NM - 44

GENERAL CORRESPONDENCE

YEAR(S):

1988-1987

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

BATAAN MEMORIAL BUILDING
STATE CAPITOL
SANTA FE, NEW MEXICO 87503

January 19, 1988

Ms. Jami Bailey, Geologist
Oil Conservation Division
P. O. Box 2088
Land Office Building
Santa Fe, New Mexico 87504-2088

Dear Ms. Bailey:

Reference is made to Mr. Steve Schwebke's January 15, 1988, memorandum (copy enclosed) regarding his review of the Union Texas Petroleum applications for construction and operation of two evaporation ponds for disposal of produced water. Mr. Schwebke states that these ponds fall within State Engineer Office criteria requiring a permit for construction, in particular an embankment over 10 feet high and impounding 10 or more acre-feet.

By copy of this letter we are advising Mr. Bob Frank of Union Texas Petroleum that an application to construct the dams must be submitted to the State Engineer along wih a copy of plans and specifications for review and comment.

If you have any further questions, please feel free to call.

Sincerely,

S. E. Reynolds
State Engineer

By
Eluid L. Martinez, Chief
Technical Division

ELM*hl

cc: Brad Compton, WR
Bob Frank, Union Texas Petroleum, w/attachments

MEMORANDUM

January 15, 1988

State Engineer Office
Santa Fe, New Mexico

TO Donald T. Lopez, P.E., Chief, Design & Construction Section

FROM Steve Schwebke, P.E., Water Resource Engineer

SUBJECT Union Texas Petroleum evaporation ponds, San Juan County

In November, 1987 I reviewed a set of drawings on file in the Oil Conservation Division Office which describe the subject ponds. These ponds are located in San Juan County at T.31N, R.9W, S.23 and T.31N, R.8W, S19 and will contain produced water from oil and gas wells in the area. According to the drawings, the ponds will be constructed on sloping hillsides and will be partially contained by the natural hillside and partially by constructed embankment. It appears that the greatest embankment height will be about 15 feet (above the downstream toe). The ponds are designed to contain 11.5 feet of water, with a resulting volume of about 20 acre-feet each. The ponds are not located on a watercourse and are for the purpose of evaporating produced water only.

These ponds fall within the limit of State Engineer Office design criteria, that is, they impound more than 10 acre-feet and their embankment height exceeds 10 feet. Therefore, in the interest of public safety, I recommend that plans and specifications be submitted to the State Engineer for review and comment.

for Steve Schwebke, P.E.

hl

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

December 1, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Robert C. Frank
Permit Coordinator
Union Texas Petroleum
375 U.S. Highway 64
Farmington, New Mexico 87401

RE: Quinn 10 Lined Evaporation Pit
Section 19-T31N-R8W
San Juan County, New Mexico

Dear Mr. Frank:

The Oil Conservation Division has reviewed the plans and specifications in your application for the above referenced lined evaporation pit. The design specifications submitted are acceptable and your application is hereby approved with the following conditions:

1. The leak detection sump shall be inspected monthly for the presence of fluid. If fluid is observed, the Oil Conservation Division will be notified, a sample taken and analyzed, and the results, along with proposed corrective actions, if necessary will be supplied to the Oil Conservation Division.

2. The pit berms will be inspected for integrity monthly and immediately following any significant rainfall event.

The approved application consists of the application dated September 10, 1987 and materials dated October 6, 1987, submitted as supplements to the application. The application was submitted pursuant to Oil Conservation Commission Order 7940-A and approved pursuant to that order. Any modification of the facility or disposal of wastes not identified in the application or specifically approved must be submitted to the Oil Conservation Division for review. Please be advised that the approval of this disposal facility does not relieve you of liability should your operation result in actual pollution of surface or groundwaters which may be actionable under laws and/or regulations.

The Oil Conservation District Office in Aztec shall be notified at least 24 hours in advance of primary and secondary liner installation to allow for the opportunity of an Oil Conservation Division representative to witness the installation.

On behalf of the staff of the Oil Conservation Division, I wish to thank you for your cooperation during this application review.

Sincerely,

William J. LeMay
Director

cc: OCD - Aztec

WJL:RA:sl

STATE OF NEW MEXICO } ss
County of Bernalillo

THOMAS J. SMITHSON

..... being duly sworn declares and says that he is NAT'L ADV. MGR. of the **Albuquerque Journal,** and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, a copy of which is hereto attached, was published in said paper in the regular daily edition,

for 1 times, the first publication being on the 12 day of October ,198 7..., and the subsequent consecutive publications on ..... ,198.....

Thomas J. Smithson

Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this 12 day of October ,198 7

PRICE .....

Statement to come at end of month.

ACCOUNT NUMBER .....

Signature Kathy Taylor
KATHY TAYLOR
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 6-23-90

EDJ-15 (R-2/86)

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Oil Conservation Division Rules and Regulations, the following permit to construct and operate a commercial evaporation facility has been submitted for approval to the Director of the Oil Conservation Division, PO Box 2088, State Land Office Building, Santa Fe, New Mexico, 87504-2088, (505) 827-5800.

Union Texas Petroleum, Robert Frank, permit coordinator, 375 U.S. Highway 64, Farmington, New Mexico 87401, has submitted for approval applications to construct and operate two evaporation ponds for disposal of produced water. These ponds will be located on the Seymour 10 well site located in the NE/4, SW/4 of Section 23, Township 31 North, Range 9 West, NMPM, San Juan County, New Mexico, and on the Quinn 10 well site located in the NE/4, SE/4 of Section 19, Township 31 North, Range 8 West, NMPM, San Juan County, New Mexico. Each pond will receive approximately 150 barrels of produced water per day from its corresponding well only. The ponds will have a double lining with leak detection. The ground water most likely to be affected by any accidental discharge is at a depth of 80 feet, with a total dissolved solids content of approximately 300 mg/l at the Quinn 10 site, and at a depth of 590 feet with a total dissolved solids content of apporximately 500 mg/l at the Seymour 10 site.

Southwest Water Disposal, David B. Swezey, General manager, PO Box 10734, Farmington, New Mexico 87499, has submitted for approval an application to construct and operate a commercial evaporation pit located in the SE/4, SW/4, Section 32, Township 30 North, Range 9 West, NMPM, San Juan County, New Mexico. Produced water associated with the completion and production operations of oil and gas wells will be disposed of in a wastewater evaporation pond lined with compacted native clays. The permit application addresses the construction, operations, spill/leak prevention and monitoring procedures to be utilized at the site. The ground water most likely to be affected by any accidental discharges is at a depth of approximately 150 feet, with a total dissolved solids content of approximately 800 mg/l.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed permit or its modification, the Director of the Oil Conservation Division will allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him.

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 30th day of September, 1987. To be published on or before October 16, 1987.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/WILLIAM J. LEMAY
Director

Journal, October 12, 1987.

AFFIDAVIT OF PUBLICATION

No. [illegible]

STATE OF NEW MEXICO,
County of San Juan:

[illegible] being duly

sworn, says: That he is the [illegible] of

THE FARMINGTON DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the

hereto attached [illegible]

was published in a regular and entire issue of the said FARMINGTON DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for One consecutive (days) (weeks) on the same day as follows:

First Publication Monday, Oct. 13, 1987

Second Publication

Third Publication

Fourth Publication

and that payment therefor in the amount of $ 33.53

has been made.

Betty Shipp

Subscribed and sworn to before me this 13th day

of Oct. 19[illegible].

J. Shorter

NOTARY PUBLIC, SAN JUAN COUNTY, NEW MEXICO

My Commission expires: June 23, 1990

Copy of Publication

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed permit or its modification, the Director of the Oil Conservation Division will allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him.

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 30th day of September, 1987. To be published on or before October 16, 1987.
SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY
Director

Legal No. 20774 published in the Farmington Daily Times, Farmington, New Mexico on Tuesday, October 13, 1987.

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 30th day of September, 1987. To be published on or before October 16, 1987.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

Union Texas [illegible]

1. Wind speed = U_f = 50 mph
Fetch = 424.5
Depth = 11.5 ft
[illegible] slide = 3:1

From fig 3-23
Wave height = 0.45 [illegible], [illegible] = 0.9 sec

2. [illegible] wave height [illegible]
from fig 7-3 [illegible]

$$\frac{H}{gT^2} = \frac{0.[illegible]}{32.2\,(0.9)^2} = [illegible]3$$

$$\frac{H_b}{H_0} = 1 \;\Rightarrow\; H_b = H = 0.45\ \text{ft}$$

$$\frac{H_b}{gT^2} = 0.0173$$

From Fig 7-2
$\alpha \simeq 1.6[illegible]$ $\beta \simeq 1.15$

$d_{B\,max} = \alpha H_b = 1.67\,(0.45) = .75$
$d_{B\,min} = \beta H_b = 1.15\,(0.45) = .52$

3.) Freeboard

$d = 11.5\ ft$

assume smooth [illegible] $\chi = ?$

$$y_c = d + h_o + \frac{1+\chi}{2} H_i$$

$H_i = 0.45$ $\quad \frac{H_i}{gT^2} = 0.0173$

$$\frac{H_i}{d} = \frac{0.45}{11.5} \cong 0.04$$

From Fig 7-90

$$\frac{h_o}{H_i} = 0.34$$

$$h_o = 0.34 H_i = 0.34(0.45) = 0.153$$

$$y_c = 11.5 + 0.153 + \frac{1+1}{2}(0.45)$$

$$y_c = 12.1$$

overtopping [illegible] $12.1 - 11.5 = 0.6$ [illegible]

with 1.5 ft freeboard a 0.6 ft wave will [illegible]

Union Texas Petroleum

375 U.S. Highway 64
Farmington, New Mexico 87401
Telephone (505) 325-3587

October 6, 1987

Mr. Roger Anderson
N. M. Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501-2088

Re: Quinn 10 Lined Evaporation Pit
Section 19-T31N-R8W
San Juan County, New Mexico

Dear Mr. Anderson:

I will address each item contained in the "Guidelines for Application for Lined Evaporation Pit Permits" as they are presented.

I. General Information

A. Union Texas Petroleum Corporation
375 US Highway 64
Farmington, New Mexico 87401
(505) 325-3587
Robert C. Frank, Representative

B. As above

C. NE/4, SE/4; Section 19-T31N-R8W
San Juan County, New Mexico
A topographic map and site plan are attached

D. The purpose of the facility will be to dispose of produced water from the Quinn 10, Wildcat Fruitland Pool. The water will be run through an API separator and then piped to the evaporation pit. As the Quinn 10 is dewatered and our coal gas development proceeds, it is anticipated one additional well will be added to this facility. The O.C.D. will be notified prior to tieing in the next well.

E. Two copies of the application are enclosed.

F. Affirmation

"I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate and complete to the best of my knowledge and belief."

Robert C. Frank — October 6, 1987

Robert C. Frank — Permit Coordinator

II. General Description

A. Proposed Operations

1. Disposal Facilities Description

The facility will be "closed" in the sense that it will accept only produced water from the Fruitland formation. There will be need for a skimmer pond as the Fruitland does not produce oil and the water will be run through a separator prior to entering the pit.

2. a) The pit will be used year around. The initial daily produced water volume is anticipated to be 150 BWPD with a rapid decline to around 50 BWPD. The pit is capable of a passive evaporation rate of 115 BWPD (based on 90,000 sq. ft. and net evaporation rate of 48"/year). The pond has a total freeboard volume of approximately 132,000 barrels. The maximum depth is 11.5', and using a 1.5' freeboard the water will not be any deeper than 10'. The inside and outside slope of the dikes will be constructed at a 3:1 ratio. The subgrade will be built from naturally occurring materials, mostly a loamy soil with variable clay and sand content. If rock is encountered during construction of the pit, it will be walked down so as to not threaten the integrity of the liner. The primary liner will be 30 mill C.P.E. or equivalent. The bottom liner will be 30 mil P.V.C. The primary liner is compatible with the intended purpose as it is resistant to ultraviolet light and all hydrocarbons, and both liners are resistant to rot, fungus, salts, acidic and alkaline solutions.

The liners will be laid down in sections and seamed in place. There will be sufficient slack in the liners to accommodate contraction and expansion. The liners will

be anchored pursuant to the attached diagrams. Sand tubes will be draped over the inner pond walls to prohibit the liner being blown by the wind. A geotextile material will be installed between the two liners along the dikes. A leak detection system will be constructed of 2" perforated P.V.C. pipe. The leak detection system will rest in a permeable sand medium between the primary and secondary liners. No point in the bottom of the pit will be over 20' from any one point of the leak detection system. The leak detection laterals will be sloped at 2% to the center line. The center line will be sloped at 1% to a corrosion proof sump. The sump will be outside the pit, but within the confines of the facility's fence.

As stated earlier, the minimum freeboard will be 1.5'. There will be no problems with run off and/or run on as a diversion ditch will be cut on the uphill side of the pit and will be diverted around the pit. The pit is located on a gently sloping hill and is out of any established water courses.

b) There will be no other pits or drying beds.

3. There will be no aerators, sprayers or other equipment on location.

B. 1. Spill/Leak Prevention and Procedures

In the event a leak is detected in the primary liner, the well will be shut-in and artificial means employed to evaporate the water in the pit below the level of the leak. The leak will be repaired and production resumed. If both the primary and secondary liners are found to be leaking, the well will be shut-in, the pit drained as outlined above, and the sump will be continuously pumped out until the leaks are found and repaired. The water pipeline from the separator to the pit is visible from the well pad, and will be visually checked each day. Upon discovery of a leak, the NMOCD, Aztec District, will be promptly notified. There are no containment berms other than those inherent with the pit itself.

2. The methods to detect leaks in the pit and pipeline are outlined in Section II B.1. The entire facility will be fenced with a chainlink fence. This will serve to prohibit unauthorized dumping and keep people, livestock and wildlife from coming in contact with the liner and any other associated facilities.

III. Site Characteristics

A. Hydrologic Features

1. The drainage for this portion of the Mesa is towards Pump Canyon. This drainage is an arroyo with only intermittent surface flow. The Pump Canyon is approxi- one-half mile to the west.

   There is one well and one spring within one mile of the pit. There are no other types of naturally occurring water bodies, water courses or groundwater discharges within one mile of the pit. The water well is approximately three quarters of a mile to the southwest. It is reported to be 1021' deep with perforations from 700'-720'. The TDS is estimated to be 900 mg/L. The vertical difference between the pit and the uppermost perforations is approximately 740'. The closest groundwater discharge is the "Bull Spring". The spring is located approximately 900' to the southwest and is vertically separated from the pit by 80'. The spring is fresh and the TDS is estimated at 400 mg/L.

2. Water samples will be taken from the Pump Canyon. The sample analysis will be forwarded when complete and UTP would like for it to be made a part of this application and accepted for record.

3. The flow direction, based on topography, will be southerly in the Pump Canyon.

B. Geologic Description of Pit Site

1. The pit will be constructed from naturally occurring material including sand and clay.

2. The pit is located on top of a mesa approximately 350' above the Pump Canyon. The outcrop from the Canyon to the mesa top is characterized by stacked, alternating massive layers of sandstone and clay. The possibility of any significant vertical migration of any undetected fluids is remote at best. Based on topography, the fluid would most likely flow to the lowest spot, which would readily appear as a seep and would be visible from the pit. UTP does not believe a leak from this

pit would ever get to an underground acquifer. The most likely case would be that a leak, if large enough, could make it to the Bull Spring by flowing through the existing surface drainage.

C. Flood Protection

1. The flooding of this pit is remote at best. As mentioned earlier, the pit is located on top of a mesa, out of any water courses and will have a 1.5' freeboard.

2. There will be diversion ditches cut on the uphill side(s) of the pit.

3. The NMOCD will be promptly notified if the pit should be flooded or washed out.

IV. Additional Information

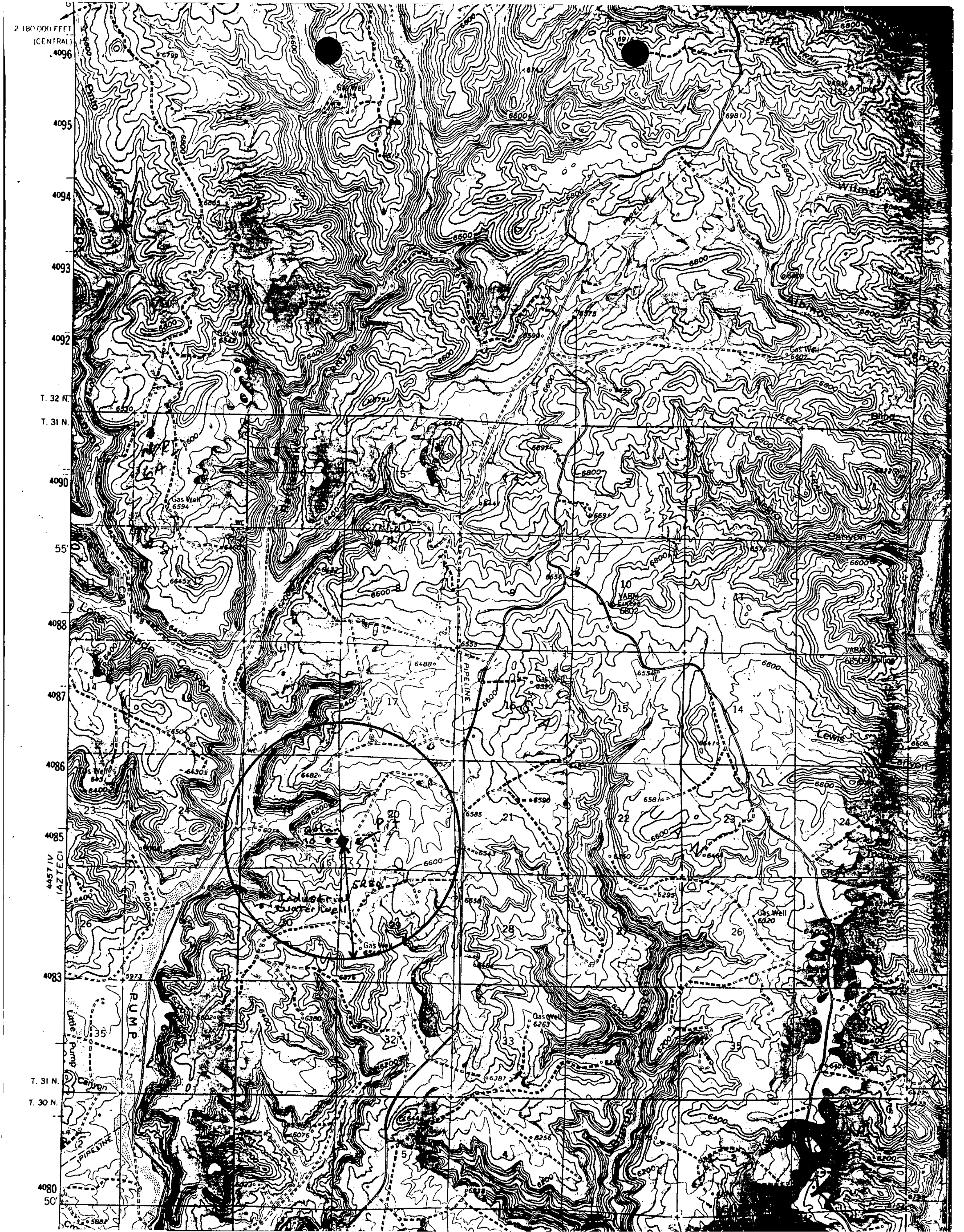
There will be no additional information at this time. The information contained in this application should adequately demonstrate that groundwater will be protected. If any additional information is deemed necessary, please advise.

Very truly yours,

Robert C. Frank

Robert C. Frank
Permit Coordinator

RCF:lmg
attachment


2 180 000 FEET
(CENTRAL)
4096
4095
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4092
T. 32 N.
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4457 IV
(AZTEC)
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Canyon
Gas Well
PIPELINE
JEEP TRAIL
Wilmer
Albino
Canyon
Blind
Negro
Canyon
VABM
Eureka
6802
Lewis
Canyon
Glade
Canyon
Pit
5280
Industrial
Water Well
PUMP
Little Pump Canyon
PIPELINE
6600
6800
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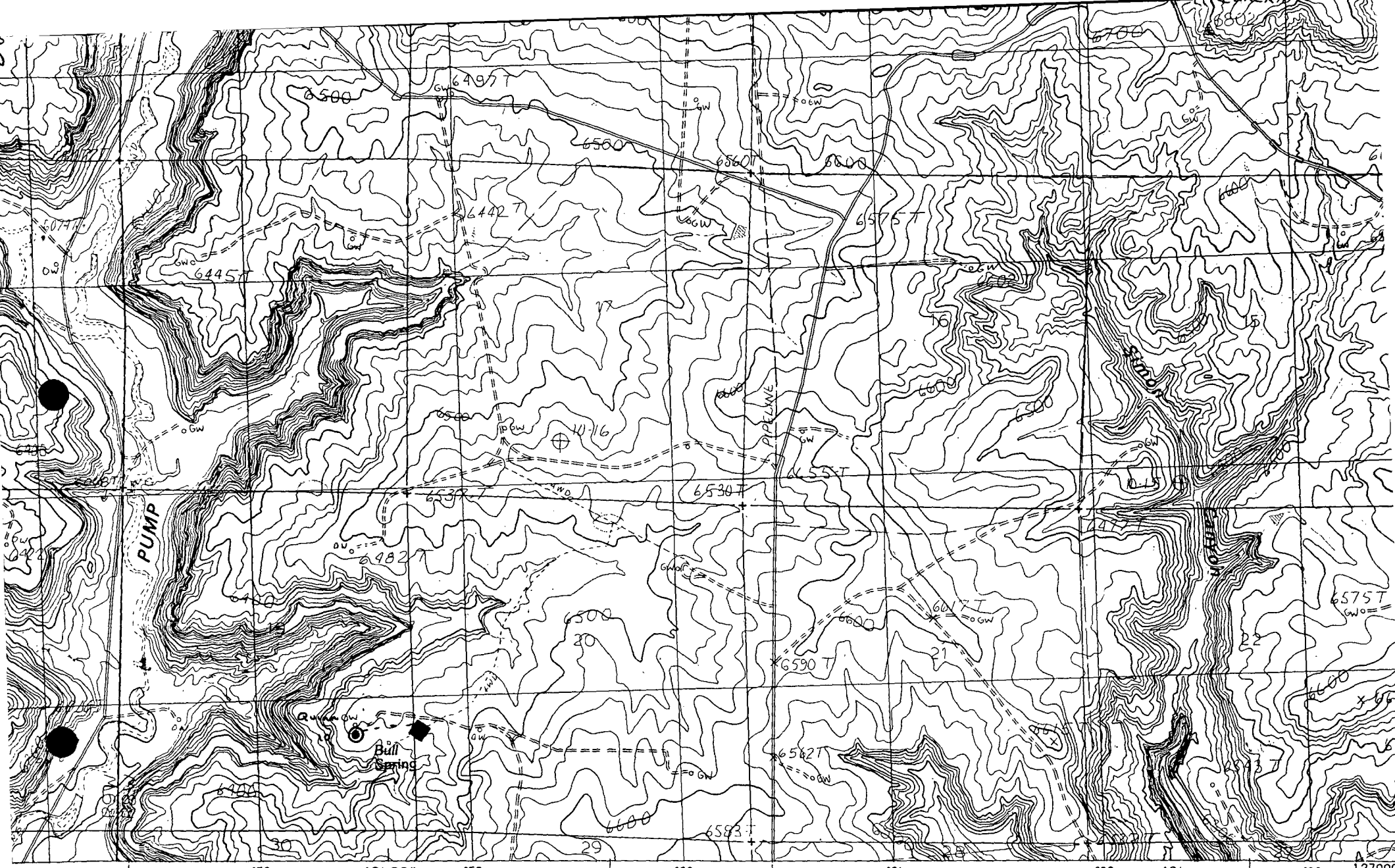


SCALE 1:24 000

1 0 1 MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000 FEET

1 5 0 1 2 KILOMETERS

1000 0 1000 2000 METERS

CONTOUR INTERVAL 20 FEET

NORTH

NEW M

QUADRANGLE

1 2 3

PROVISIONAL MAP
Produced from original

Union Texas Petroleum

375 U.S. Highway 64
Farmington, New Mexico 87401
Telephone (505) 325-3587

September 10, 1987

Ms. Jami Bailey
N. M. Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Quinn 10 Lined Evaporation Pit
Sections 19 & 20-T31N-R9W
San Juan County, New Mexico

Dear Jami,

I am submitting the following permit application for your review and approval. I will address each section of the "Guidelines for the Design and Construction of Liner Evaporation Pits (Revised 5/85)" on a line by line basis.

1(a) The area in which the pit is situated is out of any watercourse, known sinkhole or other depression.

2(a) The pits were sized using a net evaporation rate of 48"/year. The evaporative rate of 60"/year was determined from evaporation studies conducted by the Arizona Public Service Company on their cooling/ evaporation ponds near Farmington, New Mexico. This evaporative surface area (compensated for freeboard) for the pit is approximately 90,000 ft^2. The pit will yield a yearly net evaporation rate of 115 barrels of water per day. The well that the pit will service has not been tested, yet we anticipate the initial production to be approximately 150 BWPD with a steep decline as the coal is de-watered. As our Fruitland Coal reserves are developed, we anticipate as many as two more wells will be added to this pond.

(b) The pit will be leveled, compacted, set into a gentle sloping hill located, and will be rectangular. The levees will rise at least 18" above ground. (See attached diagrams).

(c) Wave calculations for a pit this small and shallow are difficult. After consulting the Corps of Engineers and evaluating readily available data, an 18" free-board allowance will satisfactorily cover any waves generated in this pit. The maximum water depth will be 11.5' and the maximum diagonal fetch is 424.5'. A 50 MPH wind sustained for approximately 1-1/2 minutes would generate approximately a 7" wave over the maximum fetch. Wind gusts over 50 MPH in this are not uncommon, but the chance for a 1-1/2 minute sustained wind of 50 MPH in the direction of the maximum fetch is remote at best. The waves generated will be a non-breaking type and will have negligible effect on the levees. The levees will have a 3:1 inside slope, be a minimum of 10' wide, and will be compacted to 95% of standard proctor.

(d) The inside and outside slope of the pit will be 3:1.

(e) The top of the levee will be level and will be 10' wide.

(f) The pit will have a primary liner, secondary liner and leak detection system. The leak detection system will be set in a permeable medium between liners.

3(a-d) The primary liner will be 30 mil CPER or equivalent. The bottom liner will be 30 mil P.V.C. The primary liner is resistant to ultraviolet light and all hydrocarbons, and both liners are resistant to rot, fungus, salts, acidic and alkaline solutions.

4(a-d) A leak detection system will be installed. The leak detection system will be made of 2" perforated P.V.C. pipe. The leak detection system will rest in a permeable sand medium in between the primary and secondary liner. No point in the pit will be over 20' from any one point of the leak detection system. The leak detection laterals will be sloped at 2% to the center drain line. The center line is sloped 1% to a corrosion proof sump. The sump will be outside the pit but within the confines of the facility's fence.

5(a) All portions of the pit will be smooth and compacted to 95% of proctor and will be free of holes, rocks, stumps, clods, or any other debris which may rupture the liner. A thin layer of permeable sand will be spread over the bottom and sides of the pit prior to installing the secondary liner. The sand will provide a permeable medium so any gaseous matter may be vented from beneath the liner.

(b) A trench will be excavated in the top of the levee. The trench will be set back a minimum of 9" from the slope break and will be at least 12" deep.

6(a) The NMOCD district office in Aztec, New Mexico will be notified at least 24 hours in advance of the secondary liner installation.

(b) Both liners will be installed and sealed to manufacturers specifications. The liners will be installed by a qualified and experienced oil field service company.

(c) Folds will be placed in the liner to allow contraction and expansion. The liner will be of sufficient size to extend 2" beyond the outside edge of the anchor trench.

(d) A venting system will be installed in the pit. A permeable layer of sand will be placed between the earthen pit-bed and secondary liner. The pit-bed will be sloped upward at 2% from the longitudinal pit axis to the toe of the levee.

(e) Sand tubes will be draped over the dike to hold the liner down (see schematic).

(f) The primary liner will be made of sun resistant material.

(g) Any sand or gravel that may be placed on top of the liners will not jeopardize the liner integrity.

7(a-g) A skimmer pond will not be necessary as all water placed in the pits will have been previously discharged from an A.P.I. separator and will be accepting only Fruitland Coal water.

8(a) A 6' chainlink fence will be installed around the facility.

(b) A sign will be posed on the fence at the service entrance. The sign will be a minimum of 12" x 24". The lettering will be 2" or greater and will indicate the operator, quarter-quarter section, township and range.

9(a) The leak detection sump will be inspected weekly and noted by our production personnel.

(b) The outside walls of the levee shall be maintained so as to prevent erosion. Natural vegetation will be allowed to grow back onto the levee walls. After any significant rainfall, the levee walls will be inspected.

10(a) In the vent a leak is detected in the primary liner, the well will be shut-in and artificial means employed to evaporate the water in the pit below the level of the leak. The leak will be repaired and production resumed. If both the primary and secondary liners are found to be leaking, the well will be shut-in and the pit drained as outlined above, and the leak detection sump will be continuously pumped out until the leaks are found and repaired.

Union Texas Petroleum wishes to advise that this pond will be accepting only water produced from the Quinn 10, Wildcat Fruitland formation. If Union Texas Petroleum desires to change this permit or to accept any water other than that designated, the NMOCD will be notified and any additional data will be submitted. In addition, the pump house will only house the drain line. There are no pump or spray systems anticipated at this time.

If I may be of any further assistance, please advise.

Very truly yours,

Robert C. Frank

Robert C. Frank
Permit Coordinator

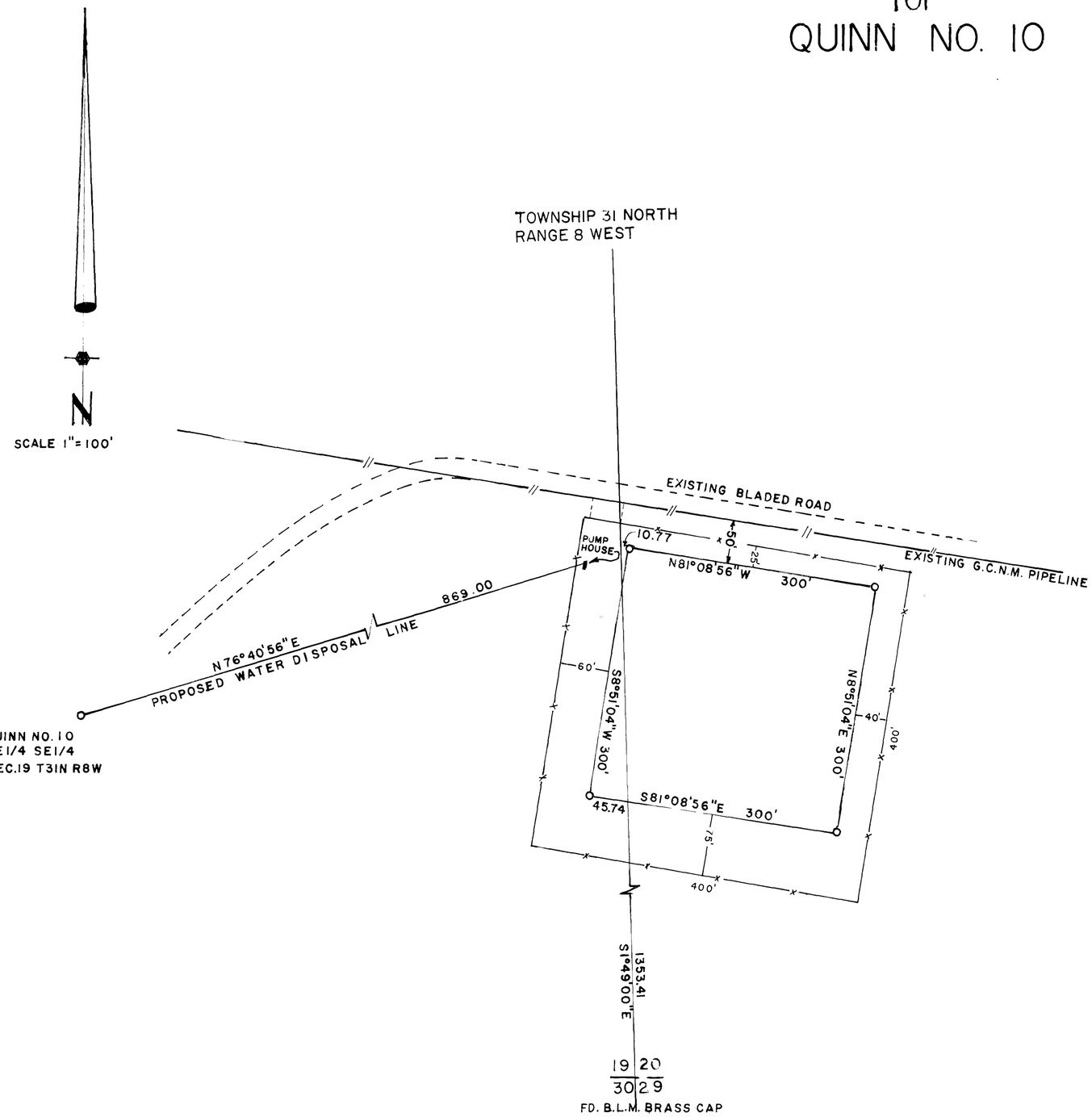
RCF:lmg
attachments

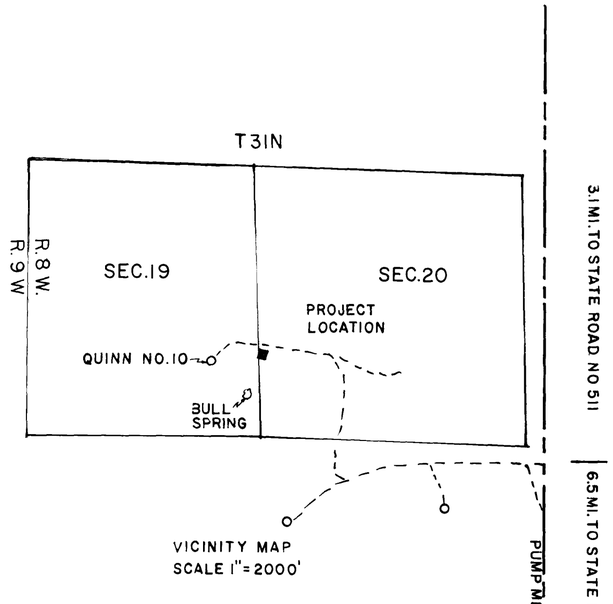
UNION TEXAS PETROLEUM

EVAPORATION PIT

for

QUINN NO. 10





SHEET 1= LOCATION

SHEET 2= TOPO and QUANTITIES

SHEET 3= DETAILS

Cecil B Tullis

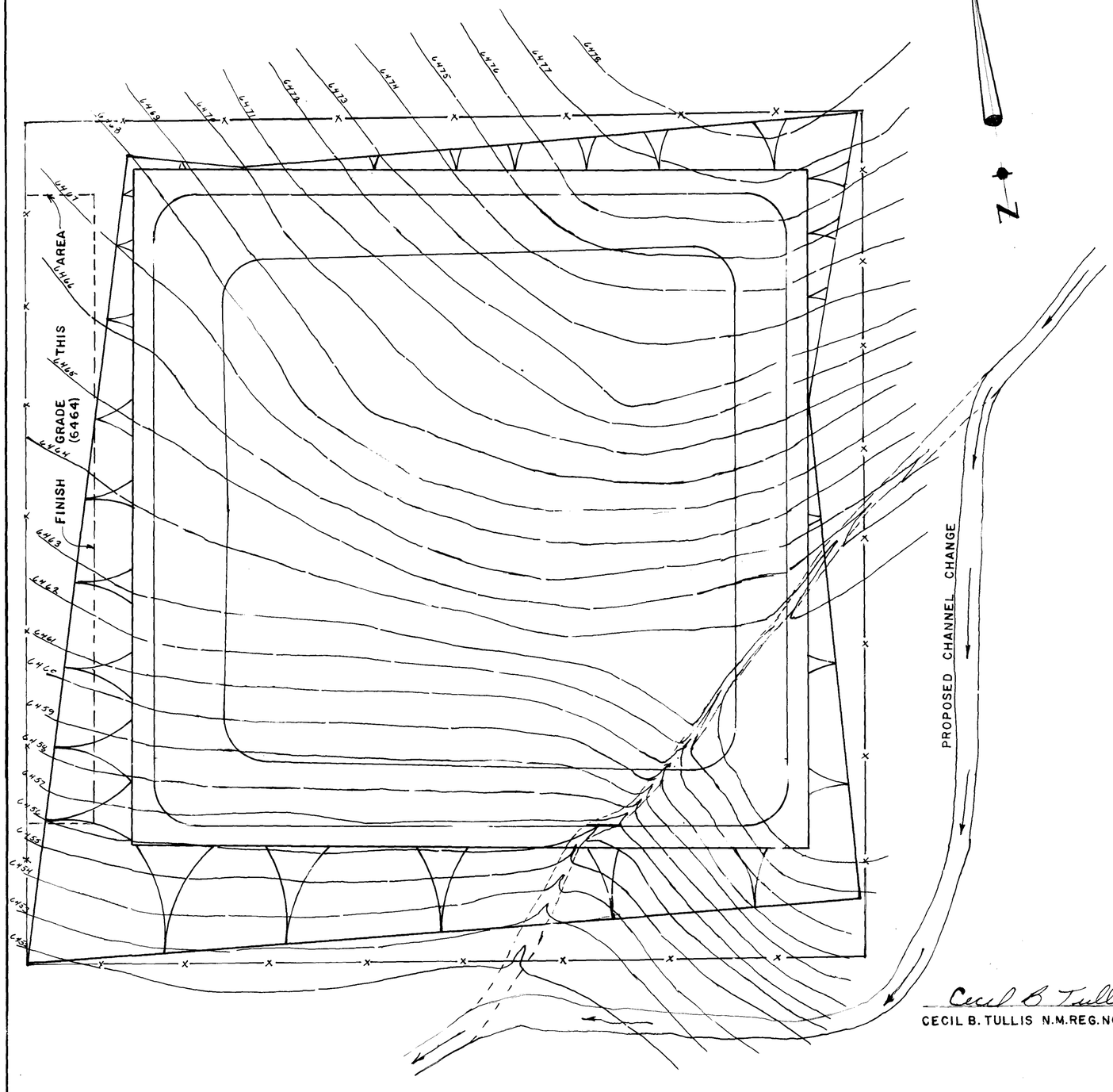
CECIL B. TULLIS N.M.REG.NO. 9672

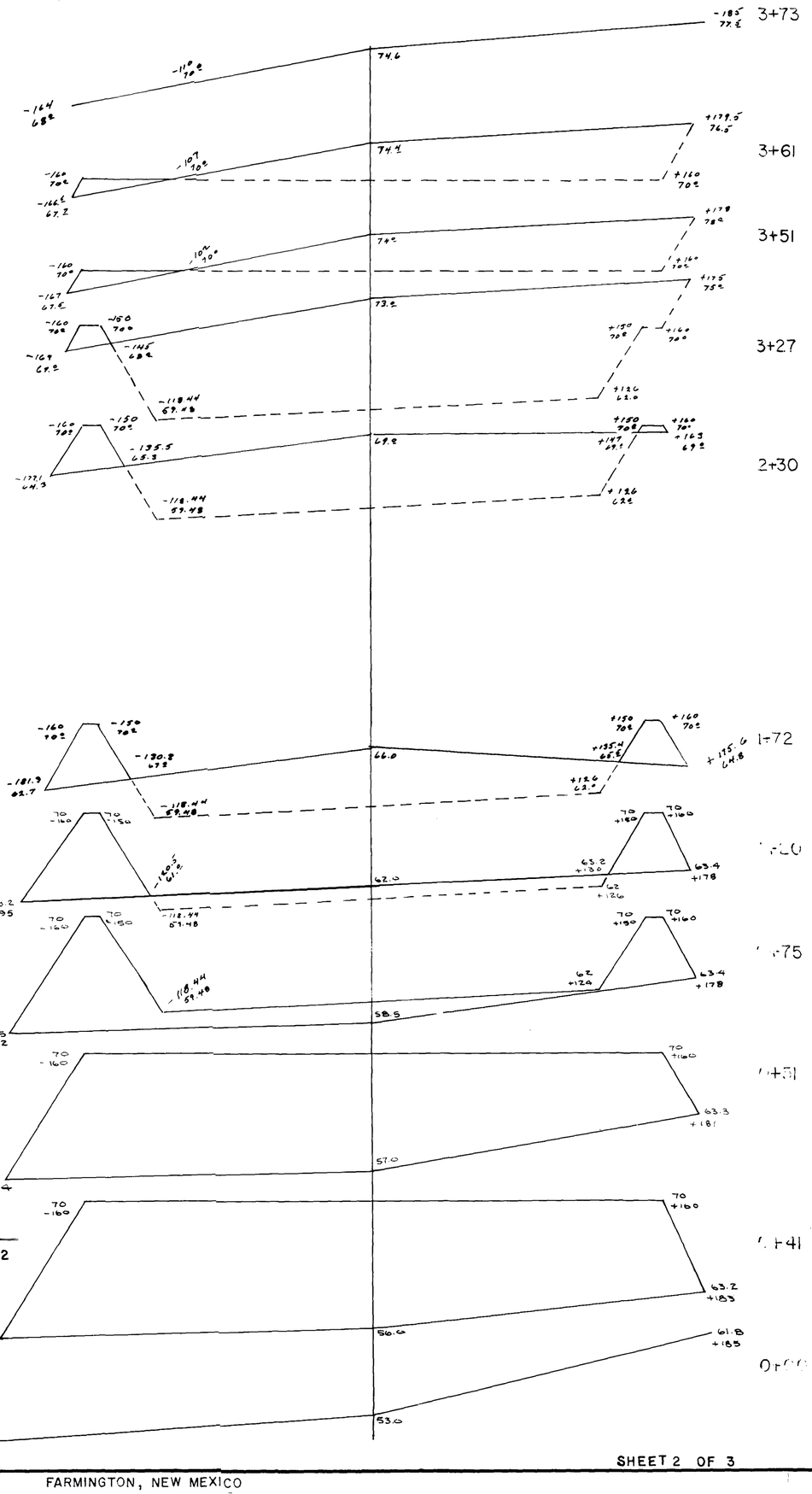
HIGH COUNTRY SURVEYS

FARMINGTON NEW MEXICO

UNION TEXAS PETROLEUM EVAPORATION PIT FOR QUINN NO. 10

CONTOUR MAP — SCALE: 1" = 40'
INTERVAL = 1'





Cecil B. Tullis
CECIL B. TULLIS N.M.REG. NO. 9672

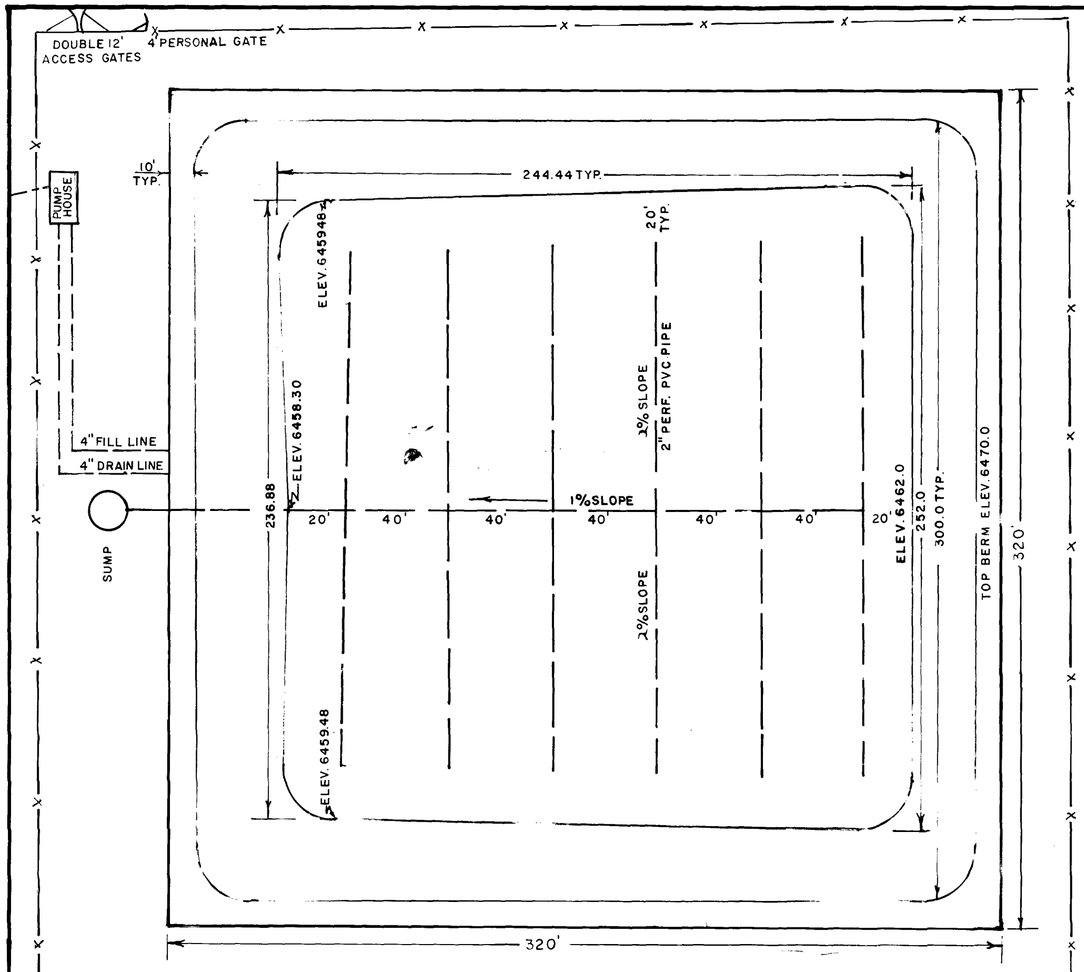
VOLUMES — CUT = [illegible] CU.YDS.
FILL = [illegible] CU.YDS.

AUGUST 17 1987

HIGH COUNTRY SURVEYS

FARMINGTON, NEW MEXICO

UNION TEXAS PETROLEUM EVAPORATION PIT
for
QUINN NO.10



NOTES

CONSTRUCTION TO BE IN CONFORMANCE WITH SPEC.
FOR DESIGN AND CONSTRUCTION OF LINED EVAPORATION
PITS PUBLISHED BY N.M.O.C.D.
ALL SLOPES TO BE 3:1 UNLESS NOTED
ALL RADIUS TO BE 20'
FENCE TO BE 6' CHAINLINK W/ 3 STRANDS BARBED WIRE

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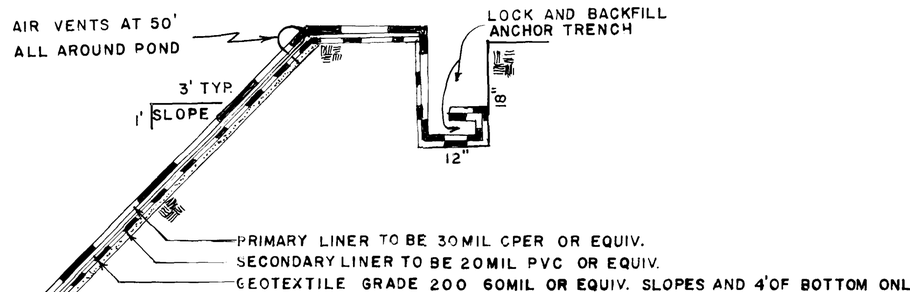
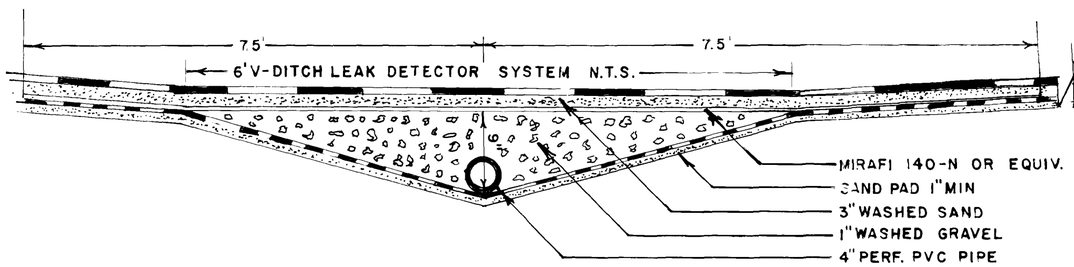
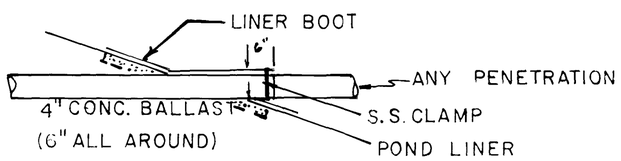
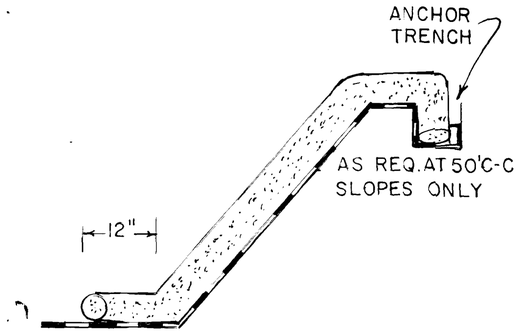
DOUBLE LINER SYSTEM
ANCHOR DETAIL
N.T.S.



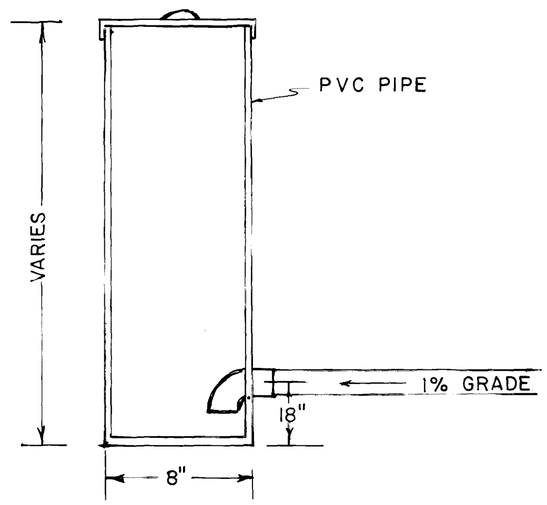




TYP. LINER PENETRATION DETAIL N.T.S.



TYP 6" SAND TUBES N.T.S.



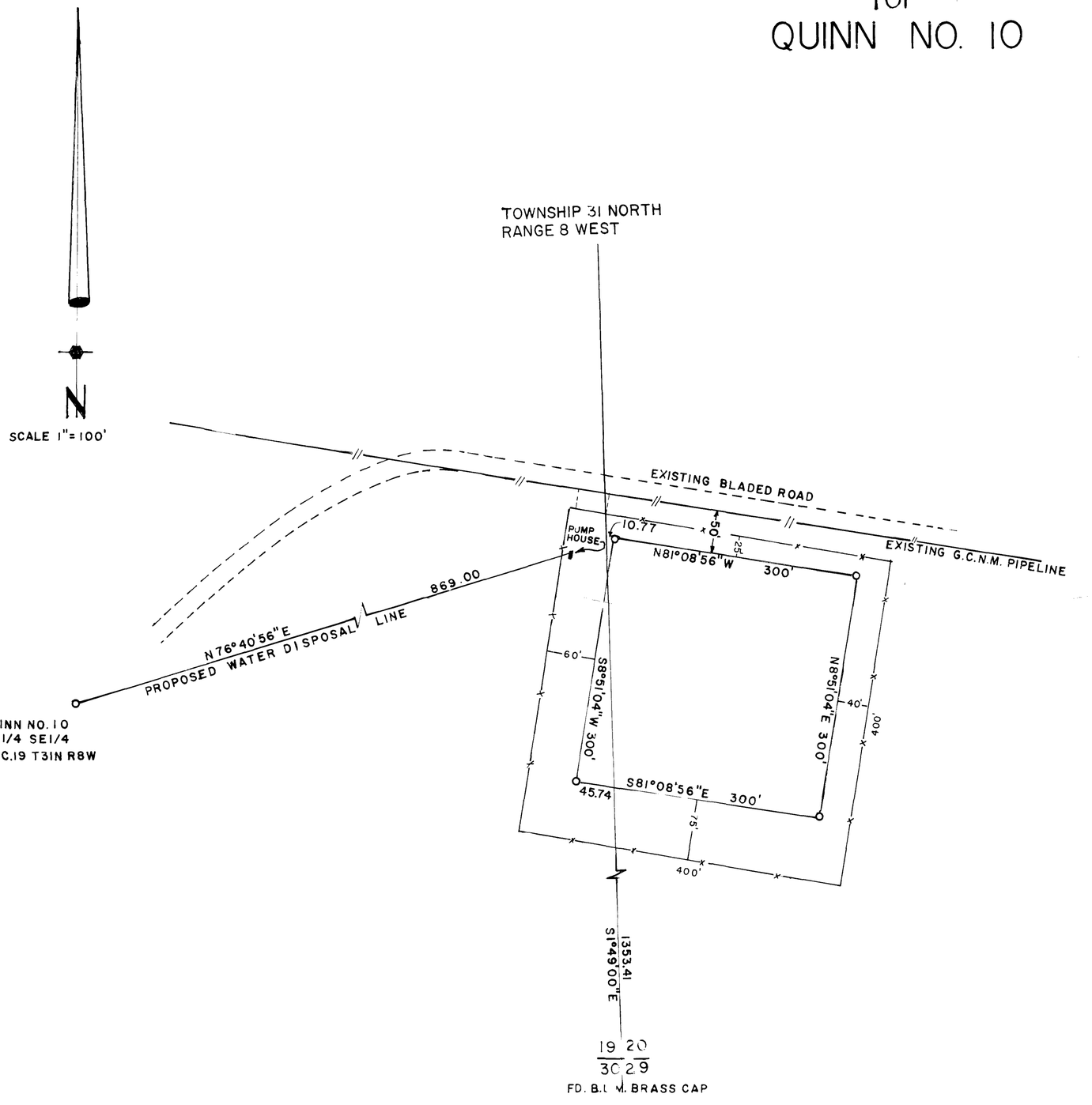
TYP. SUMP DETAIL N.T.S.

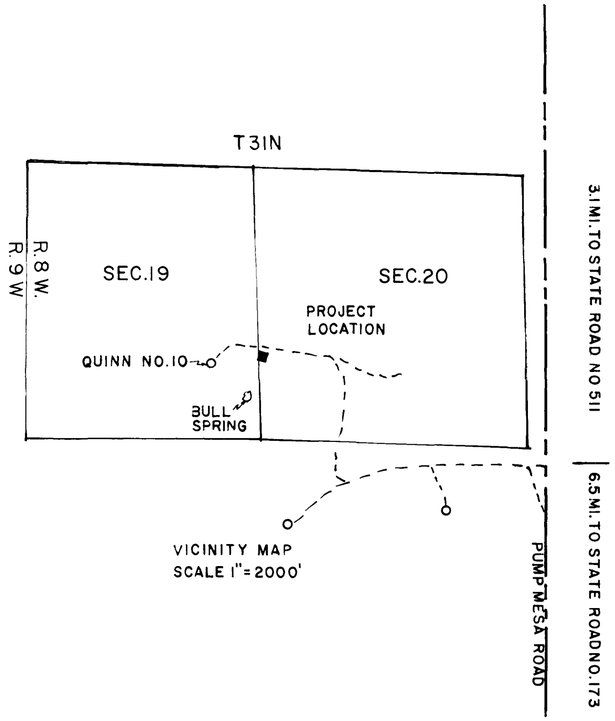
UNION TEXAS PETROLEUM

EVAPORATION PIT

for

QUINN NO. 10





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Cecil B Tullis

CECIL B. TULLIS N.M.REG.NO. 9672

HIGH COUNTRY SURVEYS

FARMINGTON NEW MEXICO

UNION TEXAS PETROLEUM EVAPORATION PIT FOR QUINN NO. 10

CONTOUR MAP — SCALE: 1" = 40'
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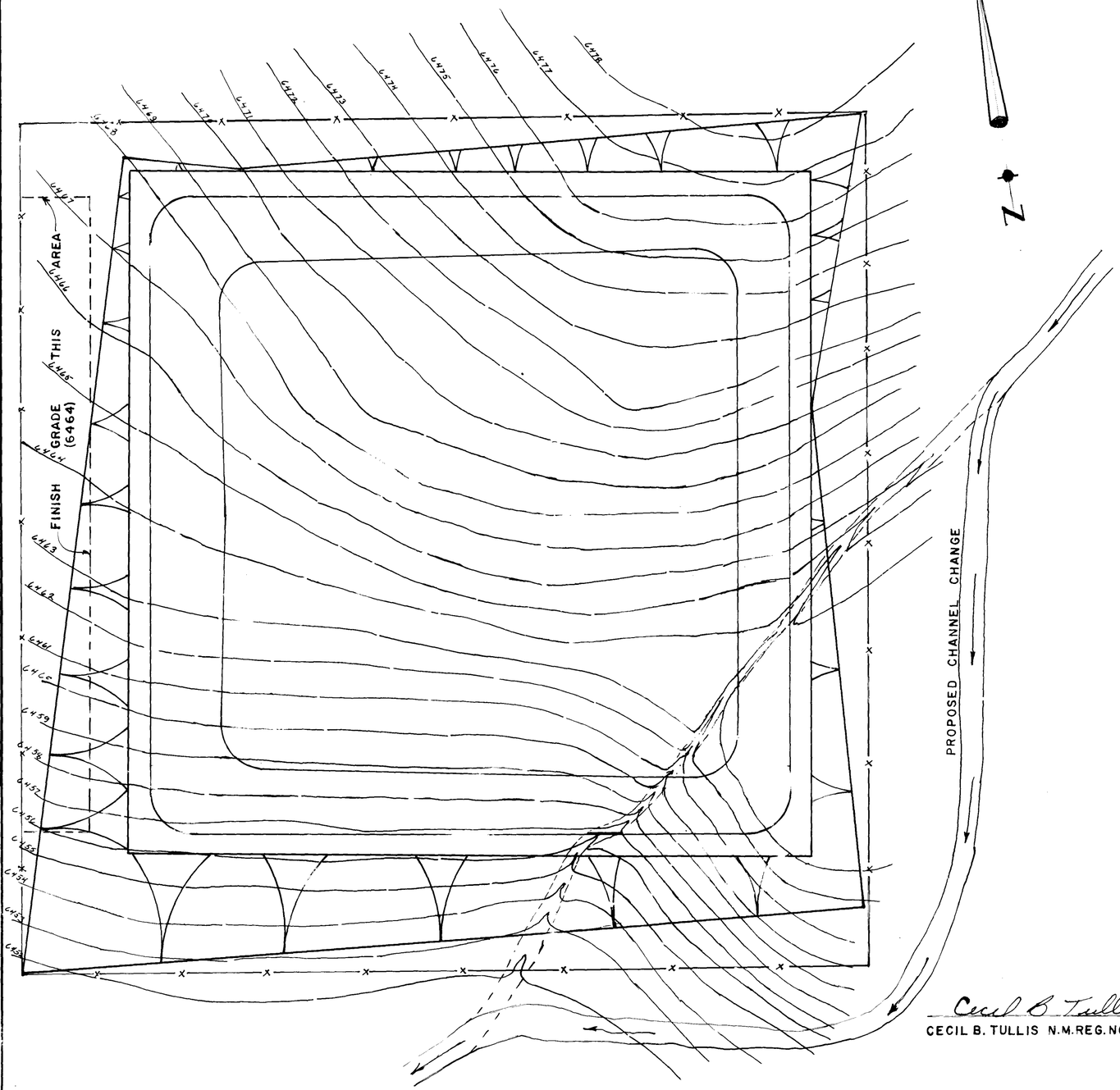
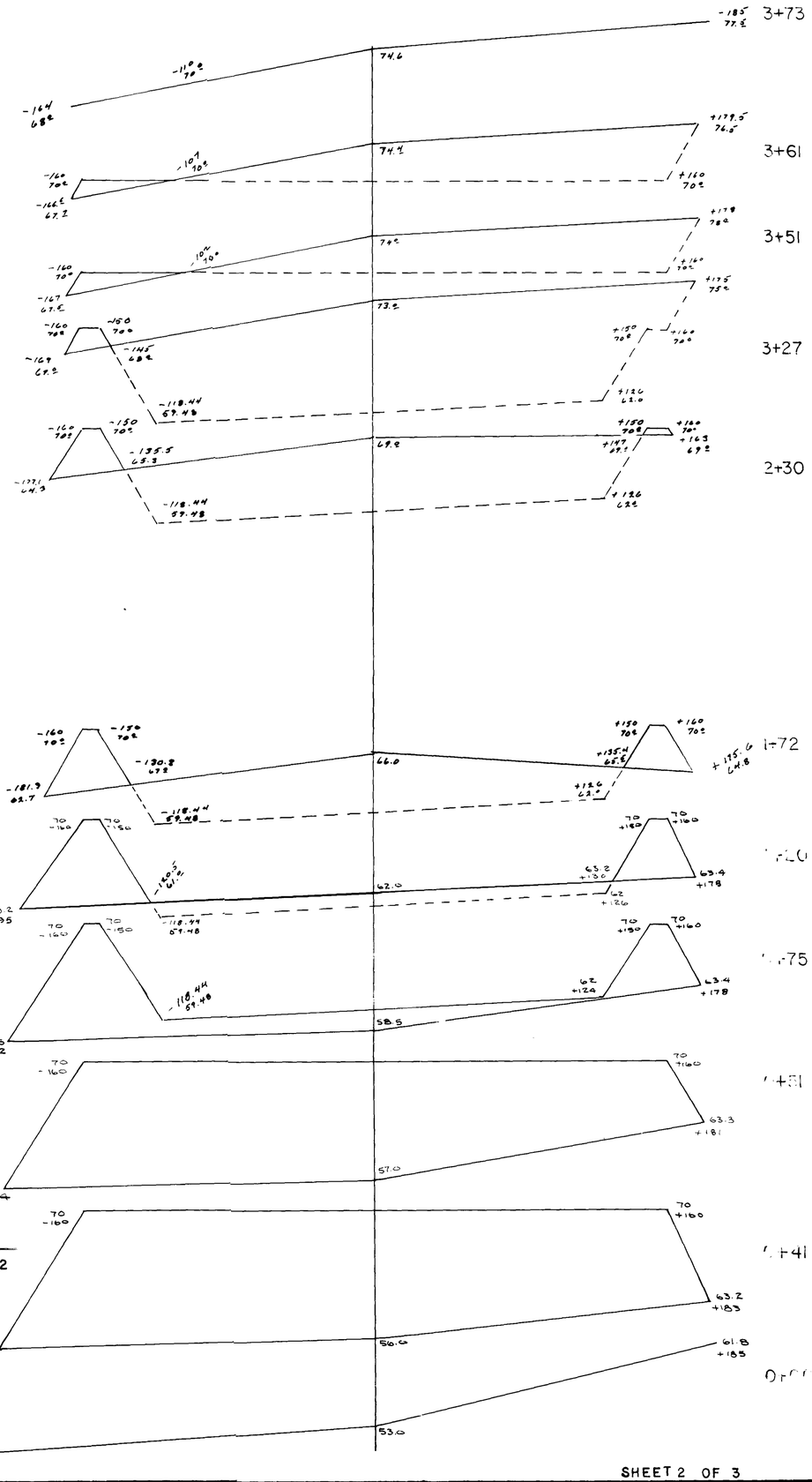


VOLUMES — CUT = [illegible] CU.YDS.
FILL = [illegible] CU.YDS.

Cecil B. Tullis
CECIL B. TULLIS N.M.REG. NO. 9672

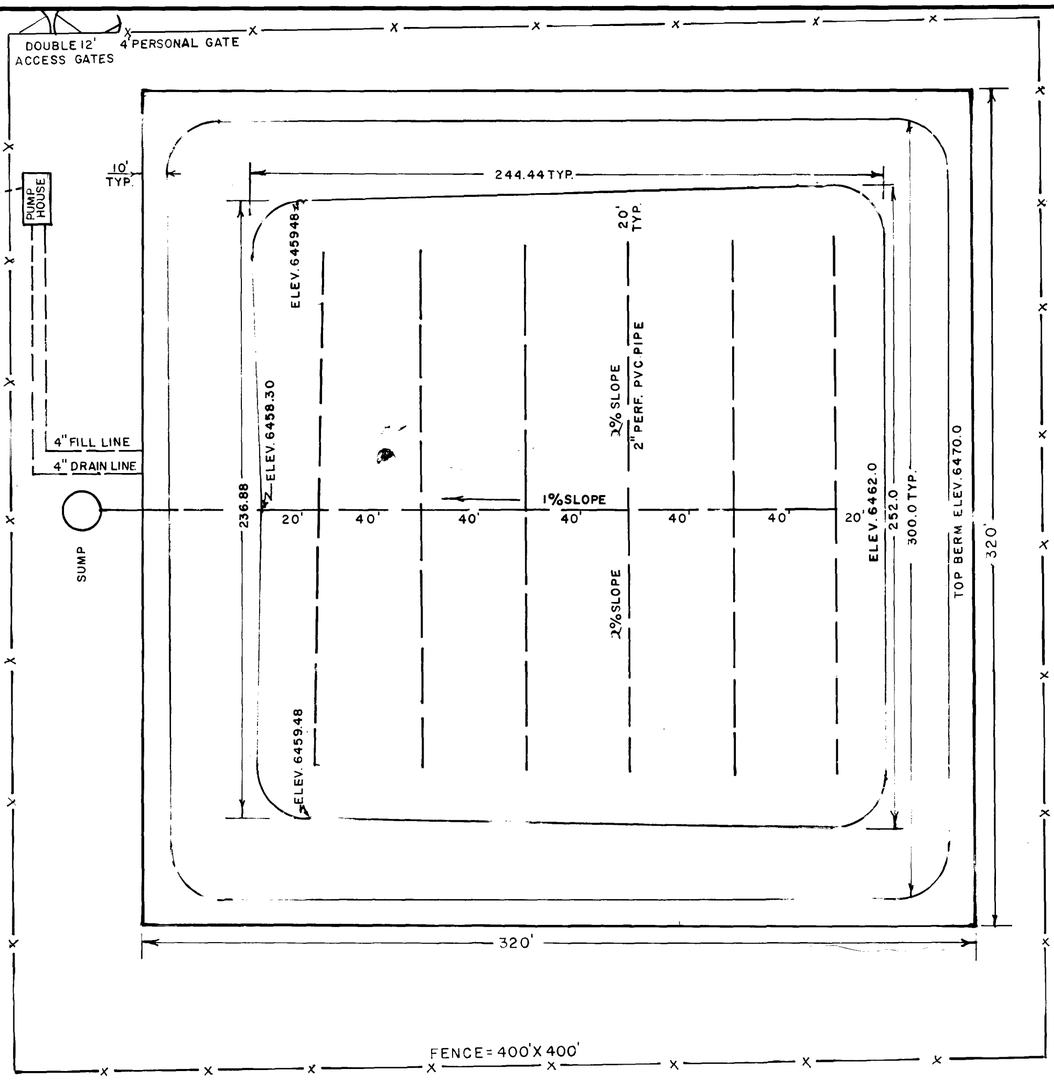


AUGUST 17 1987

SHEET 2 OF 3

HIGH COUNTRY SURVEYS — FARMINGTON, NEW MEXICO

UNION TEXAS PETROLEUM EVAPORATION PIT
for
QUINN NO.10



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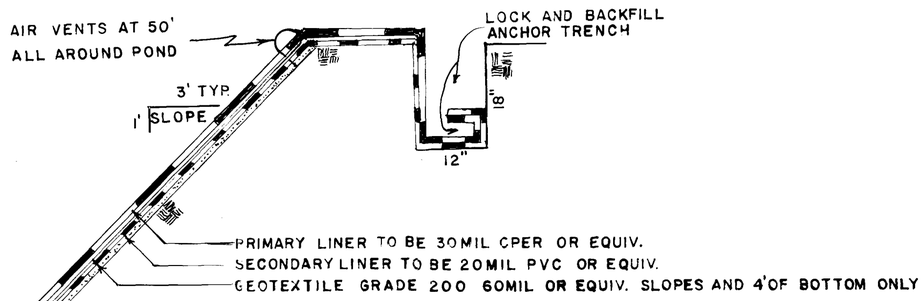
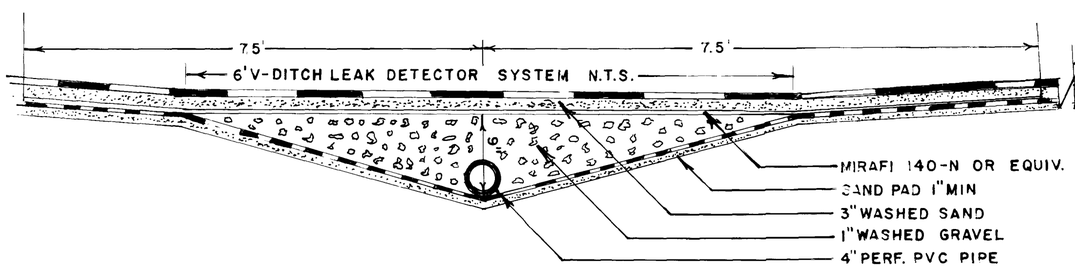
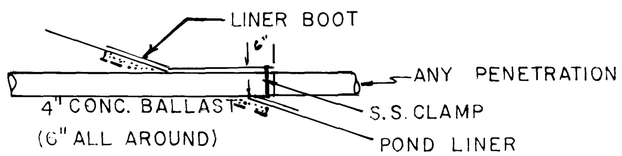
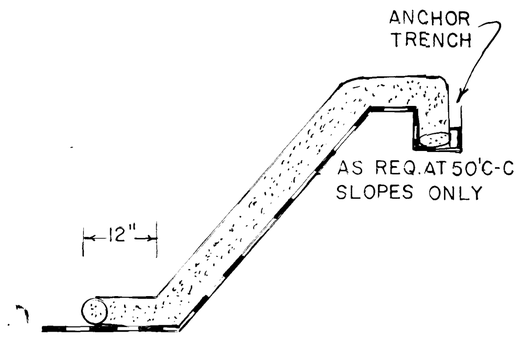


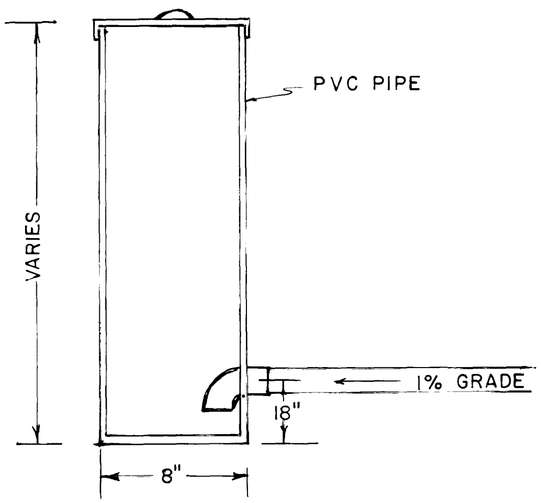




TYP. LINER PENETRATION DETAIL N.T.S.



TYP 6" SAND TUBES N.T.S.



TYP. SUMP DETAIL N.T.S.