

2014



**OXY USA WTP Limited Partnership**

A subsidiary of Occidental Petroleum Corporation

5 Greenway Plaza, Suite 110, Houston, Texas 77046

P.O. Box 4294, Houston, Texas 77210-4294

Direct: 713.350.4933 Fax: 713.985.8849

Colin\_barnett@oxy.com

February 21, 2012

LRE Operating, LLC  
Heritage Plaza, Suite 4600  
1111 Bagby Street  
Houston, Texas 77002

Re: Waiver Request  
**Piglet 21 State #3**  
Proposed TVD: 5,200'  
SL: 1014' FSL & 1000' FEL; BHL: 1014' FSL & 1000' FEL  
Section 21: SESE  
**Township 17 South, Range 28 East**  
Eddy County, New Mexico

Ladies and Gentlemen:

Pursuant to 19.15.15.12 NMAC, **OXY USA WTP Limited Partnership**, (hereinafter "OXY") is hereby notifying LRE Operating, LLC of its intent to drill and operate the referenced well within a spacing unit in which LRE Operating, LLC currently operates the Sedona #1 (30-015-37696).

Additionally, OXY respectfully requests that LRE Operating, LLC execute below, waiving any objection to OXY's proposed operation.

Should LRE Operating, LLC object to OXY's proposed operation, it must deliver a written statement of objection to OXY within twenty (20) days of the date of this letter.

Should you have any questions, please feel free to contact me.

Very Truly Yours,

**OXY USA WTP Limited Partnership.**

Colin D. Barnett  
Landman

\_\_\_\_\_, hereby waives any protest or objection to the drilling and operation of the Piglet 21 State #3.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

Date: \_\_\_\_\_

# DRILLING PLAN

OPERATOR NAME / NUMBER: OXY USA WTP LIMITED PARTNERSHIP 192463

LEASE NAME / NUMBER: Piglet 21 State # 3

Federal Lease No:

STATE: NM

COUNTY: Eddy

SURFACE LOCATION: 1014' FSL & 1000' FEL, Sec 21, T17S, R28E

BOTTOM HOLE LOCATION: 1014' FSL & 1000' FEL, Sec. 21, T17S, R28E

C-102 PLAT APPROX GR ELEV: 3632.00'

EST KB ELEV: 3647.50' (14' KB)

**1. GEOLOGIC NAME OF SURFACE FORMATION**

a. Permian

**2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS**

Formation	TV Depth Top	Expected Fluids
Rustler	352	
Tansil	498	None
Yates	625	None
Seven Rivers	755	
Queen	1438	
San Andres	2187	
Glorietta	3571	Oil
Tubb – Base Yeso	5069	Oil
TD	5200	TD

A. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

GREATEST PROJECTED TD 5200' MD / 5200' TVD OBJECTIVE: Yeso

**3. CASING PROGRAM**

Surface Casing: 9.625" casing set at ± 400' MD/ 400' TVD in a 12.25" hole filled with 8.40 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-400'	400'	36	J-55	ST&C	2020	3520	394	8.92	4.77	14.99	26.13	27.36

Production Casing: 5.5" casing set at ± 5200' MD / 5200' TVD in a 8.75" hole filled with 10.00 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'- 5200'	5200'	17	J-55	LT&C	4910	5320	247	4.89	4.77	2.25	2.44	2.79

Collapse and burst loads calculated using Stress Check with actual anticipated loads.

#### 4. CEMENT PROGRAM:

##### Surface Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Surface (TOC: 0' -400')</b>							
<b>Lead:</b> 0' - 400' (150% Excess)	250	400'	Premium Plus Cement, with 2% Calcium	6.39	14.80	1.35	2500 psi

##### Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Production (TOC: 0' -5200')</b>							
<b>Lead:</b> 0' - 3000 (150 % Excess)	940	3000	Halliburton Light Premium Plus with 5% Salt, 5 lb/sx Gilsonite and 0.125 lb/sx Poly_E_Flake (Lost circulation)	9.571	12.9	1.87	530 psi
<b>Lead:</b> 3000' - 5200 150 % Excess)	1140	2200'	50/50 Poz Premium Plus with 3% Salt, 0.4% Halad ®-322 (Low Fluid Loss Control) 0.125 lb/sx Poly E_Flake (Lost circulation)	5.638	14.5	1.24	980 psi

#### 5. PRESSURE CONTROL EQUIPMENT

**Surface: 0 - 400'** None.

**Production: 0 - 5200'** the minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi .

- The 11" 3000 psi blowout prevention equipment will be installed and operational after setting the 9 5/8" surface casing and the 9 5/8" SOW x 11" 3K conventional wellhead;
- The BOP and ancillary BOPE will be tested by a third party upon installation to the 9 5/8" 36# J-55 surface casing. All equipment will be tested to 250/3000 psi for 10 minutes.
- The pipe rams will be functionally tested during each 24 hour period; the blind rams will be functionally tested on each trip out of the hole. These functional tests will be documented on the Daily Driller's Log. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3 " choke line having a 3000 psi WP rating.
- See attached BOP & Choke manifold diagrams.

#### 6. MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 - 400'	8.4 - 8.9	32 - 34	NC	Fresh Water /Spud Mud
400' - TD	9.8 - 10.0	28 - 29	NC	Brine Water

Remarks: Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times.

## **7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT**

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.

## **8. LOGGING / CORING AND TESTING PROGRAM:**

- A. Mud Logger: None.
- B. DST's: None.
- C. Open Hole Logs as follows: Triple combo for production section.

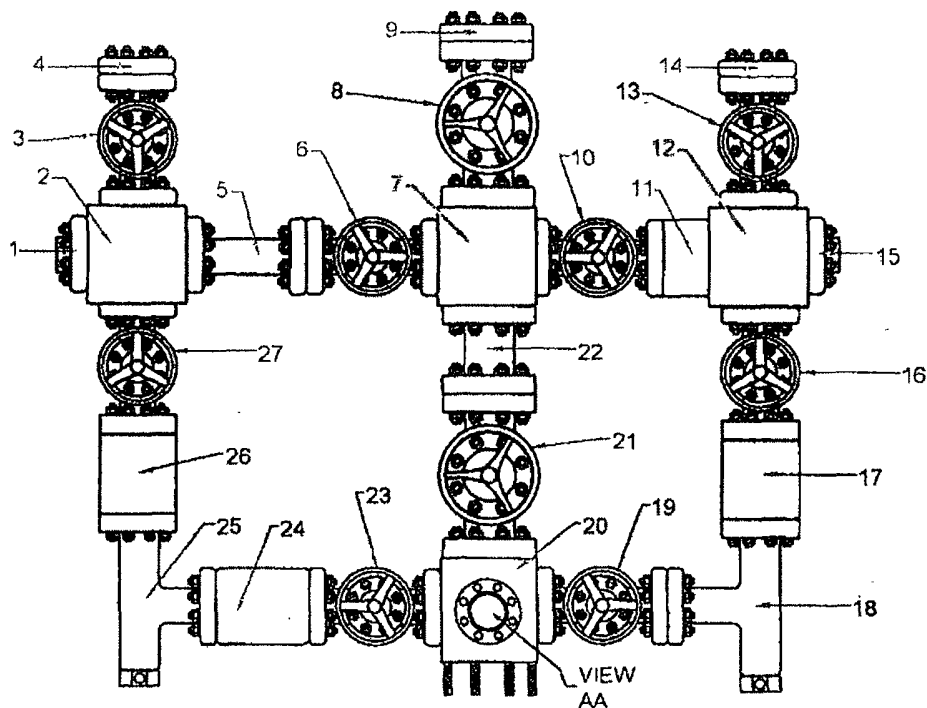
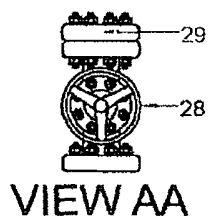
## **9. POTENTIAL HAZARDS:**

- A. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- B. The bottomhole pressure is anticipated to be 2500 psi
- C. No abnormal temperatures or pressures are anticipated. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

## **10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS**

Road and location construction will begin after the NMOCD has approved the APD. Anticipated spud date will be as soon as possible after NMOCD approval and as soon as a rig will be available. Move in operations and drilling is expected to take 15 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

RIG #



Scale:	N.T.S	Date:		Description:	
Drawn by:	RAVI MANI	DWG#		3-1/8" x 2-1/16" 3000#	
Checked by:		REV	00	NACE TRIM SINGLE	
				GUT CHOKE & KILL	
				MANIFOLD SYSTEM	

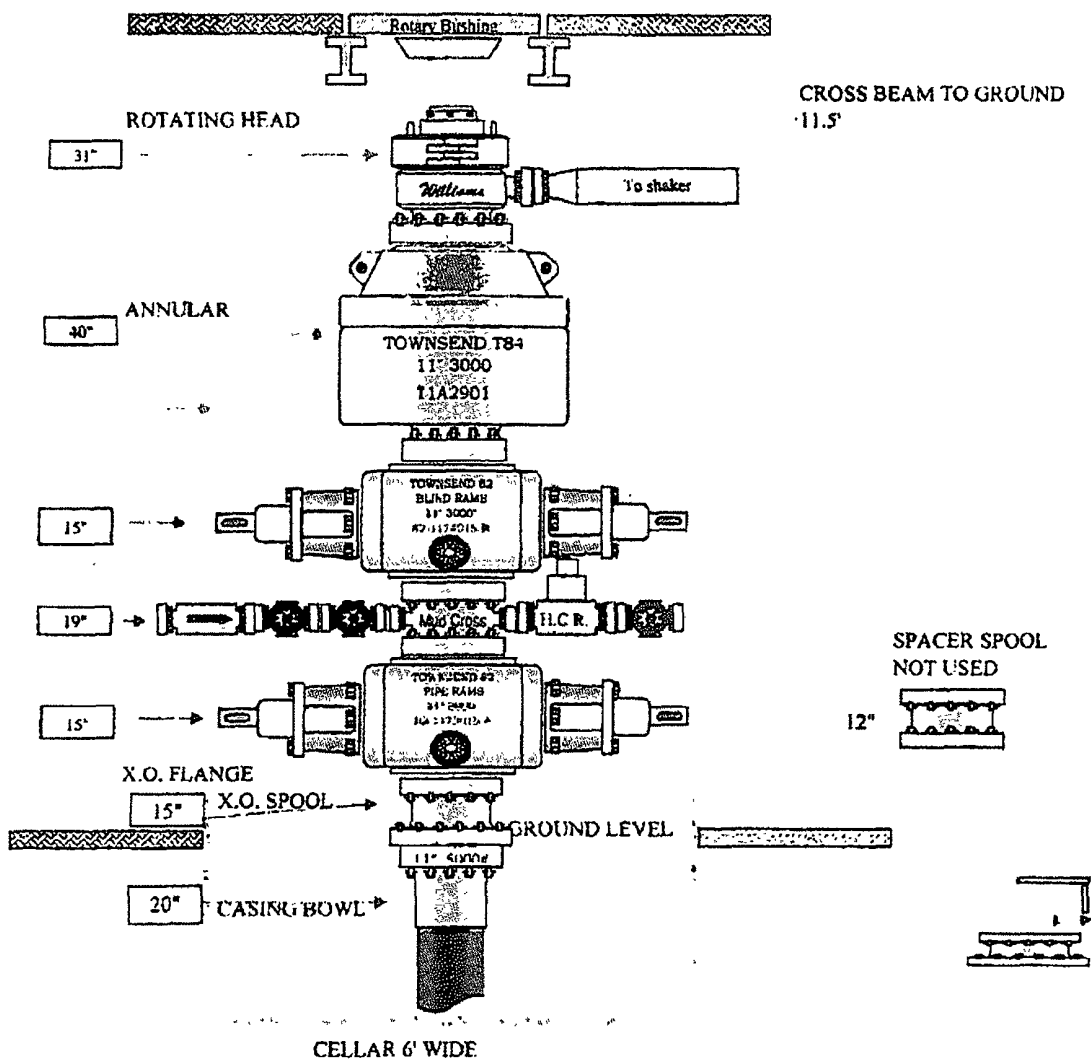


# 3-1/8" x 2-1/16" 3000# NACE TRIM SINGLE GUT CHOKE & KILL MANIFOLD SYSTEM

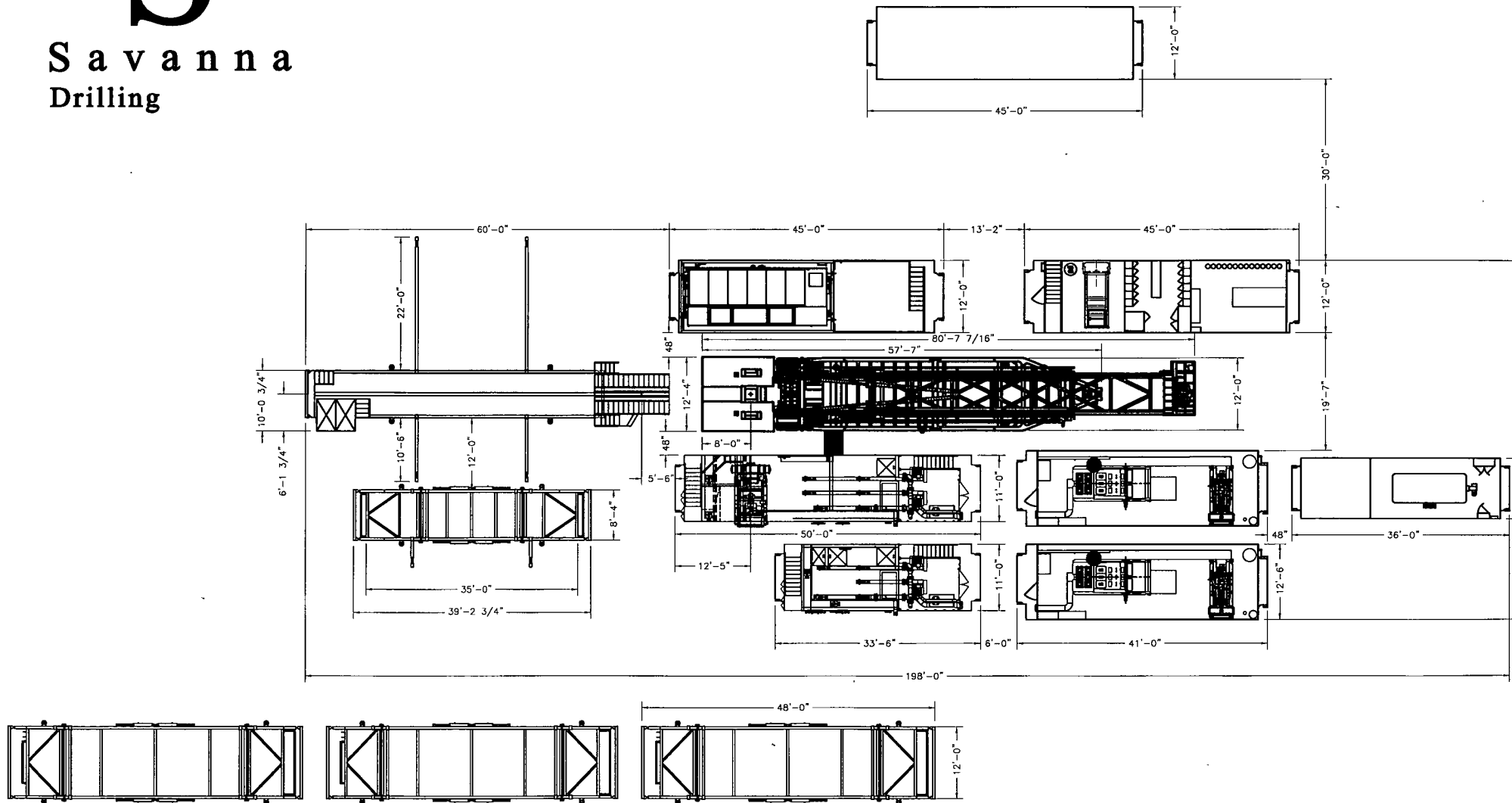
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ITEM	I.D. NO.	DESCRIPTION
1	9053	2-1/16" 5000# BLIND FLANGE
2	AR0605004	2-1/16" 5000# STUDDED CROSS
3	AS0606009	2-1/16" 5000# CNV NACE TRIM GATE VALVE
4	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE
5	Q7082	2-1/16" 3000# x 8.562" O.A.L. FLANGED SPACER SPOOL
6	AS0606003	2-1/16" 5000# CNV NACE TRIM GATE VALVE
7	A0445	3-1/8" x 3-1/8" x 2-1/16" x 2-1/16" 3000# STUDDED CROSS
8	AS0606119	3-1/8" 3000# CNV NACE TRIM GATE VALVE
9	F3323	3-1/8" 3000# x 3" L.P. COMPANION FLANGE
10	AS0606004	2-1/16" 5000# CNV NACE TRIM GATE VALVE
11	Q7082	2-1/16" 3000# x 3.312" O.A.L. SOLID SPACER SPOOL
12	AR0605007	2-1/16" 5000# STUDDED CROSS
13	AS0606005	2-1/16" 5000# CNV NACE TRIM GATE VALVE
14	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE
15	9053	2-1/16" 5000# BLIND FLANGE
16	AS0606007	2-1/16" 5000# CNV NACE TRIM GATE VALVE
17	Q7082	2-1/16" 3000# x 7" O.A.L. DOUBLE STUDDED SPACER SPOOL
18	1091200-1-1130	2-1/16" 5000# CORTEC "CM-2" ADJUSTABLE CHOKE c/w 2 x 0.75" CERAMIC DISCS
19	AS0606006	2-1/16" 5000# CNV NACE TRIM GATE VALVE
20	A0441	3-1/8" x 3-1/8" x 2-1/16" x 2-1/16" x 2-1/16" 3000# 5- WAY STUDDED BLOCK
21	AS0606118	3-1/8" 3000# CNV NACE TRIM GATE VALVE
22	51209	3-1/8" 3000# x 10.5" O.A.L. FLANGED SPACER SPOOL
23	AS0606001	2-1/16" 5000# CNV NACE TRIM GATE VALVE
24	Q7082	2-1/16" 3000# x 4.733" O.A.L. SOLID SPACER SPOOL
25	1091200-1-1137	2-1/16" 5000# CORTEC "CM-2" ADJUSTABLE CHOKE c/w 2 x 0.75" CERAMIC DISCS
26	Q7082	2-1/16" 3000# x 7" O.A.L. DOUBLE STUDDED SPACER SPOOL
27	AS0606008	2-1/16" 5000# CNV NACE TRIM GATE VALVE
28	AS0606002	2-1/16" 5000# CNV NACE TRIM GATE VALVE
29	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE

**WVE**



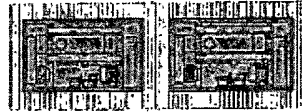




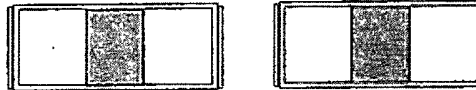
Dewatering System



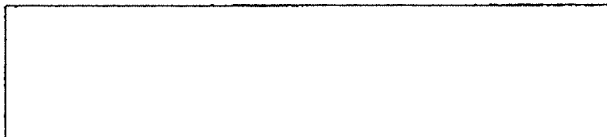
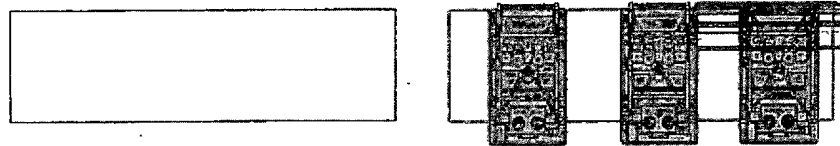
Dual Centrifuges



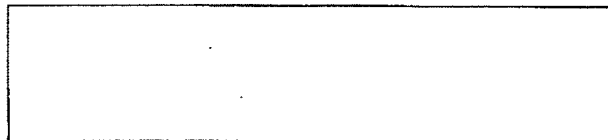
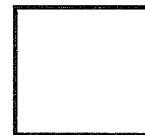
Roll-Off Boxes



Primary Shakers



Well Head

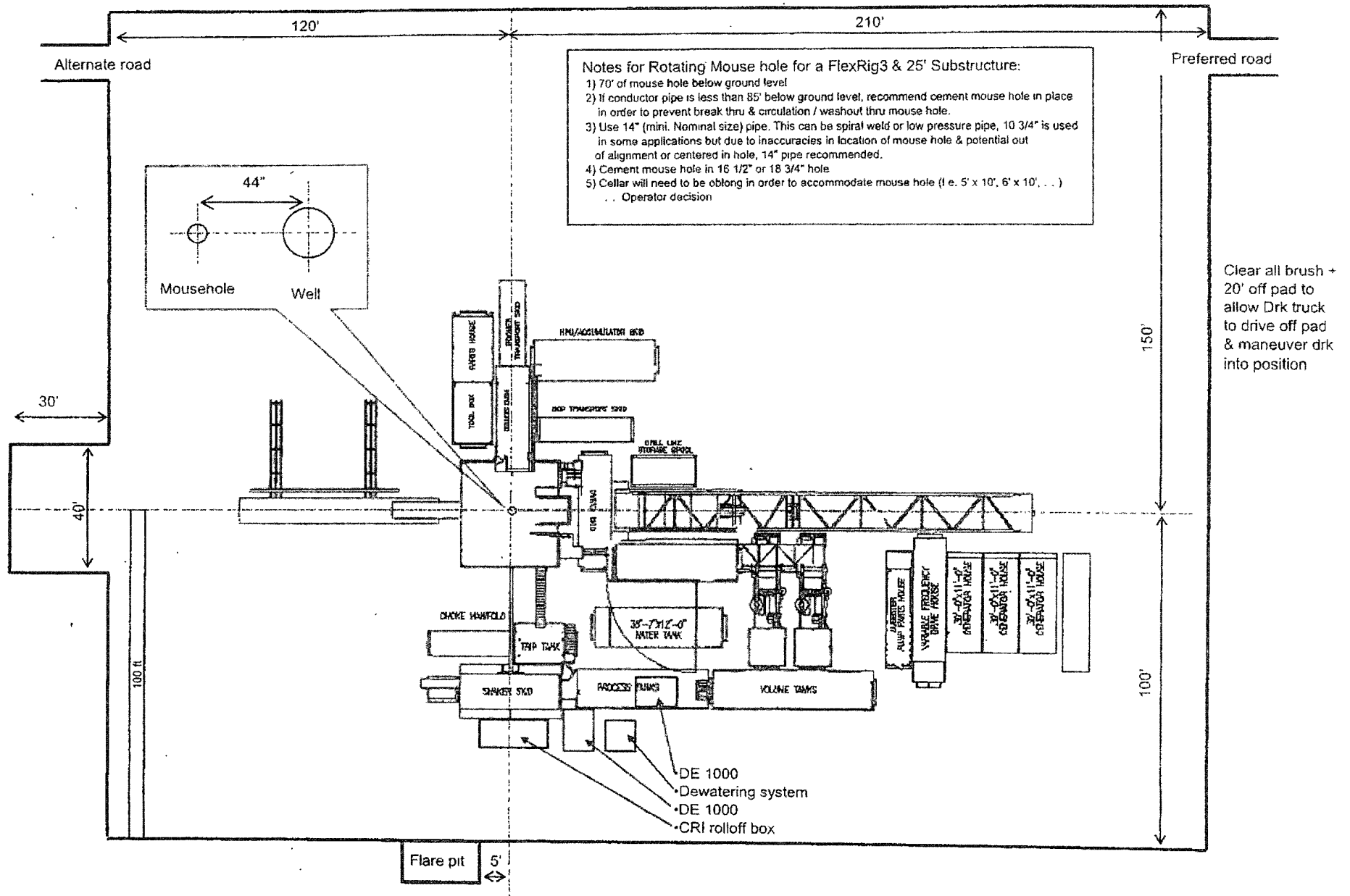


**Mi SWACO**

5950 NORTH COURSE DRIVE, HOUSTON, TX 7707

## OXY FLEX-III PAD ( SCOMI Closed Loop System)

Level Area-No Caliche-For Offices and Living Quarters



Clear all brush +  
20' off pad to  
allow Drk truck  
to drive off pad  
& maneuver drk  
into position

100 ft

# Flare Line Diagram

