OCS G 3248
S 1164

DATE 7-13-83

TO: OMS-2-2

FROM: OS-2-2

Supplemental Plan of Exploration ~~Development/Production~~, Lease OCS-G 3248

Control No. S-1164.

CB
Jew

NOTED - JOSEPH

Office of
Management·Support
JUL 15 1983
Records Management

Union Oil and Gas Division: Gulf Region

Union Oil Company of California
500 Executive Plaza East
4615 Southwest Freeway
Houston, Texas 77027
Telephone: (713) 621-7600

UNION 76

July 5, 1983

Minerals Management Service
P.O. Box 7966
Metairie, Louisiana 70010

Attention: Mr. D.W. Solanas

Exploratory Plan
OCS-G-3248, Block 318
E. High Island Area,
Offshore, Texas

Gentlemen:

Enclosed in this package are seventeen (17) copies of Union Oil Company of California's Exploratory Plan outlining the proposed plan for the subject lease in accordance with 30 CFR 250-34 and letter OS-7 dated January 29, 1979. Five (5) of the copies contain proprietary data and are so marked.

If any additional information is required, please advise.

Sincerely yours,

UNION OIL COMPANY OF CALIFORNIA

L.C. Hebert
District Operations Manager

LCH/mra

PLAN OF EXPLORATION
OCS-G-3248, Block A-318
EAST HIGH ISLAND AREA, OFFSHORE TEXAS

Union Oil Company of California proposes to drill six (6) exploratory wells on the OCS-G-3248, Block A-318, East High Island Area, Offshore Texas. Drilling operations should commence in the fourth quarter of 1983 dependent on rig scheduling. The wells are designed to test any and all prospective sands which might exist to a depth of 15,000 TVD in the northern half of the block (See Exhibit No. 1)

WELL DATA FOR OCS-G-3248, BLOCK A-318 : (See Exhibit No. 2)

Well No.	Depth (TVD)	Location	Time (Days)
2	15,000'	4550 FNL & 6625 FWL	70
3	15,000'	6050 FNL & 5200 FEL	70
4	15,000'	1500 FNL & 2400 FWL	70
5	15,000'	6650 FNL & 1500 FEL	70
6	15,000'	2900 FNL & 5800 FEL	70
7	15,000'	2900 FNL & 1500 FWL	70

If the exploratory project is commenced as planned, and the drilling program is continuous, this project should be completed in 420 days. Whether all six wells are drilled will depend upon the results of the first wells drilled.

The wells will be drilled with a jack-up rig similar to the one shown in Exhibit No. 3. The rig will be a diesel-electric drilling unit and equipped with pans or sumps to collect grease or other pollutants. The pollutants will be contained and properly disposed of.

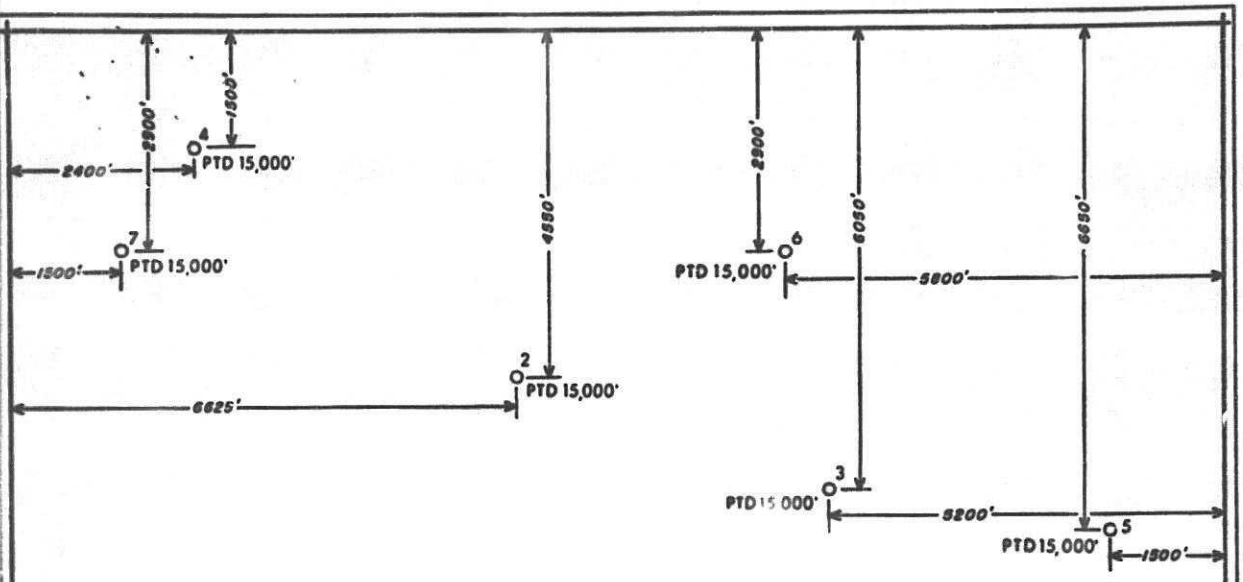
All wells drilled for oil and gas will be drilled in accordance with 30 CFR 250.34, the provisions of OCS order No. 2 and the stipulations of the oil and gas lease covering this block. No garbage, untreated sewage or other solid wastes shall be disposed from vessels. All solid combustible waste products will be incinerated, taking great care not to endanger the rig. All non-combustible material will be transported to shore for disposal at our Surfside facility.

The drilling operations will be serviced from Union's shore base located at Surfside, Texas. This facility has docking facilities for the marine equipment that will be used on this lease. There is a crane for loading and unloading materials. Union maintains a small stock of tubular goods on their pipe racks. There are also helicopter pads where personnel and supplies can be loaded to be flown to and from the rigs. The base is manned 24-hours per day. Goods and services for the off-shore operations are located in the Freeport and Houston areas and are easily transported to this facility by highway and marine transportation (see Exhibit 4).

Union Oil Company of California has filed an oil spill contingency plan with the Minerals Management Service in accordance with OCS Order No. 7. This plan contains the names and telephone numbers of company personnel who will form an emergency response team in the event of an oil spill. This plan contains procedures for reporting a spill and for responding to a reported spill, Union Oil Company of California is a member of Clean Gulf Associates, This association provides for the purchase and maintenance of equipment and materials for use by the members in the clean-up of an oil spill. Equipment is presently located at Galveston and Freeport, Texas; Cameron, Intracostal City, Grand Isle and Venice, Louisiana. Some of the equipment available include a shallow water skimmer system with 40-barrel storage capacity, a fast response open sea and bay system with two (2) 180-barrel tanks used in skimming and storing, a high volume open sea skimmer system with 1000-barrel storage capacity. The amount of time required to get to the spill will vary dependent on the location of company chartered work boats or the availability and location of work boats for immediate charter. Equipment response time should be within 24 hours of notification.

Exhibit No. 5 is in compliance with the USGS Gulf of Mexico letter 75-8 dated June, 1975. This evaluation of bottom drilling hazards was derived from a multi-sensor engineering survey using side scan sonar, magnetometer, and acoustic profiler. Based upon presently available geological and geophysical information, there are no known shallow drilling hazards at the proposed well locations. (The High Resolution Geophysical Survey of OCS-G-3248, A-318 High Island Area, Offshore Texas which includes the Archaeologist's report has been previously filed with the MMS.)

Other relevant information and data as required includes the mud component and additive list (Exhibit 6) and the air quality statment (Exhibit 7).



A-318

EXHIBIT NO. 2

GRAPHIC SCALE

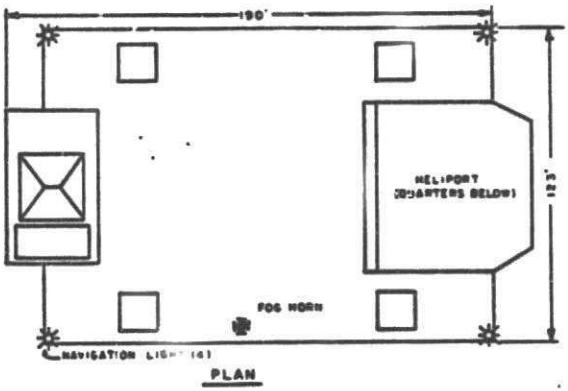
0' 2000' 4000' 6000' 8000'

UNION OIL AND GAS DIVISION
UNION OIL CO. OF CALIFORNIA — HOUSTON DISTRICT

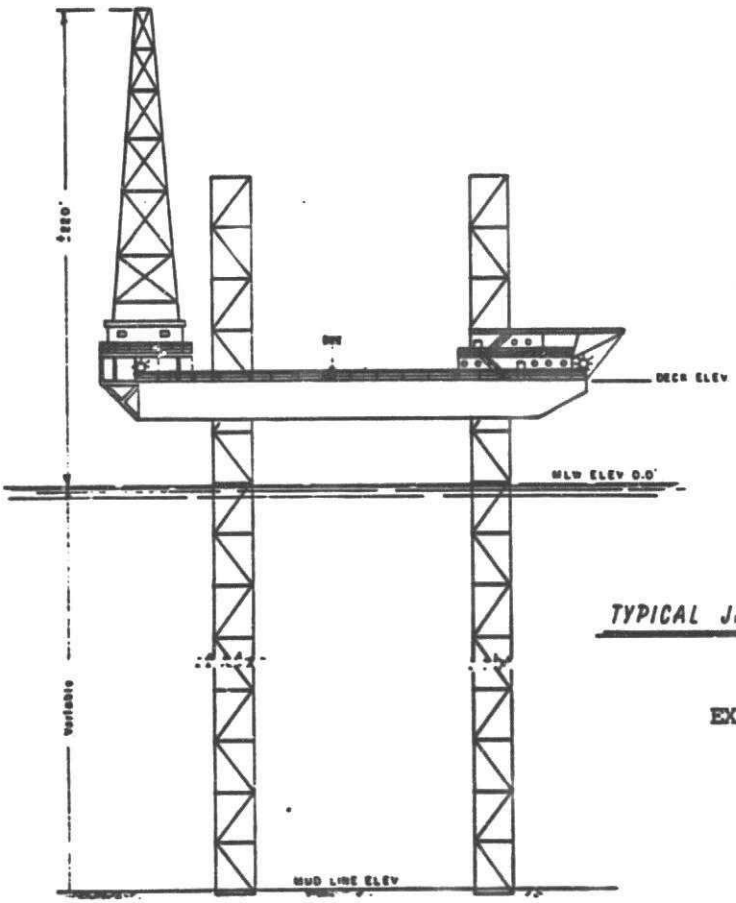
E. HIGH ISLAND BLK. A-318
EAST HIGH ISLAND AREA—OFFSHORE TEXAS

PROPOSED WELL LOCATIONS
NOS. 2,3,4,5,6 & 7

INTERPRETATION BY	DRAFTED BY	DATE	FILE NUMBER
JERRY LOHR	S.L.G.	12/10/82	



PLAN



ELEVATION

0 30
GRAPHIC SCALE

TYPICAL JACK-UP DRILLING RIG

EXHIBIT NO. 3

PROPOSED DRILLING & PRODUCTION OPERATIONS
UNION OIL COMPANY OF CALIFORNIA

Offshore Texas - Gulf of Mexico
Application By: Union Oil Co. of Calif. - Houston, Texas

DATE:

SHEET 6 OF 6

Typical
OFFSHORE MOBILE DRILLING PLATFORM

INTRODUCTION

The Marathon LeTourneau Cantilevered Substructure Jack-Up is a triangular shaped hull with three legs and cylindrical pointed spud cans. The hull is raised and lowered by electrically driven rack and pinion gears. The platform is classed by the American Bureau of Shipping as a Self-Elevating Drilling Unit.

PRINCIPLE VESSEL DIMENSIONS:

Hull Length	207 feet
Hull Breadth	176 feet
Depth of Hull	20 feet
Gear Rack Height	24 feet
Overall Length of Spud Legs	360 feet
Aft Spud Centers	122 feet
Centerline of Aft Spuds to Centerline of Bow Spud	120 feet
Design Water Depth (Non-Hurricane with 25' penetration)	250 feet
Rated Drilling Depth	25,000 feet

See Attached Grid for Cantilever Capacities

LIQUID & DRY STORAGE CAPACITIES:

Drill Water	3,120 bbls.
Fresh Water	982 bbls.
Fuel Oil	1,958 bbls.
Bulk Mud/Cement	(4) 1,925 cu. ft. tanks
Liquid Mud	1,200 bbls.

CRANES:

Three Marathon LeTourneau Series PCM-120AS, 45 tons at 25 feet, boom length 100 feet

QUARTERS:

Air conditioned accommodations for 72 men; two galleys and mess halls; five bed hospital

ANCHORING SYSTEM:

Windlasses - (4) Marathon LeTourneau Series W-1500TS units with 2500' of 1 1/2" diameter wirerope
Anchors - (4) 10,000 bl. LWT type

HELIPORT:

Sikorsky S-61 capacity or equal

EXHIBIT 3a

Typical
EQUIPMENT AND DRILLING INVENTORY

DRAWWORKS:

National 1320-UE Drawworks with sandline drums, emergency rotary drive and a Baylor Model 6032 Eddy Current Brake. Drawworks driven by two D-79 electric motors rated at 2000 hoisting HP.

POWER:

Three EMD 12-645E8 diesel engines. Each engine is rated at 1650 continuous HP and drives a 1050 KW 600 volt AC generator.

Five Baylor basic "Thyrig 11" units are used to supply DC power for drilling equipment.

MUD PUMPS:

Two National Model 12P-160 Triplex mud pumps. Each independently driven by two EMD D-79 electric motors rated at 1600 HP and supercharged by an electric driven 5" x 6" centrifugal pump.

DERRICK, SUBSTRUCTURE AND ACCESSORIES:

Derricks Service 147' hi x 30' wide derrick with a static hook load capacity of 1,044,000 lbs. with 1 lines strung. One hundred (100) MPH wind load capacity with 180 sta.. 4 1/2" OD drill pipe. National type 760-F, 538 ton capacity Crown Block with seven 60" diameter sheaves grooved for 1 3/8" wire line. Adjustable casing stabbing platform.

TRAVELING BLOCK:

National Type 660-H-500 ton traveling block with 6 - 60" diameter sheaves grooved for 1 3/8" wire line.

HOOK:

National Type H-500, 500 ton capacity

SWIVEL:

National Type P-650, 650 ton capacity

ROTARY EQUIPMENT

National type C-375 rotary with 37 1/2" table opening independently driven by an EMD D-79 electric motor through a National two speed transmission. Varco drive bushing.

Varco Kelly bushing with wiper assembly.

EXHIBIT 3b

MUD MIXING:

Two 6" x 5" centrifugal mud mixing pumps. Each pump driven by a 100 HP AC electric motor.

MUD SYSTEM:

Three 400 bbl. capacity liquid mud tanks and one 50 bbl. capacity slug tank. All active mud tanks equipped with Brandt Model MA-20 mud agitators. One S3-12 Pioneer Desander Unit, three 12" cones. One T16-4 Pioneer Desilter Unit, sixteen 4" cones. One Brandt Model DT Dual Shaker

DRILL PIPE AND DRILL COLLARS:

9,800 ft. of 4-1/2" O.D. 16.60#/ft. Grade E, Range 2 Drill Pipe with 6-1/4" O.D. x 4-1/2" XH T.J.

5,000 ft. of 4-1/2" O.D. 20.00#/ft. Grade G, Range 2 Drill Pipe with 6-1/4" O.D. x 4-1/2" XH T.J.

24 - 7" O.D. drill collars 30' long
12 - 8" drill collars 30' long
1 - Kelly 5 1/4" HEX by 2 13/16" bore by 40' long with 4 1/2" I.F. pin
1 (pair) B-J Type DB rotary tongs 3 1/2" to 11 1/4" range.
2 - Byron-Jackson Type GG drill pipe elevators for 4 1/2" O.D. drill pipe
1 - Varco DCS-L drill collar slips for 8" drill collar
1 - 4 1/2" - 9 5/8" safety clamp Varco MP-R
2 - Varco 5" SDXL rotary slips for 4 1/2" drill pipe

BLOWOUT PREVENTERS:

One Cameron 21 1/4" - 2000 psi W.P. type "D"; One Cameron 13 5/8" - 5000 psi W.P. type "D"; One Cameron 13 5/8" - 10,000 psi W.P. type "U" single; One Cameron 13 5/8" - 10,000 psi W.P. type "U" double, One 10,000 psi W.P. Choke manifold with two adjustable chokes. Blowout preventers and choke manifold treated for H_2S service.

Blowout preventer control unit is a Koomey Model ET25160-3BTM, 3000 psi W.P. accumulator system.

COMMUNICATIONS EQUIPMENT:

55 channel 25 watt VHF/FM Marine Transceiver
1 - 350 watt FM Transceiver
6 - 2 Channel VHF portable radios
1 - 100 watt FM Transceiver
1 - Inner Communication System with stations strategically located.

SPECIAL EQUIPMENT:

1. Varco PS-12 power slips for 4 1/2" drill pipe
2. Automatic Driller
3. Mud-Gas Separator
4. Drilling Recorder
5. Dual mud lines complete with dual standpipes and 3" x 60' - 10,000 psi test rotary hoses
6. BJ-Hughes cement unit driven by two dual Model 35 DC electric motors
7. Varco Model 6500 Power Sub
8. Totco pit level and flowline flow indicator

EXHIBIT 3c

9. Totco straight hole instrument 0° - 8°
10. Totco type "E" WLA 75 weight indicator, DCT-25 tong torque gauge, MG50 Pump pressure gauge, 379-35 Rotary RPM indicator, and 379-31 pump stroke indicators
11. Halliburton heavy duty diesel powered wire line unit with 14,000' of .092" line.
12. OMSCO 6 5/8" 15,000 psi test upper Kelly valve
13. TIW 10,000 psi test lower Kelly valve
14. Gray inside BOP
15. Drilco E-Z torque hydraulic cathead
16. Fork lift truck for sack mud storage room
17. Two 400 amp. welding machines and oxygen-acetylene equipment
18. Overshots and Taper taps for contractor furnished drill string
19. One 15,000 psi test drill pipe safety valve
20. Two Maxim TCF - 7.5 water distillation units - 15,000 gallons per day total
21. Baroid 821 Mud test Kit
22. Air tuggers for use on rig floor and celler deck area
23. One central air system consisting of two 583 CFM air compressors, one cold start compressor and one water cooled after cooler
24. Diesel engine driven 250 KW emergency AC generator
25. Baylor Filteron sewage treatment plant
26. Drilco Degasser
27. Spinner-Hawk spinning Wrench
28. 2 - 44 man Watercraft - Shatz covered Life Boats

EXHIBIT 3d

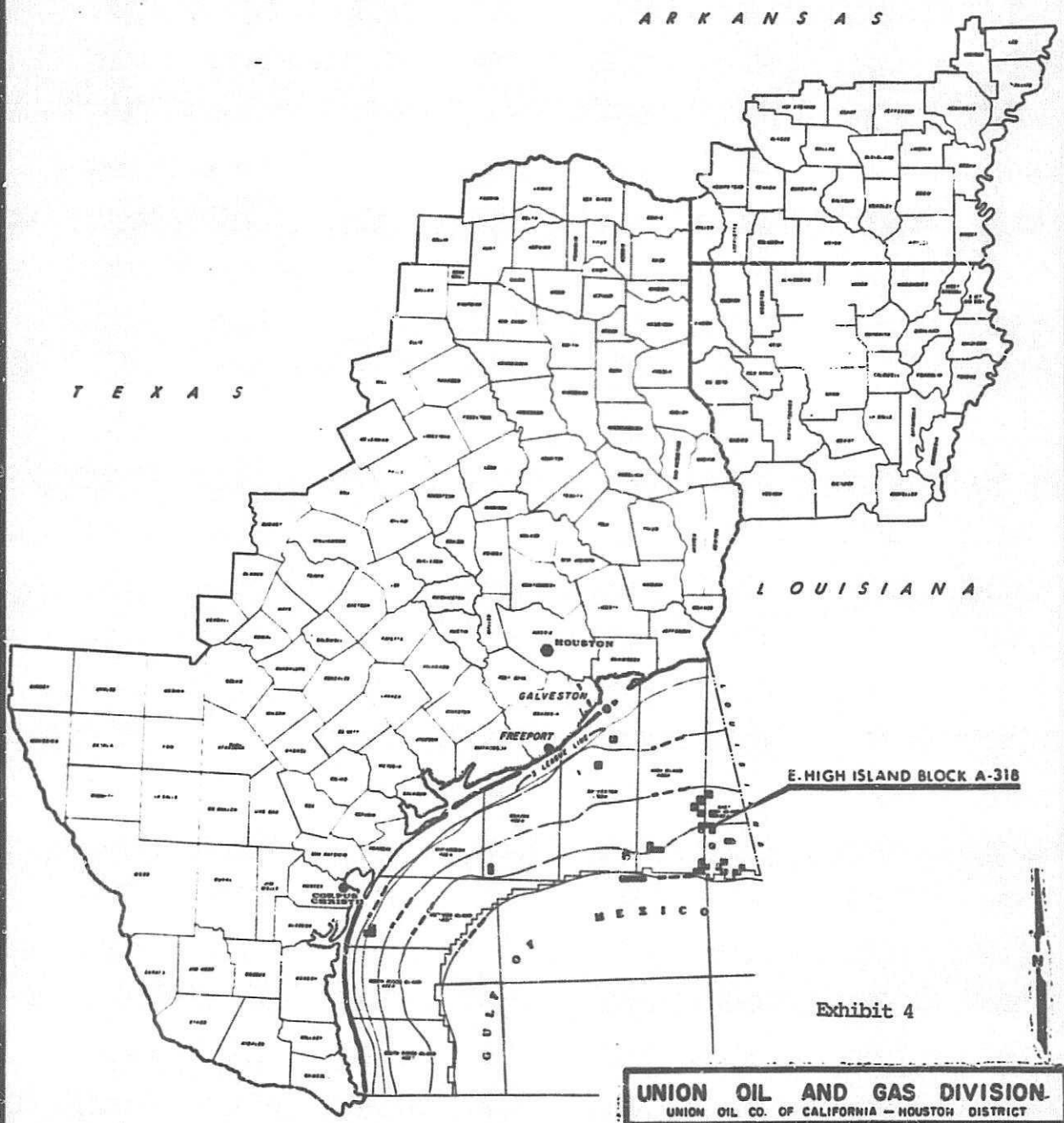
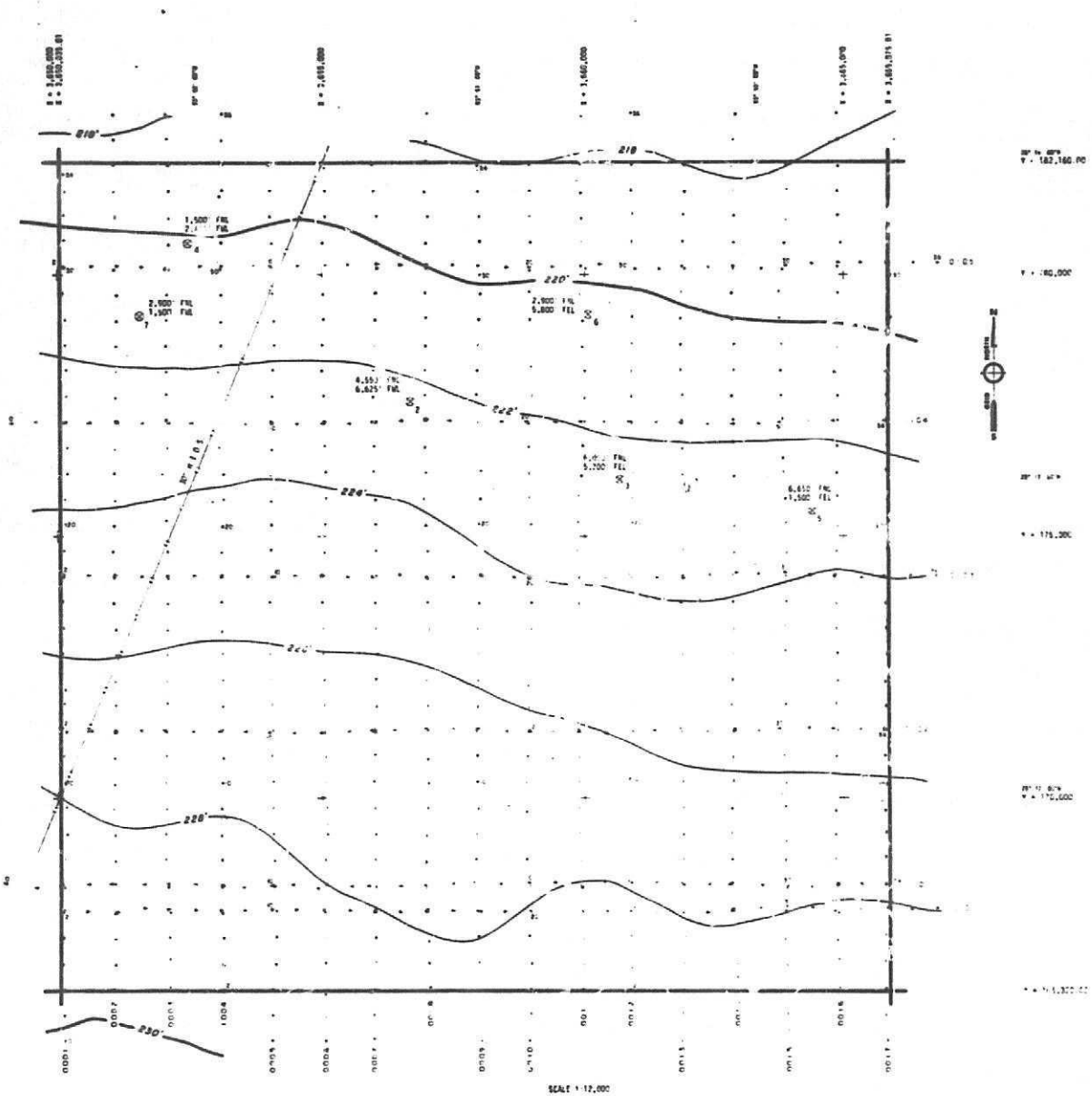


Exhibit 4

UNION OIL AND GAS DIVISION
UNION OIL CO. OF CALIFORNIA — HOUSTON DISTRICT

EAST HIGH ISLAND BLOCK A-318
EAST HIGH ISLAND AREA - OFFSHORE, TEXAS

VICINITY MAP



LEGEND

— 220 — BATHYMETRIC CONTOUR (20 FEET)

SEDIMENT FILLED CHANNEL AT SEAFLOOR

BURIED CHANNEL

PROPOSED DRILLING LOCATION

MAGNETIC ANOMALY (UNIDENTIFIED, REFER TO APP. B)

PIPELINE (EA STING)

SEE FIGURE FOR GENERAL NOTES

GEOPHYSICAL SURVEY
BATHYMETRIC, SEAFLOOR AND
NEAR SURFACE FEATURES
MAP
OCK A-31E
ISLAND BRE-
EAST ADDITION
SOUTH EXTENSION
OFFSHORE TEXAS

UNION OIL COMPANY
OF CALIFORNIA

odom

BEST AVAILABLE COPY

Exhibit 5

WATER-BASE LIGNOSULFONATE MUD SYSTEM
COMPETITIVE MUD PRODUCTS

REVISED 05/12/80

BAROID	IMC	MAGCOBAR	MILCHEM	DESCRIPTION
		Weighting Material		
Baroid	Imco Bar	Magcobar	Mil-Bar	Barite (Barium Sulfate)
		Clays (Viscosifiers)		
Aquagel	Imco Gel	Magcogel	Mil-Gel	Wyoming Bentonite
Zeogel	Imco Brinegel	Salt Gel	Salt Water Gel	Attapulgite clay for salt water muds.
	Imco Best	Super Visbestos		Asbestos Material
		Thinners		
Q-Broxin				Ferrochrome Lignosulfonate
	Imco VC-10	Spersene	Unical	Chrome Lignosulfonate
Carbonox	Imco Lig	Tannathin	Ligco	Processed Lignite
Sodium Chromate	Sodium Chromate	Sodium Chromate	Sodium Chromate	Sodium Chromate (Chrom Additive for C.L. Products)
		Fluid Loss Control Agents		
Cellex	Imco-CMC	Magco-CMC	Milchem CMC	Sodium Carboxy-methylcellulose

		Alkalinity, pH Control Additives		
Lime Caustic Soda	Lime Caustic Soda	Lime Caustic Soda	Lime Caustic Soda	Hydrated Lime Sodium Hydroxide
		Calcium Removers		
S. A. P. P.	Imco Phos (SAPP)	S. A. P. P.	S. A. P. P.	Sodium Acid Pyrophosphate
Bicarbonate of Soda	Bicarbonate of Soda	Bicarbonate of Soda	Bicarbonate of Soda	Sodium Bicarbonate
		Defoamer		
Aluminum Stearate	Aluminum Stearate	Aluminum Stearate	Aluminum Stearate	Aluminum Stearate
		Lost Circulation Materials		
Micatex	Imco Mica	Magco Mica	Mil Mica	Mica Flakes (Graded)
Wall Nut	Imco Plug	Nut Plug	Mil Plug	Ground Walnut Hulls (Graded)

MISCELLANEOUS PRODUCTS

Exhibit 6
ATTACHMENT X

TRADE NAME	COMPANY	DESCRIPTION
CLS	Louisiana Mud	Chrome Lignosulfonate - Thinner
Drispac	Drilling Specialties, Inc.	Polyanionic Cellulose - Fluid Loss Control
Flosal	Drilling Specialties, Inc.	Asbestos Material - Viscosifier

MUD QUANTITIES

On all Union Oil Company of California drilling operations from spud-in to protection pipe setting, a sufficient quantity of bulk weight material shall be kept on location to assure that the entire circulating system density can be increased by 0.5 ppg (minimum = 1500 sacks).

When drilling below protection pipe, Union will attempt to maintain a maximum storage on location to assure well control. Drilling rigs currently employed by Union are listed below with a corresponding bulk weight material storage.

Rig Name	Bulk Weight Storage (sacks)
Mr. Gus II	4000
Nevible III	3600
Blue Water II	3000
Blue Water IV	3000
Penrod 52	4000
Phoenix Seadrill-Bigfoot #1	3000
Marlin 15	3600
Marlin 16	3600
See 15	3000

Listed below are the minimum quantities for mud chemicals to be maintained on all Union drilling locations.

Chemical	Quantity (sacks)
Gel	250
Caustic Soda	75
Chrome Lignosulfonate (CLS)	200
Lignite	100

In the event of an emergency, mud supplies from Surfside, Texas can be obtained in 8 to 24 hours depending on rig location and availability of supply boats.

When using Baroid's Enviromul the minimum quantities of mud chemical to be maintained on location are listed below.

Chemical	Quantity (sacks)
Mentor - 28	100 Barrels
Invermul - NT	28 (55 Gal. Drums)
E-Z Mul - NT	28 (55 Gal. Drums)
Lime	200 sacks
Duratone	150 sacks
Geltone	200 sacks
Calcium Chloride	300 sacks
Drilltreat	30 (5 gal. cans)
Petrotone	50 sacks

Exhibit 6a

AIR QUALITY STATEMENT

The plan of operations for the drilling of the exploratory wells for OCS-G-3048 A-318 High Island Area is set out in the preceding pages.

It is expected to take approximately 420 days to drill and complete the wells. The rig to be used to drill these wells will be a 250' Jackup Rig. The normal fuel consumption per day for this rig is approximately 1800 gallons of diesel. The onshore support base for this activity will be the Union Oil Company of California shore base located at Surfside, Texas. All transportation, boats and helicopters will be handled from this base.

Air emission calculations are based on the aforementioned drilling time frame and data from "Compilation of Air Pollutant Emission Factors", third edition AP-42, [illegible], 1977, Tables 3.3.3-1 and 3.2.1.-3. Any additional work required will be minimal and result in air emissions well below the exemption level.

AREA E. High Island BLOCK 318 PLATFORM E.H.I. A-318
OCS-G-3248

EXEMPTION CALCULATIONS

$E = 3400 (D^{2/3})$ for carbon monoxide

$E = 33.3\ D$ for sulfur dioxide, nitrogen oxides, total suspended particulates, and volatile organic compounds

D = 97.5 Statute Miles (514,800 ft.)

E = 72025 CO

E = 3247 SO_2, NOx, TSP, and VOC

POLLUTANTS	"E" (T/YR.)	HIGHEST YEAR PROJECTED EMISSIONS (T/YR.)	EXEMPT (YES OR NO)
SO_2	3247	[illegible].82	yes
NOx	3247	190.77	yes
CO	72025	41.89	yes
TSP	3247	13.31	yes
VOC	3247	15.68	yes

E = The emission exemption amount expressed in tons per year.

D = The distance of the facility from the closest onshore area of a state expressed in statute miles.

Exhibit 7a

AREA E. High Island BLOCK 318 PLATFORM E.H.I. A-318
OCS-G-3248

FREQUENCY DISTRIBUTION OF TOTAL EMISSIONS

SO_2, NOx, CO, TSP, VOC (Pollutant(s)) FOR 1983-1984 (Year(s))

POLLUTANT	YEAR	EMISSION RATES POUNDS/DAY	EMISSION RATES DAYS/YEAR
SO_2	1983	71.4	61
	1984	71.4	359
NO_x	1983	1062.8	61
	1984	1062.8	359
CO	1983	233.4	61
	1984	233.4	359
TSP	1983	77.0	61
	1984	77.0	359
VOC	1983	87.4	61
	1984	87.4	359

REMARKS:

Exhibit 7b

AREA E. High Island BLOCK 318 PLATFORM E.H.I. A-318
OCS-G-3248

PROJECTED EMISSIONS FROM EACH SOURCE

BY AIR POLLUTANT FOR 1983 Year

SOURCE	AIR POLLUTANT (T/YR.)				
	SO_2	NOx	CO	TSP	VOC
Drilling Rig	3426	51496	11200	3678	4118
Cargo Boat	8	114	25	8	9
Crew Boat	8	114	25	8	9
Helicopter	44	139	139	61	127
Subtotal	3486	51863	11389	3755	4263
Miscellaneous 25% of subtotal	872	12966	2847	939	1066
Total in Pounds	4358	64829	14236	4694	5329
Total from Facility In Tons Per Year	2.18	32.42	7.12	2.35	2.67

Exhibit 7c

AREA E. High Island BLOCK 318 PLATFORM E.H.I. A-318

PROJECTED EMISSIONS FROM EACH SOURCE

BY AIR POLLUTANT FOR 1984 Year

SOURCE	AIR POLLUTANT (T/YR.)				
	SO_2	NOx	CO	TSP	VOC
Drilling Rig	20161	303068	65912	21648	24232
Cargo Boat	44	674	146	48	54
Crew Boat	44	674	146	48	54
Helicopter	258	819	819	359	747
Subtotal	20507	305235	67023	22103	25084
Miscellaneous 25% of Subtotal	5127	76309	16756	5526	6271
Total In Pounds	25634	381544	83779	27629	31355
Total from Facility In Tons Per Year	12.82	190.77	41.89	13.81	15.68

Exhibit 7d

PROJECTED AIR EMISSION FOR

Emission Source	Running Time/Day	Takeoffs & Landings Per Day	Fuel Cons. Gals./Day	Emission Factors Pound/1,000 gals. SO_2	NOx	CO	TSP	VOC	Emission Factors Airfraft Takeoff & Landings SO_2	NOx	CO	TSP	VOC	Projected Emission, 420 -day projection in # SO_2	NOx	CO	TSP	VOC
Calculations for 420 day drilling phase.																		
Drilling Rig	24 hrs.		1800	31.2	469	102	33.5	37.5						23587	35464	77112	25326	28350
Cargo Boat (In Berth)	2 hrs.		4	31.2	469	102	33.5	37.5						52	788	171	56	63
Crew Boat (In Berth)	2 hrs.		4	31.2	469	102	33.5	37.5						52	788	171	56	63
Helicopter Takeoffs & Landings		4							.18	.57	.57	.25	.52	302	958	958	420	874
Calculations for day platform - installation phase.																		
Derrick Barge	hrs.			31.2	469	102	33.5	37.5										
Cargo Boat (In Berth)	hrs.			31.2	469	102	33.5	37.5										
Crew Boat (In Berth)	hrs.			31.2	469	102	33.5	37.5										

Projected emissions are based on data from "Compilatio of Air Pollutant Emission Factors", 3rd Edition AP-42, EPA, 1977, Table 3.3.3.-1 and Table 3.2.1.-3.

SO_2	NOx	CO	TSP	VOC
23993	357098	78412	25858	29350

Total in Pounds

Exhibit 7E