

FILE NOTATIONS

Entered in NID File

Entered On S R Sheet \_\_\_\_\_

Location Map Pinned

Card Indexed

JWR for State or Fee Land \_\_\_\_\_

Checked by Chief \_\_\_\_\_

Copy NID to Field Office

Approval Letter

Disapproval Letter \_\_\_\_\_

COMPLETION DATA:

Date Well Completed \_\_\_\_\_

OW \_\_\_\_\_ WW \_\_\_\_\_ TA \_\_\_\_\_

GW \_\_\_\_\_ OS \_\_\_\_\_ PA \_\_\_\_\_

Location Inspected \_\_\_\_\_

Bond released \_\_\_\_\_

State of Fee Land \_\_\_\_\_

LOGS FILED

Driller's Log

Electric Logs (No. ) NLR

E \_\_\_\_\_ I \_\_\_\_\_ E-I \_\_\_\_\_ GR \_\_\_\_\_ GR-N \_\_\_\_\_ Micro \_\_\_\_\_

Lat \_\_\_\_\_ Mi-L \_\_\_\_\_ Sonic \_\_\_\_\_ Others \_\_\_\_\_

41 S 12 W 14

43-053-30028

STATE OF UTAH  
DIVISION OF OIL, GAS, AND MINING

\*\* FILE NOTATIONS \*\*

Date: May 10-

Operator: Zion Crude Oil

**CONFIDENTIAL**

Well No: 2415 #

Location: Sec. 14 T. 41S

*Needed:  
1- Status*

File Prepared

Card Indexed

*2 How to contact  
whoever is currently  
responsible.*

*[Handwritten marks]*

CHECKED BY:

*[Signature]*  
9-18-85

Administrative Assistar

Remarks:

Petroleum Engineer

Remarks:

Director

Remark

*This well has a P+A*

*10/10*

INCLUDE WITHIN APF

*marker in place w/  
company name + well name.*

Bond Requi

Order No.

Rule C-3(c)

O.K. Rule

Other:

*- D.S.*

Letter Written/Approved

STATE OF UTAH  
DIVISION OF OIL, GAS, AND MINING

\*\* FILE NOTATIONS \*\*

Date: May 10-  
Operator: Zion Crude Oil  
Well No: Quis #1  
Location: Sec. 14 T. 41S R. 12W County: Washington

**CONFIDENTIAL**

File Prepared  API No.   
Entered on N.I.D.   
Card Indexed  Completion Sheet

CHECKED BY:

Administrative Assistant [Signature]

Remarks:

Petroleum Engineer [Signature]

Remarks:

Director 7

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required  Survey Plat Required

Order No.  Surface Casing Change   
to \_\_\_\_\_

Rule C-3(c), Topographic exception/company owns or controls acreage  
within a 660' radius of proposed site

O.K. Rule C-3  O.K. In \_\_\_\_\_ Unit

Other:

Letter Written/Approved

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

(Reverse side)

**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  
 Zion Crude Oil Company

3. ADDRESS OF OPERATOR  
 POB 370, Hurricane, Utah 84743

4. LOCATION OF WELL (Report location clearly and in accordance with State requirements)  
 At surface 3' FSL & 1242' FWL SEC 14, T41S, R12W, SLM  
 At proposed prod. zone Ref. point Mohawk Regro. #6 1958  
 same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approx. 1 mile NE of Virgin, Utah

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 3612' GR

16. NO. OF ACRES IN LEASE  
 360

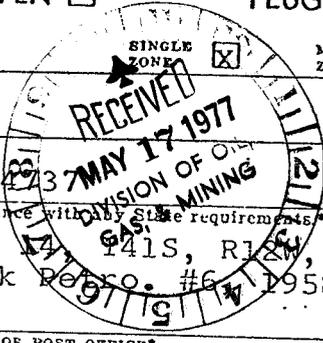
17. NO. OF ACRES ASSIGNED TO THIS WELL  
 -----

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 2000'

19. PROPOSED DEPTH  
 2000'

20. ROTARY OR CABLE TOOLS  
 rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 3612' GR



5. LEASE DESIGNATION AND SERIAL NO.  
 U-27359

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.  
 GUS #1

10. FIELD AND POOL, OR WILDCAT  
 Virgin

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA  
 SEC 14, T41S, R12W, SLM

12. COUNTY OR PARISH  
 Washington

13. STATE  
 Utah

22. APPROX. DATE WORK WILL START\*  
 within 90 days of approval date.

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8" surface	7" oD	approx. 11.5#/ft.	40' to 80'	cemented to surface of ground

Explanation of well GUS #1:

A) This well location is in the immediate area of Mohawk Petroleum well #6 (1958); a copy of the APD for deepening #6 (June, 1976) is included. No additional surface disturbance will be required.

B) Following the instructions of John Dennis, USGS, SLC, we have spent additional time in tidying the drilling location; equipment on the location has been consolidated. The location was previously the refuse dump for the city of Virgin, Utah; All trash in the immediate area of our location has been collected and buried.

C) Additional information required by NTL-6 and supplement: Six EXHIBITS, A thru F, have been included. In addition, a stipulation and a copy of the APD for GUS #2 is included.

D) We understand that the information included in this APD and associated APD's on #6 will be kept confidential if requested. We request this. Thank you.

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.

APPROVAL DATE - DOM - Utah

SIGNED Martin Kutzung TITLE Vice-President DATE 4-27-77

(This space for Federal or State office use)

PERMIT NO. 43-053-30028 APPROVAL DATE \_\_\_\_\_

APPROVED BY (ORIG. SGD.) E. W. GUYNN TITLE DISTRICT ENGINEER DATE MAY 16 1977

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

47  
E-11-11/8000

Depths of fresh-water zones:

E. G. Stubbs, Virgin No. 1

620' fsl, 578' fwl, lot 7, T. 41 S., R. 11 W., SLBM, Washington Co. Utah

Elev. 3,800 ft GL, test to 2,500 ft

<u>Stratigraphic unit</u>	<u>Tops, approx.</u>	<u>Quality of water</u>
Moenkopi Fm	surface	useable/saline
Kaibab Ls	1,160 ft	useable (?)
Toroweap Fm	1,500	useable (?)
Coconino Ss	1,900	useable (?) / saline
Pennsylvanian	2,000	saline/brine

Water wells in the vicinity of the proposed test do not exceed 400 ft in depth. The chemical quality of water from the Kaibab Ls and Toroweap Fm is not known, but may be useable. Aquifers of Pennsylvanian age probably contain saline water or brine.

USGS - WRD  
2-17-71

SUMMARY OF ENVIRONMENTAL IMPACT EVALUATION

EIA # 488

ATTACHMENT 2-A

ZION CRUDE OIL  
LEASE # U-27359  
GUS # 1  
SEC. 14 T4S R12W  
WASHINGTON, County UT  
BLM SUE CEDARLEAF  
USGS T DENNIS  
REP. MARTIN KUETZING

	Construction			Pollution			Drilling Production			Transport Operations			Accidents		Other			
	Roads, bridges, airports	Transmission lines, pipelines	Dams & impoundments	Others (pump stations, compressor stations, etc.)	Burning, noise, junk disposal	Liquid effluent discharge	Subsurface disposal	Others (toxic gases, noxious gas, etc.)	Well drilling	Fluid removal (Prod. wells, facilities)	Secondary Recovery	Noise or obstruction of scenic views	Mineral processing (ext. facilities)	Others	Trucks	Pipelines	Others	Spills and leaks

- ENHANCES
- NO IMPACT
- MINOR IMPACT
- MAJOR IMPACT

Land Use																					
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Forestry	N/A																				
Grazing	N/A																				
Wilderness	N/A																				
Agriculture	N/A																				
Residential-Commercial	N/A																				
Mineral Extraction	✓	0	0					0										✓	✓		
Recreation	N/A																				
Scenic Views	N/A																				
Parks, Reserves, Monuments	N/A																				
Historical Sites	N/A																				
Unique Physical Features	N/A																				
Flora & Fauna	Birds	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Land Animals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Fish	N/A																			
	Endangered Species	NONE KNOWN																			
Trees, Grass, Etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Phy. Charact.	Surface Water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Underground Water	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Air Quality	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Erosion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Other																					
Effect On Local Economy	✓	0	0		✓	✓	✓	0						0	0		✓	✓			
Safety & Health	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Others	Ouz Juice																				

cc: Reg Denney  
BLM - George King  
State Oil & Gas

Lease U-2739

Well No. & Location GUS #1 SEC. 14 T41S R12W

WASHINGTON COUNTY, UTAH

ENVIRONMENTAL IMPACT ANALYSIS - ATTACHMENT 2-B

1. Proposed Action

Zion Crude Oil Co PROPOSES TO DRILL AN OIL AND GAS TEST WELL WITH ROTARY TOOLS TO ABOUT 2000 FT. TD, 2) TO CONSTRUCT A DRILL PAD 50 FT. X 75 FT. AND A RESERVE PIT 8 FT. X 10 FT. 3) TO CONSTRUCT \_\_\_\_\_ FT. X N/A MILES ACCESS ROAD AND UPGRADE \_\_\_\_\_ FT. X \_\_\_\_\_ MILES ACCESS ROAD FROM AN EXISTING AND IMPROVED ROAD. N/A

2. Location and Natural Setting (existing environmental situation)

THIS SITE IS LOCATED IN AN OLD ABD. DUMP (TRASH) THE AREA IS FLAT AND IS ON AN OLD ABD DRILL SITE - ORIGINALLY DRILLED BY ZION CRUDE (WELLS # 6, 6A, 6B.) NO NEW GROUND DISTURBANCE WILL BE REQUIRED - THE AREA HAS BEEN UPGRADED BY THERE ACTIVITY -

REFER TO ITEM 11 OF THE 12 PT. SURFACE USE PLAN FOR NATURAL SETTING -

RESTORATION OF THE AREA WILL BE DONE UPON COMPLETION OF THE WELL DRILLING ACTIVITY -

REQUIRED DRY HOLE MARKER, CLEANUP AREA AND RESTORATION BY GRADING & LEVELING, RESEEDING WILL BE DONE ACCORDING TO BLM. RECOMMENDATIONS,

1) EXHAUST EMISSIONS FROM THE DRILLING RIG POWER UNITS AND SUPPORT TRAFFIC ENGINES WOULD ADD MINOR POLLUTION TO THE ATMOSPHERE IN THE LOCAL VICINITY.

2) MINOR INDUCED AND ACCELERATED EROSION POTENTIAL DUE TO SURFACE DISTURBANCE AND SUPPORT TRAFFIC USE.

3) MINOR VISUAL IMPACTS FOR A SHORT TERM DUE TO OPERATIONAL EQUIPMENT AND SURFACE DISTURBANCE.

4) TEMPORARY DISTURBANCE OF WILDLIFE AND LIVESTOCK.

5) MINOR DISTRACTION FROM AESTHETICS FOR SHORT TERM.

6)

#### 4. Alternatives to the Proposed Action

1) NOT APPROVING THE PROPOSED PERMIT -- THE OIL AND GAS LEASE GRANTS THE LESSEE EXCLUSIVE RIGHT TO DRILL FOR, MINE, EXTRACT, REMOVE AND DISPOSE OF ALL OIL AND GAS DEPOSITS.

2) DENY THE PROPOSED PERMIT AND SUGGEST AN ALTERNATE LOCATION TO MINIMIZE ENVIRONMENTAL IMPACTS.

3) NO ALTERNATE LOCATION WOULD JUSTIFY THIS ACTION

5. Adverse Environmental Effects Which Cannot Be Avoided.

1) MINOR AIR POLLUTION DUE TO EXHAUST EMISSIONS FROM RIG ENGINES AND SUPPORT TRAFFIC ENGINES,

2) MINOR INDUCED AND ACCELERATED EROSION POTENTIAL DUE TO SURFACE DISTURBANCE AND SUPPORT TRAFFIC USE,

3) MINOR AND TEMPORARY DISTURBANCE OF WILDLIFE,

4) TEMPORARY DISTURBANCE OF LIVESTOCK,

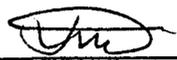
5) MINOR AND SHORT-TERM VISUAL IMPACTS,

6)

6. Determination

(This requested action ~~does~~ (does not) constitute a major Federal action significantly affecting the environment in the sense of NEPA, Section 102(2) (c).

Date Inspected 5-10-77

Inspector 

  
U.S. Geological Survey,  
Conservation Division  
Salt Lake City District  
Salt Lake City, Utah

U.S. GEOLOGICAL SURVEY, CONSERVATION DIVISION

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

TO: DISTRICT ENGINEER, SALT LAKE CITY, UTAH

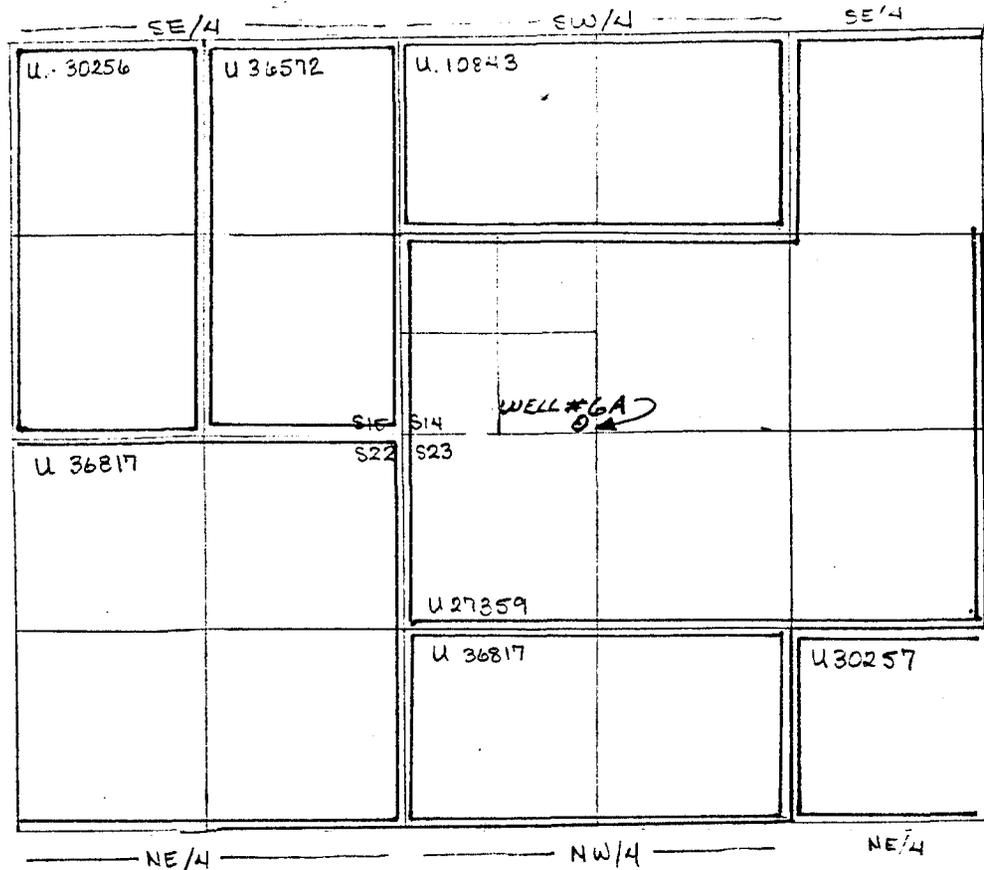
Well	Location	Lease No.
Zion Crude Oil Co. # GUS #1	3' FSL, 1242' FWL, SEC. 14 T41S R12W, SLM WASHINGTON Co., UTAH GREL 3612'	U-27359
<p>1. Stratigraphy and Potential Oil and Gas Horizons. The surface rocks are the covering deposits of windblown silt lacking dune form. Some patches of soil &amp; alluvium are included, and Moenkopi Formation. Company's own estimated tops: Kaibab - 500', Coconino - 1000', Mississippi - 1500' &amp; T.D.</p> <p>2. Fresh Water Sands.  See WRD report on page 2.</p> <p>3. Other Mineral Bearing Formations. (Coal, Oil Shale, Potash, Etc.) <b>NONE.</b></p> <p>4. Possible Lost Circulation Zones.  <b>UNKNOWN</b></p> <p>5. Other Horizons Which May Need Special Mud, Casing, or Cementing Programs.  <b>UNKNOWN</b></p> <p>6. Possible Abnormal Pressure Zones and Temperature Gradients.  <b>UNKNOWN</b></p> <p>7. Competency of Beds at Proposed Casing Setting Points. <b>Probably competent.</b></p> <p>8. Additional Logs or Samples Needed. <b>None.</b></p> <p>9. References and Remarks <b>Within Virgin K.G.S.</b></p>		
Date: <b>5-5-77</b> <i>State Oil &amp; Gas</i>		Signed: <b>Eileen Pera</b>

# ZION CRUDE OIL COMPANY

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872

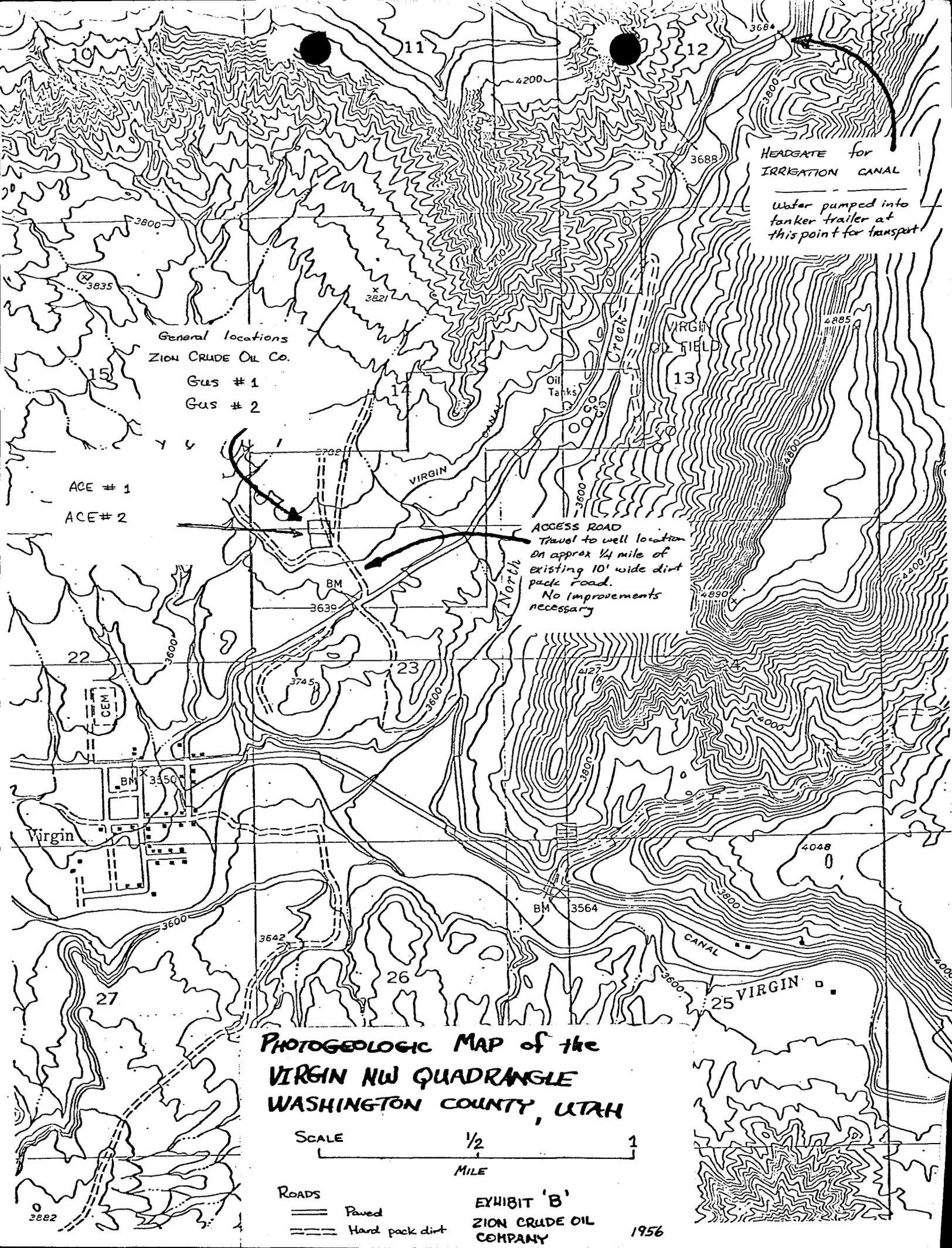
EXHIBIT "D"

T41S  
R12W  
SLM



## OIL AND GAS LEASES WITHIN 1/2 MILE OF INJECTION WELL #6A

- |            |   |            |  |
|------------|---|------------|--|
| 1) U 30256 | Imperial Resources, Inc<br>345 South State Street<br>Salt Lake City, Utah 84111<br>801-532-7967 | 5) U 30257 | Boardwalk Petroleum + Investment<br>Prudential Building<br>115 S. Main<br>Salt Lake City, Utah 84111<br>801-532-6640 |
| 2) U 36572 | Mr. J. Sur, Jr.<br>P.O. Box 2328<br>Scottsdale, Ariz. 85252<br>(No telephone listing)           |            |  |
| 3) U 10843 | L.W. Gardner<br>Richfield, Utah 84701<br>801-896-6041   |            |  |
| 4) U 36817 | William B. Blakemore<br>620 Commercial B Tower<br>Midland, Texas 79701<br>915-683-5384          |            |  |



HEADGATE for  
IRRIGATION CANAL

Water pumped into  
tanker trailer at  
this point for transport

General locations  
ZION CRUDE OIL Co.

Gus # 1  
Gus # 2

ACE # 1  
ACE # 2

ACCESS ROAD  
Travel to well location  
on approx 1/4 mile of  
existing 10' wide dirt  
pack road.  
No improvements  
necessary

**PHOTOGEOLOGIC MAP of the  
VIRGIN NW QUADRANGLE  
WASHINGTON COUNTY, UTAH**

SCALE  $\frac{1}{2}$  1  
MILE

ROADS  
 == Paved  
 --- Hard pack dirt

EXHIBIT 'B'  
ZION CRUDE OIL  
COMPANY

1956

District Oil and Gas Engineer  
U. S. Geological Survey  
Conservation Division  
8440 Federal Building  
Salt Lake City, Utah 84138

REF: ZION CRUDE OIL CO.  
GUS # 1

Re: Stipulation

Dear Sir:

ZION CRUDE OIL CO. is the owner of U. S. Oil and Gas Lease U-27359, and proposes to drill a well on the leased premises to test for oil and gas at a location in the SE 1/4 SW 1/4 SW 1/4 Section 14, T. 41S, R. 12W, S.L.B. + Mer., WASHINGTON County, State of UTAH, 2.86 feet from South line and 1242.35 feet from WEST line of Section 14.

Section 221.20 of the Federal Oil and Gas Regulations requires that no well be drilled less than 200' from the boundary of any legal subdivision without the written consent of the Supervisor, United States Geological Survey. The proposed location is approximately

85 feet from the WEST boundary line of the SE 1/4 SW 1/4 of Section 14, ~~but is considered to be~~ AND 85 feet from the North + West boundary line of the NE 1/4 NW 1/4 of SEC. 23, AND 3 feet from the North boundary line of the NW 1/4 NW 1/4 of SEC. 23, but is considered necessary because of possible hole deviation from the target oil zone due to subterranean faulting.

Therefore, ZION CRUDE OIL COMPANY, Lessee, requests the consent of the Supervisor to the drilling of the proposed well at the above-described location. In consideration of such consent, ZION CRUDE OIL COMPANY, Lessee, hereby expressly covenants and agrees that he will make no separate assignments of the S 1/2 SW 1/4 of SEC 14 and the N 1/2 NW 1/4, Section 23, T. 41S, R. 12W, S.L.B. + Mer., and that he will keep the two described subdivisions under joint assignment until the above-mentioned well has been plugged and abandoned with the approval of the Supervisor.

Very truly yours,

*Martin Kuetzing*

MARTIN KUETZING  
VICE-PRESIDENT  
ZION CRUDE OIL COMPANY  
APRIL 27, 1977

WEST 1/4 CORNER  
SEC 14, T41S, R12W,  
SLB 8 N.

CENTER SECTION LINE

N

N 89° 53' 30" E

2657.52 ±

N 0° 18' 0" N

SCALE: 1"=300'

SOUTH 1/2, SOUTHWEST 1/4  
SEC. 14, T41S, R12W  
SLB 8 N.

ZION CRUDE OIL CO.

PROPOSED LOCATION Gus #1

EXHIBIT "A"

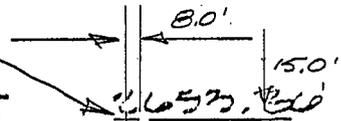
2672.92 ±

S13 S14  
S22 S23

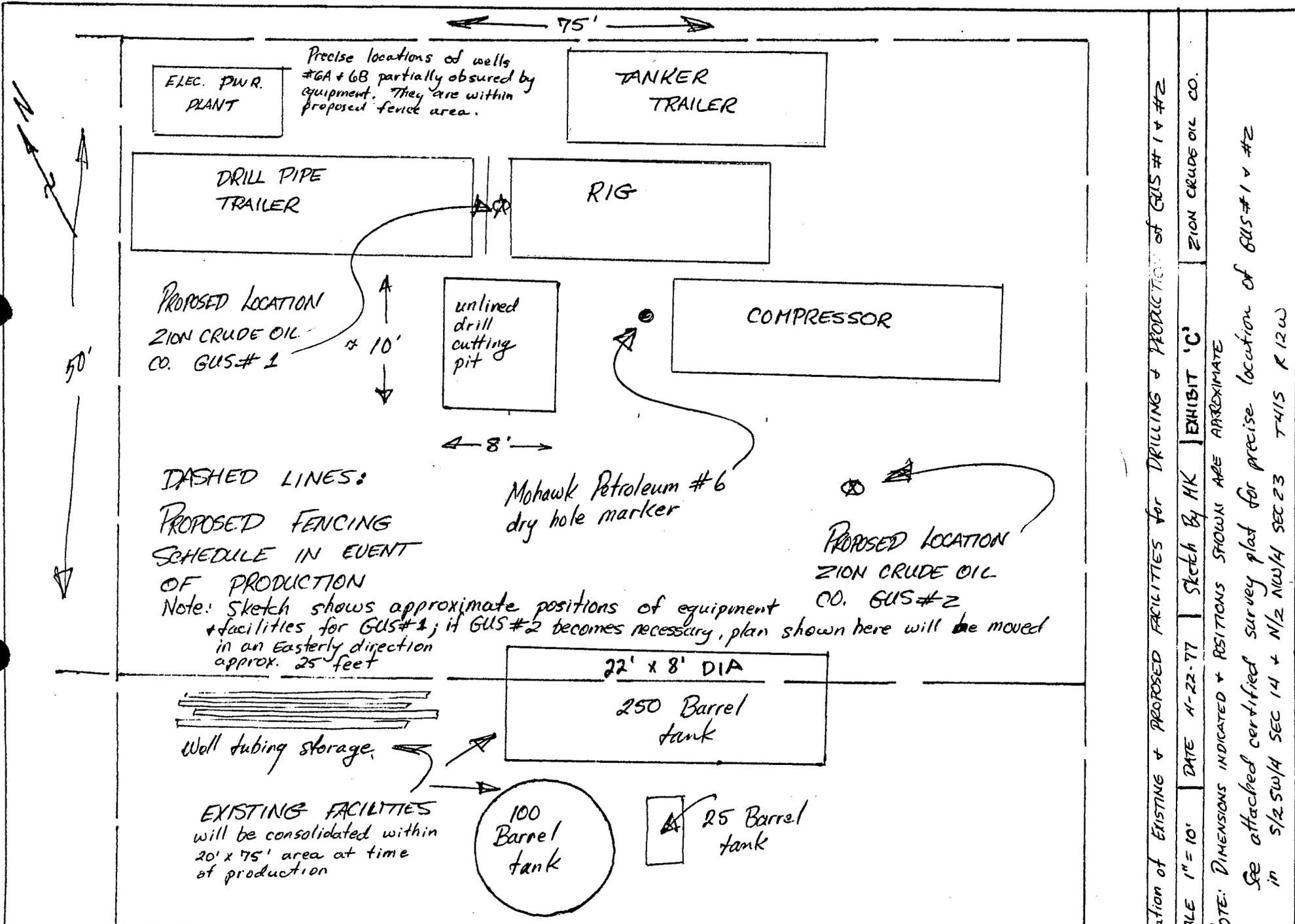
SOUTHWEST CORNER  
SEC 14, T41S, R12W,  
SLB 8 N.

WEST

1752.35 ±



OIL WELL LOCATION  
6" CASING MAILED  
MOHAWIC PETROLEUM 1958



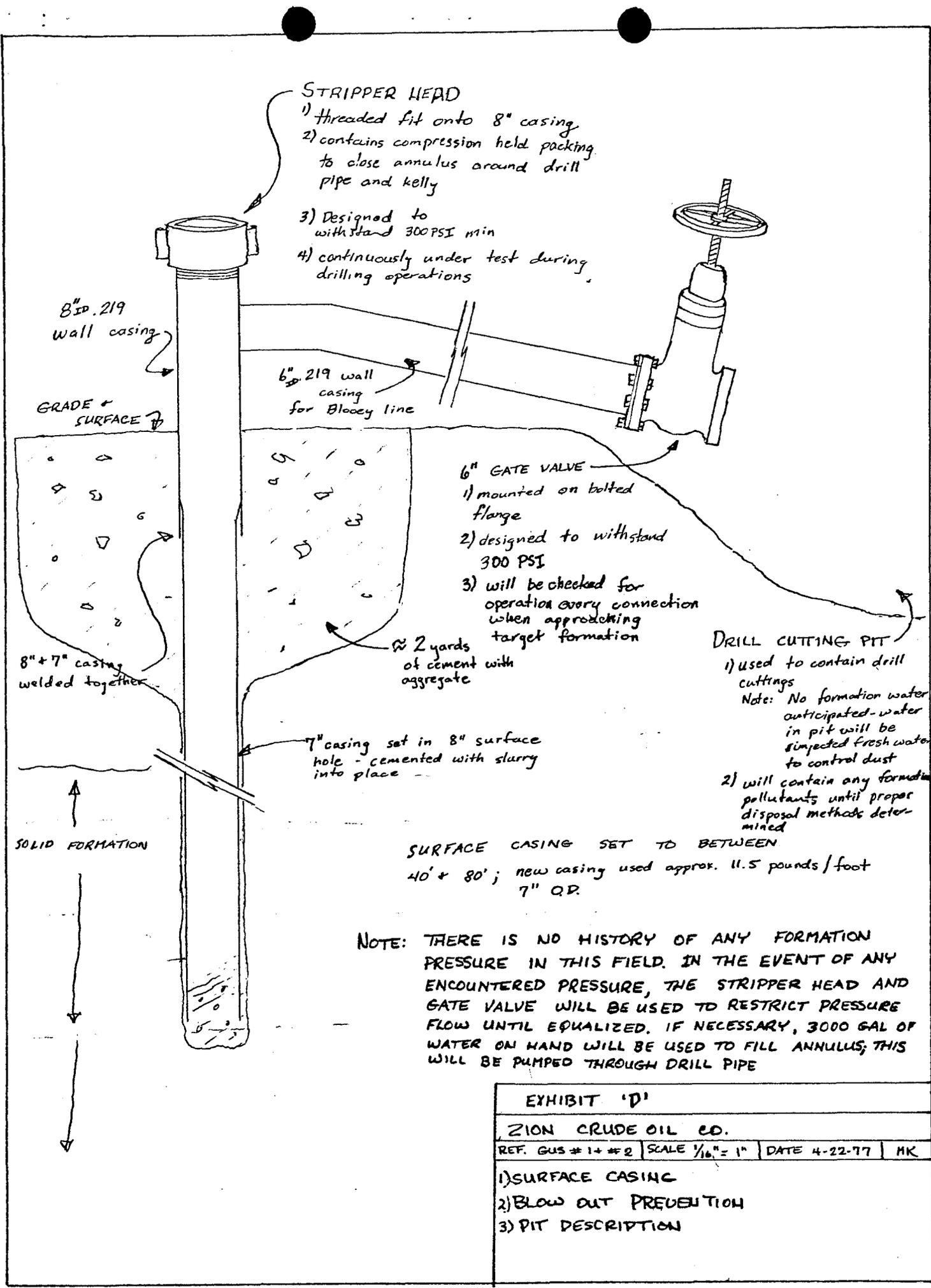
NOTE: NO additional Surface disturbance over presently cleared area will be required for GUS #1 + GUS #2

Location of EXISTING + PROPOSED FACILITIES for DRILLING + PRODUCTION of GUS #1 + #2

SCALE 1" = 10' | DATE 4-22-77 | SKETCH BY MK | EXHIBIT 'C' | ZION CRUDE OIL CO.

NOTE: DIMENSIONS INDICATED + POSITIONS SHOWN ARE APPROXIMATE

See attached certified survey plat for precise location of GUS #1 + #2 in 5/2 SW/4 SEC 14 + N/2 NW/4 SEC 23 T41S R12W



**STRIPPER HEAD**

- 1) threaded fit onto 8" casing
- 2) contains compression held packing to close annulus around drill pipe and Kelly
- 3) Designed to withstand 300 PSI min
- 4) continuously under test during drilling operations

8" ID, 2.19 wall casing

GRADE + SURFACE

6" ID, 2.19 wall casing for Bloody line

**6" GATE VALVE**

- 1) mounted on bolted flange
- 2) designed to withstand 300 PSI
- 3) will be checked for operation every connection when approaching target formation

~ 2 yards of cement with aggregate

**DRILL CUTTING PIT**

- 1) used to contain drill cuttings  
Note: No formation water anticipated - water in pit will be injected fresh water to control dust
- 2) will contain any formation pollutants until proper disposal methods determined

8" x 7" casing welded together

7" casing set in 8" surface hole - cemented with slurry into place

SOLID FORMATION

**SURFACE CASING SET TO BETWEEN 40' + 80'; new casing used approx. 11.5 pounds/foot 7" Q.P.**

**NOTE: THERE IS NO HISTORY OF ANY FORMATION PRESSURE IN THIS FIELD. IN THE EVENT OF ANY ENCOUNTERED PRESSURE, THE STRIPPER HEAD AND GATE VALVE WILL BE USED TO RESTRICT PRESSURE FLOW UNTIL EQUALIZED. IF NECESSARY, 3000 GAL OF WATER ON HAND WILL BE USED TO FILL ANNULUS; THIS WILL BE PUMPED THROUGH DRILL PIPE**

<b>EXHIBIT 'D'</b>			
ZION CRUDE OIL CO.			
REF. GUS # 1 + # 2	SCALE 1/16" = 1"	DATE 4-22-77	MK
1) SURFACE CASING			
2) BLOW OUT PREVENTION			
3) PIT DESCRIPTION			

EXHIBIT "E"

ADDITIONAL INFORMATION REQUIRED TO ACCOMPANY APD

Attached to Form 9-331C  
Zion Crude Oil Company  
GUS #1: 1242.35 FWL 2.86' FSL SEC 14  
GUS #2: 1240.35' FWL 40.14' FNL SEC 23  
T41S R12W  
Washington County, Utah

1. The geologic name of the surface formation: moenkopi
2. Estimated tops of important geologic markers:
  - A) Kaibab 500'
  - B) Coconino 1000'
  - C) Mississippi 1500' to TD
3. We feel that the specified locations of GUS #1 and GUS #2 will avoid any significant water intrusions. The oil bearing formations will be one or more of those listed in point 2 above.
4. Only surface casing is planned. Setting depth will be between 40' and 80' depending on whether or not any surface water is encountered. The casing is new, approx. 7" O.D. & 11.5 pounds/foot. This casing will be set in an 8" surface hole and cemented into place with slurry.
5. The type of drilling is 'down hole percussion'. Air will be used as a circulation medium. Fresh water will be injected either into the air line or into the blooey line for dust control. Because the drilling history in this area indicates no formation pressure, our stripper head and blooey line gate valve will be used in the event of any momentary pressure. If further necessary, 3000 gal. of fresh water from our tanker will be used to quench or weight any pressure. Maximum momentary pressure would be 100 pounds. SEE EXHIBIT "D"
6. Exhibit "D" shows a sketch to scale describing BOP equipment, pressure ratings, testing procedures and frequency.
7. Auxiliary pressure control equipment consists of:
  - A) Integral check valve in percussion tool (300 PSI min. test) to prevent flow upward through drill pipe.
  - B) A solid sub to be stabbed into drill pipe at surface when kelly is not in string.
8. There are no plans for coring any part of either well. Logs may be run at the completion of drilling.
9. No hazards of any sort are anticipated in either of these wells.
10. The spud-in date on the first well will be within 90 days of the received approved APD. 3-4 wks required for completion of each well.

EXHIBIT "F"

MULTIPOINT REQUIREMENTS TO ACCOMPANY APD

Attached to Form 9-331C  
Zion Crude Oil Company  
GUS #1: 1242.35' FWL 2.86' FSL SEC 14  
GUS #2: 1240.35' FWL 40.14' FNL SEC 23  
T41S R12W  
Washington County, Utah

1. Existing Roads

- A. EXHIBIT "A" is the proposed well site as originally surveyed by Bush and Gudgell, Inc. Possible hole deviation from target oil zones in addition to the desire to avoid water formations led to these precise locations.
- B. EXHIBIT "B" is a photogeologic map showing the general area within several miles of the proposed location.
- C. The access road to the well site is labeled on EXHIBIT "B". This is an existing road as shown.
- D. Specific and general locations of existing shut-in wells in immediate area are shown on EXHIBITS "A" & "C".
- E. No improvement of the present access road is planned. Maintenance of this road will include occasional smoothing of any bumps or ruts with a front-end loader and the possible sprinkling with fresh water for dust control.

2. Planned access Roads

- A. The access roads are shown and described in point 1 above and on EXHIBIT "B".

3. Location of existing wells

- A. Locations of wells (all are dry and shut-in) are shown and described in EXHIBITS "A" & "C".

4. Location of proposed and existing facilities

- A. EXHIBIT "C" shows the general layout and plan for existing and proposed facilities for drilling and for production. Any lines from the well head to the tank batteries will be on the surface. At the time of production, the area will be fenced.
- B. No facilities other than those shown are planned at the present time. Since the pump planned for use is submersible, no surface structure will be required over the well. There will be no open pits within the pad at the time of production. The entire pad is planned to be fenced.

4. cont.

- C. Rehabilitation of disturbed areas will be as follows:
- 1) In the event of failure of one or both wells, and in the event no further APD's for the general location, the entire area will be vacated within a time frame specified at that time. The immediate area will be graded smooth to restore it to its original condition.
  - 2) In the event of a producing well, the immediate drilling pad will be smoothed and the production facilities will be isolated by fencing.

5. Location any type of water supply

- A. The precise location of our water supply is shown and described in EXHIBIT "B". The water is fresh.
- B. Water will be transported to the drilling location by means of a 3000 gallon tank trailer. The roads used are those shown on EXHIBIT "B".

6. Source of Construction Materials

- A. No aggregate materials will be required for any of the proposed operations. Soil required for leveling of the equipment will be that rearranged within the bounds of the drilling location pad.

7. Methods for Handling Waste Disposal

- A. 1,2,3: cuttings, and drilling or produced fluids will be contained within the pit described in EXHIBITS "C" & "D". In the event of a successful well, all recoverable oil in the pit will be transferred to one of the nearby tanks. The pit will be covered and smoothed over in either event.
- B. 4&5: There will be no sewage disposed of on the premises. Trash and other refuse will be contained in steel barrels and transported to the Virgin city dump.
- C. 6: SEE Point 4, Item C above.

## 8. Ancillary Facilities

No airstrips, camps or other living facilities will be built or needed.

## 9. Well Site Layout

A. 1,2,3,4: EXHIBITS "C" & "D" show the general equipment layout and orientation and approximate size and cross section of drill cutting pit.

No additional surface disturbance will be required.

As stated, the cutting pit will be unlined.

## 10. Plans for Restoration of Surface

- (1) Backfilling and leveling will be accomplished as soon as possible after shutting-in or plugging well, or immediately on those areas unused if production is obtained.
- (2) We will contact the BLM for suggestions of seeding of area cleared for drilling pad. This will be done for the entire area or unused areas in event of production.
- (3) & (4) SEE Point 4, Item C and Point 7, Item A.
- (5) Rehabilitation of area should be complete within one to two weeks of completion of well drilling or production activities.

## 11. Other Information

- (1) The general topography is that of a gentle washed slope from the nearby mesas. The unconsolidated surface soil is very fine and extends to 10 or more feet below the surface. The flora consists of sage and scattered grasses. The fauna consists of infrequent rodents, snakes and insects. The overall area is extremely dry.
- (2) Grazing, former surface mining exproation pits, and off-road vehicle recreation constitute observed additional surface use. The BLM administers all of the land in this lease and the land which will be used directly in this drilling program.
- (3) The general geological features of the area, roads nearest inhabited dwellings and layout of streams and of Virgin, Utah are shown in EXHIBIT "B".

12. Operators Representatives

Dr. Murel Goodell  
President, Zion Crude Oil Company  
POB 370  
Hurricane, Utah 84737

Phone: (801) 635-4872

Martin Kuetzing  
Vice-President, Zion Crude Oil Company  
POB 961  
Hurricane, Utah 84737

Phone: (801) 635-4872  
Res. (801) 635-4486

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions that 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 Zion Crude Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

April 25, 1977

Martin Kuetzing

Vice-President

May 18, 1977

Zion Crude Oil Co.  
P.O. Box 370  
Hurricane, Utah 84737

Re: Well No. Gus #1 and Gus #2  
Sec. 14 & 23, T. 41 S, R. 12 W,  
Washington County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with the General Rules and Regulations.

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

PATRICK L. DRISCOLL - Chief Petroleum Engineer  
HOME: 582-7247  
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

The API numbers assigned to these wells are:

#1: 43-053-30028

#2: 43-053-30029

Very truly yours,

CLEON B. FEIGHT  
Director

/SW  
cc: U.S. Geological Survey

PLEASE NOTIFY THIS DIVISION WITHIN 24 HRS. OF SPUDDING

# ZION CRUDE OIL COMPANY

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872



May 20, 1977

Mr. Ed Guynn  
District Engineer  
U. S. Geological Survey  
Conservation Division  
8440 Federal Building  
Salt Lake City, Utah 84138

RE: Spud-in for GUS #1  
Federal Lease U-27359

Dear Mr. Guynn:

Zion Crude Oil Company commenced moving of equipment onto the GUS #1 location on May 17, 1977.

The actual start of drilling of surface hole (spud-in) began on May 19, 1977.

Please thank Mr. Martens and Mr. Dennis for their help in expediting this APD. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Martin Kuetzling".

Martin Kuetzling  
Vice-President

# ZION CRUDE OIL COMPANY

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872

**CONFIDENTIAL**

July 15, 1977

Mr. Patrick L. Driscoll  
Chief Petroleum Engineer  
Utah State Department of Natural Resources  
1588 West North Temple  
Salt Lake City, Utah 84116

RE: Federal Lease U-27359

Dear Mr. Driscoll:

Enclosed with this letter are the following documents:

- 1) One copy of each of the Spud-in notices filed with the USGS for wells GUS #1 & GUS #2.
- 2) Triplicate copies of the sundry reports files with the USGS
- 3) Duplicate copies of the Monthly report of operations for May and June, 1977.

These papers will complete your files concerning the activity to date of Zion Crude Oil Company in 1977.

Sincerely,

*Martin Kuetzing*

Martin Kuetzing  
Vice-President



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
ZION CRUDE OIL COMPANY

3. ADDRESS OF OPERATOR  
P.O. BOX 370, HURRICANE, UTAH 84737

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface  
GUS #1: 31. FSL 1242' FWL SEC 14, T41S R12W SLM  
GUS #2: 23.50' FSL 1210.43' FWL SEC 14 T41S R12W SLM

14. PERMIT NO. \_\_\_\_\_ 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3612' GR

5. LEASE DESIGNATION AND SERIAL NO.  
U-27359

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.  
GUS #1 & GUS #2

10. FIELD AND POOL, OR WILDCAT  
VIRGIN

11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA  
SEC 14, T41S, R12W SLM

12. COUNTY OR PARISH WASHINGTON 13. STATE UTAH

CONFIDENTIAL



16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	report contained herein

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

- 1) GUS #2 spud-in: 6-10-77; TD of 1012' reached 7-6-77; no oil show, no water.
- 2) With the choice between GUS #1 & GUS #2, we decided to shoot each well at 900' with three pounds of dynamite. Well GUS #2 showed no fluid influx. Well GUS #1 appeared to have some oil seepage into the well bore.
- 3) On 6-15-77 we proceeded to acidize GUS #1:
  - (a) packer set at 875' - treatment zone 875' to TD (1037')
  - (b) 4000 gallons of 15% HCl injected at 600 PSI (app. 10 BPM)
  - (c) 3000 gallons of fresh water with 2% KCl following acid at same rate of injection.
- 4) Intention to put pump into GUS #1 early next week.
- 5) Intention to cement fractured (by blast) zone in GUS #2 and to plug and mark well within the next ten days.
- 6) No logging operations planned on either well.

APPROVED BY THE DIVISION OF  
OIL, GAS AND MINING  
DATE: August 8, 1977  
BY: P. W. [Signature]

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

SIGNED Martin Kutzung TITLE Vice-President DATE 7-15-77

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:

# ZION CRUDE OIL COMPANY

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872

*at I don't like this  
put if ad has  
gone along with  
zion I guess  
we can't*

August 1, 1977

Mr. Ed Guynn  
District Engineer  
U.S. Geological Survey  
Conservation Division  
8440 Federal Building  
Salt Lake City, Utah 84138



REF: Temporary water disposal  
procedures for Well GUS #1.  
Federal Lease U-27359

Dear Mr. Guynn:

As indicated in our last Sundry report (7-15-77), we acidized GUS #1 to stimulate the fractured zone at 900'. Engineering figures predicted several thousand barrels of formation and treatment water would have to be removed before any substantial amounts of oil would enter the well bore. With the removal of this water, the initial calculations predicted little or no additional water would be present with the oil. In the light of this information, we would like to implement a temporary water disposal program to: 1) circumvent the time and expense required for an approved permanent program which may prove unnecessary. 2) determine whether or not Well GUS #1 is capable of any economically justifiable amount of oil.

Approximately 200' from GUS #1 in a southeasterly direction, are three pits, apparently constructed several years ago. These pits are ideal for such a temporary water disposal program.

Consultation with the District Engineer and inspection of the area was necessary before we could get final approval. After an on location inspection by John Dennis, USGS-SLC,

*WJ*

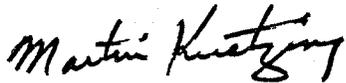
Zion Crude Oil Company

8-1-77 Letter to Ed Guynn, USGS-SLC.

we were granted permission to proceed with the disposal program in the manner outlined above. The only additional conditions are as follows: 1) a surface laid 2" plastic line would be used to transport the water from the tanks at the well head to the pits. 2) the pits would remain open for inspection by John Dennis before the final covering and clean-up. 3) August 6, 1977 would be the final day of pumping water into these pits (initial inspection by John Dennis 7-20-77). If additional water must be disposed of at that time, a permanently approved method must be used.

John indicated that he would return a copy of this letter as approved with his signature to me to complete our files.

Sincerely,



Martin Kuetzing  
Vice-President

# ZION CRUDE OIL COMPANY

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872

8-5-77

EXHIBIT "B" WATER ANALYSIS

WELL GUS #1

WATER PRODUCED FROM 900' Level

Gus #1

0 C

date 8577 #

ppm 38000.00000 +

Daily water disposal of  
10,000 to 15,000 gallons.

TOTAL PPM

0 C

arsenic 0.00000 +  
selenium 0.00000 +  
lead 0.00000 +  
hydroxide 0.00000 +  
bicarb 0.00000 +  
carbonate 7500.00000 +  
sulphate 1600.00000 +  
copper 23000.00000 +  
iron 0.00000 +  
magnes 4100.00000 +  
calcium 1400.00000 +  
37600.00000 \*

SOLIDS BREAKDOWN

TOTAL PPM

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

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

**CONFIDENTIAL**

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Zion Crude Oil Company

3. ADDRESS OF OPERATOR  
PoBox 370, Hurricane 84737

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
GUS #1 3'FSL 1242'FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, OR, etc.)  
3612' GR

5. LEASE DESIGNATION AND SERIAL NO.  
U-27359

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.  
GUS #1

10. FIELD AND POOL, OR WILDCAT  
VIRGIN

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SEC 14, T41S, R12W  
SLM

12. COUNTY OR PARISH  
Washington

13. STATE  
Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) Water Disposal Program <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

- 1) Pursuant to phone conversation with EdGuynn, USGS-SLC, This sundry notice will outline procedure for approved water disposal method of re-injection of waste water into same zone in well #6A.
- 2) Exhibit "A" shows a scale sketch of locations & proposed facilities. No additional surface disturbance will be required. John Dennis USGS-SLC has already inspected the area.
- 3) The daily quantity of disposed water is shown and described in Ex. "B".
- 4) Original TD of #6a was 1330'; it has been plugged back with cement. Since the hole was originally dry of any fluid, pollution of cleaner water formations should not be a factor. The well will be cleaned to around 900', (the producing interval in GUS #1), possibly dynamited at that level & tubing run to place disposed water to its original formation level. The injection procedure would be gravitational. We would expect the fluid level under these conditions to be no more than 50' above the bottom of the well (#6A).

APPROVED BY THE DIVISION OF  
OIL, GAS, AND MINING

DATE Sept 2, 1977  
BY: P. H. Small

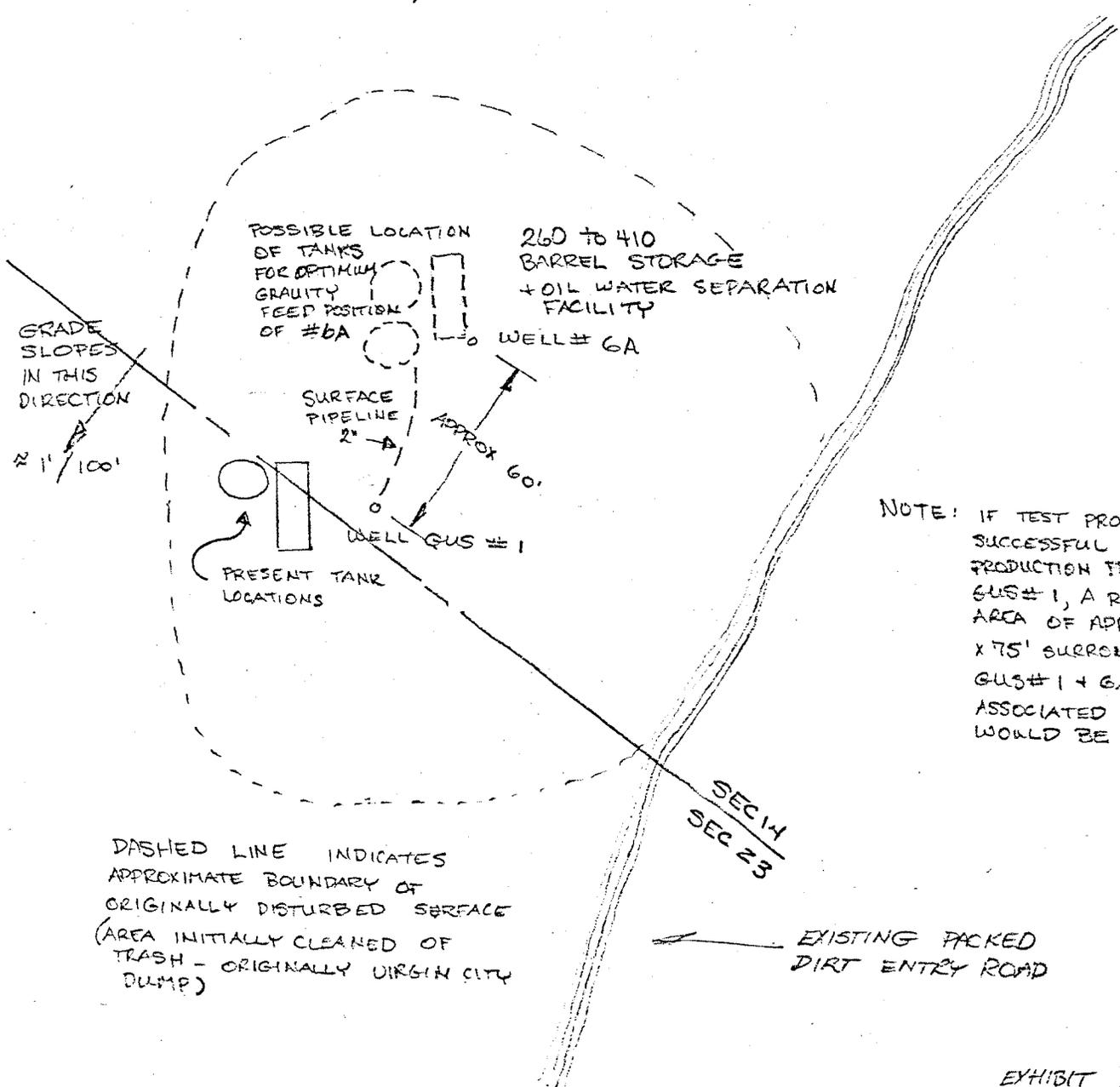
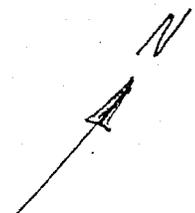


18. I hereby certify that the foregoing is true and correct

SIGNED Martin Kuezing TITLE Vice-President DATE 8-5-77

(This space for Federal or State office use)

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



NOTE: IF TEST PROVES SUCCESSFUL OIL PRODUCTION FROM GUS# 1, A RECTANGULAR AREA OF APPROX. 100' X 75' SURROUNDING GUS# 1 + GA + ASSOCIATED FACILITIES WOULD BE FENCED

DASHED LINE INDICATES APPROXIMATE BOUNDARY OF ORIGINALLY DISTURBED SURFACE (AREA INITIALLY CLEARED OF TRASH - ORIGINALLY VIRGIN CITY DUMP)

SEC 14  
SEC 23

EXISTING PACKED DIRT ENTRY ROAD

EXHIBIT 'A'

SKETCH SHOWING GUS# 1 + # 6A LOCATION - GENERAL AREA ALREADY CLEARED  
 SCALE 1/4" = 10'    8-5-77    NR    ZION CRUDE OIL CO.

REF. SURFACE LOCATION OF FACILITIES FOR DISPOSAL OF WATER PUMPED FROM WELL GUS# 1; SUBSURFACE GRAVITY REINJECTION INTO WELL # 6A



SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

I. DANIEL STEWART  
Chairman

CHARLES R. HENDERSON  
JOHN L. BELL  
THADIS W. BOX  
C. RAY JUVELIN

CLEON B. FEIGHT  
Director

August 8, 1977

Zion Crude Oil Company  
P. O. Box 370  
Hurricane, Utah 84737

Attn: Mr. Martin Kuetsing

Re: Well No. Gus #1  
Sec. 14, T. 41S, R. 12W,  
Well No. 6A

Dear Mr. Kuetsing:

Due to a limited amount of information contained in your water disposal program, please be advised that the Division of Oil, Gas & Mining will not approve your application.

Please review Sections E-1 through E-6 and submit the information requested.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

  
PATRICK L. DRISCOLL  
CHIEF PETROLEUM ENGINEER

PLD/ko  
cc: U.S.G.S.



# United States Department of the Interior

GEOLOGICAL SURVEY  
Conservation Division  
8440 Federal Building  
Salt Lake City, Utah 84138

August 9, 1977

Zion Crude Oil Company  
P.O. Box 370  
Hurricane, Utah 81737

Re: Disposal of Produced Water,  
NTL-2B  
Well #6A (Re-entry)  
NW NW Sec. 23, T. 41S., R. 12W.  
Washington County, Utah  
Lease U-27359  
Virgin Field

Attn: Martin Kuetzing

Gentlemen:

Receipt is acknowledged of your application filed pursuant to NTL-2B for the referenced field. As per recent telephone conversations, the method applied for (ie Subsurface Disposal) is approved for the purpose of testing and evaluation. This office is granting a 60-day evaluation period. At the end of this period or before, a definite plan must be submitted for the disposal of produced water in accordance with NTL-2B. During this evaluation period, an alternate method for water disposal should be developed in the event the proposed method is not compatible with operations or geologic characteristics in the area.

If you desire further information or explanation, do not hesitate to contact this office. Your cooperation in this matter is appreciated.

Sincerely Yours,

E. W. Guynn  
District Engineer



RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

**ZION CRUDE OIL COMPA**

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872

August 9, 1977

Mr. L. W. Gardner  
Richfield, Utah 84701  
801-896-6041

RE: Proximity of  
Lease U-1084

Dear Mr. Gardner:

We have recently completed an explorator Federal Lease U-27359; the well, GUS #1, FWL, SEC 14, T41S, R12W, SLM, was complet 1037'; the producing zone is approximately

At the present, we are still producing only water from the well. Before we can continue with operations, we must implement a approved method of disposal of this water. The disposal plan involves the re- entering of a adjacent well (approximately 60' from well GUS#1) and replacing the water to the same 900' zone. The USGS and the State of Utah Oil and Gas Divisions have already approved the proposed plan.

All holders of Federal Leases within one-half mile of the proposed re-injection well must provide written approval before final approval of the operation can be given by the State and the USGS. Your lease U-10843 falls within the other

lessee's in que that you will this well is b signature of a the address on Thank you.

Sincerely,  
*Martin Kue*  
Martin Kuetzir  
Vice-President

MAK;hs

SENT TO <i>Mr. L. W. Gardner</i>		
STREET AND NO.		
P.O. STATE AND ZIP CODE <i>Richfield, Utah 84701</i>		
POSTAGE	\$ 13	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	60¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	OPTIONAL SERVICES	
	RETURN RECEIPT SERVICE	
	SHOW TO WHOM AND DATE DELIVERED	¢
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	<i>card</i> 25¢	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢	
TOTAL POSTAGE AND FEES	\$ 98	
POSTMARK OR DATE <i>Aug 10, 1977</i> <i>Hurricane</i> <i>Ut</i>		

PS Form 3800, Apr. 1976

PS Form 3811, Nov. 1976

● SENDER: Complete items 1, 2, and 3. "RETURN TO" space on reverse.

1. The following service is requested (check one).  
 Show to whom and date delivered ..... 25¢  
 Show to whom, date, & address of delivery ..... 45¢  
 RESTRICTED DELIVERY ..... 45¢  
 Show to whom and date delivered ..... 85¢  
 RESTRICTED DELIVERY ..... 85¢  
 (Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:  
*L. W. Gardner*

3. ARTICLE DESCRIPTION:  
*Richfield, Utah 84701*

REGISTERED NO. *841393* CERTIFIED NO. INSURED NO.

(Always obtain signature of addressee or agent)  
 I have received the article described above.  
 SIGNATURE  Addressee  Authorized agent

4. DATE OF DELIVERY  
*8-12-77*

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:

CLERK'S INITIALS

POSTMARK  
*1109 AM  
AUG 12 1977  
RICHFIELD, UTAH*

★ GPO: 1976-O-203-456

# ZION CRUDE OIL COMPA.

P. O. Box 370  
 Hurricane, Utah 84737  
 (801) 635-4872

August 9, 1977

Mr. Tony Cox  
 Boardwalk Petroleum & Investment Co.  
 Prudential Building  
 115 S. Main  
 Salt Lake City, Utah 84111

RE: Proximity of I  
 Lease U-30257

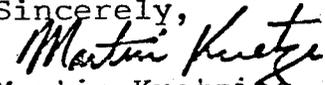
Dear Mr. Cox:

Pursuant to our telephone conversation of this afternoon, I have enclosed a copy of the Sundry Notice that was filed and approved by the USGS and the State of Utah, Oil and Gas Divisions.

The main thrust of the project in which we are presently engaged is to determine whether or not economically justifiable amounts of oil are present within the Virgin Field today. Our engineering figures indicate that the amount of waste water will decrease over time. In the fourteen day test period allowed by the USGS, we have seen the amount of water produced diminish by over 50% of its original volume. Though no substantial amount of oil has been produced to date, we are encouraged.

At the time of this writing, the questions in question have grant approval f available by tel various factors will feel the sa

Please draft and it to the address:

Sincerely,  
  
 Martin Kuetzing  
 Vice-President

MAK; hs

SENT TO		Mr. Tony Cox	
STREET AND NO.		115 S. Main	
P.O., STATE AND ZIP CODE		Salt Lake City, Utah 84111	
POSTAGE		\$ 13	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	60 ¢	
	SPECIAL DELIVERY	¢	
	RESTRICTED DELIVERY	¢	
	OPTIONAL SERVICES		
	RETURN RECEIPT SERVICE	25 ¢	
SHOW TO WHOM AND DATE DELIVERED		Cox	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		¢	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		¢	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		¢	
TOTAL POSTAGE AND FEES		\$ .98	
POSTMARK OR DATE			
August 10, 1977 Hurricane			

PS Form 3800, Apr. 1976

PS Form 3811, Nov. 1976

RETURN RECEIPT, INSURED AND CERTIFIED MAIL

1. The following service is requested (check one).  
 Show to whom and date delivered ..... 25¢  
 Show to whom, date, & address of delivery ..... 45¢  
 RESTRICTED DELIVERY ..... 85¢  
 RESTRICTED DELIVERY X  
 Show to whom and date delivered ..... \$1.05  
 RESTRICTED DELIVERY X  
 Show to whom, date, and address of delivery .. \$1.05  
 (Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:  
 Mr. Tony Cox  
 Boardwalk Pet  
 115 S. Main SEC UT. 84111

3. ARTICLE DESCRIPTION:  
 REGISTERED NO. 841396  
 CERTIFIED NO. 841396  
 INSURED NO.

(Always obtain signature of addressee or agent)  
 I have received the article described above.  
 SIGNATURE \_\_\_\_\_ Address \_\_\_\_\_  Authorized agent

4. DATE OF DELIVERY  
 AUG 15 1977

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:

CLERK'S INITIALS

★ GSP: 1187-O-203-486



No. 841395

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)

N CRUDE

P. O.  
Hurricane  
(801

1977

, Arizona

ur:

cently complet  
Federal Lease U-27359;  
FWL, SEC 14, T41S, R12W,  
a TD of 1037'; the produ

At the present, we are s  
the well. Before we can  
must implement an approv  
this water. The disposa  
of an adjacent well (app  
and replacing the water  
and the Utah State Depart  
and Gas Divisions, have  
plan.

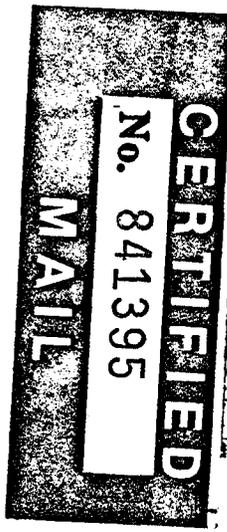
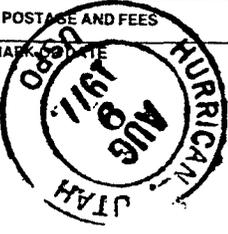
All Federal Leaseholders  
of the proposed reinject  
approval before final ap  
given by the state and t  
falls within this radius  
lessee's in question has  
that you will also find  
well beneficial to you,  
of approval on this lett  
mail to the address on t

Sincerely,

Martin Kuetzing  
Vice-President

MAK;hs

SENT TO	
Mr. J. Sur, Jr.	
STREET AND NO.	
P.O. Box 2328	
P.O., STATE AND ZIP CODE	
Scottsdale, Ariz 85252	
POSTAGE	
\$ 1.13	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE
	SPECIAL DELIVERY
	RESTRICTED DELIVERY
	OPTIONAL SERVICES
	SHOW TO WHOM AND DATE DELIVERED
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY
RETURN RECEIPT SERVICE	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES	
\$ .98	
POSTMARK DATE	
AUG 19 1977	



RETURN RECEIPT  
REQUESTED

REASON CHECKED  
RETURNED TO WRITER  
Unknown  
Unclaimed  
Post office in state  
Post office in this country

P. O. Box 370  
Hurricane, Utah 84737

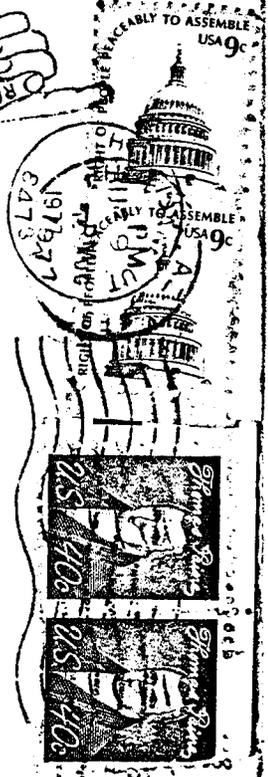
ZION CRUDE OIL COMPANY

REASON CHECKED  
RETURNED TO WRITER  
Unknown  
Unclaimed  
Post office in state  
Post office in this country

P.O. Box 2328  
Scottsdale, Arizona 85252

Mr. J. Sur, Jr.

1607  
NOT



NAME  
1st Notice AUG 18 1977  
2nd Notice 8/17

PS Form 800, Apr. 1976

# IMPERIAL RESOURCES, INC.

345 South State Street  
Salt Lake City, Utah 84111  
Phone: (801) 532-7967

Denver, Colorado Office  
Phone: (303) 429-0827

August 15, 1977

Mr. Martin Kuetzing  
P.O. Box 370  
Hurricane, Utah 84737

Re: Proximity of Imperial  
Federal Lease U-30256 to  
Zion U-27359

Dear Mr. Kuetzing,

Persuant to our telephone conversation and in compliance with your letter dated August 9, 1977 Imperial Resources, Inc. does not object to the injection of disposal water into the #6A well, section 14, T. 41S., R.12W., SLM.

Very truly,

IMPERIAL RESOURCES, INC.



William A. Stevenson

WAS/ss

**WILLIAM B. BLAKEMORE, II**

**Box 4605**

**MIDLAND, TEXAS**

**79701**

August 18, 1977

Mr. Martin Kuetzing  
Zion Crude Oil Company  
P. O. Box 370  
Hurricane, Utah 84737

Re: Proximity of Blakemore  
Federal Lease U-36817  
to Zion U-27359

Dear Mr. Kuetzing:

The "Water Disposal Program" designed for the above referenced area has been approved by Mr. William B. Blakemore, II.

We are very happy to cooperate in this matter and if additional information is needed, please let us know.

Very truly yours,

WILLIAM B. BLAKEMORE, II

*Ronald D. Sowders*

Ronald D. Sowders, C.P.A.

RDS: dp

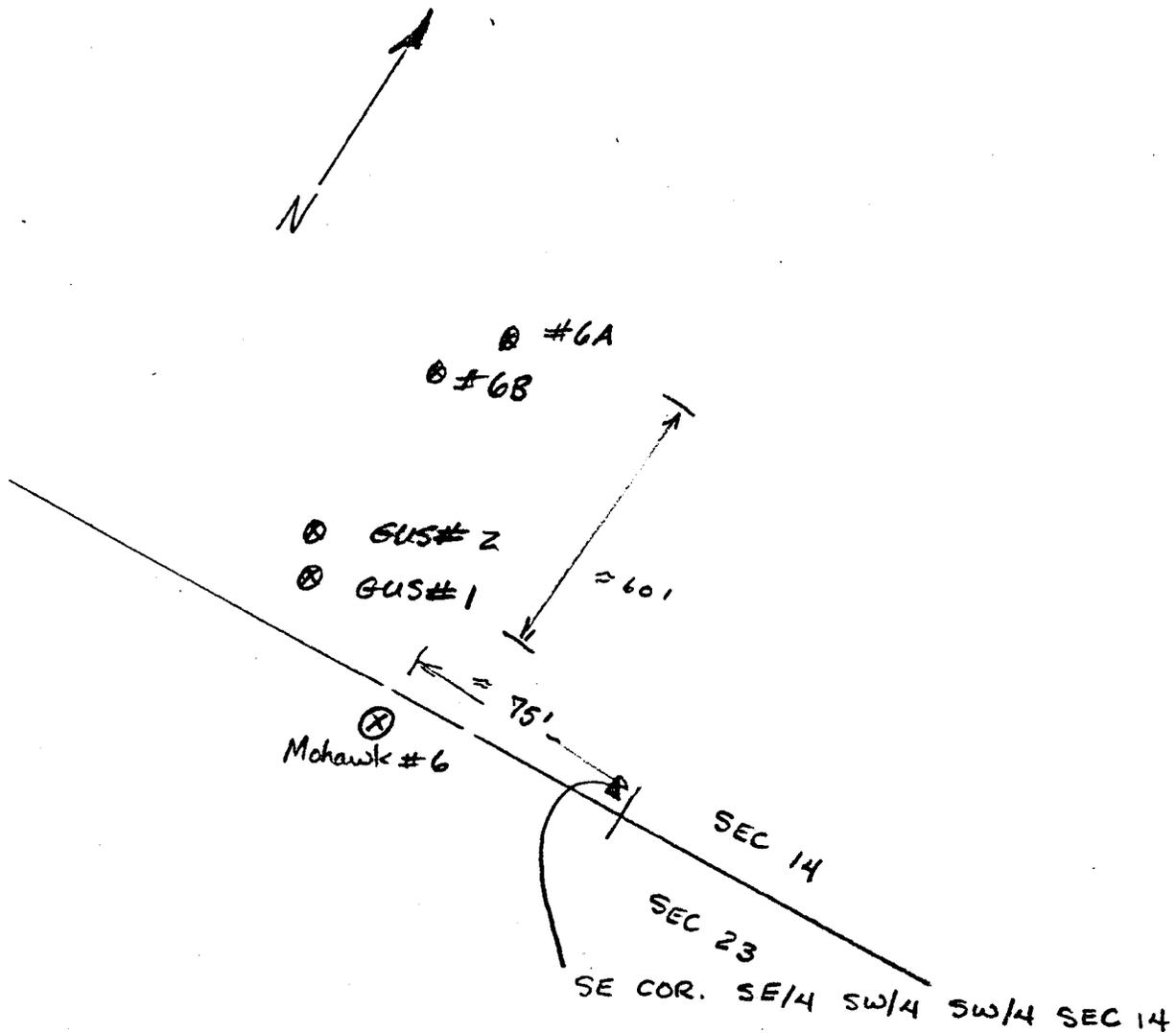
# ZION CRUDE OIL COMPANY

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872

Fed lease  
U 27359

EXHIBIT "C"

Sketch showing approximate locations of wells  
drawing not to scale - general relationships shown  
approximately 60' between well #6A & Gus#1



# ZION CRUDE OIL COMPANY

P. O. Box 370  
Hurricane, Utah 84737  
(801) 635-4872



August 22, 1977

Mr. Patrick L. Driscoll  
Chief Petroleum Engineer  
Utah State Department of Natural Resources  
1588 West North Temple  
SLC, Utah 84116

Re: Well GUS #1 water disposal  
Federal Lease U-27359

Dear Mr. Driscoll:

Enclosed is the information you requested on five points needing clarification on our proposed water disposal program.

- 1) The water disposal procedure outlined in the Sundry notice filed with your office on August 5, 1977 is presently intended on a temporary basis. We are taking this position in an effort to determine whether or not Well GUS #1 is capable of producing an economically justifiable amount of oil.
- 2) Well #6A was the best choice of wells on the immediate location for replacing water to the original formation. When completed, 6A was dry of any fluid to TD. From our perspective, it seemed reasonable to re-enter #6A, removing the plug to 950', and subsequently replace the water pumped from GUS #1 at the 900' level to the same 900' zone in #6A (this completed by gravity flow). Since #6A was originally dry at this level, we do not expect any interference with the producing zone in GUS #1.
- 3) In the light of points 1 and 2 above, Secondary recovery is neither the intent nor from our point of view possible with the procedure outlined.
- 4) Exhibit "C" is a sketch showing general placement of the existing wells on the location.
- 5) Exhibit "D" includes a map of the adjoining leases within one-half mile of the proposed injection well. To date, of the five lessee's in question, four have been contacted successfully, two of whom have sent their approval of the proposed program.

Pg. 2  
Driscoll, 8-22-77

In addition to Exhibits "C" & "D", enclosures include copies of the received approvals of adjacent lessee's, and of certified cards of the remaining lessee's, and of the letter of approval from the USGS.

Please keep me informed of the progress of our water disposal program application. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Martin Kuetzing". The signature is written in black ink and is positioned above the typed name.

Martin Kuetzing  
Vice-President

MAK;hs

cc. USGS

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.

U-27359

6. 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 plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

7. UNIT AGREEMENT NAME

1.

OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

Zion Crude Oil Company

3. ADDRESS OF OPERATOR

POBox 370, Hurricane, Utah 84737

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)

At surface  
GUS #1: 3'FSL & 1242'FWL  
GUS #2: 23.50'FSL & 1210.42'FWL

8. FARM OR LEASE NAME

9. WELL NO.

GUS #1 & GUS #2

10. FIELD AND POOL, OR WILDCAT

VIRGIN

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

SEC 14, T41S, R12W  
SLM

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

3612' GR

12. COUNTY OR PARISH

Washington

13. STATE

Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF	<input checked="" type="checkbox"/>	<i>GUS #1</i>	FULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		MULTIPLE COMPLETE	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		ABANDON*	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		CHANGE PLANS	<input type="checkbox"/>
(Other) General Cleanup of Area	<input type="checkbox"/>			<input type="checkbox"/>

WATER SHUT-OFF	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
FRACTURE TREATMENT	<input type="checkbox"/>	ALTERING CASING	<input type="checkbox"/>
SHOOTING OR ACIDIZING	<input type="checkbox"/>	ABANDONMENT*	<input checked="" type="checkbox"/>
(Other)	<input type="checkbox"/>		<i>GUS #2</i>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

This Sundry Notice is to outline our intentions in the immediate future of Wells GUS #1 & GUS #2 as well as to report on clean-up operations of the location.

A) GENERAL:

- 1) the drilling location has been graded and cleaned. Only equipment necessary for production remains on the location. The tanks have been cleaned and painted.
- 2) The three pits used for initial water disposal are ready for inspection by John Dennis, USGS, & subsequent leveling.

B) GUS #2: a completion report will be filed on this well; we want to keep the well open for observation for a period of 60 days, at which time we intend plugging and marking for abandonment.

C) GUS #1:

- 1) Present plans include filing of completion report indicating it is ready for operation during a 60-day evaluation period already granted by the USGS, SLC, according to the procedure outlined in previous correspondence.
- 2) If during the evaluation period, we determine the desirability of additional well treatment to retard the flow of water into the well & facilitate the flow of oil, we would like permission for this. Specific details will be provided by the service

18. I hereby certify that the foregoing is true and correct company (B-J) at that time.

SIGNED Martin Krutz TITLE Vice-President DATE 8-23-77

(This space for Federal or State office use)

APPROVED BY THE DIVISION OF  
OIL, GAS, AND MINING

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

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

**CONFIDENTIAL**

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN DUPLICATE\*  
(See other instructions on reverse side)

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG \***

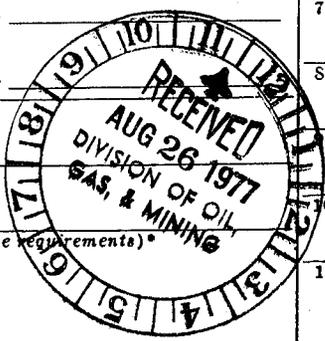
1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
Zion Crude Oil Company

3. ADDRESS OF OPERATOR  
PO Box 370, Hurricane, Utah 84737

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 3' FSL & 1242' FWL  
At top prod. interval reported below same  
At total depth same



5. LEASE DESIGNATION AND SERIAL NO.  
U-27359

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.  
GUS #1

10. FIELD AND POOL, OR WILDCAT  
VIRGIN

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
SEC 14, T41S, R12W SLM

14. PERMIT NO. \_\_\_\_\_ DATE ISSUED 5-17-77

12. COUNTY OR PARISH WASHINGTON 13. STATE UTAH

15. DATE SPUDDED 5-19-77 16. DATE T.D. REACHED 5-31-77 17. DATE COMPL. (Ready to prod.) 6-15-77 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 3612' GR 19. ELEV. CASINGHEAD 3612' GR

20. TOTAL DEPTH, MD & TVD 1037' 21. PLUG, BACK T.D., MD & TVD open to TD 22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_ 23. INTERVALS DRILLED BY percussive ROTARY TOOLS \_\_\_\_\_ CABLE TOOLS \_\_\_\_\_

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* one interval (dynamite fracture) 900' 25. WAS DIRECTIONAL SURVEY MADE no

26. TYPE ELECTRIC AND OTHER LOGS RUN no logs run on this well 27. WAS WELL CORED no

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7"OD	11.5#/ft.	96'	8" to 96' 6" from 96'	approx. 2 yds. requ'd. for surface to TD	

**29. LINER RECORD**

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
none				

**30. TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2"upset	900'	none

**31. PERFORATION RECORD (Interval, size and number)**

three pound radial charge @ 900'

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
875' to 1037'	4000 gal. 15%HCl 3000 Gal. fresh water with 2% KCl

**33.\* PRODUCTION**

DATE FIRST PRODUCTION 7-20-77 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Reda 35 stage 3hp:30 submersible WELL STATUS (Producing or shut-in) shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
7-20/8-5	12 days	---	→	3-5	none	3809	---

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
----	----	→	trace	----	200	28 API

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) none produced TEST WITNESSED BY \_\_\_\_\_

35. LIST OF ATTACHMENTS NONE; well presently shut in; waiting for final approval to produce during evaluation period; ultimately oil expected to replace water.

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

SIGNED Martin Kretzing TITLE Vice-President DATE 8-25-77

\*(See Instructions and Spaces for Additional Data on Reverse Side)



SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

I. DANIEL STEWART  
Chairman

CHARLES R. HENDERSON  
JOHN L. BELL  
THADIS W. BOX  
C. RAY JUVELIN

CLEON B. FEIGHT  
Director

September 6, 1977

Zion Crude Oil Company  
P. O. Box 370  
Hurricane, Utah 84737

Re: Well No. Gus #1  
Sec. 14, T. 41S, R. 12W  
Washington County, Utah

Gentlemen:

Please find enclosed the approved Sundry Notice from above mentioned well.

Also, please note that this work is being approved under Rule C-11, General Rules and Regulations of this Division.

This is a temporary approval, and this office should be kept informed of the status of your work.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

KATHY OSTLER  
RECORDS CLERK

/ko  
Enclosure

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.

U-27359

6. 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 plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

7. UNIT AGREEMENT NAME

1. OIL WELL  GAS WELL  OTHER

8. FARM OR LEASE NAME

2. NAME OF OPERATOR  
Zion Crude Oil Company

9. WELL NO.

GUS #1

3. ADDRESS OF OPERATOR  
POBox 370, Hurricane, Utah 84737

10. FIELD AND POOL, OR WILDCAT

VIRGIN

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface

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

SEC 14, T41S, R12W, SLM

3' FSL & 1242' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, OR, etc.)

3612' GR

12. COUNTY OR PARISH

WASHINGTON

13. STATE

UTAH

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANS

(Other) Begin 60 day evaluation

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT\*

(Other)

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

A 60 day evaluation period of pumping Well GUS #1 was begun on September 9, 1977; approval received from the Utah State Division of Oil, Gas & Mining (dated 9-6-77) and from the U.S. Geological Survey (dated 8-9-77).

The pumping of GUS #1 will be according to the plan outlined on 8-5-77, with the disposal of waste water into Well #6A.

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

SIGNED

*Martin Kretzing*

TITLE

Vice-President

DATE

9-10-77

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.

U-27359

6. 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 plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

7. UNIT AGREEMENT NAME

1.

OIL WELL  GAS WELL  OTHER

8. FARM OR LEASE NAME

2. NAME OF OPERATOR

Zion Crude Oil Company

9. WELL NO.

GUS #1 & GUS #2

3. ADDRESS OF OPERATOR

P.O. BOX 370, Hurricane, Utah 84737

10. FIELD AND POOL, OR WILDCAT

VIRGIN

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface

GUS #1: 3' FSL & 1242' FWL  
GUS #2: 23.50' FSL & 1210.43' FWL

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

SEC 14, T41S, R12W, SLM

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

3612' GR

12. COUNTY OR PARISH

13. STATE

WASHINGTON

UTAH

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON\*

SHOOTING OR ACIDIZING

ABANDONMENT\*

REPAIR WELL

CHANGE PLANS

(Other) \_\_\_\_\_

(Other) operation #1/plug #2

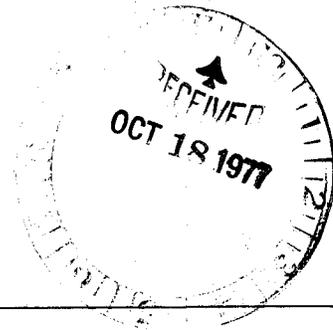
(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

1) 9-30-77, Well GUS #2 was plugged back and marked with a dry hole marker.

2) GUS #1 was operated on an intermittent basis. As expected, the volume of water entering the well bore has decreased to about 10% of the volume specified in the original request for disposal of water into #6A. In addition water analysis has shown the solid particle content of the waste water to have decreased from 37000 ppm to under 4000 ppm.

We intend continued operation of GUS #1 on an intermittent basis with the disposal of 100 barrels of water every two weeks into well #6A.



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

SIGNED Martin Krutzberg

TITLE Vice-President

DATE 10-12-77

(This space for Federal or State office use)

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

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-27359
2. NAME OF OPERATOR Zion Crude Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR POB 370, Hurricane, Utah 84737		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 3' FSL & 1242' FWL		8. FARM OR LEASE NAME
<b>CONFIDENTIAL</b>		9. WELL NO. GUS #1
		10. FIELD AND POOL, OR WILDCAT VIRGIN
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, OR, etc.) 3612' GR	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SEC 14, T41S, R12W, SLM
		12. COUNTY OR PARISH WASHINGTON
		13. STATE UTAH

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

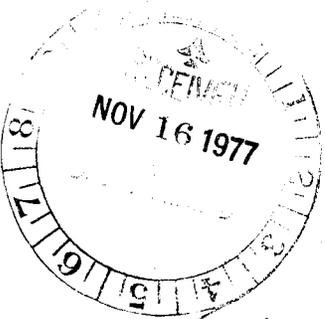
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
(Other) cement off water <input type="checkbox"/>			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

With limited operation of well GUS #1, we have:

- 1) proven that the formation water is limited and can be substantially removed in time.
- 2) determined that the original fractured zone produces all or most of the remaining water from 902' to 903'.
- 3) the presence of this water in the well has effectively eliminated any oil production from the 898' to 900' zone.

Therefore, we propose to cement well GUS #1 from TD (1037') to 901'. With this procedure, we expect to be able to produce substantial oil with little or no water.



APPROVED BY THE DIVISION OF OIL, GAS, AND MINING  
DATE: Nov. 16, 1977  
BY: P. W. [Signature]

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

SIGNED Martin Krueger TITLE Vice-President DATE 11-11-77

(This space for Federal or State office use)

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

FROM  
CARD

COUNTY WASHINGTON SS 14 T 41S R 12W  
WELL NAME GUS #1

	COORDINATION OF RECORDS			
	CARDX	FILES	PI	PRODUCTION
OPERATOR NAME	✓	✓		✓
WELL NAME	✓	✓		✓
LOCATION	✓	✓		
WELL STATUS	✓	✓		✓
TYPE OF WELL	✓	✓		✓
LEASE STATUS	✓	✓		
PRODUCTION DATES	✓	✓		✓
FILE DOCUMENTATION				
APD	✓	✓		
PLAT MAP		✓		
SPUD REPORT OR DATE	✓	✓		✓
SUNDRY OR DRILLING REPORTS	✓	✓		
COMPLETION REPORT	✓	✓		
FORMATION TOPS	✓	✓		
LOGS	✓	✓		
FIELD	✓	✓		✓
API NO	✓	✓		✓
BOND STATUS		✓		

NOTES: Talked to Liane Horsley of mms on 9-22-82. She informed me that Gion Guide Oil Co. is no longer in existence. The lease and a \$10,000 bond are still in effect and will not be released until this well is plugged and abandoned. As of right now, this well is still shut-in.

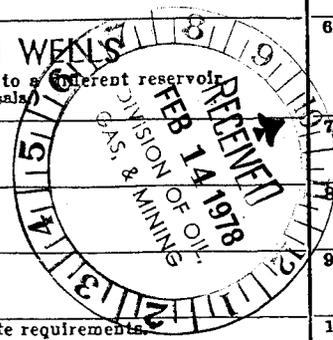
No logs were run on this well.

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)



1. OIL WELL [X] GAS WELL [ ] OTHER [ ]
2. NAME OF OPERATOR: Zion Crude Oil Company
3. ADDRESS OF OPERATOR: POB 370, Hurricane, Utah 84737
4. LOCATION OF WELL: At surface GUS# 1: 3'FSL & 1242'FWL SEC 14, T41 R12W, SLM GUS #2: location changed - see below
14. PERMIT NO.
15. ELEVATIONS: 3612' GR

5. LEASE DESIGNATION AND SERIAL NO.: U-27359
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
9. WELL NO.: GUS# 1 & GUS #2
10. FIELD AND POOL, OR WILDCAT: Virgin
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC 14, T41S, R12W, SLM
12. COUNTY OR PARISH: Washington
13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data
NOTICE OF INTENTION TO: TEST WATER SHUT-OFF [ ], FRACTURE TREAT [ ], SHOOT OR ACIDIZE [ ], REPAIR WELL [ ], (Other) [ ]
PULL OR ALTER CASING [ ], MULTIPLE COMPLETE [ ], ABANDON\* [X], CHANGE PLANS [ ]
SUBSEQUENT REPORT OF: WATER SHUT-OFF [ ], FRACTURE TREATMENT [ ], SHOOTING OR ACIDIZING [X], (Other) [ ]
REPAIRING WELL [ ], ALTERING CASING [ ], ABANDONMENT\* [X]
XXX to follow within 30 days
(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)
1) GUS #1 spud-in: 5-20-77; TD of 1037' reached 5-31-77; no oil show, no water.
2) Verbal permission by telephone from Bill Martens given on 6-1-77 to abandon GUS #1, and to relocate GUS #2 from 40'FNL & 1240'FWL SEC 23 to 23.50'FSL & 1210.43'FWL SEC 14, T41S, R12W, SLM.
3) On returning to drilling location on 6-1-77 and pulling drill pipe, we noticed a fluid level of about a hundred feet (with some oil) above the bottom (TD). We decided to rig for pumping the well; this procedure completed on June 8, 1977. We found insufficient fluid influx into well bore to pump any fluid to surface. We, therefore, decided to shut-in well GUS #1 and hold an unplugged status on the well until the completion of GUS #2. This would allow us the choice of formation stimulation procedures on the better of the two wells. The other well would be plugged with cement. This decision should be possible within 30 days of today's date.
4) As indicated, Spud-in for GUS #2 was 6-10-77. Also, as advised in my telephone conversation with Bill Martens and John Dennis of the USGS, we have been inactive on GUS #2 for the past week due to equipment breakdown.
5) No well logging operations are planned on either well at this time.

18. I hereby certify that the foregoing is true and correct
SIGNED: Martin Kretzing TITLE: Vice-President DATE: 6-16-77
APPROVED BY: [Signature] TITLE: DATE: Feb 16, 1978
BY: [Signature]

\*See Instructions on Reverse Side

12-2-85

memo to File - Well No. Kus #1 43-053-30028  
41S, 12W, SEC 14 WASH.

Dorothy Swindel made an on site inspection and advises the well has been plugged and marked (10-10-85).

The operator is no longer in business and subsequent notice of plugging is not available.

update all records to show P&A for this well, and use the word "unknown" in place of the P&A date.

*[Signature]*