



**Chevron U.S.A. Inc.**

6400 South Fiddler's Green Circle, Englewood, CO 80111, P. O. Box 599, Denver, CO 80201

June 28, 1990

RECEIVED  
JUL 02 1990

DIVISION OF  
OIL, GAS & MINING

Bureau of Land Management  
Moab District  
P. O. Box 970  
Moab, Utah 84532

Gentlemen:

Enclosed is an Application for Permit to Drill the Range Creek II well #3-4 in Emery County, Utah. We wish to withdraw the application submitted in September 1989 for well #3-7.

If any further information is required, please contact Jan Watson at (303) 930-3691 or Emily Davies at (303) 930-3652.

Sincerely,

*D. F. Forsgren*

D. F. Forsgren  
E,S,F&H Coordinator

JLW:kh  
Enclosure

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.  
U-37806

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Range Creek II

8. FARM OR LEASE NAME  
Range Creek

9. WELL NO.  
#3-4

10. FIELD AND POOL, OR WILDCAT  
Cedar Mountain-Dakota Buck

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
horn 001

12. COUNTY OR PARISH  
Emery

13. STATE  
Utah

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
DRILL  DEEPEN  PLUG BACK

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

2. NAME OF OPERATOR  
Chevron U.S.A. Inc., Room 13097

3. ADDRESS OF OPERATOR  
P.O. Box 599, Denver, CO 80201  
OIL GAS & MINING

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

510' FSL & 1,300' FWL (SW/4 SW/4)  
At proposed prod. zone  
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
9 miles east of Woodside, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest\* drilg. unit line, if any.)  
1,300'

18. DISTANCE FROM "BOHORED LOCATION" TO NEAREST WELL DRILLING COMPLETED OR APPLIED FOR, ON THIS LEASE, FT.  
± 10,000'

21. ELEVATIONS (Show whether DP, RT, GR, etc.)  
GL: 5,874.5' KB: est. 5,875'

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PP., FOOT	SETTING DEPTH	QUANTITY OF CEMENT
20"	16"	P.E.	80'	TD to Surface
12 1/4"	9 5/8"	36#	1,855'	TD to Surface
8 3/4"	5 1/2"	17#	5,950'	TD to Surface

Be advised that Chevron U.S.A. Inc. is considered to be the operator of well No. 3-4 Emery County, Utah, lease No. U-37806 and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by Nationwide Bond No. U-89-75-81-34 (Standard Oil Company of California and its wholly owned subsidiary Chevron U.S.A. Inc., as co-principals) via surety consent as provided for in 43 CFR 3104.2.

- Attachments: Certified Plat  
Drilling Program  
Chevron Class III BOPE  
Geologic Program  
Multipoint Surface Use Plan  
Completion Procedure to be submitted by Sundry Notice

19. ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED J. A. Watson TITLE Technical Assistant DATE 6/26/90

(This space for Federal or State office use)

PERMIT NO. 43-015-30039 APPROVAL DATE APPROVED BY THE STATE

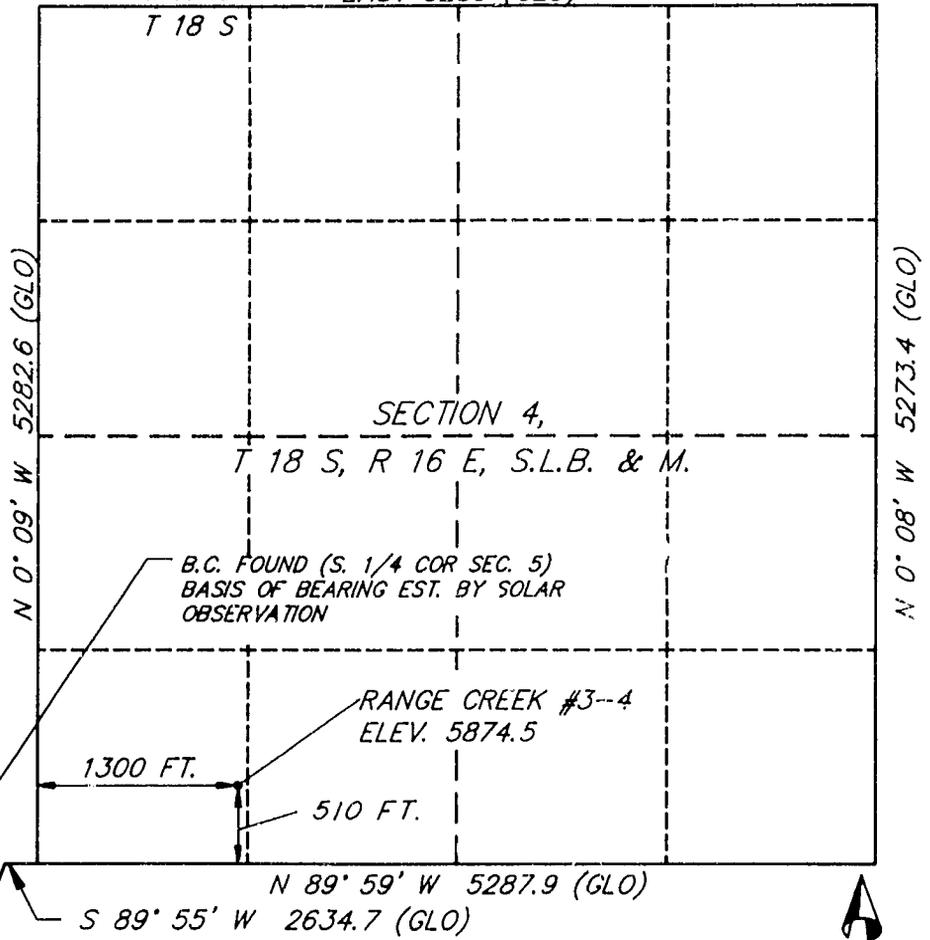
APPROVED BY John R. Day TITLE MINING

\*See Instructions On Reverse Side

Chevron U.S.A. Inc.  
 P.O. Box 6004  
 Evanston, WY 82931-6004

PREPARED BY: Barker & Associates  
 50 West Main St.  
 P.O. Box 43  
 Wellington, Utah 84542

T 17 S EAST 5280. (GLO)  
 T 18 S



Location map for RANGE CREEK #3-4  
 SECTION 4, T 18 S, R 16 E, S.L.B. & M.

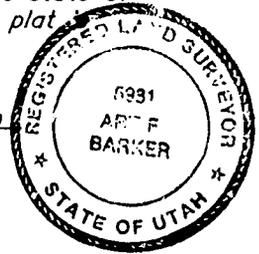
SCALE: 1" = 880'

SURVEYORS CERTIFICATE

I, Art F. Barker, a duly registered Land Surveyor in the state of Utah, do hereby certify that the survey represented by this plat is correct to the best of my knowledge and belief.

By Art F. Barker  
 Art F. Barker LS  
 Utah Reg. No. 05981

Date 6/19/90



Chevron U.S.A. Inc.  
P.O. box 6004  
Evanston, WY 82931-6004

PREPARED BY: *Barker & Associates*  
50 West Main St.  
P.O. Box 43  
Wellington, Utah 84542

WELL LOCATION SURVEY: *in the southwest quarter of Section 4, T 18 S, R 16 E, S.L.B. & M. Emery County, Utah.*

NARRATIVE

*The purpose of this survey is to establish the Well Location of Range Creek #3-4 and the associated well pad.*

DESCRIPTION

*Beginning at a point 140' South & 150' West of well location Range Creek #3-4 (said point being 1300' from the west line & 510' from south line of Sec. 4, T 18 S, R 16 E, S.L.B.&M.) Thence North 240' : Thence East 325' : Thence South 240' : Thence West 325' to the point of beginning. Contains 1.8 acres.*

DRILLING PROGRAM

Field Range Creek Well #3-4 Exp/Dev Exp.

Location SW/4, SW/4, 510 FSL, 1300 FWL Sec. 4, T18S, R16E, Emery Co., Utah

Drill X Deepen \_\_\_\_\_ Elevations: GL Est. 5874.5' UGKB Est. 5890'

~~Directional~~/Straight Hole: Proposed Measured TD 5950' TVD 5950'

~~KOP~~ ~~BOPE~~ ~~XXXXXX~~ ~~XXXXXX~~

1. Conductor Hole

Hole Size 20" Proposed Depth 80' Casing Size, Weight & Grade 16" P.E.

2. Surface Hole

Hole Size 12 1/4" Proposed Depth 1855' BOPE N/A

Mud Program: Type FW/Gel MW 8.4-9.0 FV 35-45 WL N/C Other \_\_\_\_\_

Potential Hazards: Lost Circulation

Electric Logging Program: None

Core/DST Program: None

Casing Program:

Size	Grade	Weight	Thread	Section Length
<u>9-5/8"</u>	<u>K-55</u>	<u>36#/ft</u>	<u>LT&amp;C</u>	<u>1855'</u>

Cement Program: Lead Slurry Class G or H and 16% gel - ±1300' to surf. (±400 sxs)

Tail Slurry Class G or H w/additives - T.D. to ±1300' (±300 sxs)

WOC Time 8 hrs. Casing Test 1500 psi Shoe test MWE F.W. static p

3. Intermediate Hole

Hole Size N/A Proposed Depth \_\_\_\_\_ BOPE \_\_\_\_\_

Mud Program: Type \_\_\_\_\_ MW \_\_\_\_\_ FV \_\_\_\_\_ WL \_\_\_\_\_ Other \_\_\_\_\_

Potential Hazards: \_\_\_\_\_

Electric Logging Program: \_\_\_\_\_

Core/DST Program: \_\_\_\_\_

Casing Program:

Size	Grade	Weight	Thread	Section Length
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Cement Program: Lead Slurry \_\_\_\_\_

Tail Slurry \_\_\_\_\_

WOC Time \_\_\_\_\_ hrs. Casing Test \_\_\_\_\_ psi Shoe test MWE \_\_\_\_\_ p

4. Oil String/Liner Hole

Hole Size 8-3/4" Proposed Depth 5950' BOPE Chevron Class III 3M# BOPE w/rotating  
 Mud Program: Type MW FV WL Other head  
Air/Air-Mist/Foam 8.5 28-30 N/C Base of surf. to T.D.  
4% KCL Load hole @ T.D. to log &  
 Potential Hazards: Hydrocarbon gas run casing.  
 Electric Logging Program: BHC w/GR, Cal.; LDT-CNL w/GR, Cal.; Dipmeter; DIL-Sp; T.D.-SYG  
 DST Program: Possible if mud drill Upper Dakota (5305-5475'), Basal Dakota (5475-5555)  
 Casing Program: and Buckhorn (5780-5813')

Size	Grade	Weight	Thread	Section Length
<u>5 1/2"</u>	<u>N-80</u>	<u>17.0 #/ft</u>	<u>LTC</u>	<u>Surf to T.D.</u>

Cement Program: Lead Slurry Class G or H w/16% gel - +4800 to surf. (+625 sxs)  
Tail Slurry Class G or H - to 500' above productive interval T.D. +4800'  
 WOC Time 24 hrs. Casing Test 1500 psi (+325 sxs)

5. Auxiliary Equipment

Mud Logging Unit @	<u>Base to surf. to T.D.</u>	Rotating Head @	<u>Surf. csg.</u>
Geolograph @	<u>Spud</u>	Degasser @	<u>-</u>
Visulogger @	<u>-</u>	Desilter @	<u>-</u>
Adj. Choke @	<u>Surf. csg.</u>	Centrifuge @	<u>-</u>
PVT & Flowmeter @	<u>-</u>	Mud Cleaner @	<u>-</u>
Trip Tank @	<u>-</u>	H <sub>2</sub> S Safety Equip. @	<u>N/R</u>

Other: Water for dust abatement below surf. csg., deduster equip., spark arrestors on engine.  
automatic ignitor or continuous pilot light on blooie line, compressors in opposite direction  
from blooie line at least 100', upper & lower kelly cock valves, inside BOPE, full opening  
safety valve, drill pipe floats.

6. Drill String Design

Surface Hole:  
 BHA 12 1/2" bit, bit sub w/float, 15-6 1/2" DC's (stabilizers - as needed)  
 Drill Pipe 4 1/2" 16.60 Grade E designed f/100,000# overpull per API RP 7G

Intermediate Hole:  
 BHA N/A  
 Drill Pipe \_\_\_\_\_

Oil String/Liner Hole: Use 2 floats in drillstring when air drlg.  
 BHA 8-3/4" bit, bit sub w/float, 20-6 1/2" DC's Stabilizers - as needed.  
 Drill Pipe 4 1/2" 16.60 Grade E designed f/100,000# overpull per API RP 7G

7. Other

Inspect BHA after 200 rotating hours.  
 In "straight" holes run inclination surveys every 500 feet.  
 Gyro Surveys N/A  
 Check drilling breaks for flow below - feet.  
 Fill drill pipe every - stds when running float.

8. General Remarks

Attached

9. Geologic Program

Attached

Prepared By Mark J. Miller Date 6/20/90 Drilling Superintendent F.A. Smith Date 6/25/90

## DRILLING PROGRAM ATTACHMENT

### GENERAL REMARKS

1. Applicable Federal and State Regulations will be adhered to during the drilling of this well.
2. The drilling rig is to be level and the kelly centered over the hole before drilling operations commence. Check periodically during the drilling of the well to insure the rig stays level.
3. Prior to spud insure all toolpushers, drillers and crews are thoroughly familiar with and understand the Chevron procedure for handling well kicks.  
  
In H<sub>2</sub>S environments Chevron's contingency plan for your location is to be read, understood and adhered to. All personnel are to be thoroughly familiar with the use of air packs, the air supply system, locations of air packs and what to do in the event of sour gas to surface.
4. Test BOPE before drilling out and every 20 days thereafter. Perform low pressure test (200 psi) and high pressure test. High pressure test should be 100% of BOPE working pressure.  
  
Record BOP tests on Tour Reports. Notify applicable Federal and State Regulatory Agencies 24 hours in advance of BOPE tests and record notification and names on Tour Reports.
5. Do not reuse ring gaskets. Replace with new Rx or Bx ring gaskets.
6. Separate full opening safety valves and inside BOP's are required for each size drill pipe in use. Test weekly with BOPE.
7. Run full open valve below kelly that can be run in the hole if necessary. Do not use this valve as a mud saver sub.
8. BOP controls are to remain in the open position during drilling operations.
9. Hold pit drills for each crew at least once every seven days and record on Tour Reports.
10. On trips fill the annulus before hydrostatic pressure drops 75 psi or every 5 stds of drill pipe, whichever is first. Use trip tanks to measure hole fill-up and monitor at all times.
11. Use drill pipe floats at all times unless your supervisor instructs otherwise.
12. Have wear ring installed in wellhead before tripping or rotating. Remember to remove wear ring before running casing or when testing BOPE.

13. Casing rams are to be installed and bonnets tested on last trip out before running casing.
14. Run pilot and thickening time tests with rig mixing water for all cement slurries prior to cementing operations.
15. Casing should be tested to 1,500 psi or 0.2 psi/ft., whichever is greater, prior to drilling out and recorded on Tour Reports. Discuss the test pressure with your supervisor and reference DM-49 before testing.
16. Drill out slick beneath each casing string. Drill deep enough to bury stabilization to be picked up.
17. Do not drill with hardbanded pipe inside of casing.
18. Do not run full gauge stabilizers. Run stabilizers 1/16" to 1/8" undergauge.
19. When necessary to work pipe, keep pipe moving up and down. Rotating alone is not considered sufficient.
20. Install and test full lubricator on all logging runs unless instructed otherwise by supervisor.
21. Fully describe damaged or lost equipment on Tour Reports.

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Moab District Office  
Form 3160-3

Geologic Data

- 1) Estimated Tops of important geologic markers:

<u>Formation</u>	<u>Approx. Top</u>
Mancos	1855' (+4020)
Upper Dakota	5305' (+ 570)
Basal Dakota	5475' (+ 400)
Buckhorn	5780' (+ 95)

(Detailed Intervals per submitted Geologic Program)

- 2) Estimated depths of anticipated water, oil, gas or other mineral bearing formations.

Possible Aquifers: Surface to 1855'

Hydrocarbon Productive Interval: 5305'-5813' (Primary objective  
- Basal Dakota @ 5475' (+400))

Casing

- 1) Testing Procedures: (New Casing)  
9 5/8" 36.0# K-55 surf. csg - Test to 1500 psi for 30 minutes.  
5 1/2" 17.0# N-80 prod. csg - Test to 1500 psi for 30 minutes.

- 2) Centralizers:

On Surface Casing: Shall be run, in accordance with BLM Onshore Oil & Gas Order No. 2, on every fourth joint starting with shoe joint and up to the bottom of the cellar.

On Production Casing: Shall be run on every other joint to 500' above productive interval starting at the shoe joint.

- 3) Casing Head:

11" X 3M# X 9 5/8" SOW

Anticipated Bottom Hole Pressure and Fracture Gradient

- 1) Estimated BHP - 2000 psi @ Basal Dakota Zone ( $\pm 5475'$ )  
2) Estimated F.G. - .72 psi/ft

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Bureau of Land Management  
Moab District Office  
Form 3160-3

Cement

- 1) Anticipated Surface Casing Cement Volume:  
± 700 sxs to fill up from 1855' to surface (w/100% excess)
- 2) Anticipated Production Casing Cement Volume:  
± 950 sxs to fill up from 5950' to surface (w/20% excess)

BOP Equipment

- 1) Schematic of BOPE: (see Attachment 'A' - 11" X 3M# BOPE)
- 2) Schematic of Choke Manifold: (see Attachment 'A' - 11" X 3M# manifold)
- 3) Location of Hydraulic Controls:
  - a) Remote Control on Rig Floor near Driller's Console
  - b) Accumulator at ± 100' from wellbore at a safe, accessible location, preferably near an escape route.

Mud

- 1) Weight, Viscosity, and Type: (Per submitted Drilling Program: Item Nos. 2 and 4)
- 2) Additives: Gel, Lime, Lost Circulation Material (mica, cedar fiber sawdust)  
Liquid Co-Polymer (shale encapsulator and viscosifier for hole cleaning and shale stability),  
Drispac, Lignosulfomate, Caustic Soda, Soda Ash
- 3) Volume: Sufficient quantities of mud material shall be maintained or readily accessible for the purpose of assuring well control. To that end, sufficient barite shall be maintained on location to raise the mud weight 1.0 lb/gal

Auxiliary Equipment

- 1) Per submitted Drilling Program: Item No. 5. Also, as needed, to comply with "Special Drilling Operations" BLM Onshore Oil & Gas Order No. 2

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Bureau of Land Management  
Moab District Office  
Form 3160-3

Testing, Coring, Logging and Completion Program

- 1) Testing, Coring: (per submitted Geologic Program - No DST's are anticipated, sidewall cores may be taken with wireline.)
- 2) Logging: (Per submitted Geologic Program)
- 3) Completion Program: As stated on the APD - the completion to be submitted by Sundry Notice.

Abnormal Pressures, Temperatures, H<sub>2</sub>S, Other Hazards

Normal Gradient and Temperature Expected. No H<sub>2</sub>S. Potential Hazards: Lost Circulation intervals due to folding and faulting, deviation.

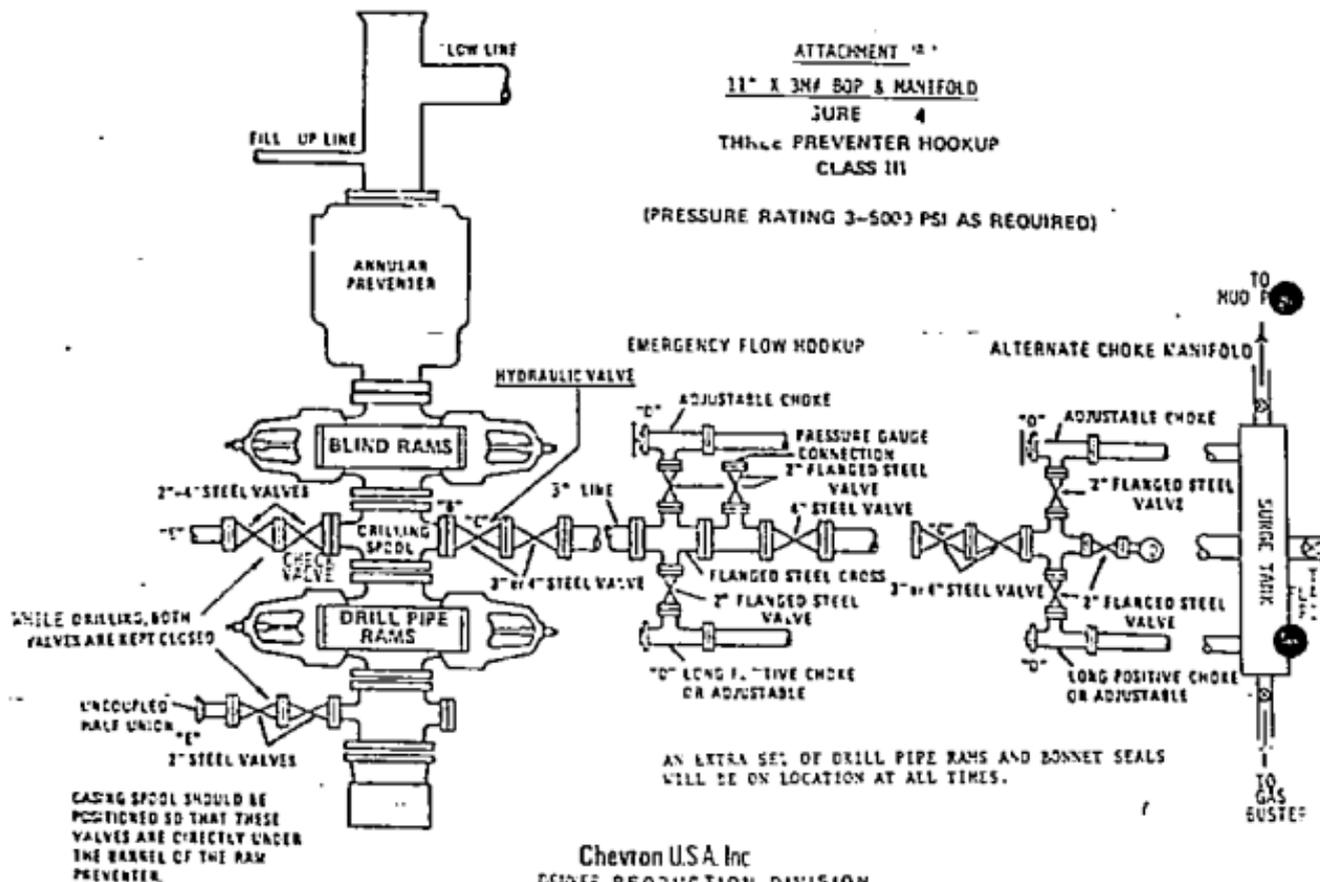
ATTACHMENT 10

11" X 3 3/4" BOP & MANIFOLD

JUNE 4

THREE PREVENTER HOOKUP  
CLASS III

(PRESSURE RATING 3-5000 PSI AS REQUIRED)



Chevron U.S.A. Inc  
OILFIELD PRODUCTION DIVISION

LE 81-7511  
Revision 4 (1962)

#### 4. CHOKE MANIFOLDS

##### A. GENERAL CHOKE MANIFOLD SPECIFICATIONS

The following general specifications apply to all classes of choke manifold.

1. All choke manifold components which may be exposed to well pressure must have a working pressure rating equal to or greater than that of the preventer stack in use.
2. Choke manifolds should be placed outside the rig substructure when possible.
3. Choke lines should be run in a straight line with a minimum of turns. All turns must be targeted in the direction of flow.
4. Choke lines should be securely staked or anchored to reduce vibrations while circulating.
5. Bore lines must not have restricted internal diameters and should vent well clear of the rig.
6. All valves must be of full-opening gate valve construction. Low torque ball valves should not be installed.
7. All gauges should be rated for drilling service.
8. New metal rings are to be used each time a flange is assembled. Flange grooves are to be well cleaned and dry. API RX or BX rings are required. Use of API R rings will not be permitted.

##### B. CLASS I CHOKE MANIFOLD

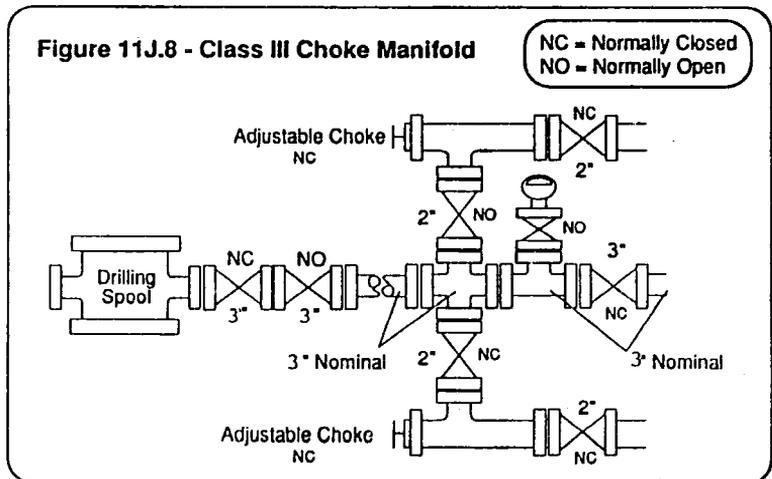
None required

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 VOLUME ELEVEN  
 WELL CONTROL AND BLOWOUT PREVENTION

**D. CLASS III CHOKE MANIFOLD**

The Class III choke manifold is suitable for Class III workovers and drilling operations. The Standard Class III choke manifold is shown in Figure 11J.8 below. Specific design features of the Class III manifold include:

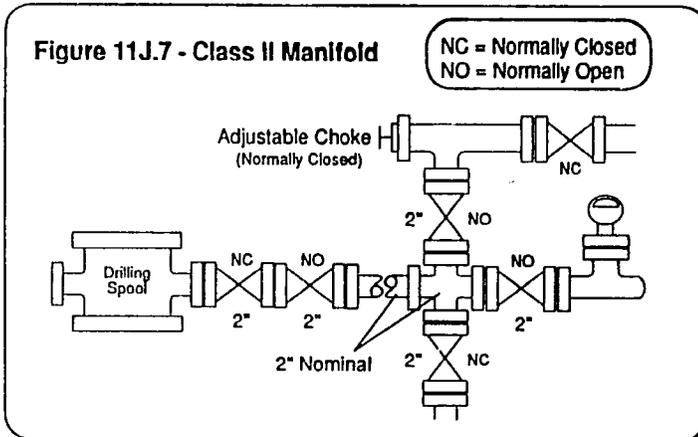
1. The manifold is attached to a drilling spool or the top ram preventer side outlet.
2. The minimum internal diameter is 3" (nominal) for outlets, flanges, valves and lines.
3. Includes two steel gate valves in the choke line at the drilling spool outlet. The inside choke line valve may be remotely controlled (HCR).
4. Includes two manually adjustable chokes which are installed on both side of the manifold cross. Steel isolation gate valves are installed between both chokes and the cross, and also downstream of both chokes.
5. Includes a bleed line which runs straight through the cross and is isolated by a steel gate valve.
6. Includes a valve isolated pressure gauge suitable for drilling service which can display the casing pressure within view of the choke operator.
7. Returns through the choke manifold must be divertible through a mud-gas separator and then be routed to either the shale shaker or the reserve pit through a buffer tank or manifold arrangement.
8. If the choke manifold is remote from the wellhead, a third master valve should be installed immediately upstream of the manifold cross.



**C. CLASS II CHOKE MANIFOLD**

The Class II choke manifold is suitable for all Class II workovers and drilling operations. The Class II choke manifold is shown below in Figure 11J.7. Specific design features of the Class II choke manifold include:

1. The manifold is attached to the tubing/casing head when a Class II-A preventer stack is use. This hook-up is only recommended for Class II workover operations.
2. The manifold is attached to a drilling spool or top ram preventer side outlets when a Class II-B preventer stack is in use.
3. The minimum internal diameter is 2" (nominal) for outlets, flanges, valves and lines.
4. Includes two steel gate valves in the choke line at the wellhead/drilling spool outlet. The inside choke line valve may be remotely controlled (HCR).
5. Includes one manually adjustable choke which is installed on the side of the manifold cross. Steel isolation gate valves are installed between the choke and the cross, and downstream of the choke.
6. Includes one bleed line installed on the side of the manifold cross which is isolated by a steel gate valve.
7. Includes a pressure gauge suitable for drilling service which can display the casing pressure within view of the choke operator.
8. Screwed connections may be used in lieu of flanges or clamps.



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6. Includes a valve isolated pressure gauge suitable for drilling service which can display the casing pressure within view of the choke operator.
7. Returns through the choke manifold must be divertible through a mud-gas separator and then be routed to either the shale shaker or the reserve pit through a buffer tank or manifold arrangement.
8. If the choke manifold is remote from the wellhead, a third master valve should be installed immediately upstream of the manifold cross.

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## 5. KILL LINES

### A. INTRODUCTION

The kill line is an emergency line used for high pressure pumping into a closed-in well when circulation down the drillpipe cannot be established. This situation most often occurs when there is no pipe in the hole at all or if the drillstring becomes plugged and bullheading is required.

The primary kill line is manifolded to the rig standpipe and is the first choice for pumping into the well. In addition, a remote kill line may be installed which branches off from the primary kill line and runs to the cementing unit (offshore installations) or to a safe location distant from the rig (land installations). Sometimes, an emergency kill line will be installed onto the wellhead, but these are not normally used unless the primary and remote kill lines become inoperative.

Chevron recommends two minimum kill line arrangements; the type "A" kill line and the type "B" kill line. The type "A" kill line is suitable for installation on Class II wells, and the type "B" kill line is designed for Class III, IV and V wells.

Kill lines are an integral piece of well control equipment and must be installed, inspected, tested and maintained in the same manner as other pieces of well control equipment.

### B. GENERAL KILL LINE SPECIFICATIONS

The following general specifications apply to all kill lines.

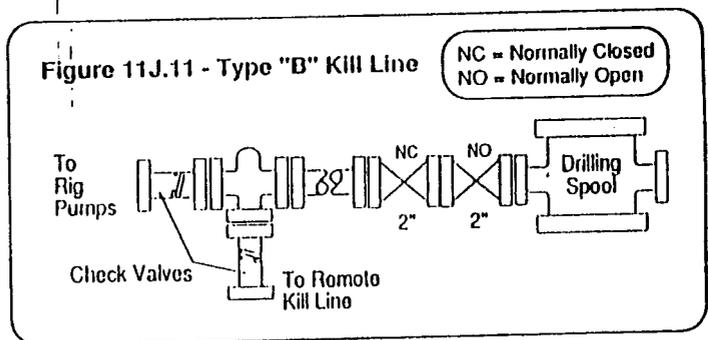
1. All kill line components which may be exposed to well pressure must have a working pressure rating equal to or greater than that of the preventer stack in use.
2. The minimum nominal internal diameter of all kill line components is 2" (includes lines, fitting, and valves).
3. Kill lines should be run in a straight line with a minimum of turns. All turns must be targeted in the direction of pumping into the well.
4. Kill lines should be securely anchored to reduce vibrations while circulating.
5. All kill line valves installed on drilling wells must be of full-opening gate valve construction.
6. All gauges should have the proper pressure rating and be designed for drilling service.

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D. TYPE "B" KILL LINE — CLASS III, IV, AND V WELLS

The type D kill line described below in Figure 11J.11 is the minimum recommended hookup for installation on all Class III, Class IV and Class V wells. Specific design features of the type B kill line include:

1. The preferred kill line connection to the well is at the drilling spool, however, a preventer side outlet may be used when space restrictions exclude the use of a drilling spool. In all cases, the kill line must be installed below the uppermost blind rams so the well can be pumped into with no pipe in the hole.
2. The arrangement includes two - 2" (nominal) gate valves installed at the drilling spool and an upstream fluid cross. The outside valve may be hydraulically remote controlled.
3. Two pump-in lines should be attached to the fluid cross. The primary kill line should be routed to the rig standpipe where it can be manifolded to the rig pumps. The remote kill line should be run to a safe location away from the rig or to the rig cementing unit. The remote kill line should have a loose end connection for rigging-up a high pressure pumping unit.
4. Both the primary kill line and the remote kill line must include a 2" check valve which is in working condition while drilling. If a check valve is crippled for testing purposes, the flapper or ball must be re-installed and tested before drilling resumes.
5. The primary kill line must include a pressure gauge which can display the pump-in pressure on the rig floor.
6. Any lines which are installed at the wellhead are designated as "emergency kill lines" and should only be used if the primary and remote kill lines are inoperable.



## E. Special Equipment

### 1. Rotating and Stripper Heads

These units provide a rotating sealing element, so that drilling operations can be continued while the well is pressured. Their pressure ratings are low (2,000-3,000 psi), but they serve a variety of purposes. They are made for sealing a particular pipe size, are self-energizing, and require no external pressure control. In the absence of an annular preventer, these allow protection while handling drill collars or if running casing with the well under pressure.

These units are frequently used on top of ram preventers with low-pressure hookups. However, the practical pressure limit is often considered to be closer to 1,000 psi, provided the rubber seal is in good condition. Strippers are not designed to be drilled through; however, the stripper body may be the lower unit of a rotating BOP (rotating head). These units have rotating seal elements that seal around the kelly joint or any large element except bits and reamers (stabilizers).

Rotating heads have many uses. Wells can be drilled in with oil, light mud, foam, or gas. When drilling is with oil, foam or gas, the units seal the top of the hole around the kelly, with fluids and cuttings diverted out through the "bleed line". Reverse circulation also requires the use of a rotating head. Because annular preventers are not suited to continued drilling, they are often placed below a rotating head in tight formation areas, to allow drilling to continue when circulating out trip gas or allowing some gas to be made while drilling. Most field people consider 500-700 psi as the maximum practical pressure without leakage. A truly high-pressure rotating preventer is not yet available.

Stripping can be accomplished until the cross-sectional areas and pressures overcome weight. Then the pipe must be snubbed.

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VOLUME ELEVEN  
WELL CONTROL AND BLOWOUT PREVENTION**

## **9. BOP CLOSING EQUIPMENT**

### **A. General Requirements**

The accumulator system and pumps must be of adequate capacity for the BOP stack in use. The system must hold pressure without leaks or excessive pumping and should maintain enough pressure capacity reserve to close the preventers with the recharging pumps turned off. These pumps are designed to charge the accumulator within a reasonable time period and maintain this charge during preventer operations.

Chevron's design base for surface accumulator capacity is governed by MMS regulation, Order 30 CFR Part 250.56 (d), which states that all blowout preventer systems shall be equipped with:

#### **Minerals Management Service Sizing Guidelines**

"A hydraulic actuating system that provides sufficient accumulator capacity to supply 1.5 times the volume necessary to close and hold closed all BOP equipment units with a minimum (remaining) pressure of 200 psi (1,400 kPa) above the precharge pressure without assistance from the charging system. An accumulator backup system which shall be automatic, supplied by a power source independent from the power source to the primary accumulator charging system, and possess sufficient capacity to close all blowout preventers and hold them closed.

The above stated MMS regulation is equivalent to sizing a 3000 psi accumulator with enough capacity to close the annular and all ram preventers one time, with the pumps out of service, while maintaining a minimum remaining operating pressure of 1500 psi. This equivalence is shown on the next page.

This demanding base using a 50% safety factor is recommended by Chevron because it provides complete replenishment of fluid in "close" lines at the time preventers are activated. The safety factor also allows for loss of fluid capacity due to "interflow" in the four-way valves and possible loss through the packing of the preventer units. A less demanding base is not recommended, but may be used with Class II stacks, provided prior management approval has been obtained. Requirements vary with the size of preventers and are principally controlled by the annular preventer requirements.

Opening/closing volume tables provide the necessary information to calculate individual requirements as to accumulator size needed. Hydraulically operated choke and kill line valves require added fluid capacity. It must be remembered that only one-half to two-thirds of the accumulator bottle is liquid filled when fully charged, depending on the unit.

GEOLOGIC PROGRAM

Field/Area Range Creek Unit II      Expl/Dev Development

Well Name Range Creek Unit 3-4

Location: Sec 4      TWP 18S      Range 16E  
 Co Emery      State Utah  
 Surface 500 FSL 1500 FWL  
 Bottom Hole Same

Elevation: GL estimated 5860'      Surveyed \_\_\_\_\_  
 KB estimated 5875'      Surveyed \_\_\_\_\_

Total Depth 5913'      Fm at TD Morrison

Objectives: Primary Basal Dakota  
 Secondary Upper Dakota      Buckhorn

Coring:	None	Formation	Estimated Depth	Amount
Interval/on show	_____	_____	_____	_____
Interval/on show	_____	_____	_____	_____
Interval/on show	_____	_____	_____	_____
Interval/on show	_____	_____	_____	_____
Interval/on show	_____	_____	_____	_____

Drill Stem Testing Air drill objective sands from 5305-5813; if mud drilling, DST may be required.

Mud Logging 2-man unit base surface casing to TD.

Electric logging:	Surface	Intermediate	Total Depth
1) DIL-SP	_____	_____	TD to surface csg
2) DIL-MSFL-SP	_____	_____	_____
3) BHC w/GR, Cal.	_____	_____	TD to surface csg
4) LDT-CNL w/GR, Cal.	_____	_____	TD to surface csg
5) FDC-CNL w/GR, Cal.	_____	_____	_____
6) Dipmeter (if time permits) <i>AKH</i>	_____	_____	TD to surface csg
7) Velocity survey	_____	_____	_____
8) RFT	_____	_____	_____
9)	_____	_____	_____
10)	_____	_____	_____
* 11) Sidewall Samples (if time permits)	_____	_____	(Dakota Section)

All runs from TD to either base of surface casing or overlap with previous log run unless otherwise noted.

**GEOLOGIC PROGRAM (Continued)**

Tops:	Estimated	Sample	Log
Formation	Depth, datum	Depth, datum	Depth, datum
Mesaverde	Surface (5860)		
Mancos	1855 (+4020)		
Upper Dakota	5305 (+570)		
Basal Dakota	5475 (+400)		
Cedar Mountain	5555 (+320)		
Buckhorn	5780 (+95)		
Morrison	5813 (+62)		
TD	5913 (-38)		

**Correlation Wells:**

		Correlative Zones with Subject Well		
		Fm	Interval	
1)	Gulf	Basal Dakota	6020-92	Primary objective zones to be cored.
	Range Creek #1			
	6-18S-16E	Upper Dakota	5850-80	
		Buckhorn	6322-56	Zone to be DST.
2)	Gulf	Basal Dakota	6006-6090	Primary objective zones to be cored.
	Norris #1			
	8-18S-16E	Upper Dakota	5835-65	
		Buckhorn	6314-46	Zone to be DST.

**DIVISION OF INTEREST:**

**Working Interest Partners:**

Chevron	100%	X	X	X
		X	X	X

**Others Receiving Data:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\* **REMARKS:** To hold this Fed. Unit, the BLM requires the total operation window (enter lease, O&C, drill, and complete) to be less than 60 days.

Prepared by Kathy Rockwell Date May 25, 1990  
 Reviewed by James J. Stamer Date 25 May 1990  
 Formation Evaluation Analyst  
 Approved G.L. Smedley Date 5/25/90

CHEVRON U.S.A. INC.  
RANGE CREEK UNIT II #3-4  
SEC. 4, T 18S, R 16E  
EMERY COUNTY UTAH

MULTIPOINT SURFACE USE PLAN

1. Existing Roads

A. See Exhibit A. We do not plan to change, alter or improve upon any existing state or county roads.

B. To reach the proposed location travel west 4 miles from Green River to Hwy. 6, north 33 miles to Horse Canyon Road, east 5 miles to the Horse Canyon Mine. From the mine, follow the BLM Turtle Canyon Road 20.2 miles to the Chevron lease road. Travel the lease road 6 miles to Norris Federal #1 location. The proposed access to the #3-4 begins at the edge of the Norris Federal #1 location as shown on Exhibit B.

2. Planned Access Roads

See Exhibit B.

A. Width: 18' with 14' travel surface

B. Maximum grade: 12%

C. Turnouts: Alternate A - 2  
Alternate B - 3

D. Drainage design: Roads to be placed and constructed so that minimal drainage alteration will be made. Water will be diverted around well pad as necessary.

E. Cuts and fills: side cuts; plan to use cut to fill low areas.

F. Surfacing materials: 4" gravel, may be able to use materials occurring in the area of operation.

G. No gates, cattleguards or fencecuts.

Estimated trips (daily) on BLM road following MIRU and RDMO is approximately five (5) by Contract and Company personnel.

3. Location of Existing and/or Proposed Facilities

A. See Exhibit A.

B. Installation of production facilities will be addressed at a later date if the well is a producer.

C. Disturbed areas no longer needed for operations will be graded back to as near original state as possible. Drainage channels will be returned to original state and the areas will be reseeded.

D. A blooie pit 15' x 20' x 10' deep will be constructed approximately 150' from the center hole. A line will be placed on the surface from the center hole to the burn pit. The pit will be fenced on four sides to protect livestock.

5. Location and Type of Water Supply

A. Water needed will be hauled (or pumped, if possible) by tank truck from Range Creek in the NW1/4 of Sec. 27, T 17S, R 16E. The distance is 7 miles from the Turtle Canyon - Chevron lease road intersection. A temporary water use permit for this operation will be obtained from the Utah State Engineer by Mr. Waldo Wilcox (801) 564-3287, owner of the water rights. Completion fluids and water, as needed, will be hauled on transport from the closest source.

6. Source of Construction Materials

A. All construction materials needed for this location will come commercially from the Price area. Access roads as shown on Exhibit A.

7. Methods for Handling Waste Disposal

A. Cuttings will be settled out in the reserve pit. The reserve pit will be lined if soil conditions require. The pit will be fenced with a 32" - 48" woven wire to protect wildlife and domestic animals.

B. Drilling fluids will be retained in reserve tanks utilizing maximum recirculation during drilling operations. Following drilling, the liquid waste will be evaporated or hauled to an approved disposal site and the pit will be backfilled and returned to natural grade.

C. In the event fluids are produced, any oil will be retained until sold in tankage and any water produced will be retained until its quality is determined. The quality and quantity of water produced will then determine the necessary disposal procedure.

D. Sewage will be disposed of in fiber glass insulated holding tanks, which will be placed in the vicinity of the trailers. The sewage will be hauled to the Wellington, Utah Sewage Lagoon (Waste Water Treatment Facility) by an approved contractor.

E. Trash will be contained in a portable metal container and hauled periodically to an approved landfill at Sunnyside, Utah in Carbon County.

F. After the rig has moved from the wellsite, all waste material will be removed to an approved disposal site.

8. Ancillary Facilities

A. Two trailers will be placed on the drilling location to house the tool pusher and drilling rig and will be placed approximately as shown on the attached diagram.

B. In order to increase safety for and reduce the environmental effects of vehicle traffic on the Turtle Canyon road, a mancamp is proposed to be placed on the Norris Federal #1 location. The camp will be used during both the construction and drilling phases of the project and will require an area of approximately 100' x 100'. See Exhibit E.

C. Traffic control stations will be placed at the road adjacent to the abandoned Geneva Coal Mine and another on the Norris Federal #1 location (approximate placement as shown in the attachments).

9. Wellsite Layout

A. Four to six inches of topsoil will be removed from the location and stockpiled. Location of mud tanks, reserve and burn pits, pipe racks, living facilities and soil stockpiles are shown on the attachments.

B. Burn pit will not be lined.

C. Access to the well pad will be as indicated on Exhibit C.

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. Any rock encountered in excavation will be disposed of beneath backfill to return surface to its present appearance and provide soil for seed growth.

B. The topsoil will be evenly distributed over the disturbed areas and reseeded.

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 existing conditions.

E. The well will be completed during 1990. Rehabilitation will commence following completion of the well. If the wellsite is to be abandoned, all disturbed areas will be recontoured to the natural contour as is possible.

11. Surface Ownership

A. The wellsite and access road will be constructed on BLM land. The operator shall contact the Bureau of Land Management in Price, Utah at (801 637-4584 between 24 and 48 hours prior to construction activities.

12. Other Information

A. The well is located on fairly level, rocky ground. The topsoil in the area is sandy shale. Vegetation is sparse due to the arid climate and includes scrub oak, sage brush and native grasses. Fauna includes deer, rabbits and other small rodents.

B. Surface use activities other than the oil well facilities consists of livestock grazing.

C. An archeological survey will be conducted on the wellsite and access road to determine whether any historic sites are present.

D. Deduster equipment will be utilized to control dust during the air drilling phase of the project.

13. Company Representative

Mr. D. F. Forsgren  
P.O. Box 599  
Denver, Colorado 80201  
(303) 930-3439

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

Date

June 28, 1990

*D. F. Forsgren*  
D. F. Forsgren  
Environment, Safety, Fire  
and Health Coordinator

## ATTACHMENTS

- Exhibit A - Access to proposed location
- Exhibit B - Proposed location and access road
- Exhibit C - Location layout, cut and fill
- Exhibit D - Facilities layout
- Exhibit E - Mancamp layout
- Exhibit F - Norris Fed. #1 traffic control site
- Exhibit G - Geneva Mine traffic control site

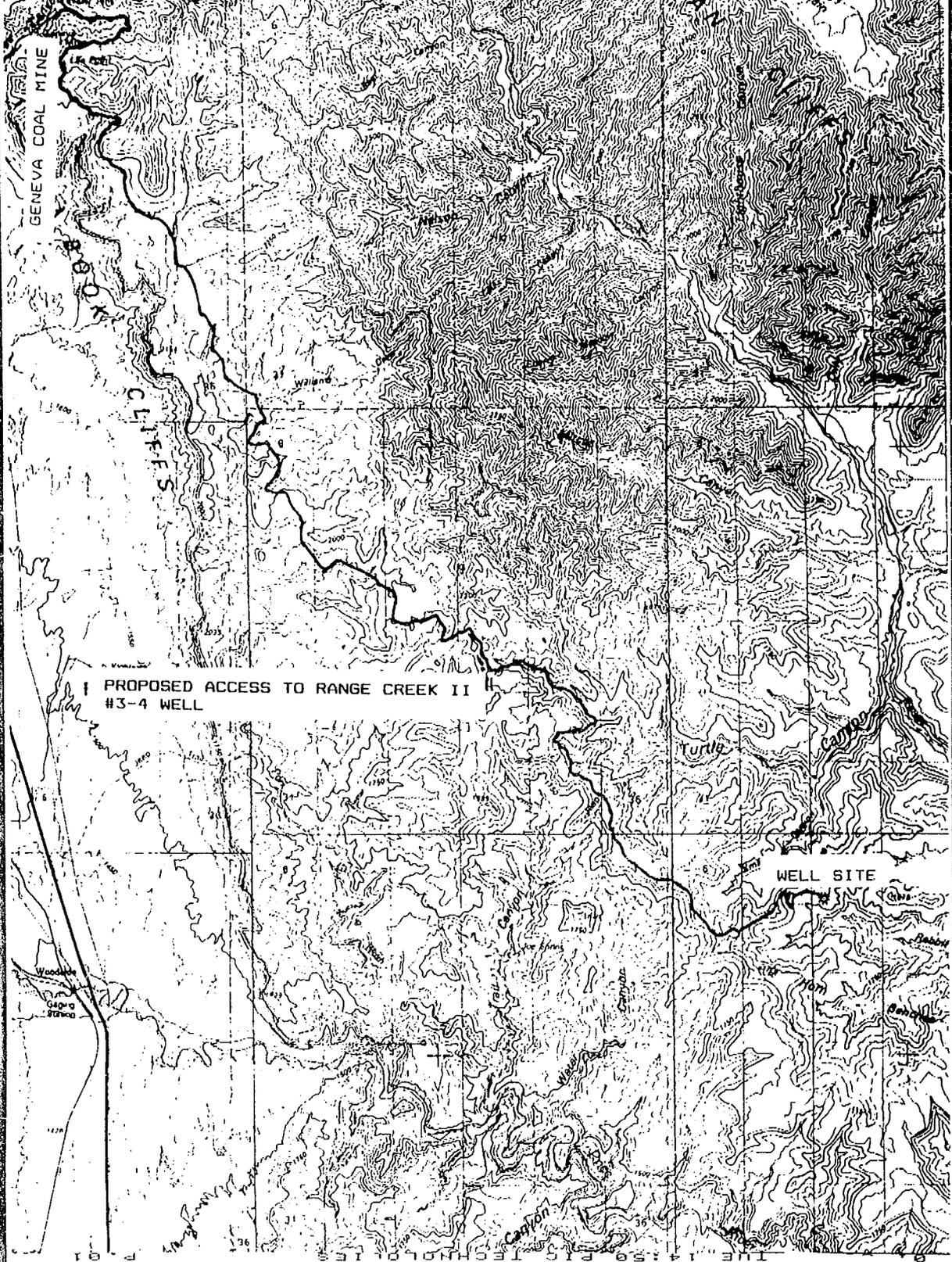


EXHIBIT A

Operator's Daily Certification  
 certify that the image copied here is a true copy of  
 the original per master certification.

*Lula M. Liday* Date

PHOTOGRAPHIC SCIENCES CORPORATION  
 770 BASKET ROAD  
 P O BOX 238  
 WEBSTER, NEW YORK 14580  
 7161 265 1600

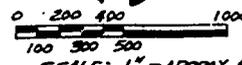
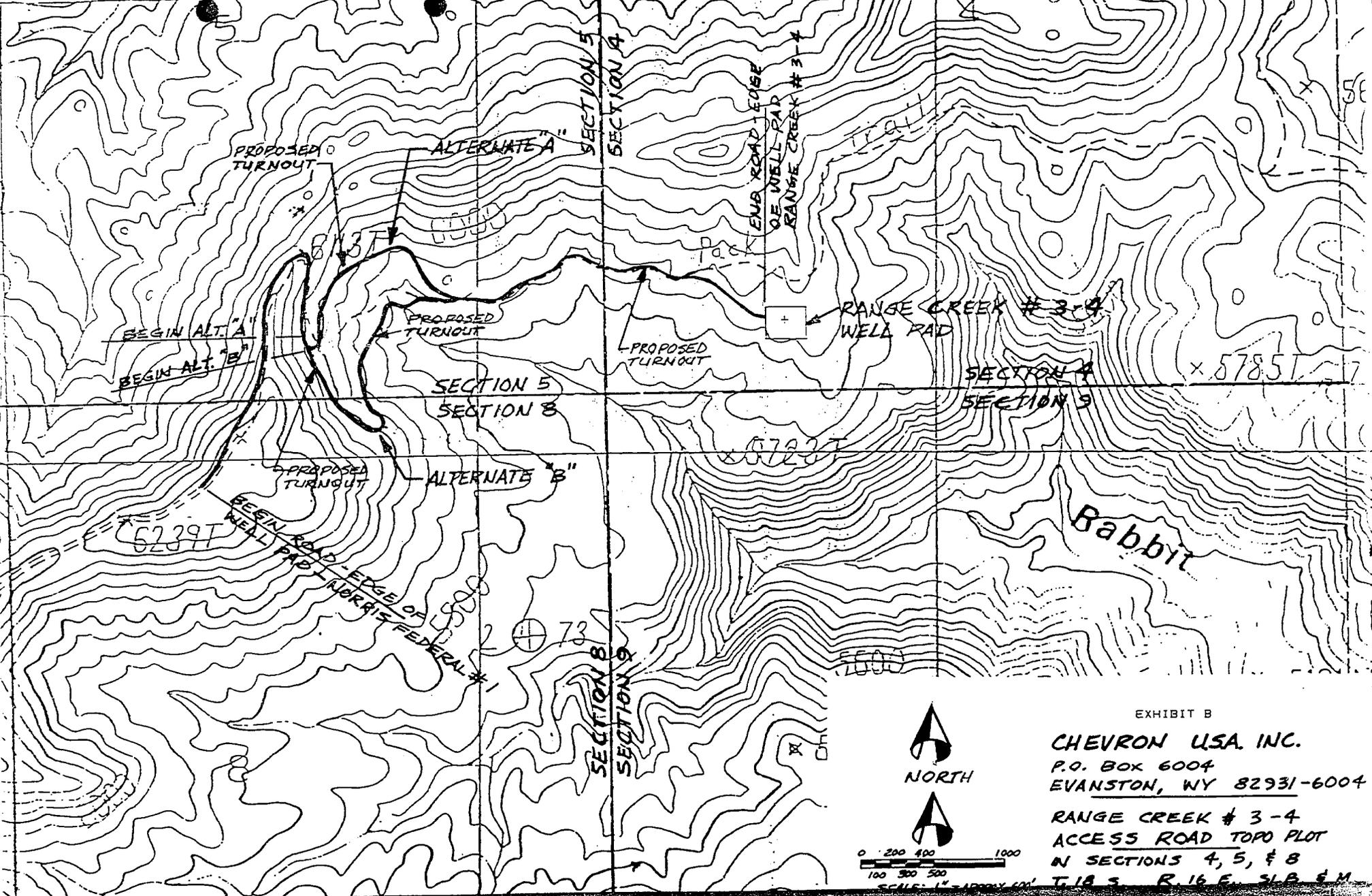
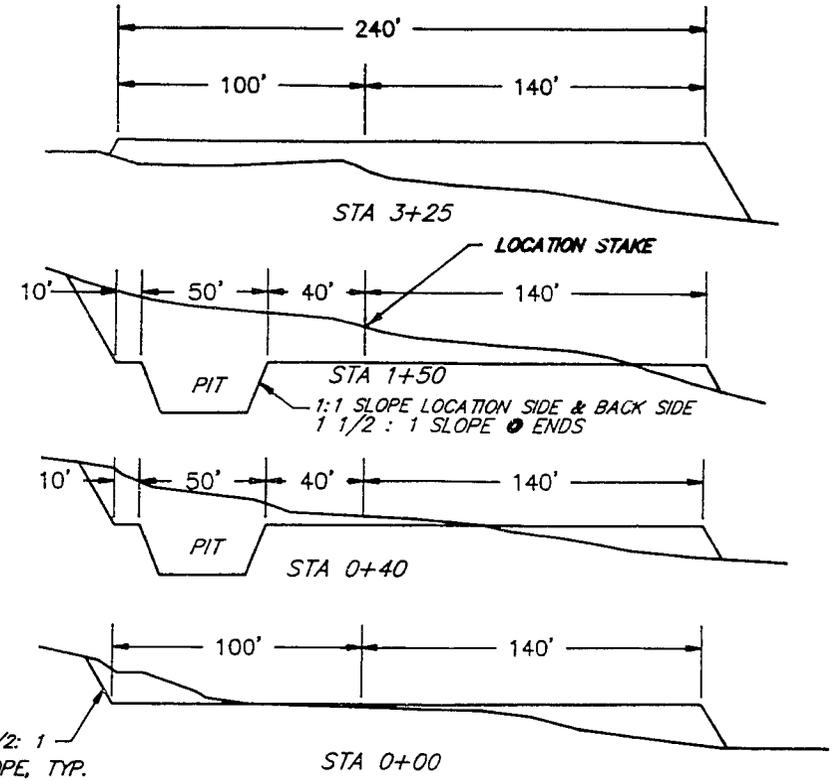
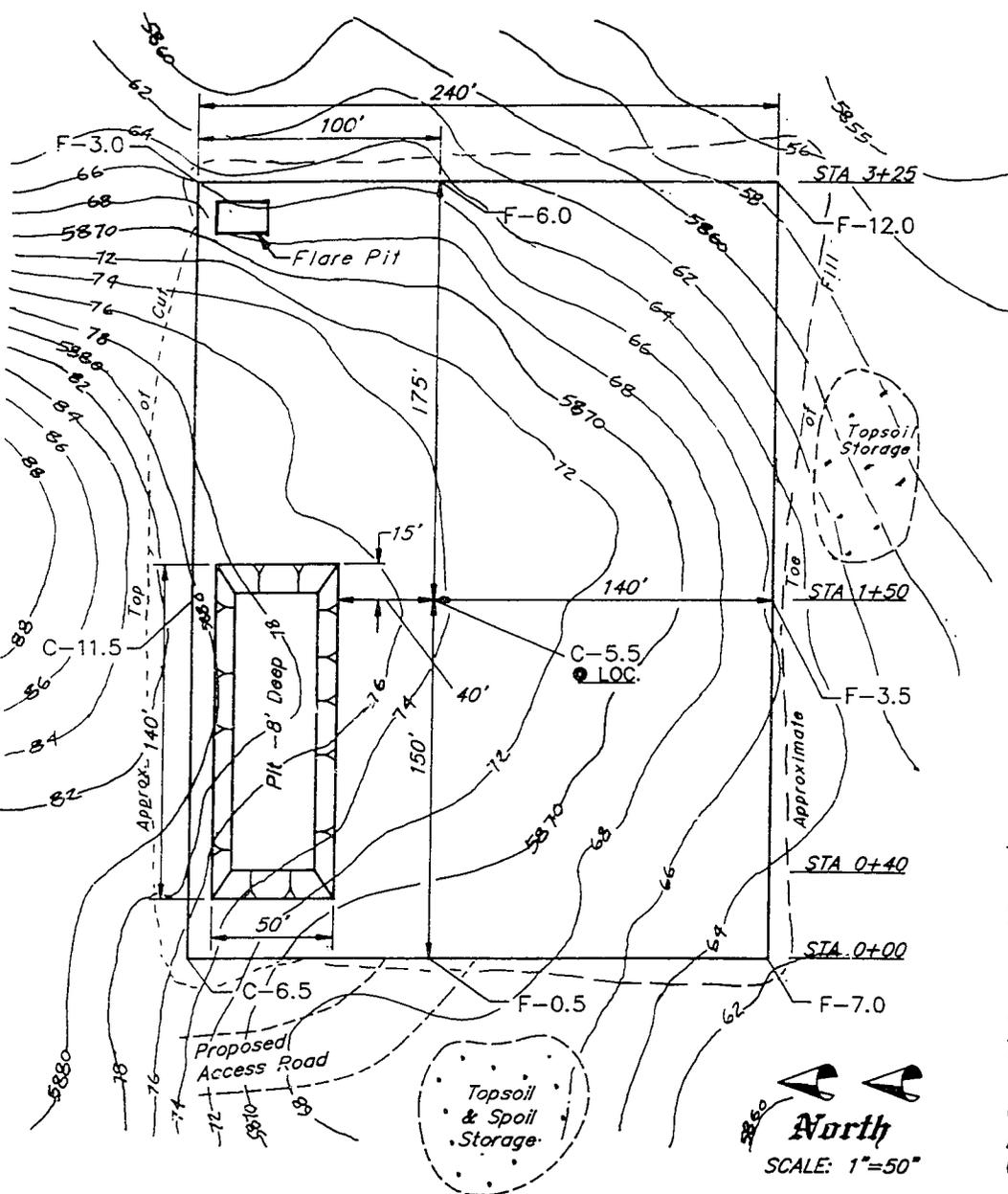


EXHIBIT B

**CHEVRON USA INC.**  
 P.O. Box 6004  
 EVANSTON, WY 82931-6004

**RANGE CREEK # 3-4**  
**ACCESS ROAD TOPO PLOT**  
**N SECTIONS 4, 5, & 8**  
**T.18 S. R.16 E. S.16 & M**



1 1/2 : 1  
SLOPE, TYP.

SCALE: HORIZ. 1"=50'  
VERT. 1"=20'  
DATE: JUNE 14, 1990

**APPROXIMATE YARDAGES**

CUT	
Topsoil Stripping	= 1444 cu yds
Pit Volume (Below Grade)	= 1621 cu yds
Remainder of Location	= 7454 cu yds
<b>TOTAL CUT</b>	<b>= 10519 cu yds</b>
<b>TOTAL FILL</b>	<b>= 7538 cu yds</b>

ELEV. OF UNGRADED GROUND  
AT LOCATION STAKE = 5874.5

ELEV. OF FINISHED GRADE AT  
LOCATION STAKE = 5869.0

**SPOIL + TOPSOIL STORAGE  
AFTER 5% COMPACTION  
OF FILL**

<b>TOPSOIL &amp; PIT BACKFILL</b>	<b>= 2255 cu yds</b> (1/2 Pit Volume)
<b>EXCESS UNBALANCE (After Rehabilitation)</b>	<b>= 349 cu yds</b>

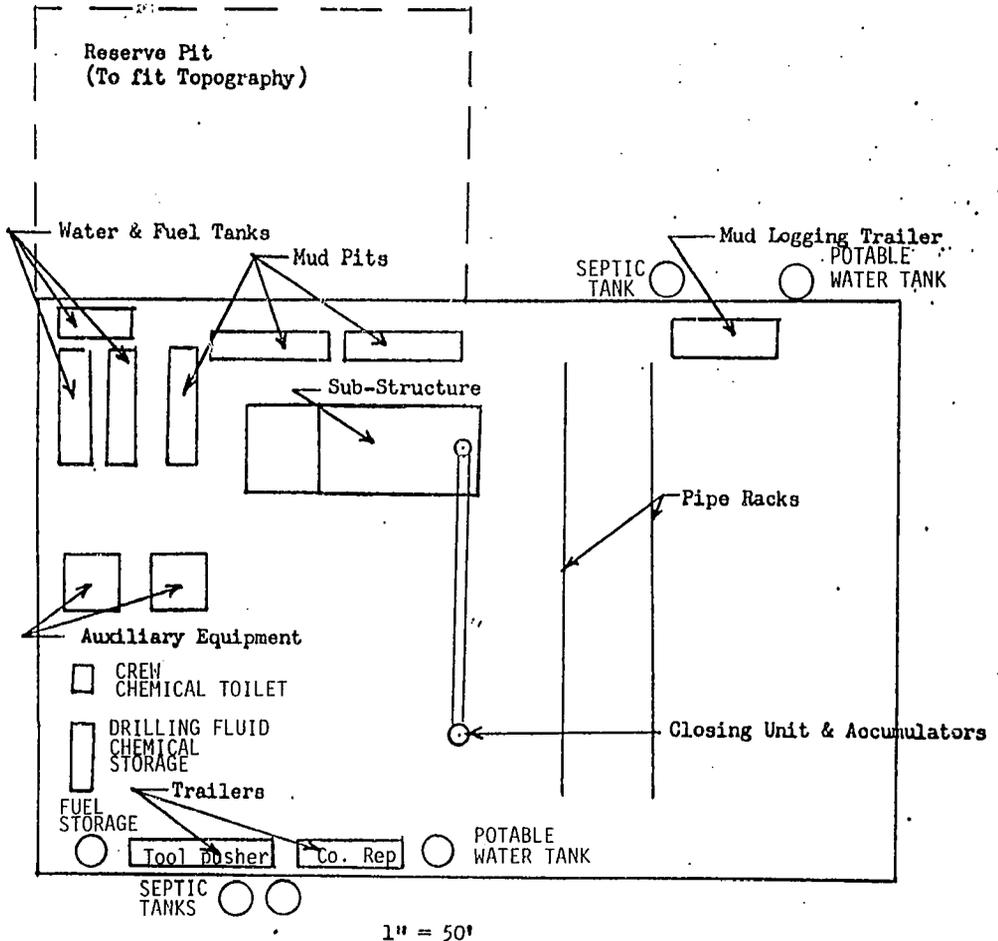


PREPARED BY: EXHIBIT C

**ART F. BARKER & ASSOCIATES**  
SURVEYING & ENGINEERING  
36 WEST MAIN STREET  
WELLINGTON, UTAH 84542  
(801) 637-2394

**CHEVRON U.S.A., INC**  
P.O. Box 6004  
Evanston, WY 82931-6004  
**LOCATION LAYOUT &  
CROSS SECTIONS** Inc.  
RANGE CREEK #3-4  
SECTION 4, T18S, R16E, SLB & M

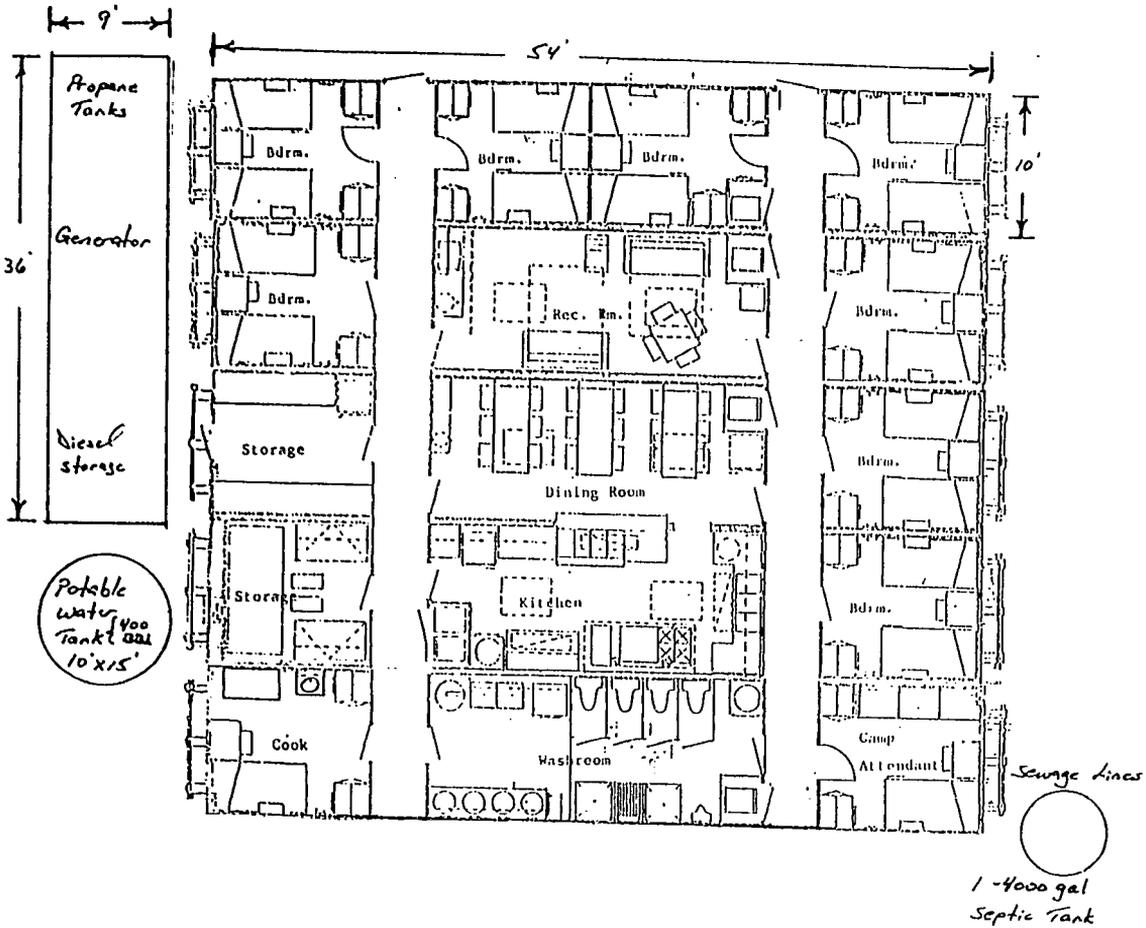
LOCATION LAYOUT\*  
 Proposed  
 Sanitary Waste Facilities  
 Range Creek Well #3-4



\*Sanitary waste facility placement is subject to refinement and slight realignment due to trailer and location configurations.

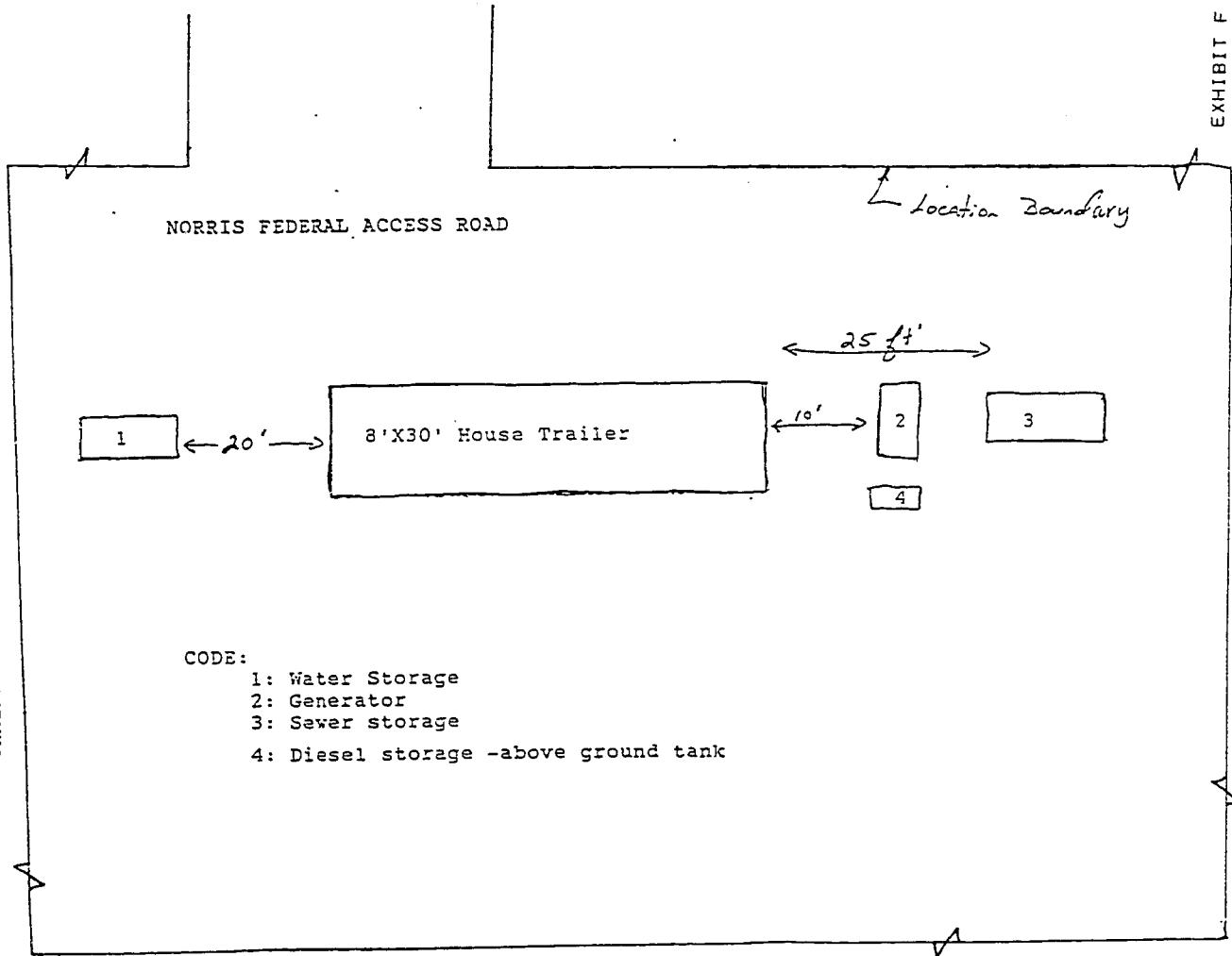
Range Creek #13-4

CAMP LAYOUT



INTER-MOUNTAIN SAFETY CO. INC.

NORRIS FEDERAL # 1 Location: 820' ENL, sec. 8, T18S, R16E, Emery Co., Utah  
 2200' ENL  
 TRAILER SETUP FOR TRAFFIC CONTROL

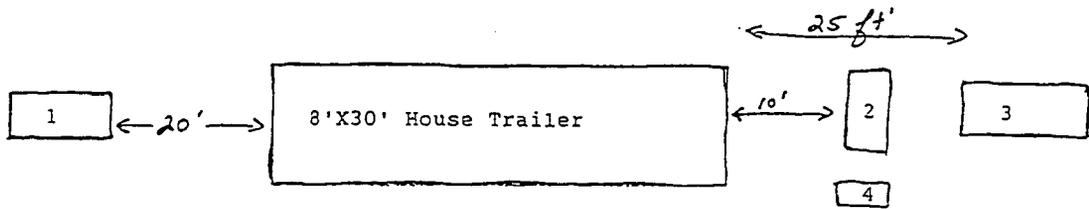


CODE:

- 1: Water Storage
- 2: Generator
- 3: Sewer storage
- 4: Diesel storage -above ground tank

Abandoned Geneva Coal Mine

ACCESS ROAD to Range Creek # 3-4



CODE:

- 1: Water Storage
- 2: Generator
- 3: Sewer storage
- 4: Diesel storage -above ground tank

INTER-MOUNTAIN SAFETY CO. INC.  
CHEVRON RANGE CREEK #3-4  
TRAILER SETUP FOR TRAFFIC CONTROL

Lowio-A

OPERATOR Circlon U.S.A. Inc DATE 7-10-90

WELL NAME Range Creek 3-4

SEC S15W4 T 18S R 10E COUNTY Emery

43-015-30039  
API NUMBER

Actual  
TYPE OF LEASE

CHECK OFF:

PLAT

BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

1. Adds no P.O.D per Russ Thompson 7-10-90  
Water Permit

APPROVAL LETTER:

SPACINGS:

R615-2-3

Range Creek II  
UNIT

R615-3-2

N/A  
CAUSE NO. & DATE

R615-3-3

STIPULATIONS:

1. Adds water permit



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

Norman H. Bangertter  
Governor  
Dee C. Hansen  
Executive Director  
Dianne K. Nielson, Ph.D.  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340

July 11, 1990

Chevron U.S.A. Inc.  
P. O. Box 599  
Denver, Colorado 80201

Gentlemen:

Re: Range Creek 3-4 - SW SW Sec. 4, T. 18S, R. 16E - Emery County, Utah  
510' FSL, 1300' FWL

Approval to drill the referenced well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule R615-2-3, Oil and Gas Conservation General Rules, subject to the following stipulation:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

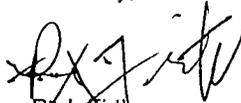
1. Spudding notification within 24 hours after drilling operations commence.
2. Submittal of an Entity Action Form within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
3. Submittal of the Report of Water Encountered During Drilling, Form 7.
4. Prompt notification if it is necessary to plug and abandon the well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or Jim Thompson, Lead Inspector, (Home) 298-9318.
5. Compliance with the requirements of Rule R615-3-20, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

Page 2  
Chevron U.S.A. Inc.  
Range Creek 3-4  
July 11, 1990

6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.
7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-015-30239.

Sincerely,



R. J. Firth  
Associate Director, Oil & Gas

tas  
Enclosures  
cc: Bureau of Land Management  
J. L. Thompson  
WE14/1-16

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-1135  
Expires September 30, 1990

3. Lease Designation and Serial No.  
**U-37806**

5. If Indian, Allottee or Tribe Name

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.

**SUBMIT IN TRIPLICATE**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
**Chevron U.S.A. Inc.**

3. Address and Telephone No.  
**P.O. Box 599, Denver, CO 80201 (303) 930-3691**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**510' FSL, 1300' FWL (SW $\frac{1}{4}$ , SW $\frac{1}{4}$ )  
Sec. 4, T18S, R16E (GL: 5874.5')**

7. If Unit or CA Agreement Designation

**Range Creek II**

8. Well Name and No.  
**Range Creek 3-4**

9. API Well No.  
**43-015-30239**

10. Field and Pool, or Exploration Area  
**Cedar Mountain/  
Dakota Buckhorn**

11. County or Parish, State  
**Emery, Utah**

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

- Notice of Intent  
 Subsequent Report  
 Final Abandonment Notice

- Abandonment  
 Recompletion  
 Plugging Back  
 Casing Repair  
 Altering Casing  
 Other **Renew APD**

- Change of Plans  
 New Construction  
 Non-Routine Fracturing  
 Water Shut-Off  
 Conversion to Injection

Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form 1

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Chevron requests an extension of the approval period from the Utah Division of Oil, Gas and Mining due to the fact that this action has been appealed to the IBLA and the leases are currently being held in suspension. The current approval expires 7/11/91.

RECEIVED

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

DATE: **6-24-91**  
BY: *[Signature]*

3-BLM  
3-State  
1-Dr1g  
1-EAM  
1-JLW

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

Signed *[Signature]*  
(This space for Federal or State office use)

Title **Technical Assistant**

Date **6/11/91**

Approved by \_\_\_\_\_  
Conditions of approval, if any:

Title \_\_\_\_\_

Date \_\_\_\_\_

INSPECTOR: ML            DATE ASSIGNED: 910515            DEADLINE: 910915  
                          DATE COMPLETE: 910906

OPERATOR : NO210 : CHEVRON USA INC            LEASE: U-37806  
WELL NAME: RANGE CREEK 3--4                 API : 43-015-30239  
S: 04 T: 18.0 S R: 16.0 E  
COUNTY: EMERY                                FIELD: 001 : WILDCAT

ACTION TYPE: FIELD\*CHECK\*

ACTION REQUIRED:

FIELD\*CHECK\*FOR\*CURRENT\*STATUS.\*\*\*\*\*  
\*\*\*\*\*  
ASSIGNED\*TO\*MDL-5-15-91.\*\*\*\*\*

ACTION TAKEN:

PER FIELD INSPECTION-NO EVIDENCE OF DRUG ON LOCATION.\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

PF KEYS: (1) NO UPDT    (9) WELL DATA    (12) DELETE    (16) EXIT

INSPECTOR: ML INSP DATE: 910806 COMMENTS :  
REVIEWED : NEXT INSP: 920806 ML REASON: 03 :

OPERATOR : NO210 : CHEVRON USA INC LEASE: U-37806  
WELL NAME: RANGE CREEK 3--4 API : 43-015-30239  
S: 04 T: 18.0 S R: 16.0 E CONTRACTOR : \*\*\*\*\*  
COUNTY : EMERY FIELD: 001 : WILDCAT

DRILLING/COMPLETION/WORKOVER:  
\* APD \* WELL SIGN \* HOUSEKEEPING \* ROPE  
\* SAFETY \* POLLTN CNTL \* SURFACE USE \* PITS  
\* OPERATIONS \* OTHER  
SHUT-IN \* / TA \* :  
\* WELL SIGN \* HOUSEKEEPING \* EQUIPMENT\* \* SAFETY  
\* OTHER  
ABANDONED:  
N MARKER N HOUSEKEEPING N REHABILITATION Y OTHER  
PRODUCTION:  
\* WELL SIGN \* HOUSEKEEPING \* EQUIPMENT\* \* FACILITIES  
\* METERING\* \* POLLTN CNTL \* PITS \* DISPOSAL  
\* SECURITY \* SAFETY \* OTHER  
GAS DISPOSITION:  
\* VENTED/FLARED \* SOLD \* LEASE USE (NOT PRINTED)

PF KEYS: (1) NO UPDT (9) WELL DATA (10) COMMENTS (12) DELETE (16) EXIT

OIL AND GAS INSPECTION COMMENTS PAGE 2

WELL NAME: RANGE CREEK 3--4 API: 43-015-30239  
INSPECTOR: ML DATE: 910806 REVIEWED: NEXT INSP: 920806

\*FACILITIES INSPECTED:  
LOC ONLY.\*\*\*\*\*  
\*\*\*\*\*

REMARKS:  
LOC ABD. WELL LISTED AS DRL, NO EVIDENCE OF DRL ON LOC.\*\*\*\*\*  
\*\*\*\*\*

ACTION:  
STATUS CHANGE\*\*\*\*\*  
\*\*\*\*\*

PF KEYS: (1) NO UPDATE (10) COMMENTS (12) DELETE DATA

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

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

2. NAME OF OPERATOR  
 Chevron U.S.A. Inc., Room 13097

3. ADDRESS OF OPERATOR  
 P.O. Box 599, Denver, CO 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface: 510' FSL & 1,300' FWL (SW/4 SW/4)  
 At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 9 miles east of Woodside, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest dept. unit line, if any)  
 1,300'

16. NO. OF ACRES IN LEASE  
 2,521

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 ± 10,000'

19. PROPOSED DEPTH  
 5,950'

20. ROTARY OR CABLE TOOLS  
 RT

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 GL: 5,874.5'      'B: est. 5,875'

22. APPROX. DATE WORK WILL START\*  
 September 1, 1990

5. LEASE DESIGNATION AND SERIAL NO.  
 U-37806 30276

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Range Creek II

8. FARM OR LEASE NAME  
 Range Creek

9. WELL NO.  
 #3-4

10. FIELD AND POOL, OR WILDCAT  
 Cedar Mountain-Dakota Buck-horn

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 4, T18S, R16E

12. COUNTY OR PARISH  
 Emery

13. STATE  
 Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
20"	16"	P. E.	80'	TD to Surface
12 1/4"	9 5/8"	36#	1,855'	TD to Surface
8 3/4"	5 1/2"	17#	5,950'	TD to Surface

RECEIVED

JUL 06 1992

DIVISION OF  
OIL GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED J. S. Watson TITLE Technical Assistant DATE 6/26/90  
 (This space for Federal or State office use)

PERMIT NO. 7/S/ WILLIAM C. STRINGER APPROVAL DATE 6/26/90  
Assistant District Manager  
 APPROVED BY \_\_\_\_\_ TITLE for Minerals DATE 6/26/90  
 CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

FLARING OR VENTING OF  
GAS IS SUBJECT TO NTL 4-A  
Dated 1/1/80

\*See Instructions On Reverse Side

*Chevron U.S.A. Inc.  
P.O. box 6004  
Evanston, WY 82931-6004*

*PREPARED BY: Barker & Associates  
50 West Main St.  
P.O. Box 43  
Wellington, Utah 84542*

*WELL LOCATION SURVEY:* *in the southwest quarter  
of Section 4, T 18 S, R 16 E, S.L.B. & M. Emery County,  
Utah.*

*NARRATIVE*

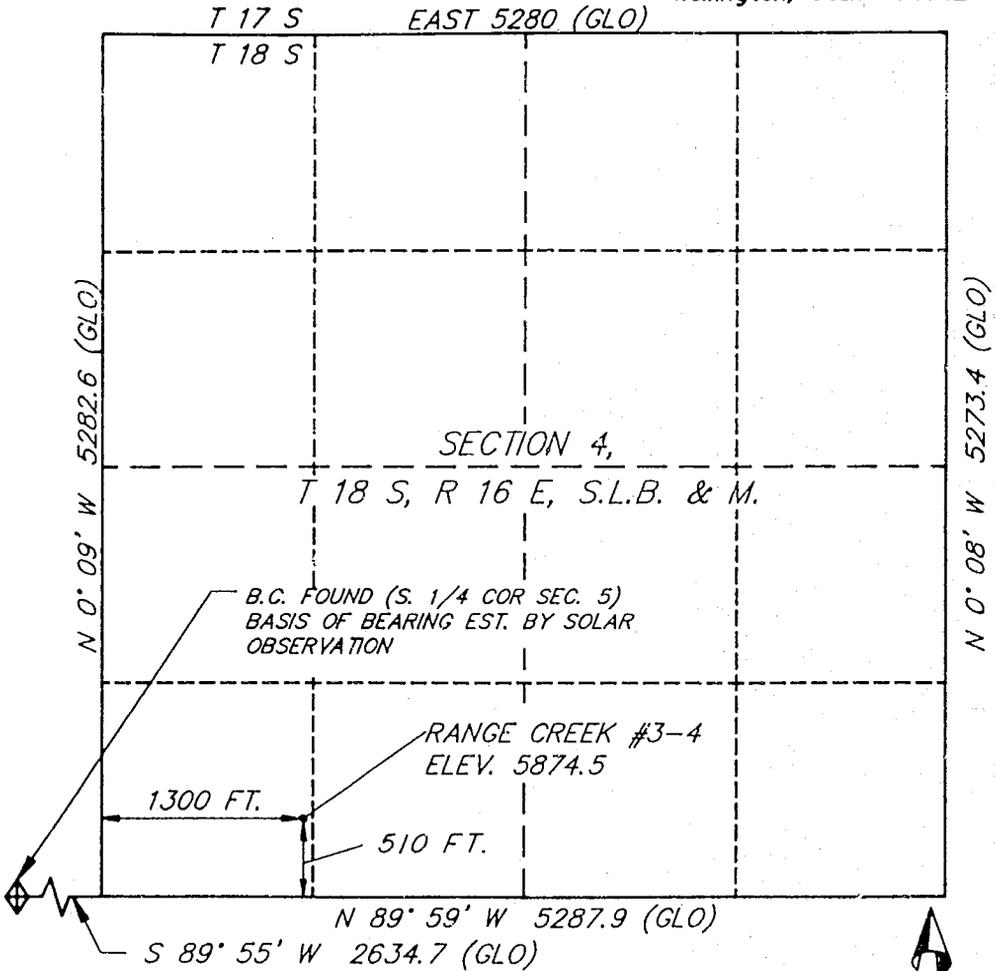
*The purpose of this survey is to establish the  
Well Location of Range Creek #3-4 and the associated  
well pad.*

*DESCRIPTION*

*Beginning at a point 140' South & 150' West  
of well location Range Creek #3-4 (said point being  
1300' from the west line & 510' from south line of  
Sec. 4, T 18 S, R 16 E, S.L.B.&M.) Thence North  
240' : Thence East 325' : Thence South 240' :  
Thence West 325' to the point of beginning.  
Contains 1.8 acres.*

Chevron U.S.A. Inc.  
P.O. Box 6004  
Evanston, WY 82931-6004

PREPARED BY: Barker & Associates  
50 West Main St.  
P.O. Box 43  
Wellington, Utah 84542



Location map for RANGE CREEK #3-4  
SECTION 4, T 18 S, R 16 E, S.L.B. & M.



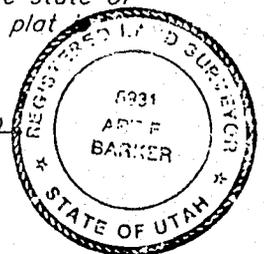
SCALE: 1" = 880'

SURVEYORS CERTIFICATE

I, Art F. Barker, a duly registered Land Surveyor in the state of Utah, do hereby certify that the survey represented by this plat correct to the best of my knowledge and belief.

By Art F. Barker  
Art F. Barker LS  
Utah Reg. No. 05981

Date 6/19/90



Chevron U.S.A., Inc.  
Well No. RCU 3-4  
Sec. 4, T. 18 S., R. 16 E.  
Emery County, Utah  
Lease U-30276

#### CONDITIONS OF APPROVAL

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.

Be advised that Chevron U.S.A., Inc. is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by ES0022 (Principle - Chevron U.S.A., Inc.) as provided for in 43 CFR 3104.3.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

#### A. DRILLING PROGRAM

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, Onshore Oil and Gas Order No. 2 and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to the field representative to insure compliance.

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 to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. 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 Moab District Manager.

## CONDITIONS OF APPROVAL

Application for Permit to Drill  
Chevron U.S.A. Inc.  
Range Creek #3-4  
T. 18 S., R. 16 E., Sec. 4 : SE 1/4 SW 1/4 SW 1/4  
Emery County, Utah

### I. Access Conditions

1. Existing roads will be upgraded only to allow for adequate drainage measures. No re-alignment is authorized. Any damage to these roads during the project will be repaired.
2. Prior to construction of the new access road, an on-site analysis will be conducted to flag the exact route and establish design criteria. The route will be located as identified under Chevron proposed action in the Environmental Analysis (EA).
3. Design criteria will be established to meet requirements of BLM's class III road system. The road will have a maximum travel surface of 18 feet. Total disturbed width will be limited to 25 feet. The only exception to this will be at two turnouts where the travel surface will be limited to 30 feet with a total disturbed width not to exceed 40 feet. Maximum slopes will be limited to 12%. Topsoil will be stockpiled in areas where it will not be subject to erosion.
4. The Price River Resource Area Manager will be notified at least 48 hours prior to any surface disturbing activities associated with access road and drill pad construction.
5. Traffic control stations will be established at the entrance to the Little Park road (Geneva Mine) and at the Morris Federal #1 well site, to coordinate traffic and assure safety is maintained.
6. Dust control on all portions of the route will be required during project construction and drilling of the well.
7. During periods of bad weather when activity could result in deep rutting of the roads (6 inches or more), or excessive disturbance of the right away, a stop work order may be verbally issued by the Area Manager with a follow-up written order. An authorization to resume work will be required.
8. If the well is plugged and abandoned, reclamation of the new access route will begin as soon as conditions warrant. Any foreign surfacing material will be removed, fills will be removed and the area recontoured to as near its original condition as possible. Stockpiled topsoil will be re-distributed over the road and the area re-vegetated with species identified in the EA. Scarification of all disturbed areas will be performed to loosen compacted soils and aid in root penetration, water infiltration and to reduce runoff. Waterbars will be installed on specific reclaimed and recontoured areas at appropriate locations to reduce slope lengths and to divert runoff

from revegetated areas. Boulders and other large rocks moved from the right-of-way during construction will be randomly scattered over the reclaimed areas to blend with surrounding conditions.

BLM may require mulching to aid in seedling germination and to reduce site-specific erosion. BLM will monitor reclamation and Chevron will be responsible for successful revegetation, maintenance and reseeding as directed by BLM.

## II. Well Pad Conditions

1. Pad layout will be in accordance with the design identified as Figure 3 in the EA.
2. Six to eight inches of topsoil on the entire pad site will be removed and stockpiled in a manner to minimize soil loss to water or wind erosion. Stockpiles will be rounded off and located so that soil is not contaminated or compacted. In the event the well is a producer, topsoil not needed for reclamation until final well abandonment will be stabilized and seeded with a BLM approved seed mixture.
3. The reserve pit will be lined with a 14 mil plastic liner to prevent possible contamination.
4. All run-off on the drill pad will be designed to drain into the reserve pit.
5. The pit will be fenced on three sides during drilling operations. Upon removal of the rig, the pit will be fenced on the fourth side until reclamation operations begin. Flagging across the top of the pit may be required for protection of wildlife, and will be determined by BLM as conditions warrant.
6. A blooie pit will be constructed on pad, 150 feet from the well. It will be fenced on four sides. It will not be lined.
7. Drilling fluids will be retained in reserve tanks utilizing maximum recirculation during drilling operations. Following drilling, the liquid waste will be evaporated or hauled to an approved disposal site.
8. In the event fluids are produced, any oil will be retained until sold in tankage. Any produced water will be retained until its quality is determined. The quality and quantity of the water will then determine the necessary disposal procedure.
9. Upon completion of drilling operations, the reserve pit will be allowed to dry. If BLM determines natural evaporation would be hindered by pit fluids or would take an unreasonable amount of time, it will be necessary to pump the pit and haul the fluids to an approved site for disposal.

10. Residues and contaminated earth in the pit will then be covered by the edges of the liner and the liner buried in place. If inspection reveals that the liner has been breached, the liner may have to be removed and the residues and contaminated earth hauled to an approved waste site.
11. Sewage will be disposed of in fiber glass insulated holding tanks, which will be placed in the vicinity of the trailers on location. The sewage will be regularly pumped and hauled to the Wellington, Utah sewage lagoon (waste water treatment center) by an approved contractor.
12. Trash will be contained in a portable metal container and hauled periodically to an approved landfill at Sunnyside, Utah. No burning will be allowed on location.
13. Reclamation of the well pad will commence as soon as feasible as determined by BLM. All areas will be backfilled and returned to their original contour. Stockpiled topsoil will be re-distributed evenly over the location. Scarification of all disturbed areas will be performed to loosen compacted soils and aid in root penetration, water infiltration and to reduce run off. The area will then be re-seeded with a seed mixture identified by UDWR in the EA. Depending on reclamation success or failure, BLM may require mulching of the site to aid seedling germination. It may also be necessary to fence the entire site to protect it from wildlife during critical stages of revegetation.
14. In the event the well is a producer, BLM will conduct an on-site analysis to determine where production facilities are to be located and what portions of the drill pad can be reclaimed. Those portions to be reclaimed and revegetated will be subject to conditions noted in 13 above. Production equipment and facilities would be painted in a single, low gloss, pastel color to blend with surrounding conditions. This color will be specified by BLM.

### III. Wildlife Resource Conditions

1. Construction of the access road will not be allowed to commence prior to June 15, 1992 in order to protect critical wildlife habitat.
2. If surface disturbing activities start prior to July 1, 1992, a raptor survey will be required prior to commencement of these activities. The survey will include all cliff habitat within a 2-mile radius of the well and new access road. In the event active nest sites are found, appropriate buffer zones will be established by the BLM in coordination with the U.S. Fish and Wildlife Service (USFWS). If no active nests are discovered or if buffer zones for identified nests do not overlap with proposed surface disturbance areas, the seasonal restriction for raptors will be waived.

The raptor survey will consist of a helicopter inventory of all cliff habitat within a 2-mile radius of the project area. The survey will be conducted by a qualified wildlife biologist experienced in raptor survey work for the target species (peregrine falcons and golden eagles).

3. Chevron will comply with any conditions or recommendations developed through the Endangered Species Act Section 7 consultation presently being conducted for the Colorado Squaw Fish.

#### IV. Water Resource Conditions

1. Water for drilling and dust control will be obtained from private water rights in Range Creek. In the event water requirements exceed a level where stream flow below the takeout point is stopped, an alternative water source from a privately owned well in Range Creek will be utilized.
2. Casing and cementing will follow plans submitted in the drilling program. All fresh water zones encountered will be cased and cemented to prevent migration and/or contamination.

#### V. General Conditions and Requirements

1. A camp for drilling personnel will be established at the Norris Federal #1 abandoned well site. No surface disturbing activity will be permitted. Sewage and trash will be contained and disposed of in the same manner as identified for the well pad. All trash and debris will be removed upon completion of the drilling operation unless otherwise approved by the Area Manager.
2. If a replacement rig is needed for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed for prior approval from the Moab District Office, and all conditions of this approved plan are applicable during all operations conducted by the completion rig. In an emergency situation, verbal approval to bring on the completion rig may be obtained from the District Office.
3. Approval to vent/flare gas during any initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require further District Office approval pursuant to guidelines in NTL-4A.
4. If a decision is made to plug and abandon the well, prior approval must be obtained from the District Office. Within 30 days of abandonment, a "Subsequent Report of Abandonment" Sundry Notice will be filed with the District Office detailing abandonment operations.

5. Upon completion of approved plugging, a regulation dry hole marker will be erected in accordance with 43 CFR 3162.6. The following minimum information will be permanently placed on the marker with a plate, cap, or beaded-on with a welding torch.

Operator  
Well Number  
Location by 1/41/4, Section, Township and Range  
Lease Number  
Date

6. There will be no deviation from the proposed drilling or plugging plan without prior approval from the District Office. A Sundry Notice will be filed for all such requests for deviation.
7. All pertinent contractors will be provided with an approved copy of all components of the approved APD. Chevron will be responsible for the conduct of all contractors.
8. This permit will be valid for a period of one year from the date of approval.
9. Notifications:

Notify Mike Kaminski of the Price River Resource Area at office phone (801) 637-4584 or home phone (801) 637-2518 for the following.

2 days prior to commencement of project construction  
1 day prior to spudding

1 day prior to running and cementing surface casing  
1 day prior to pressure testing of surface casing

For spills, fires, leaks or any other unusual occurrence.

For any changes or deviations required in the approved Surface Use Plan, prior to conducting such work.

Notify one of the following individuals in the District Office if any change is required in the approved Drilling Plan, or if it is decided to plug and abandon the well. Office phone: (801) 259-6111

Dale Manchester  
Eric Jones  
Lynn Jackson

home phone (801) 259-6239  
home phone (801) 259-2214  
home phone (801) 259-7990

C. Anticipated Starting Dates and Notifications of Operations:

Required verbal notifications are summarized in Table 1, attached. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within twenty-four (24) hours after spudding. If the spudding occurs on a weekend or holiday, the written report will be submitted on the following regular work day.

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

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

If a replacement rig is needed for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed for prior approval from the District Office, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations, verbal approval to bring on a replacement rig will be approved through the District Office.

A first production conference will be scheduled within fifteen (15) days after receipt of the first production report. The Resource Area Office will coordinate the field conference.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the Assistant District Manager, Minerals Division 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 Area Manager or his representative, or the appropriate surface managing agency.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6.

The following minimum information will be permanently placed on the marker with a plate, cap, or beaded-on with a welding torch:

"Fed" or "Ind", as applicable. "Well number, location by 1/4 1/4 section, township and range". "Lease number".

D. SURFACE USE PLAN

1. There will be no deviation from the proposed drilling and/or workover program without prior approval from the Assistant District Manager for Minerals. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned and/or separate facilities, will be identified in accordance with 43 CFR 3162.6.
2. "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 3162.6.
3. The dirt contractor will be provided with an approved copy of the surface use plan.
4. A cultural resource clearance (will/will not ) be required before any construction begins. If any cultural resources are found during construction, all work will stop and the Area Manager will be notified.
5. This permit will be valid for a period of one (1) year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

NOTIFICATIONS

Notify Mike Kaminski of the Price River Resource Area, at  
 (801) 637-4584 for the following:

- 2 days prior to commencement of dirt work, construction or reclamation;
- 1 day prior to spudding;
- 1 day prior to running and cementing surface casing;
- 1 day prior to pressure testing of surface casing.

Notify the Moab District Office, Branch of Fluid Minerals at (801) 259-6111 for the following:

No well abandonment operations will be commenced without the prior approval of the Assistant District Manager, Minerals Division. In the case of newly drilled dry holes, and in emergency situations, verbal approval can be obtained by calling the following individuals, in the order listed.

Dale Manchester, Petroleum Engineer	Office Phone: (801) 259-6111 Home Phone: (801) 259-6239
Eric Jones, Petroleum Engineer	Office Phone: (801) 259-6111 Home Phone: (801) 259-2214

If unable to reach the above individuals including weekends, holidays, or after hours please call the following:

Lynn Jackson, Chief, Branch of Fluid Minerals	Office Phone: (801) 259-6111 Home Phone: (801) 259-7990
--	--

24 HOURS ADVANCE NOTICE IS REQUIRED FOR ALL ABANDONMENTS

Moab District  
P. O. Box 970  
Moab, Utah 84532

3162  
(U-30276)  
(UT-065)

Chevron U.S.A., Inc.  
P. O. Box 599  
Denver, Colorado 80201

NOV - 9 1993

Re: Rescinding Application for Permit to Drill  
Well No. Range Creek 3-4  
SWSW Sec. 4, T. 18 S., R. 16 E.  
Emery County, Utah  
Lease U-30276

47-015-30239

**RECEIVED**

NOV 12 1993

**DIVISION OF  
OIL, GAS & MINING**

Gentlemen:

The Application for Permit to Drill the referenced well was approved on July 2, 1992.

Applications for permit to drill are effective for a period of one year. In view of the foregoing, this office is rescinding the approval of the referenced application.

Should you intend to drill at this location at a future date, a new application for permit to drill must be submitted.

If you have any questions, please contact Verlene Butts, Branch of Fluid Minerals at (801) 259-6111.

Sincerely,

**/s/ WILLIAM C. STRINGER**

Associate District Manager

Enclosure  
Application for Permit to Drill

cc: UT-066, Price River Resource Area (wo/Enclosure)  
State of Utah  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203 (wo/Enclosure) ✓

VButts:vb:11/8/93



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

Michael O. Learvill  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

355 West North Temple  
3 Third Center, Suite 350  
Salt Lake City, Utah 84100-1203  
801-538-5340  
801-559-3940 (Fax)  
801-538-5319 (TDD)

November 18, 1993

Chevron U.S.A. Inc.  
P.O. Box 599  
Denver, Colorado 80201

Re: Application for Permit to Drill  
Well No. Range Creek 3-4  
SW SW, Sec. 4, T. 18 S., R. 16 E.  
Emery County, Utah  
API No. 43-015-30239

Gentlemen:

The Bureau of Land Management, Moab District rescinded its approval of the referenced application on November 9, 1993. In conformance with this action, the Division rescinds its approval of the referenced application issued on July 11, 1990.

If you have any questions, please contact Mike Hebertson at (801)538-5340.

Sincerely,

Frank R. Matthews  
Petroleum Engineer

ldc  
cc: R.J. Firth  
Bureau of Land Management - Moab District  
Well file

WO1196

