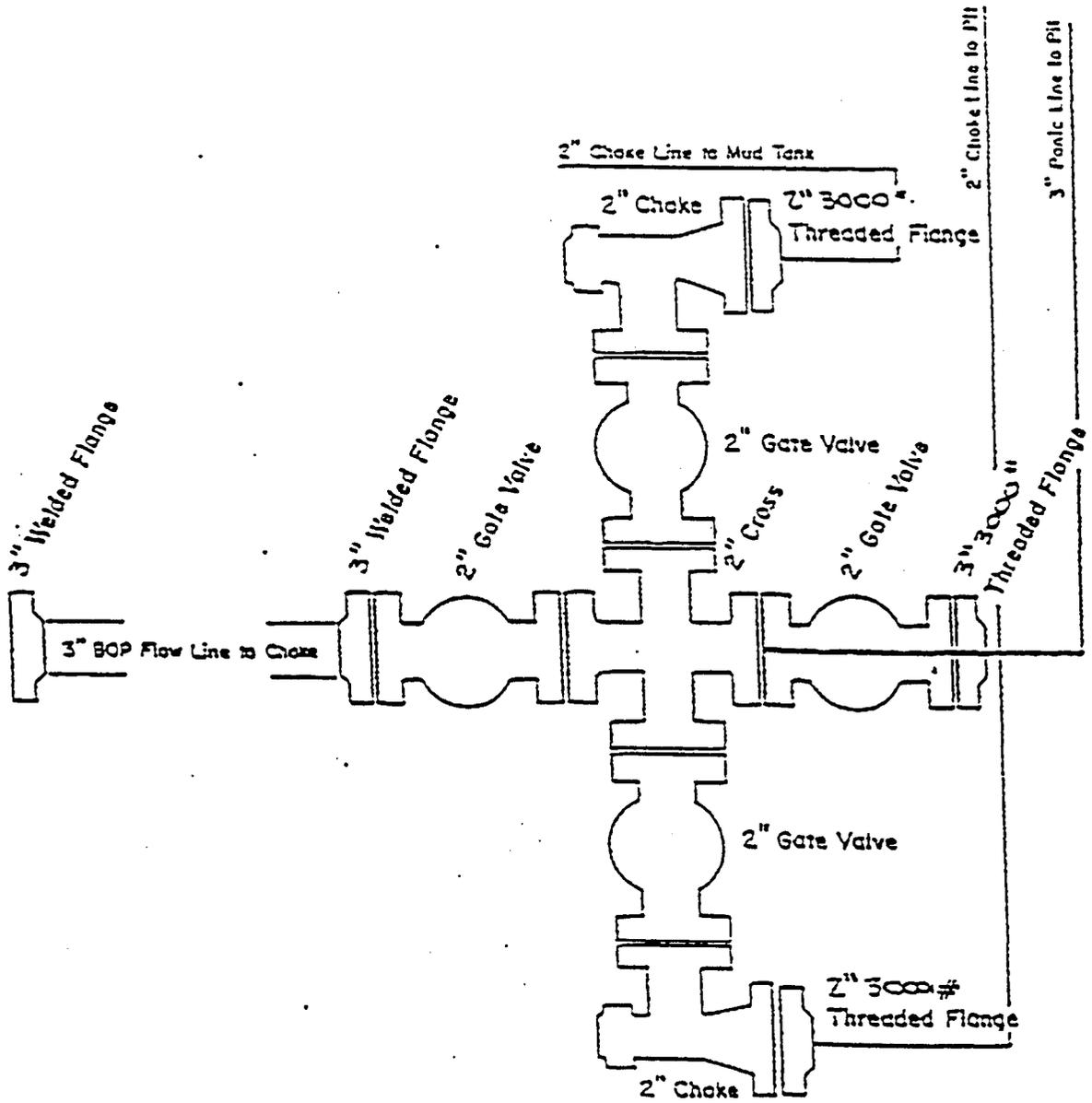
No abnormal temperatures or pressures are anticipated. No H₂S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 1,600 psi (calculated at 0.290 psi/ft) and maximum anticipated surface pressure equals approximately 390 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

CHANDLER DRILLING
RIG NO. 7



CHANDLER DRILLING

RIG NO.7



**II. SURFACE USE PLAN
CHANDLER & ASSOCIATES, INC.
WEST DESERT SPRING #1-30-10-17**

1. Existing Road:

- A. Topo Map "A" is the vicinity map, showing the access routes from Myton, Utah.
- B. Topo Map "B" shows the proposed access road to each individual well. It also shows existing roads in the immediate area.
- C. Occasional maintenance blading and storm repairs will keep roads in good condition.
- D. There shall be no mud blading on the access road. Vehicles may be towed through the mud provided they stay on the roadway.

2. Planned Access Roads:

The proposed access road, will be crowned, ditched, and dipped.

- A. Construct water retention pond & low water crossing as shown on Exhibit "A"
- B. Maximum grade will be 8% or less, unless otherwise stated.
- C. No turnouts will be required.
- D. Road surface material will be that native to the area.
- E. No cattle guard will be required.
- F. The proposed access road was flagged at the time the location was staked.
- G. The area authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.

Chandler & Associates, Inc.
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- H. The back slopes of the proposed access roads will be no steeper than vertical or 1/4:1 in rock; and 2:1, elsewhere.

The operator or his contractor will notify the areas authorized officer at least 48 hours prior to commencement of any work on these locations, roadways, or pipelines.

3. Location of Existing Wells:

See Topo Map "C"

4. Location of Existing and/or Proposed Facilities:

- A. All Petroleum Production Facilities are to be contained within the proposed location sites.
- B. In the event that production of these wells is established, the following will be shown:
1. Proposed location and attendant lines, by flagging, if off well pad.
 2. Dimensions of facilities.
 3. Construction methods and materials.
- C. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable, then other arrangements will be made to acquire them from private sources. These facilities will be constructed using bulldozers, graders, and workman crews to construct and place the proposed facilities.
- D. All permanent facilities placed on the locations shall be painted a non-reflective color which will blend with the natural environment.
- E. A dike shall be constructed around the tank battery, of sufficient capacity to adequately contain at least 110 percent of the storage capacity of the largest tank within the dike.
- F. All buried pipelines shall be covered to a depth of 3 feet except at road crossings where they shall be covered to a depth of 4 feet.

Chandler & Associates, Inc.
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- G. Construction width of the right-of way/pipeline route shall be restricted to 30 feet of disturbance.
- H. Pipeline location warning signs shall be installed within 90 days upon completion of construction.

5. Location and Type of Water Supply:

Water will be obtained from a Spring located in Section 34, T3S, R2W, U.S.B.&M. which is Operated by Nebeker Trucking (Permit #43-1723) and transported by Nebeker Trucking Co. along the access roads which are shown on the attached maps.

6. Source of Construction Materials:

A. No construction materials are needed for drilling operations. In the event of production, the small amount of gravel needed for facilities will be hauled in by truck from a local gravel pit over existing access roads from the area. No special access other than for drilling operations and pipeline construction is needed.

B. All disturbance for this well site is located on B.L.M. Lands.

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

7. Methods for Handling Waste Disposal:

- A. Drill cuttings will be buried in the reserve pit when covered.
- B. Drilling fluids will be contained in the reserve pit.
- C. Any hydrocarbon liquids produced while production testing will be contained in a test tank. Any unavoidable spills of oil or other adverse substances or materials will be removed immediately during drilling

Chandler & Associates, Inc.
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progress or during completion operations.

- D. Portable chemical toilets will be provided and serviced by a local commercial sanitary service.

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- E. Garbage and trash will be collected in a trash cage and its contents hauled to a sanitary landfill.

All wastes caused by the construction activities shall be promptly removed and disposed of in a sanitary landfill or as directed by the authorized officer.

- F. Prior to commencement of drilling, the reserve pit will be fenced on three sides using 39-inch net wire with at least one (1) strand of barbed wire. All wire is to be stretched before attaching to corner posts. When drilling activities are completed it will be fenced on the fourth side and allowed to dry (if liquids are present). After drying, the fences will be removed and the pit shall be buried. Reclamation will be undertaken no later than the fall of the year after all drilling activity has ceased.

8. Ancillary Facilities:

No air strips, camps, or other living facilities will be built off the location. Housing and office trailers will be on the location as seen on the location layout.

9. Well Site Layout:

- A. See attached cutsheet.
- B. The areas authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.
- C. The reserve pit will be lined with a 12ml. liner prior to any drilling activity.
- D. Topsoil shall be stripped to a depth of 6 inches and stockpiled as shown on the location layout plat. (Windrow along north side of pad).
- E. The back slopes of the locations will be no steeper than vertical or 1/4:1 in rock, and 2:1 elsewhere.
- F. The upper edges of all cut banks on the access roads and well pads will be rounded.

Chandler & Associates, Inc.
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10. Plans for Restoration:

- A. Immediately upon completion, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production.
- B. Before any dirt work to restore the location takes place, the reserve pit must be completely dry. The reserve pit will be reclaimed within 90 days from the date of well completion.
- C. The area officer shall be notified at least 48 hours prior to commencing reclamation work.
- D. All disturbed areas will be seeded with the a mixture which is found suitable by the B.L.M.
- E. The seed bed will be prepared by discing, following the natural contour. Drill seed on contour at a depth no greater than ½ inch. In areas that cannot be drilled, the seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed is recommended.
- F. Fall seeding will be completed after September, and prior to prolonged ground frost.
- G. If the well is a producer, access roads will be upgraded and maintained as necessary to prevent soil erosion, and accommodate year round traffic. Areas unnecessary to operations will be reshaped, topsoil distributed, and seed distributed according to the above mixtures. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

Chandler & Associates, Inc.
West Desert Spring #1-30-10-17

- H. If the well is abandoned or is a dry hole, the access road and location will be restored to approximate the original contours. During reclamation of the site the fill material will be pushed into cuts and up over the backslope. No depressions will be left that would trap water or form ponds. Topsoil will be distributed evenly over the location and seeded according to the above mixture. The access road and the location shall be ripped or disced prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- I. Annual or noxious weeds shall be controlled on all disturbed areas. Method of control shall be by an approved mechanical method or an Environmental Protection Agency (EPA) registered herbicide. All herbicide application proposals must be approved. Application of herbicides must be under direct field supervision of an EPA certified pesticide applicator.

11. Other Information:

- A. The area is used by man for the primary purpose of grazing domestic livestock.

All activity shall cease when soils or road surfaces become saturated to a depth of three inches, unless otherwise approved by the Authorized Officer.

If any fossils are discovered during construction, the operator shall cease construction immediately and notify the Authorized Officer so as to determine the significance of the discovery.

- B. A Class III cultural resource inventory has been completed prior to disturbance by a qualified professional Archaeologist.
- C. The State considers the development of groundwater resources to be necessary and frequently indispensable to effective land management. Therefore, any groundwater intercepted by the party conducting mineral exploration shall be reported to the authorized officer immediately including approximate quantities and a sample in a sealed quart container. The State shall have the first opportunity to file State water rights for the intercepted groundwater. The undersigned may file for water rights only with a written waiver from the State.

Chandler & Associates, Inc.
West Desert Spring #1-30-10-17

- D. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials and contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

whether the materials appear eligible for the National Register of Historic Places;

the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and a time frame for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, an operator will then be allowed to resume construction.

- E. Less than 10,000 pounds of any chemical(s) from EPA's Consolidated list of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, and less than threshold planning quantity (TPQ) of any extremely hazardous substances(s), as defined in 40 CFR, would be used, produced, transported, stored, disposed, or associated with the proposed action.

Chandler & Associates, Inc.
West Desert Spring #1-30-10-17

12. Lessee's or Operator's Representative:

Mr. Terry J. Cox
Vice President of Operations/Production
Chandler & Associates, Inc.
475 Seventeenth Street
Suite 1000
Denver, Colorado 80202
Telephone #(303)295-0400

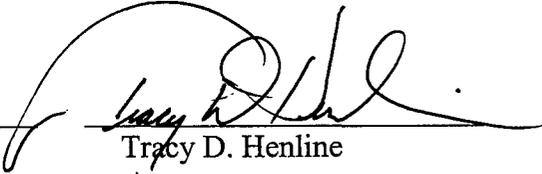
13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite(s) and access route(s); 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 **Chandler & Associates, Inc.**, and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

Date

8-3-98


Tracy D. Henline
Agent

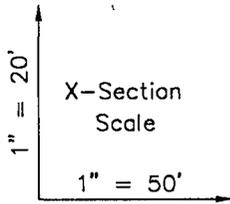
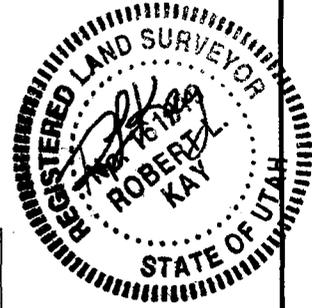
CHANDLER & ASSOCIATES, INC.

TYPICAL CROSS SECTIONS FOR

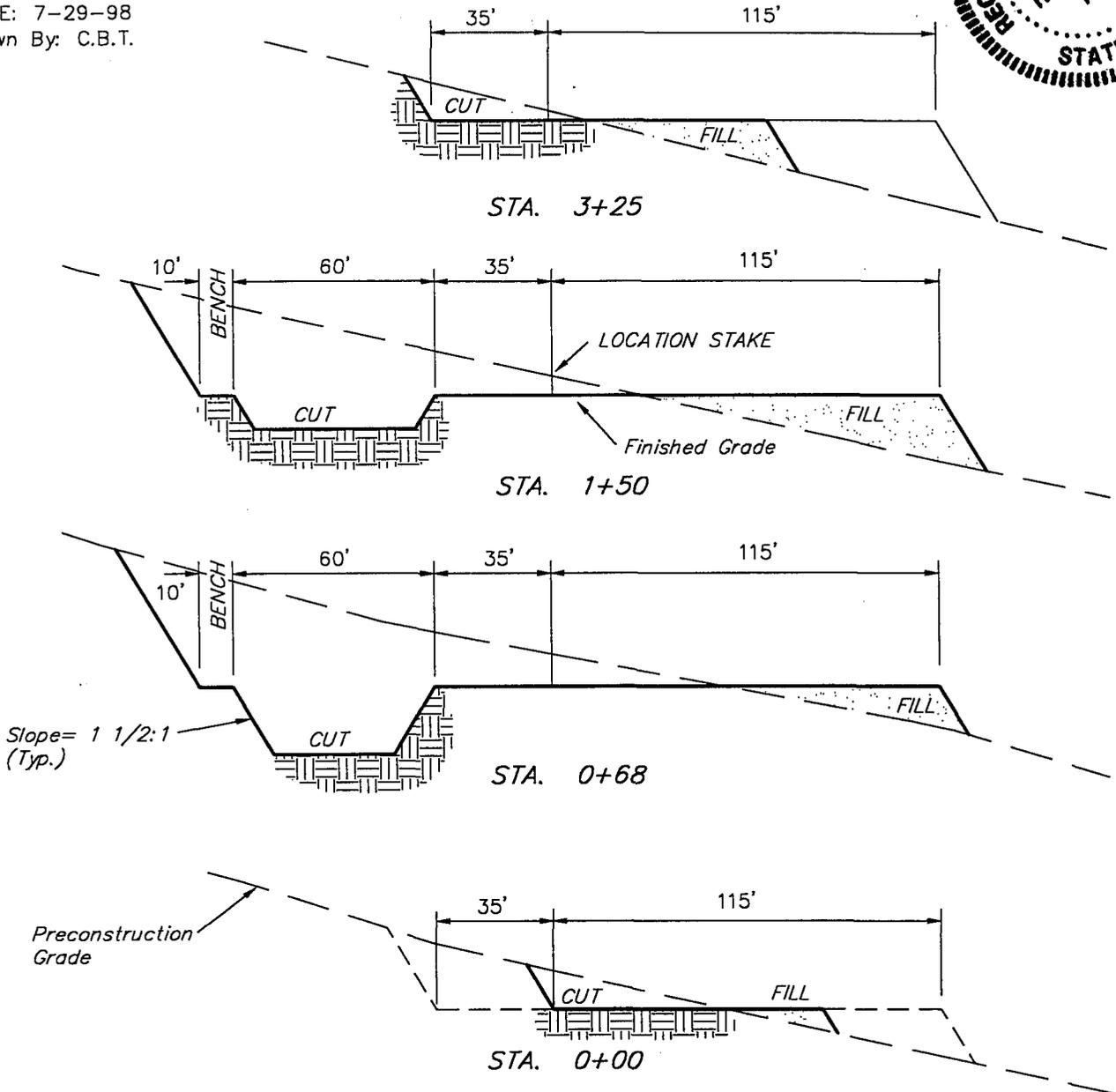
WEST DESERT SPRING #1-30-10-17

SECTION 30, T10S, R17E, S.L.B.&M.

462' FNL 634' FEL



DATE: 7-29-98
Drawn By: C.B.T.



APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	1,010 Cu. Yds.
Remaining Location	=	6,500 Cu. Yds.
TOTAL CUT	=	7,510 CU.YDS.
FILL	=	5,650 CU.YDS.

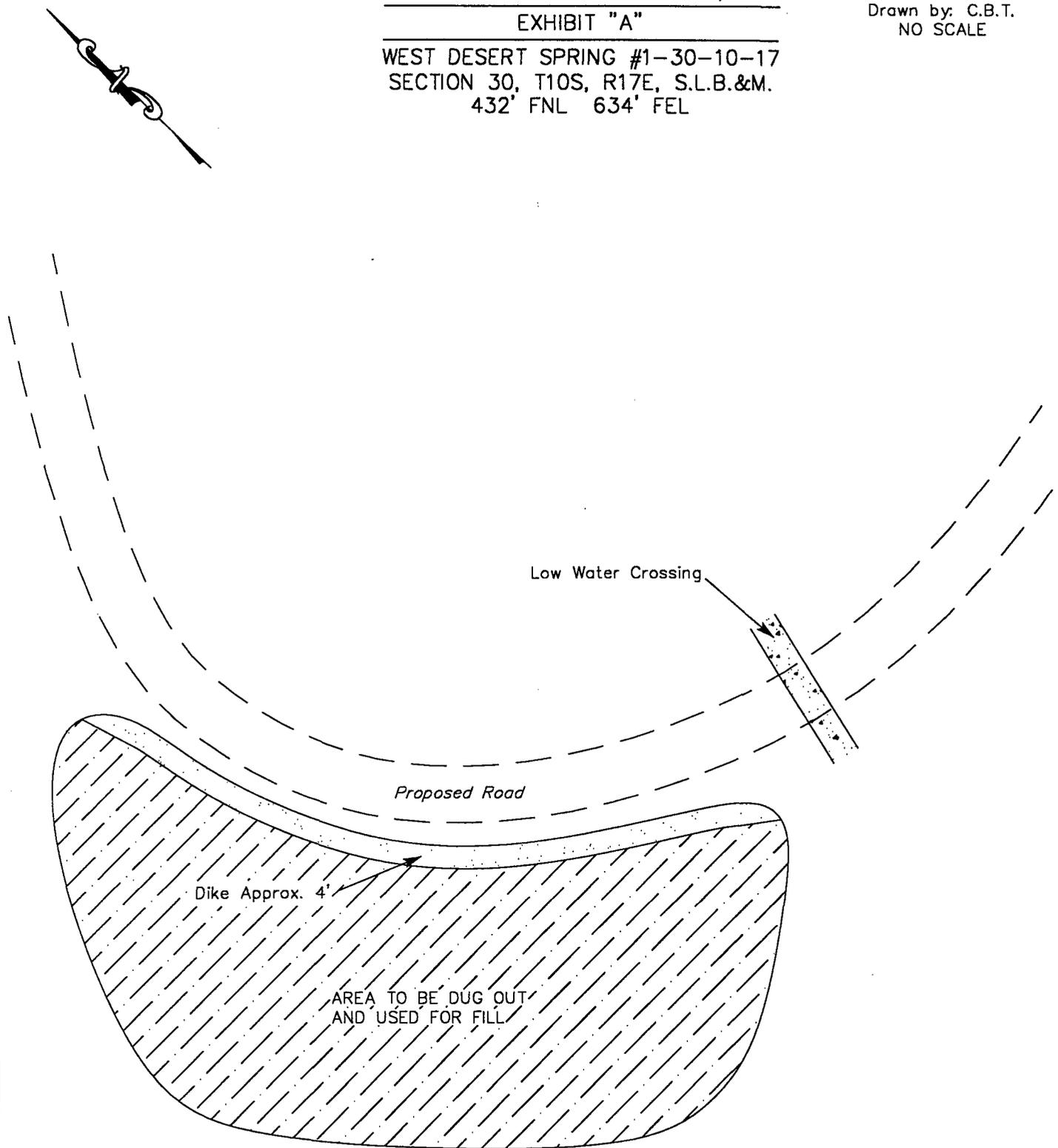
EXCESS MATERIAL AFTER 5% COMPACTION	=	1,560 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	1,560 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	0 Cu. Yds.

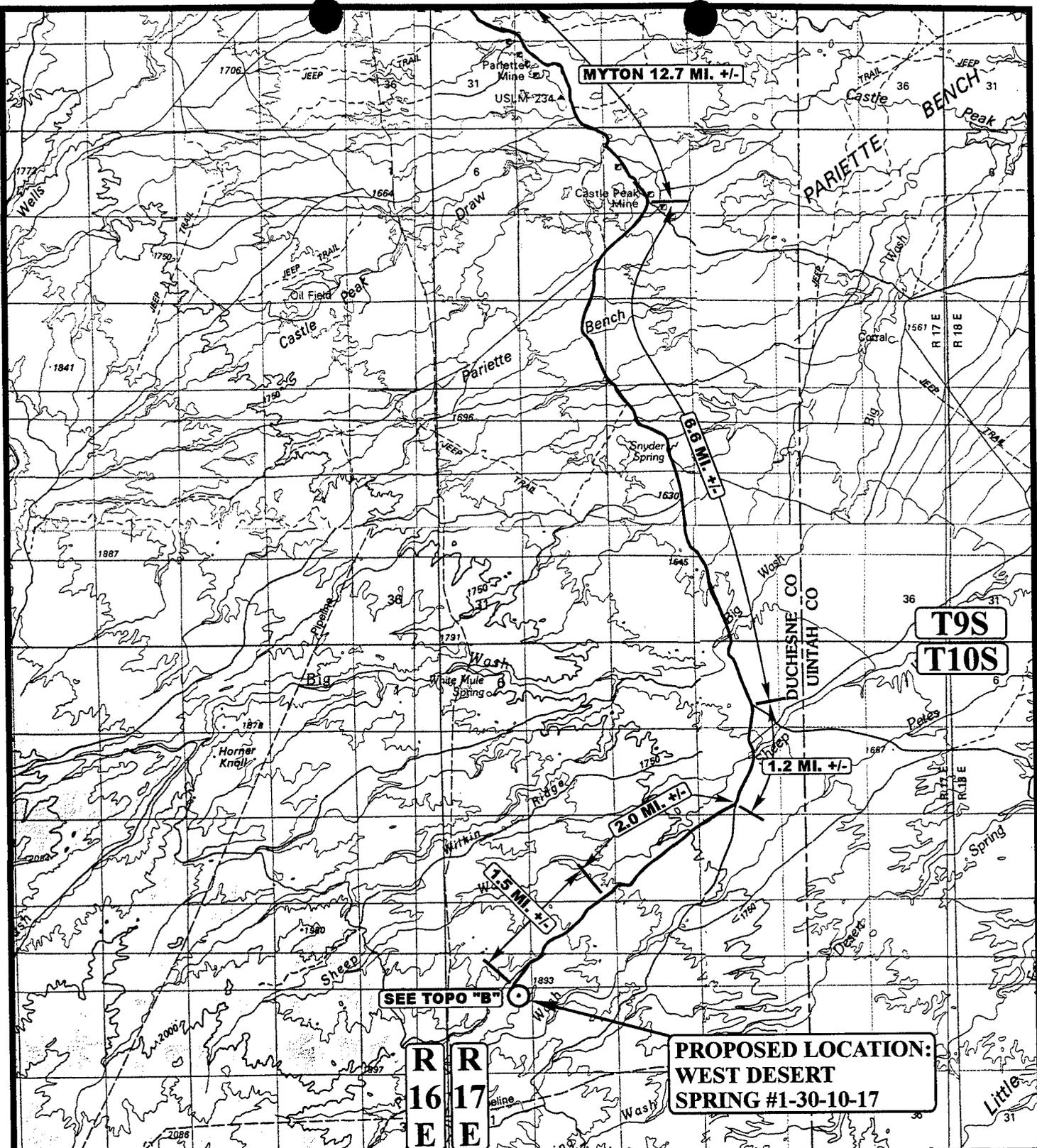
CHANDLER & ASSOCIATES, INC.

EXHIBIT "A"

WEST DESERT SPRING #1-30-10-17
SECTION 30, T10S, R17E, S.L.B.&M.
432' FNL 634' FEL

Date: 7-29-98
Drawn by: C.B.T.
NO SCALE





T9S
T10S

R 16
E

R 17
E

PROPOSED LOCATION:
WEST DESERT
SPRING #1-30-10-17

LEGEND:
○ PROPOSED LOCATION

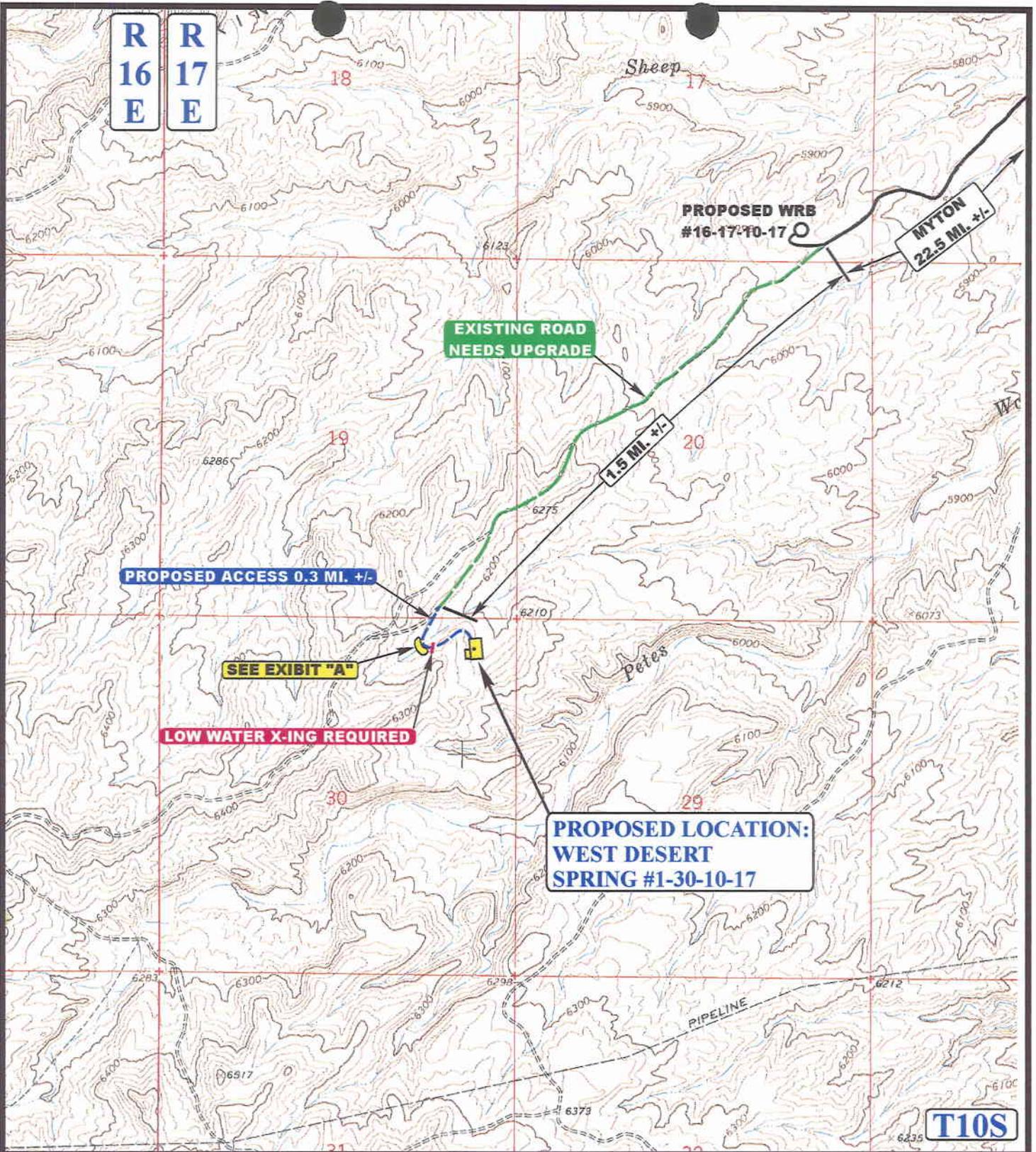
CHANDLER & ASSOCIATES, INC.
WEST DESERT SPRING #1-30-10-17
SECTION 30, T10S, R17E, S.L.B.&M.
462' FNL 634' FEL



UEIS Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC **6 23 98**
MAP MONTH DAY YEAR
SCALE: 1:100,000 | DRAWN BY: D.COX | REVISED: 00-00-00

A
TOPO



LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING ROAD

CHANDLER & ASSOCIATES, INC.

**WEST DESERT SPRING #1-30-10-17
SECTION 30, T10S, R17E, S.L.B.&M.
462' FNL 634' FEL**



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85 South 200 East Vernal, Utah 84078
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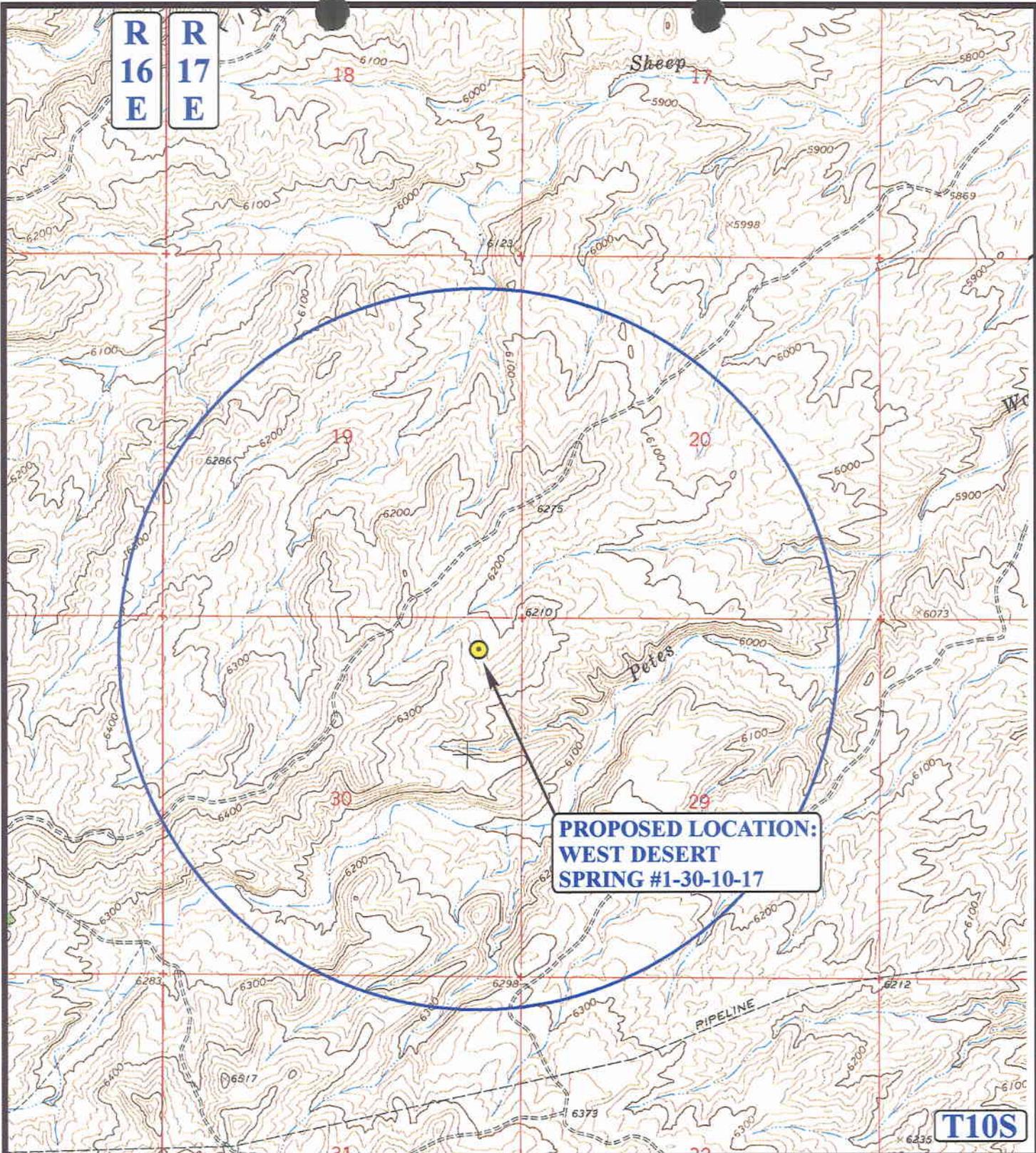


**TOPOGRAPHIC
MAP**

6 23 98
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: D.COX REVISED: 7-29-98





**PROPOSED LOCATION:
WEST DESERT
SPRING #1-30-10-17**

LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED



CHANDLER & ASSOCIATES, INC.

**WEST DESERT SPRING #1-30-10-17
SECTION 30, T10S, R17E, S.L.B.&M.
462' FNL 634' FEL**



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

**TOPOGRAPHIC
MAP**

6 23 98
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: D.COX REVISED: 00-00-00



WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 08/04/98

API NO. ASSIGNED: 43-013-32113

WELL NAME: WEST DESERT SPRING 1-30-10-17
 OPERATOR: CHANDLER & ASSOCIATES INC (N3320)
 CONTACT: Terry Cox (303) 295-0400

PROPOSED LOCATION:
 NENE 30 - T10S - R17E
 SURFACE: 0462-FNL-0634-FEL
 BOTTOM: 0462-FNL-0634-FEL
 DUCHESNE COUNTY
 UNDESIGNATED FIELD (002)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED
 LEASE NUMBER: U-65632
 SURFACE OWNER: Federal

PROPOSED FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat
 Bond: Federal State Fee
 (No. 124290364)

Potash (Y/N)
 Oil Shale (Y/N) *190-5(B)
 Water Permit
 (No. 43-1723)

RDCC Review (Y/N)
 (Date: _____)

St/Fee Surf Agreement (Y/N)

LOCATION AND SITING:

____ R649-2-3. Unit _____

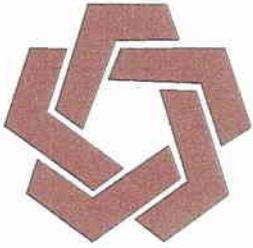
R649-3-2. General

____ R649-3-3. Exception

____ Drilling Unit
 Board Cause No: _____
 Date: _____

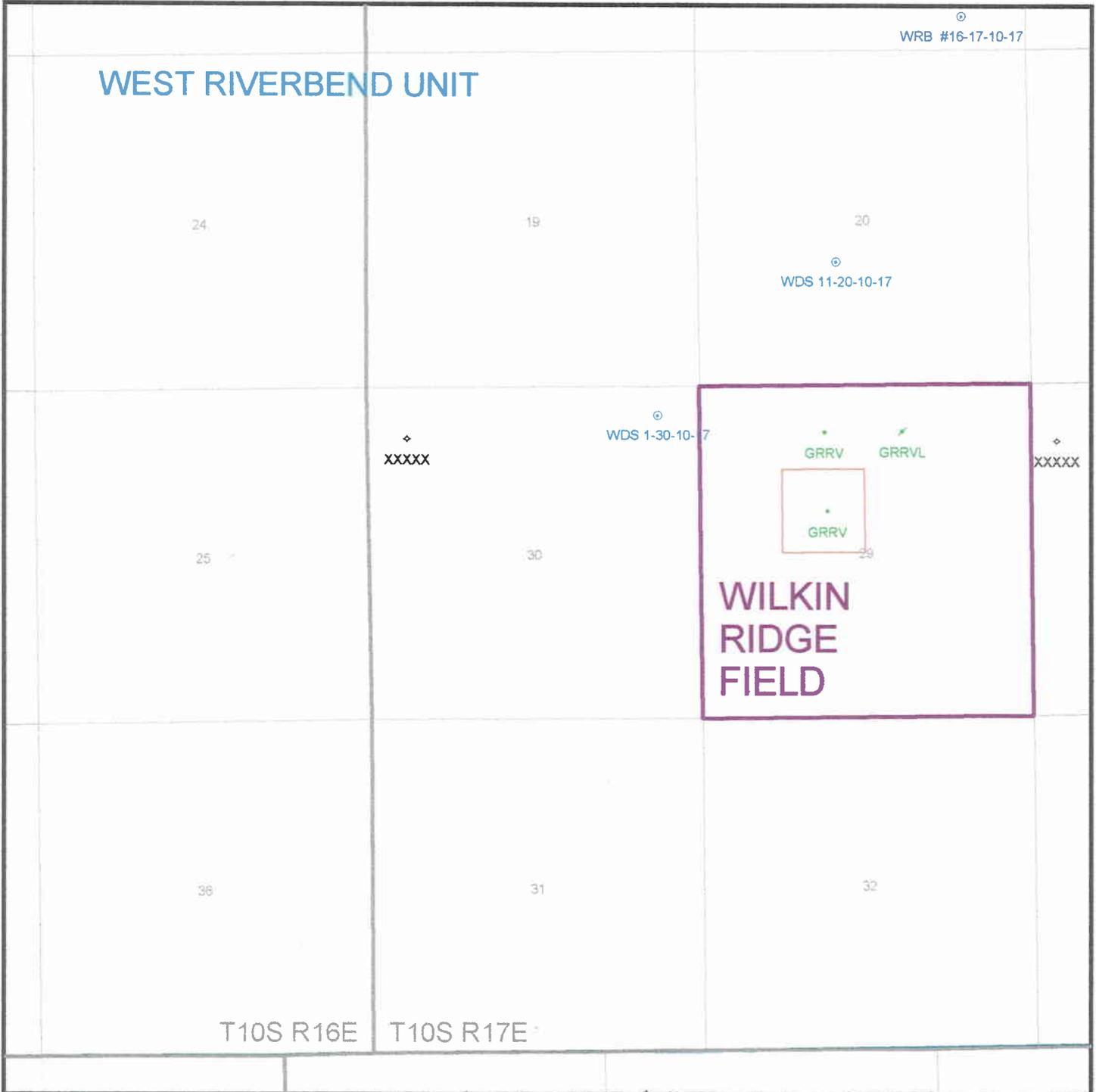
COMMENTS: * Lease U-65632 is a non-committed lease within the West Riverbend Unit.

STIPULATIONS: ① FEDERAL APPROVAL



DIVISION OF OIL, GAS & MINING

OPERATOR: CHANDLER & ASSOCIATES (N3320)
FIELD: UNDESIGNATED (002)
SEC. 30, TWP 10S, RNG 17E
COUNTY: DUCHESNE UAC: R649-2-3 WEST RIVERBEND UNIT



DATE PREPARED:
5-AUG-1998



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

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

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

August 13, 1998

Chandler & Associates, Inc.
475 Seventeenth Street, Suite 1000
Denver, Colorado 80202

Re: West Desert Spring 1-30-10-17 Well, 462' FNL, 634' FEL,
NE NE, Sec. 30, T. 10 S., R. 17 E., Duchesne County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-32113.

Sincerely,

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

John R. Baza
Associate Director

lwp

Enclosures

cc: Duchesne County Assessor
Bureau of Land Management, Vernal District Office

Operator: Chandler & Associates, Inc.
Well Name & Number: West Desert Spring 1-30-10-17
API Number: 43-013-32113
Lease: U-65632
Location: NE NE Sec. 30 T. 10 S. R. 17 E.

Conditions of Approval

1. General

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

2. Notification Requirements

Notify the Division within 24 hours prior to spudding the well. Contact Jim Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Dan Jarvis at (801) 538-5338 or Robert Krueger at (801) 538-5274.

3. Reporting Requirements

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

4. State approval of this well does not supersede the required federal approval which must be obtained prior to drilling.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Chandler & Associates, Inc. (303) 295-0400

3. ADDRESS AND TELEPHONE NO.
 475 Seventeenth Street, Suite 1000 Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 462' FNL 634' FEL
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 See Topo Map "A" (attached)

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 462'

16. NO. OF ACRES IN LEASE 1240

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

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

19. PROPOSED DEPTH 5500'

20. ROTARY OR CABLE TOOLS A.S.A.P.

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6232' GR

22. APPROX. DATE WORK WILL START* A.S.A.P.

5. LEASE DESIGNATION AND SERIAL NO.
 U-65632

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

7. UNIT AGREEMENT NAME
 N/A

8. FARM OR LEASE NAME, WELL NO.
 West Desert Spring #1-30-

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT
 Desert Spring

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 30, T10S, R17E, SLB&

12. COUNTY OR PARISH
 Duchesne

13. STATE
 Utah

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"	24#	250'	(See attached drilling plan)
7 7/8"	5 1/2"	15.5#	5500'	(See attached drilling plan)

RECEIVED
AUG 04 1998

- M.I.R.U.
- Drill to T.D. 5500'
- Run 5 1/2" casing if commercial production is indicated.
- If dry hole, well will be plugged and abandoned as instructed by the B.L.M.
- Well will be drilled with water; KCL water; LSND as needed to T.D.

I hereby certify that I am responsible by the terms and conditions of the lease to conduct lease operations. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Chandler & Associates, Inc., B.L.M. Bond #124290364 with CNA.

RECEIVED
AUG 27 1998

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present production 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 prevention program, if any.

24. SIGNED Tracy D. Henline TITLE Agent DATE Aug. 3, 1998

(This space for Federal or State office use)
 PERMIT NO. APPROVAL DATE

CONDITIONS OF APPROVAL ATTACHED

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY [Signature] TITLE ACTING Assistant Field Manager Mineral Resources DATE AUG 24 1998

DOG M

*See Instructions On Reverse Side

CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Chandler & Associates, Inc.

Well Name & Number: West Desert Spring 1-30-10-17

API Number: 43-013-32113

Lease Number: U - 65632

Location: NENE Sec. 30 T. 10S R. 17E

NOTIFICATION REQUIREMENTS

- | | | |
|---------------------------------|---|---|
| Location Construction | - | at least forty-eight (48) hours prior to construction of location and access roads. |
| Location Completion | - | prior to moving on the drilling rig. |
| Spud Notice | - | at least twenty-four (24) hours prior to spudding the well. |
| Casing String and Cementing | - | at least twenty-four (24) hours prior to running casing and cementing all casing strings. |
| BOP and Related Equipment Tests | - | at least twenty-four (24) hours prior to initiating pressure tests. |
| First Production Notice | - | within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days. |

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report ALL water shows and water-bearing sands to Tim Ingwell of this office **prior to setting the next casing string or requesting plugging orders**. Faxed copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

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

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a **2M** system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the Mahogany oil shale zone, identified at 1,977 ft. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to the top of the cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

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

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

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

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-5(d) shall be submitted to the appropriate Field Office within 60 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (1).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

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

All off-lease storage, off-lease measurement, or commingling onlease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted on initial meter installations and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approvals are necessary, please contact one of the following individuals:

Ed Forsman (435) 789-7077
Petroleum Engineer

Wayne P. Bankert (435) 789-4170
Petroleum Engineer

Jerry Kenczka (435) 781-1190
Petroleum Engineer

BLM FAX Machine (435) 781-4410

EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

Unused fracturing fluids or acids

Gas plant cooling tower cleaning wastes

Painting wastes

Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids

Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste

Refinery wastes

Liquid and solid wastes generated by crude oil and tank bottom reclaimers

Used equipment lubrication oils

Waste compressor oil, filters, and blowdown

Used hydraulic fluids

Waste solvents

Waste in transportation pipeline-related pits

Caustic or acid cleaners

Boiler cleaning wastes

Boiler refractory bricks

Incinerator ash

Laboratory wastes

Sanitary wastes

Pesticide wastes

Radioactive tracer wastes

Drums, insulation and miscellaneous solids.

SURFACE USE PROGRAM
Conditions of Approval (COAL)

Location of Existing and/or Proposed Facilities

All production facilities shall be painted an earthtone Desert Brown (10YR 6/3) to blend with the surrounding vegetation within six (6) months of well completion.

The material for construction of the containment dike around the tank battery shall be nonpermeable subsoils and at no time shall top soils be used for this construction.

If a pipeline is requested for this location additional authorization will be necessary.

Plans For Reclamation Of Location

All seeding for reclamation operations at this location shall use the following seed mixture:

needle and thread	Stipa comata	3 lbs/acre
black sagebrush	Artemesia arbuscula v. nova	2 lbs/acre
fourwing saltbush	Atriplex canescens	4 lbs/acre
shadscale	Atriplex confertifolia	3 lbs/acre

If the seed mixture is to be aerially broadcasted, the pounds per acre shall be doubled. All seed poundages are in Pure Live Seed.

Immediately after construction the stockpiled top soil will be seeded and the seed worked into the soil by "walking" the pile with caterpillar tracks.

When reclaiming the reserve pit, the pit liner will be torn and perforated before backfilling the reserve pit and the torn liner will be buried a minimum of four (4) feet deep. The reserve pit and those portions of the location not needed for production facilities and/or operations shall be reclaimed and recontoured in accordance with the APD. A portion of the stockpiled topsoil shall then be spread over the rehabilitated areas to approximate the original topsoil thickness and the area seeded.

Upon final abandonment if additional recontouring is needed for previously reclaimed areas, the topsoil shall be removed prior to the final recontouring.

For final abandonment all topsoil shall be spread over the recontoured surface and the soils seeded.

Erosion Control Structure

Where the erosion control structure is to be constructed along the access road at an ephemeral wash. The top of the structure will have a minimum of 12 feet travel surface and instead of a low water crossing as identified in the Surface Use Plan 30" culvert will be placed 3 feet below the top of the roadway and used as a spillway. Attached are erosion control structure minimum standards.

Mountain plover & Burrowing owl habitat

According to the timeframes listed on the following chart and prior to new construction and drilling activities, a detailed survey of the area within 0.5 mile of a proposed location and 300 feet either side of the center line of a proposed access route will be made by BLM or a qualified biologist to detect the presence of plovers. Extreme care shall be exercised to locate plovers due to their highly secretive and quiet nature. Where possible, the survey shall first be made from a stationary vehicle. All plovers located will be observed long enough to determine if a nest is present. If no visual sightings are made from the vehicle, the area will be surveyed again on foot.

Starting Date of Construction or Drilling Activity	Number of Surveys
From March 15 through April 15	1
From April 16 through July 15	2
From July 16 through August 15	1

The surveys will be conducted no more than 14 days prior to the date actual construction or drilling activities begin. If two surveys are required, they will be made at least 14 days apart with the last survey no more than 14 days prior to the start-up date.

If an active nest or chicks are found in the area, the planned activity will be delayed until the chicks are out of downy plumage; the brood vacates the area of influence; or, the nest has failed.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Vernal Field Office

170 South 500 East

Vernal, Utah 84078-2799

<http://www.blm.gov/utah/vernal>

Phone: (435) 781-4400

Fax: (435) 781-4410

IN REPLY REFER TO:

3160

UT08300

~~May 27~~, 1999
Sept. 9

Chandler & Associates, Inc.
475 Seventeenth Street, Suite 1000
Denver, CO 80202

Re: Notification of Expiration
Well No. W Desert Spring 1-20-10-17
NENE Sec. 30, T10S, R17E
Lease No. U-65632

43-013-32113

Gentlemen:

The Application for Permit to Drill the above-referenced well was approved on August 24, 1998. Since that date, no known activity has transpired at the approved location. Applications for Permit to Drill are effective for a period of one year. In view of the foregoing, this office is notifying you the approval of the referenced application has expired. If you intend to drill at this location at a future date, a new Application for Permit to Drill must be submitted.

According to our records, the location has been constructed for this drill site. All surface disturbance associated with the approved location of this well is to be rehabilitated. A schedule for this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

Sincerely,

Margie Herrmann
Legal Instruments Examiner

cc: State Div. OG&M

DOG-M
LA
DATE

