N-0619
Emily

UNION OIL COMPANY OF CALIFORNIA

DEVELOPMENT AND PRODUCTION PLAN

OCS-G-3248, BLOCK A-318, EAST HIGH ISLAND AREA

OFFSHORE, TEXAS

UNION OIL COMPANY OF CALIFORNIA
DEVELOPMENT AND PRODUCTION PLAN
OCS-G-3248, BLOCK A-318
EAST HIGH ISLAND AREA, OFFSHORE, TEXAS

The subject block is owned jointly by Union Oil Company of California, Mobil Producing Texas and New Mexico, Inc. and Amoco Production Company. Union is the operator for the group. Union, as operator, filed for a suspension of production for Block A-318, and was granted a suspension from August 31, 1980 through November 1, 1981 under provisions of 30 CFR 250.12(b) with the understanding that production be initiated as early as possible but no later than April 1, 1982. Union fully intends to comply with the approved activity schedule.

Union now plans to set a 4-pile well protector platform on Lease OCS-G-27[illegible]3, Block A-303, at a location approximately 3000' from the south line and 28[illegible]' from the east line of Block A-303 (Exhibit No. 1). At this time, Block A-303 is HBP from Union's 302 Field. The OCS-G-3248 Well No. 1 was directionally drilled from a template at this location to Block A-318 in 1979 and was qualified on June 25, 1980 as capable of producing gas in paying quantities in accordance with OCS Order No. 4. The 4-pile platform will be set over the said template and the OCS-G-3248 No. 1 will then be tied back and completed. As planned, appropriate support facilities will then be set on the structure and a flowline laid to production facilities on High Island A-302 platform. The locations of the platform and the OCS-G-3248 No. 1 well are shown on Exhibit No. 2 in accordance with 30 CFR 250.34 2(a)(3).

The following work has already been performed in accordance with the activity schedule returned with the approval for suspension of production for Block A-318.

Platform design contract awarded 8-29-80.

The following is a brief description of the specific work to be performed in our production and development plan and the schedule which we will follow. A graphic display of the proposed activity schedule (Exhibit No. 3) is attached in compliance with 30 CFR 250.34(a)(1).

1. Apply for approval of Development and Production Plan and complete platform design by 10-31-80.

2. Initiate platform fabrication by 12-31-80.

3. Complete platform fabrication by 9-01-81.

4. Complete platform installation and commence completion operation on OCS-G-3248 Well No. 1, and apply for FERC certificates to lay pipeline and sell gas by 11-01-81.

5. Complete completion operations and obtain FERC certificates by 1-01-82.

6. Complete pipeline and support facilities installation and commence production by 4-01-82.

The productive life of the field is estimated at six years.

The geologic structure on which the development plan is based is illustrated with a structure map constructed on the top of the CS-6 sand. Both seismic and well control have been employed to construct the structure map. The structure map (Exhibit No. 4) is attached in partial fulfillment of the requirements of 30 CFR 250.34 2(a)(4).

The above exhibit is marked "Confidential" since it contains proprietary data. Union asks that this exhibit have limited circulation under the Freedom of Information Act and implementing regulations (43 CFR Part 2).

In compliance with 30 CFR 250.34 2(a)(4), a survey of drilling and construction hazards, a shallow isopach map, and bathymetric map of the vicinity of the proposed platform location are offered as Exhibit Nos. 5, 6, and 7.

Union's plan of development consists of a construction and setting of a platform and tie back and completion of OCS-G-3248 Well No. 1 for development of the lease.

The platform will be fabricated at a contractor's facility to Union's specifications and in accordance with the Department of the Interior's OCS Order No. 8.

The platform will be a 4-pile well protector platform with 30' X 40' main deck and 30' X 35' cellar deck (Exhibit No. 8). It will be equipped with all mandatory navigational aids.

Union will lay a 4" pipeline to production facilities at the High Island A-302 platform. This pipeline will be approximately 3 miles in length and will be routed in as straight a line as practical to the platform (Exhibit No. 9).

After the platform is set, the well will be tied back from the template to the platform and completed. This work is planned for a jackup type rig.

The following statements pertain to both drilling and completion operations. Even though the OCS-G-3248 Well No. 1 has already been drilled and only completion operations remain, the drilling specifications are included for information purposes should future drilling operations occur.

All wells drilled for oil and gas will be drilled in accordance with 30 CFR 250.34, 250.41, 250.91, the provisions of OCS Order No. 2, and the stipulations of the oil and gas lease covering the block until field drilling rules are issued.

Blowout preventers and related well-control equipment will be installed, used, and tested in a manner necessary to prevent blowouts. Prior to drilling below drive pipe or conductor casing, a remotely controlled, annular-type blowout preventer and diverter system will be installed. This will consist of the remotely controlled annular BOP, two remotely controlled full-opening eight-inch diverter valves, and two eight-inch diverter lines directed to opposite

sides of the platform (See Exhibit No. 10). The remotely controlled diverter valves will be designed so that the valves must open before the annular preventer will close.

Prior to drilling below surface or intermediate casing, a remotely controlled blowout preventer and choke manifold system will be installed (See Exhibit No. 11). This will consist of a minimum of four remote-controlled, hydraulically operated blowout preventers with a working pressure which exceeds the maximum anticipated surface pressure. The preventers will be equipped with three rams and one annular type, a drilling spool with side outlets for a choke line and a kill line, and a fill-up line. Also, a choke manifold with a minimum of at least one remote-controlled adjustable choke and a manual choke will be installed (See Exhibit No. 12).

In addition, an outside BOP assembly and an essentially full-opening drill string safety valve in the open position will be maintained on the rig floor to fit all pipe in the drill string.

The following pollution control measures will be required of all drilling rigs used during the development/production drilling program to prevent spills of oil or waste materials.

1. All engines and pumps of the drilling rig will be equipped with drip pans or sumps. The collected liquids will be skimmed; pollutants will be stored in oil drums for disposal onshore.

2. The rotary tabel and draw works will have drip pans to divert any oil, grease or other pollutants into the mud system.

3. Oil changes will be performed under close supervision and in such a manner as not to cause any pollutants to spill overboard.

All solid combustible waste products will be incinerated, taking great care not to endanger the rig. All noncombistible material will be collected and transported to shore for disposal at our Surfside facility. None of this material will enter the water at any time.

In the event of a spill during the development drilling or the production period of the program, Union's offshore and Coastal Waters Oil and Hazardous Substances Spill Contingency Plan will be actuated. This plan was filed with the USGS on January 10, 1977 and approved on February 8, 1977. The plan was revised in March, 1980. Union is a member of Clean Gulf Associates.

During drilling and producing operations all applicable safety standards established by the U. S. Coast Guard and Department of Interior (U. S. Geological Survey) will be strictly complied with to insure the safety of life and property in the offshore environment.

In addition to Federal requirements, safety standards encompass applicable API Recommended Practices and the Offshore Operators Committee's Manual of Safe Practices in Offshore Operations.

An effective safety program will be followed which includes, but is not limited to the following:

1. Training in safety aspects of each job, fire fighting, First Aid, survival, etc.
2. Regular periodic safety meetings.
3. Safety inspections of facilities.
4. Enforcement of Union's safe practices.
5. Investigation of all accidents with recommendations for corrective action.

Personnel safety is covered in a multitude of governmental and industry standards such as:

1. U. S. Coast Guard - Rules and Regulations for Artificial Islands and Fixed Structures on the OCS.
2. GSS-OCS-1, Safety Requirements for Drilling Operations in Hydrogen Sulfide Environment.
3. GSS-OCS-B, Platforms, Structures and Associated Equipment.
4. GSS-OCS-T1, Training and Qualifications of Personnel in Well Control Equipment and Techniques for Drilling on Offshore Location.
5. API RPT-1, Orientation Program for Personnel Going Offshore for the First Time.
6. API RPT-3, Training and Qualification of Personnel in Well Control Equipment and Techniques for Drilling on Offshore Location.
7. API Bul. T-5, Employee Motivation Programs for Safety and Prevention of Pollution in Offshore Operations.
8. API RP14G, Fire Prevention and Control on Open Type Offshore Production Platforms.
9. OCC - Crane Manual.
10. OOC - Manual of Safe Practices in Offshore Operations.

The Air Quality Statement for the completion and production of the OCS-G-3248 Well #1 at East High Island Block A-318 as required is attached following Exhibit No. 12.

The following is a list of the mud components and additives that may be used in the drilling of these wells:

PRODUCT NAME	PHYSICAL OR CHEMICAL COMPOSITION
Barite	Barium Sulfate
Gel	Bentonite Clay
Saltwater Gel	Attapulgite Clay
Caustic Soda	Sodium Hydroxide
Soda	Sodium Bicarbonate
Flosal	Inorganic Viscosifier
Spersene	Chrome Lignosulfonate
XP-20	Chrome Lignite
Lime	Calcium Oxide
Drispac	Polyanionic Cellulose
Aluminum Stearate	Aluminum Stearate
Nut Plug	Ground Walnut Shells
Mica	Mica Flakes
Bit Lube 2	Biodegradable High Pressure Lubricant
Soda Ash	Sodium Carbonate
Benex	Anhydride Copolymer

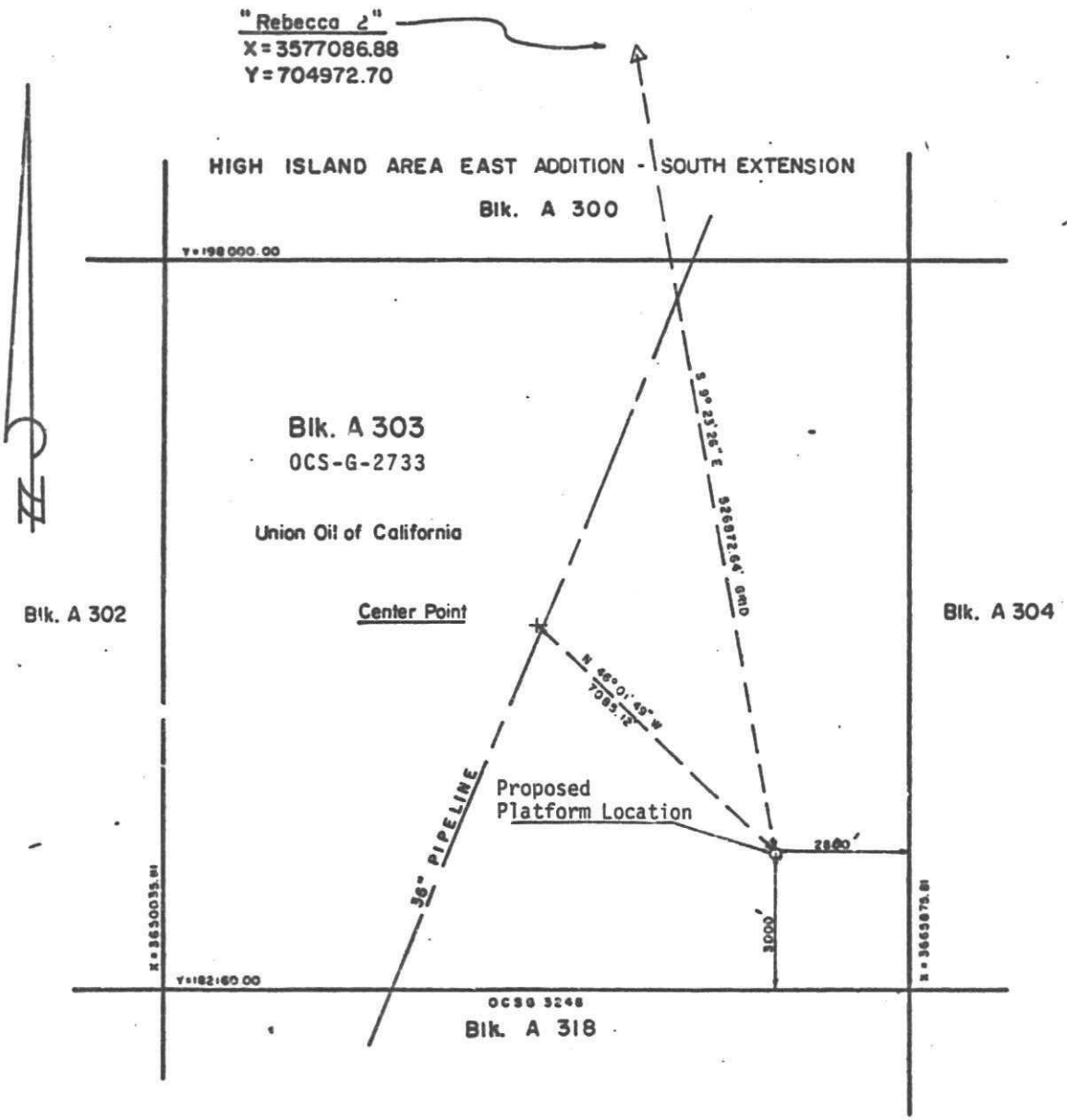
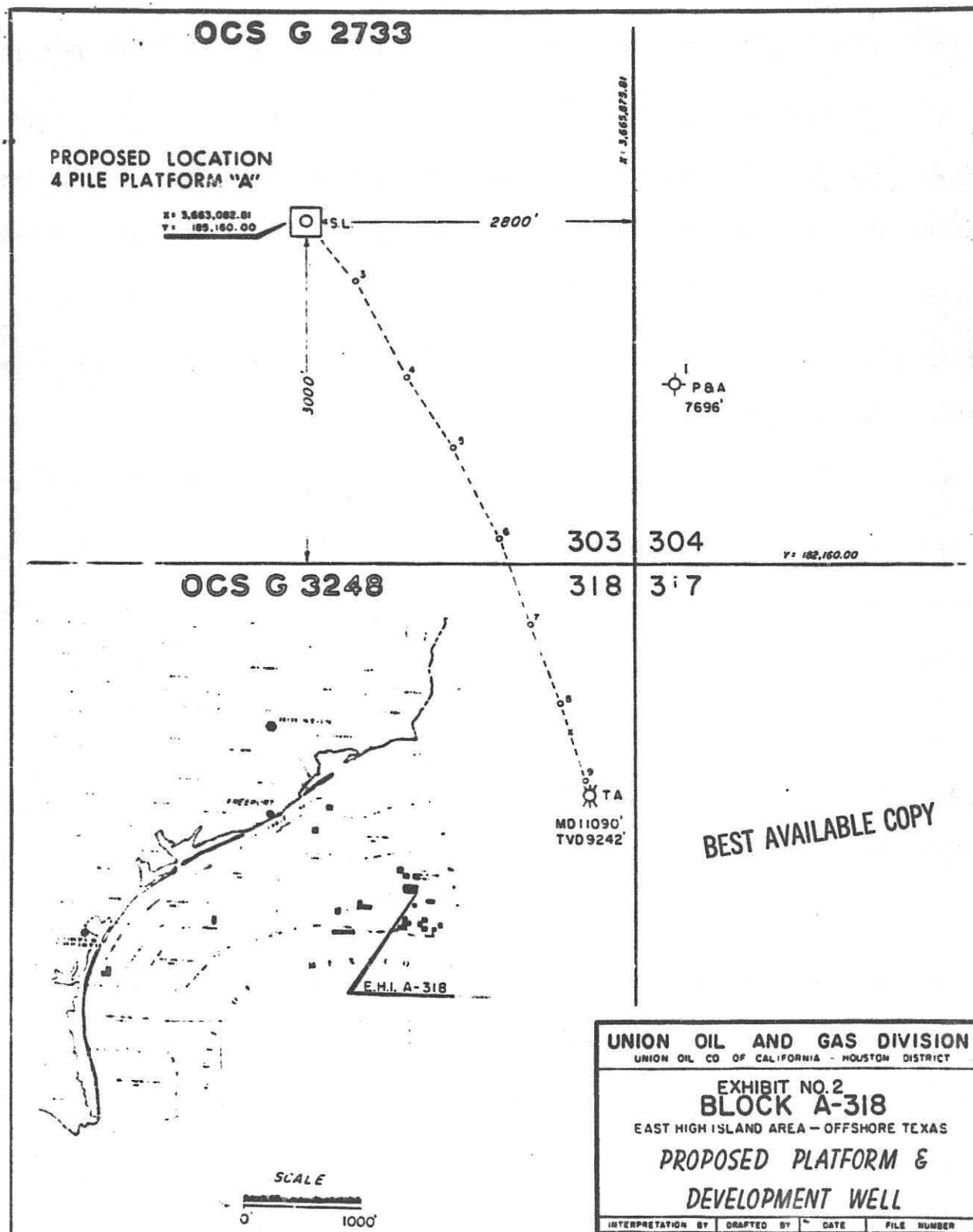


EXHIBIT No. 1
UNION OIL OF CALIFORNIA

Block A 303,
High Island Area East Add'n. South Extension
Offshore Texas

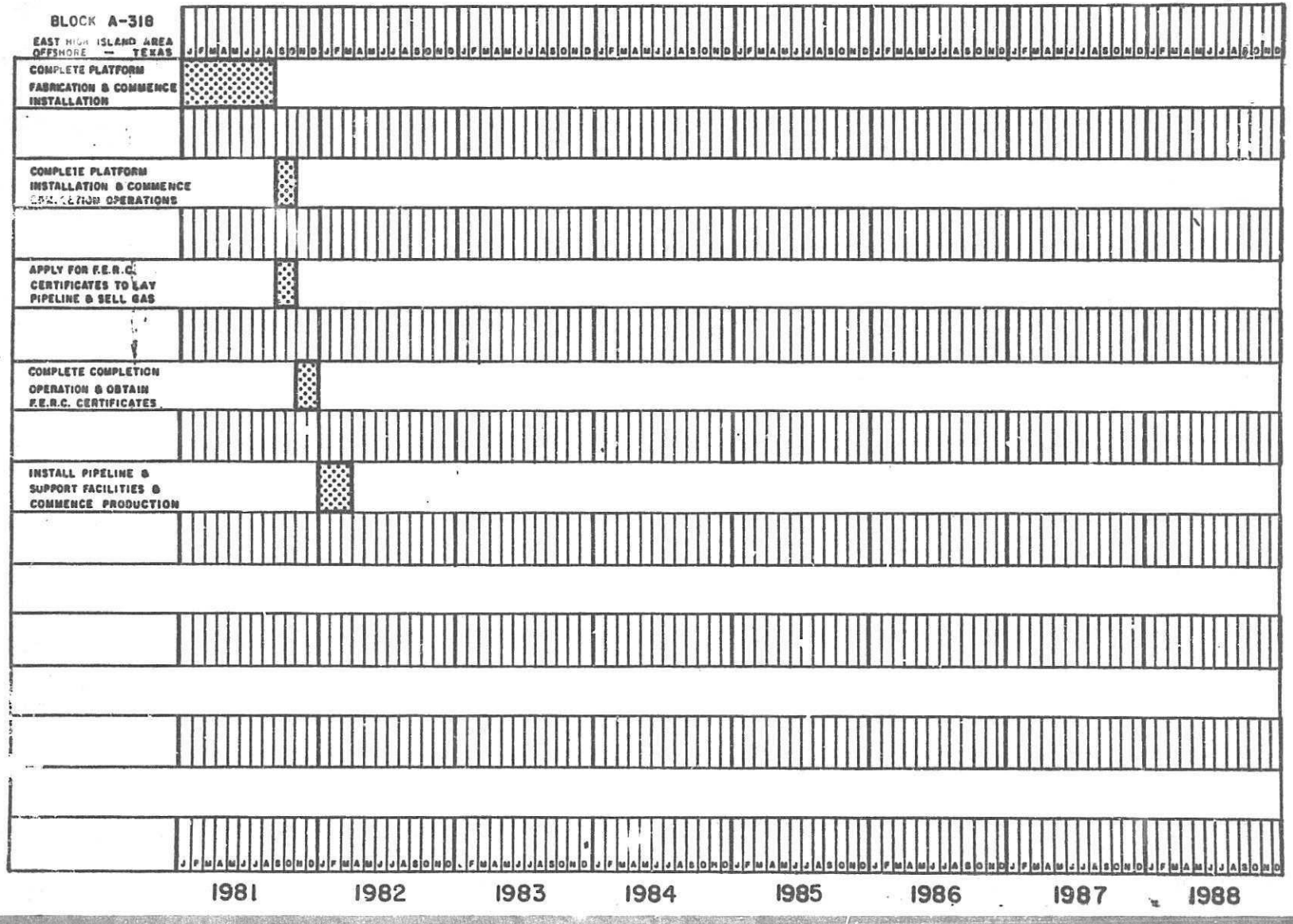
Scale: 1" = 3000'


OCS G 2733
PROPOSED LOCATION
4 PILE PLATFORM "A"
X= 3,663,082.81
Y= 185,160.00
S.L.
2800'
3000'
X= 3,665,875.81
P&A
7696'
303
304
Y= 182,160.00
OCS G 3248
318
317
TA
MD 11090'
TVD 9242'
BEST AVAILABLE COPY
E.H.I. A-318
SCALE
0
1000'
UNION OIL AND GAS DIVISION
UNION OIL CO OF CALIFORNIA - HOUSTON DISTRICT
EXHIBIT NO. 2
BLOCK A-318
EAST HIGH ISLAND AREA – OFFSHORE TEXAS
PROPOSED PLATFORM & DEVELOPMENT WELL
INTERPRETATION BY
DRAFTED BY
L A SOTO
DATE
7/17/80
FILE NUMBER

BEST AVAILABLE COPY

EXHIBIT No. 3

DEVELOPMENT & PRODUCTION SCHEDULE



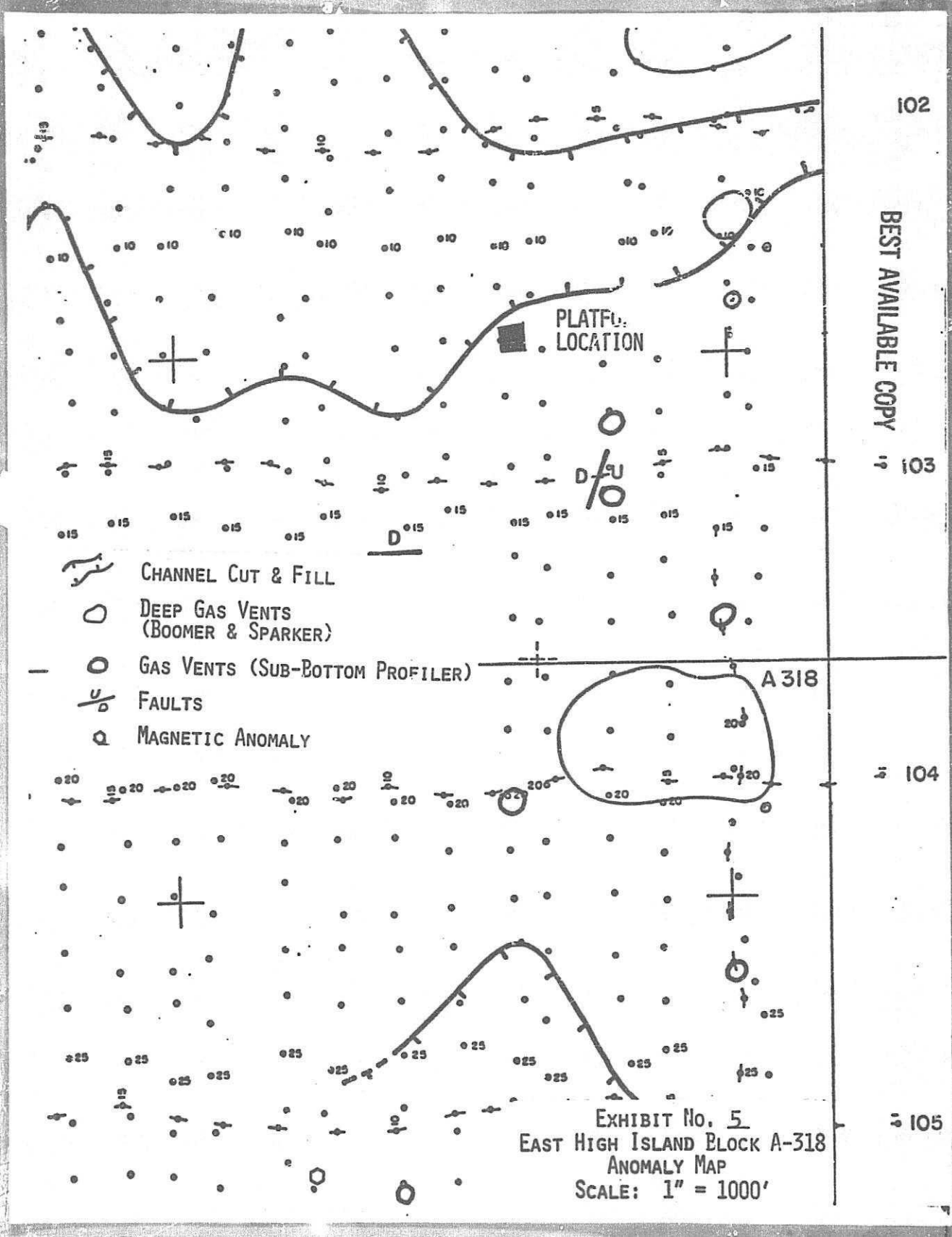


EXHIBIT No. 5
EAST HIGH ISLAND BLOCK A-318
ANOMALY MAP
SCALE: 1" = 1000'

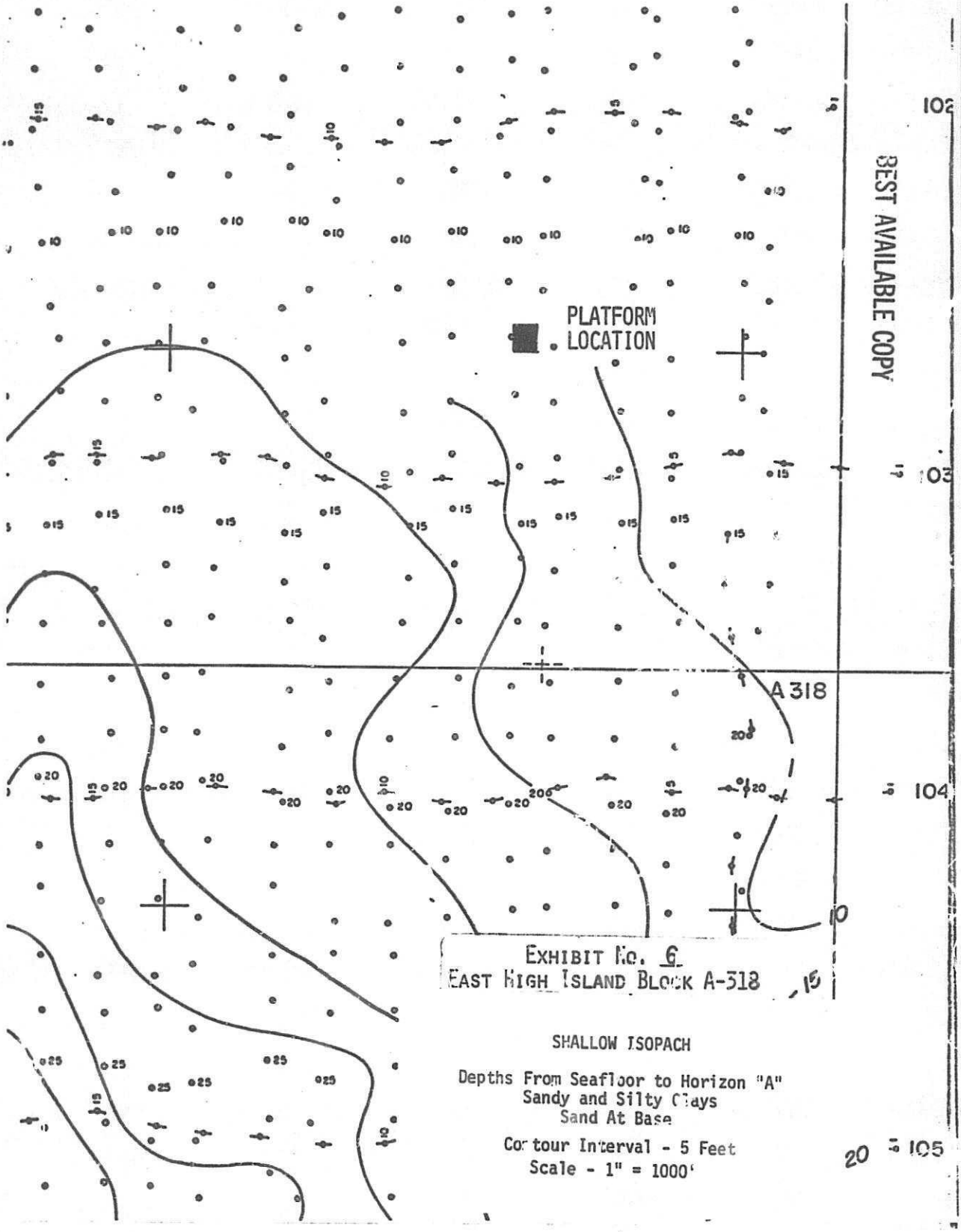


EXHIBIT No. 6
EAST HIGH ISLAND BLOCK A-318

SHALLOW ISOPACH

Depths From Seafloor to Horizon "A"
Sandy and Silty Clays
Sand At Base

Contour Interval - 5 Feet
Scale - 1" = 1000'

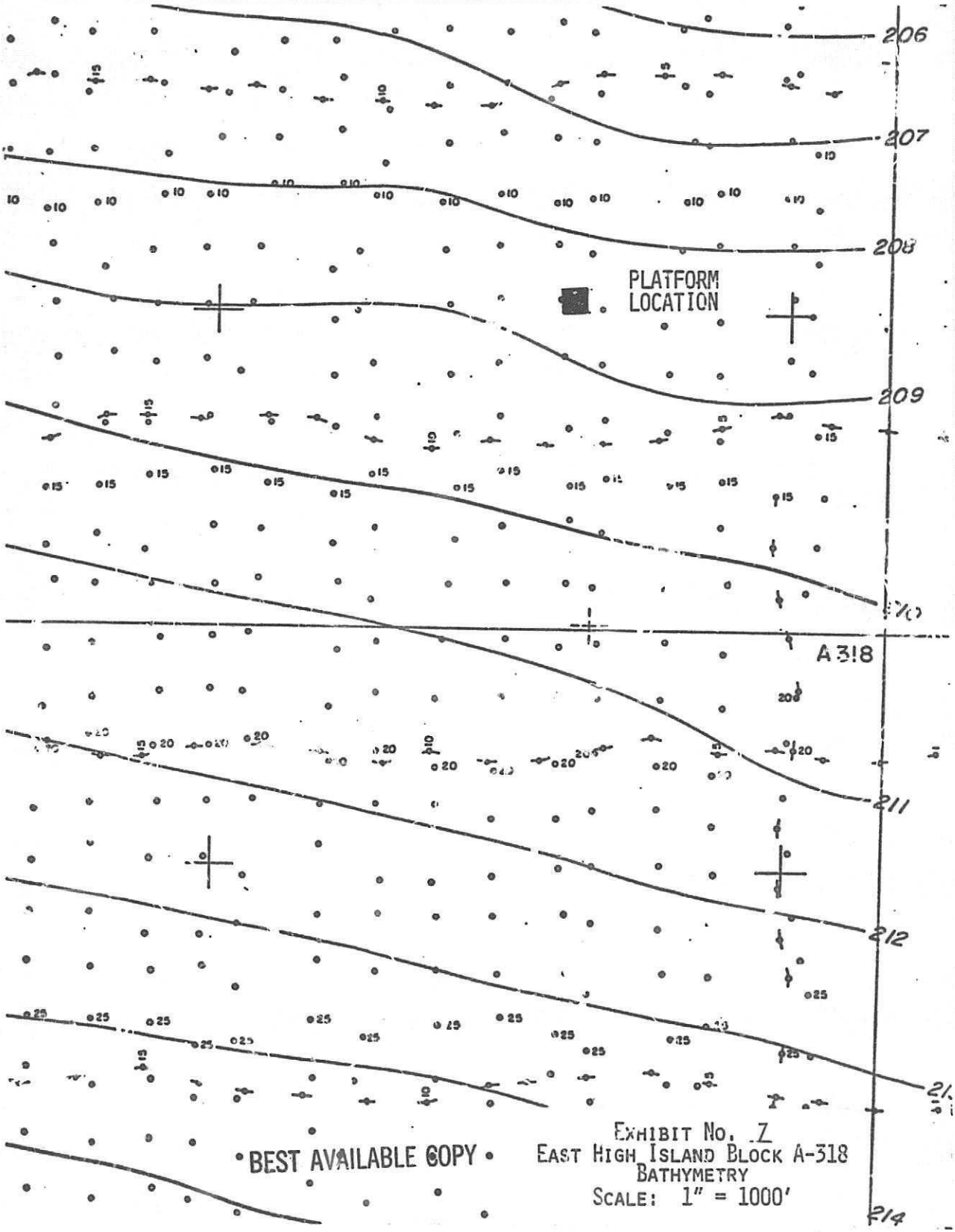
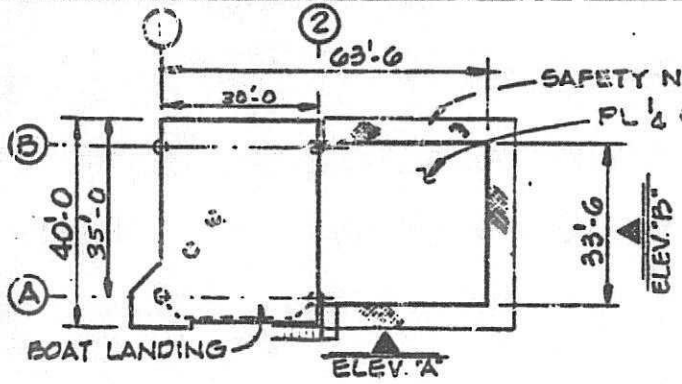


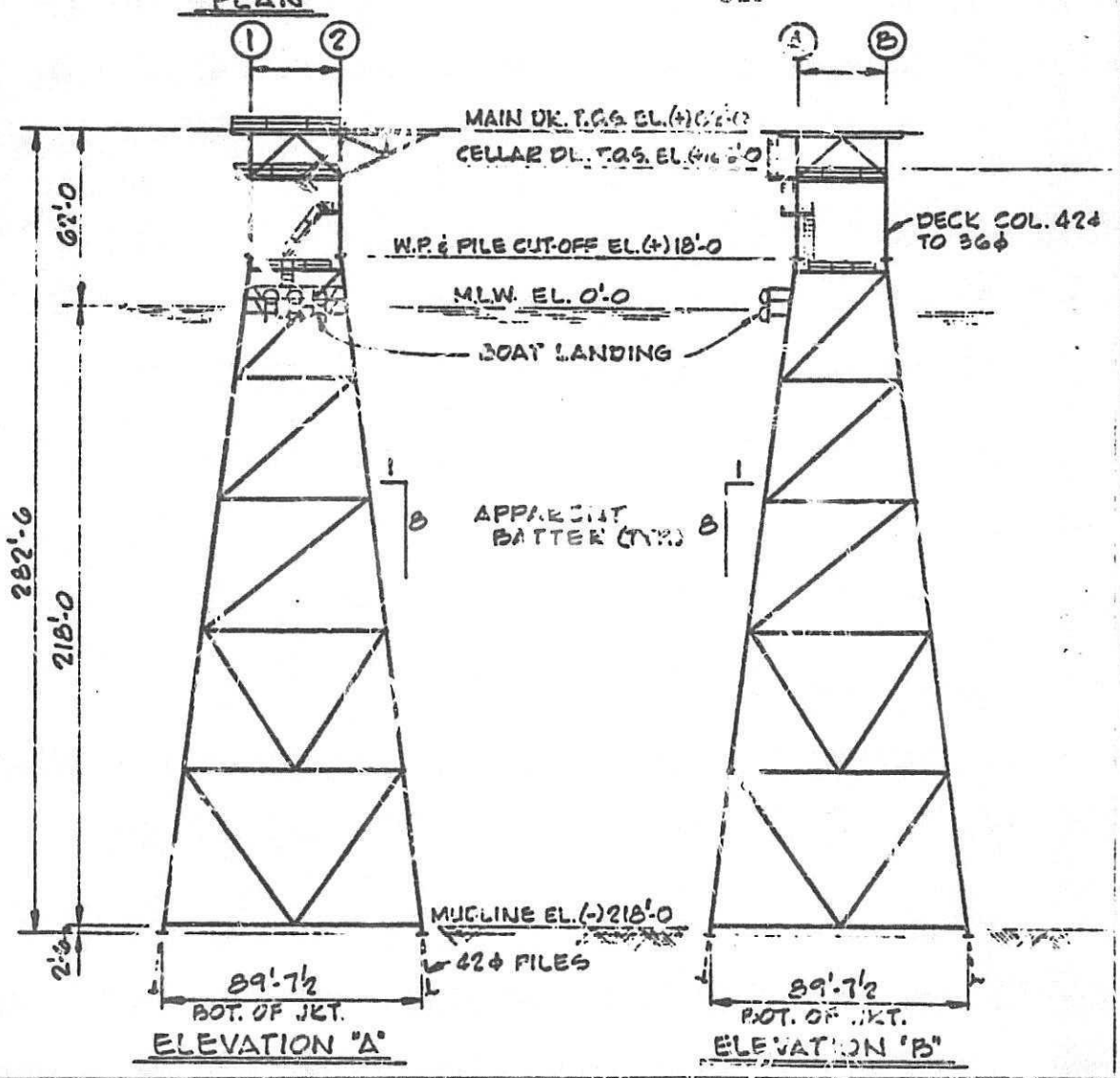
EXHIBIT No. Z
EAST HIGH ISLAND BLOCK A-318
BATHYMETRY
SCALE: 1" = 1000'

EXHIBIT No. 8



PLAN

BEST AVAILABLE COPY



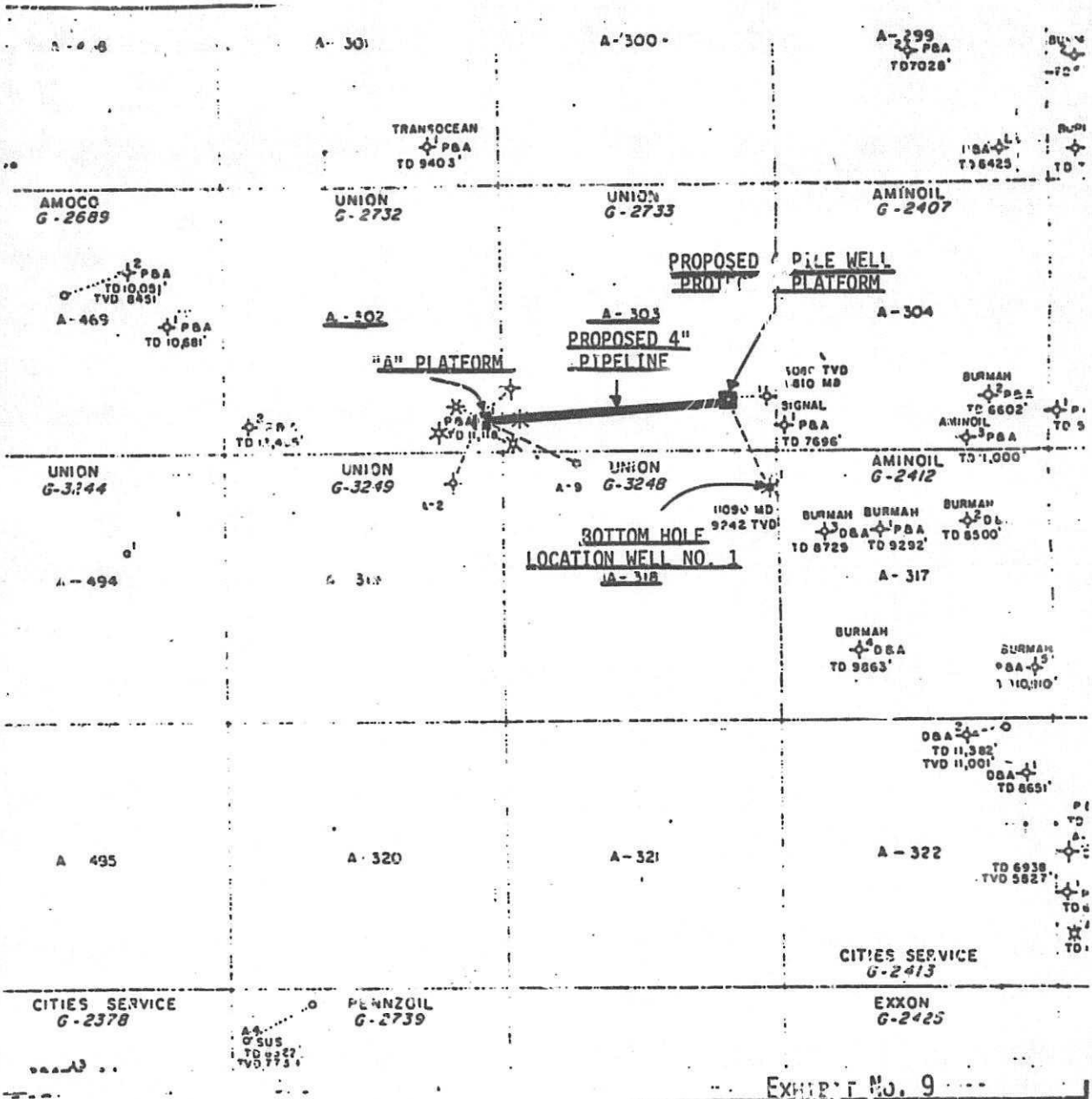


EXHIBIT No. 9

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

VICINITY MAP

EAST HIGH ISLAND BLK. A-318 AREA

OFFSHORE, TEXAS

INTERPRETATION BY	DRAFTED BY	DATE	FILE NO
		7/80	

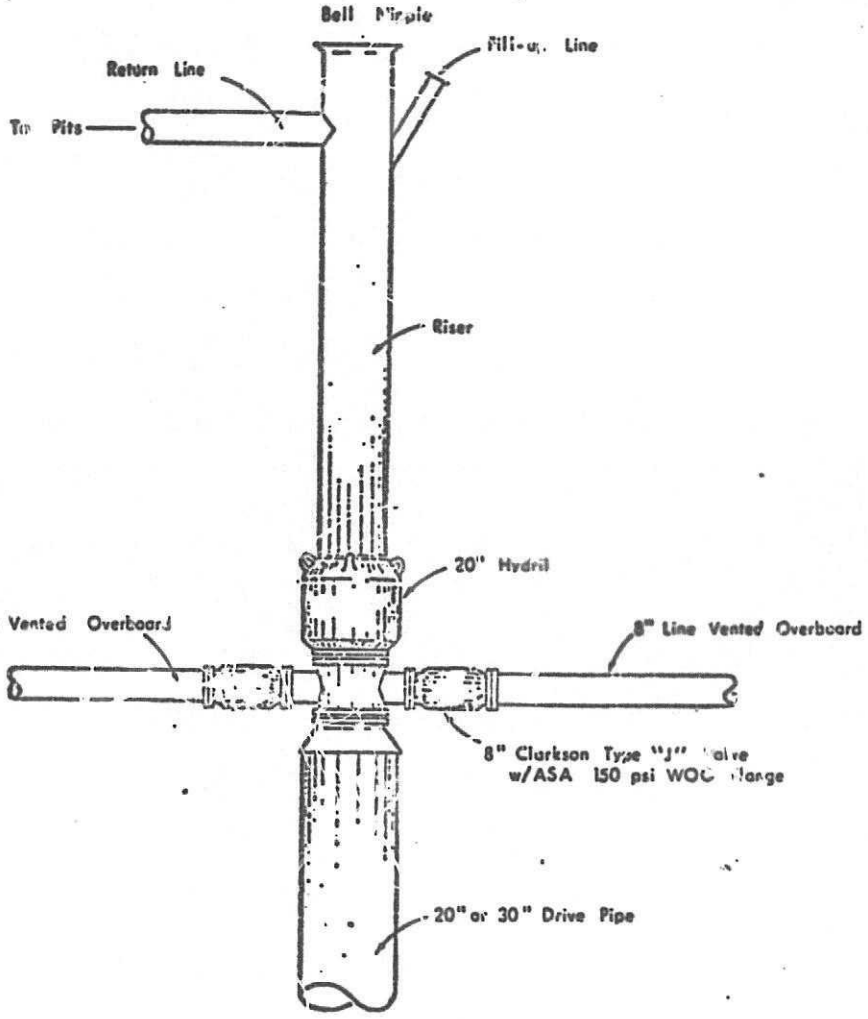


EXHIBIT No. 10

REV.	DATE

PROPOSED DIVERTER SYSTEM
OCS-G-3248, BLOCK A-318, E. HIGH ISLAND AREA

DRAWN KM C.D.
APP'D
SCALE NONE
DATE

UNION OIL COMPANY OF CALIFORNIA

SHEET SHEET

BEST AVAILABLE COPY

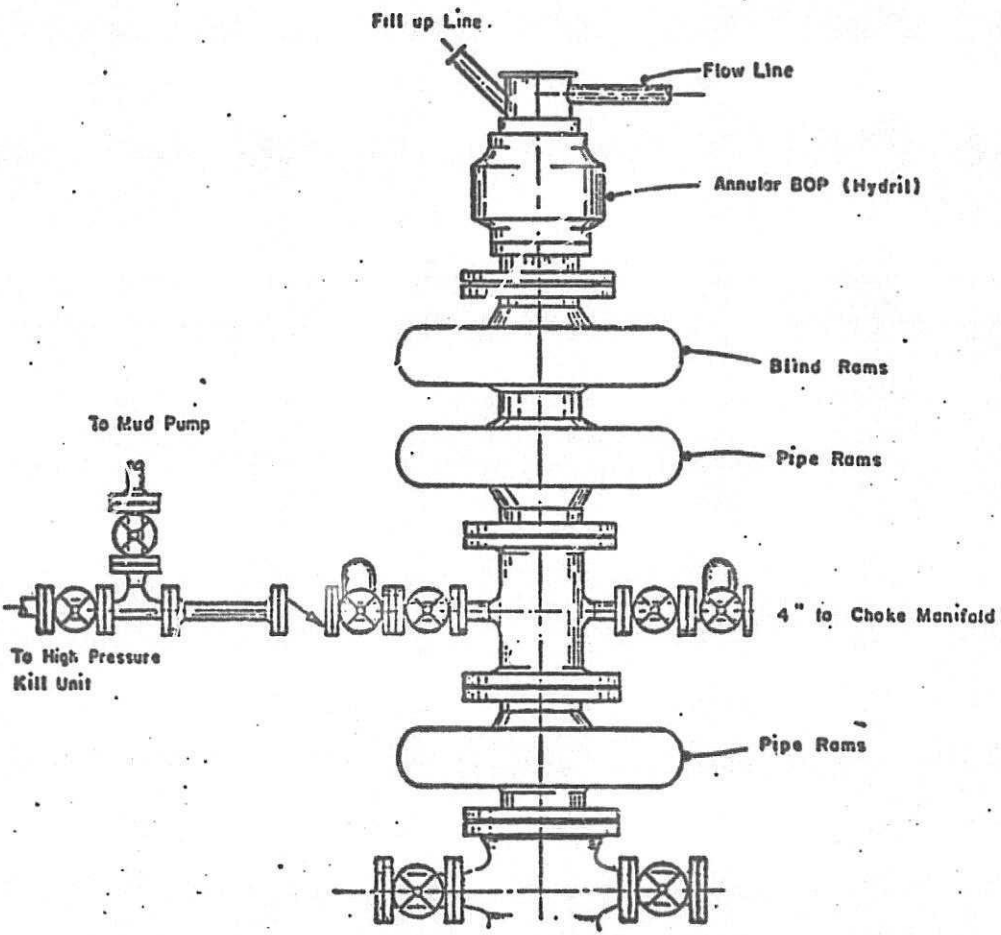


EXHIBIT No. 11

REV.	DATE

STANDARD 4 PREVENTER ASSEMBLY
OCS-G-3248, BLOCK A-318, E. HI[illegible] ISLAND AREA

UNION OIL COMPANY OF CALIFORNIA

DRAWN KM CKD.
APP'D.
SCALE NONE
DATE 10/[illegible]/80

SHEETS | SHEET

Form 247 GR

BEST AVAILABLE COPY

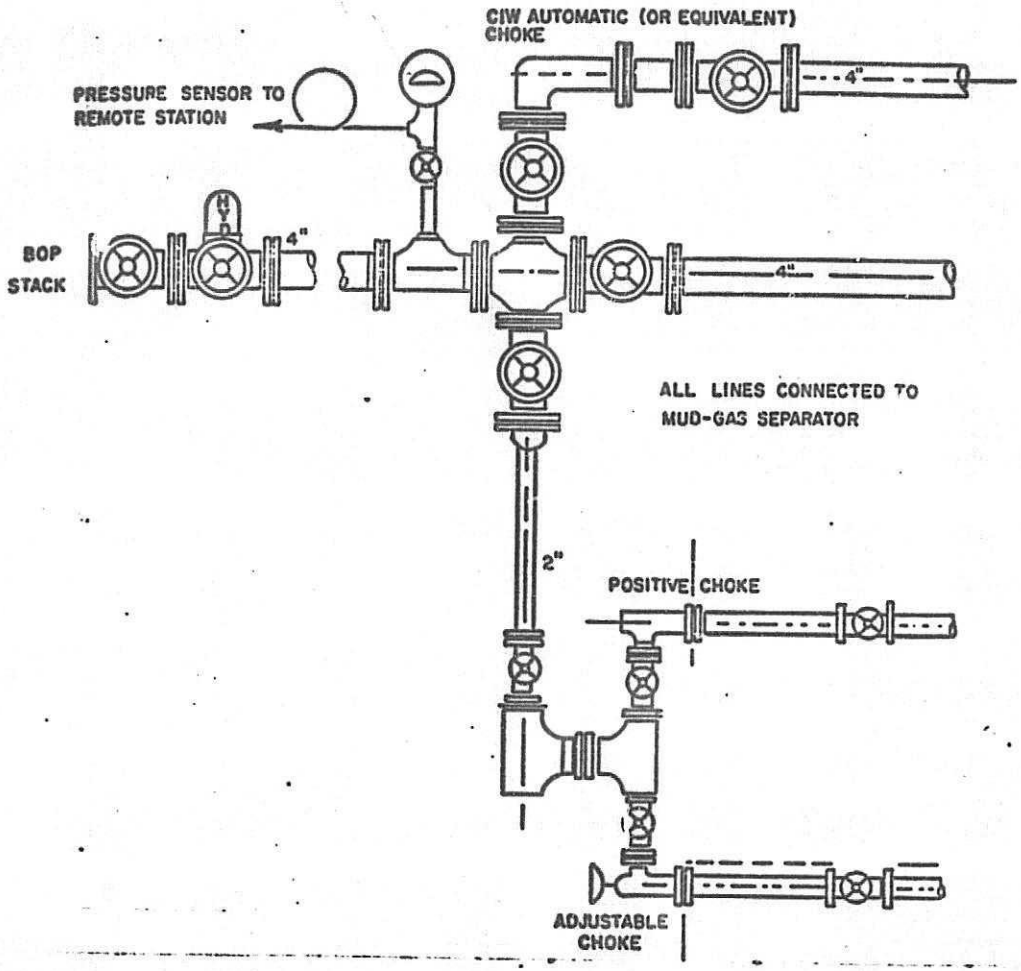


EXHIBIT No. 12

REV.	DATE

PROPOSED CHOKE MANIFOLD

OCS-G-3248, BLOCK A-318, E. HIGH ISLAND AREA

UNION OIL COMPANY OF CALIFORNIA

DRAWN KTT CKD.
APP'D.
SCALE NONE
DATE 10/6/80

SHEETS | SHEET

Form 247 GR

AIR QUALITY STATEMENT

OCS-G-2736 A-303 SURFACE LOCATION

FOR

OCS-G-3248 A-318 WELL NO. 1

EAST HIGH ISLAND AREA

OFFSHORE, TEXAS

AIR QUALITY STATEMENT

The Plan of Operations for the completion and production of OCS-G-3248 Well No. 1 at East High Island Block A-318 is as follows:

The subject well was drilled directionally from a template with surface location in OCS-G-2733 East High Island Block A-303. It is planned to set a 4-pile well protector platform over the template, then tie back and complete the well. Since the surface location is in Block A-303, all data in this report will apply to Block A-303.

The installation of the platform will require a 500-ton derrick barge. The normal fuel consumption per day for this type barge is approximately 5700 gallons of diesel. The transportation for this phase of operation will be handled out of the Union Oil Company Shore Base located in Surfside, Texas. It is expected to take ten (10) days to complete the setting of the platform.

It is expected to take fourteen (14) days to tie back and complete the well. The rig to be used to complete this well will be Penrod 52 or a similar jack-up type rig. The normal fuel consumption for this rig is 1722 gallons of diesel per day. The onshore support base for this activity will be the Union Oil Shore Base located at Surfside, Texas. All transportation, boats and helicopters, will be handled from this base.

This location will consist of one (1) single completion which will be provided with minimum surface equipment. A five-ton crane will be installed to be used for routine wireline work. Production from this gas condensate well will be transported about 3 miles by pipeline to East High Island A-302 "A" Platform which is the production platform. After this well is on production there will be no continuous emissions. All production separation, dehydration, testing, and metering will be done at the production facilities at East High Island A-302 "A" Platform.

Air emissions calculations are based on the aforementioned installation and completion time frame. Any additional service work required during this well's productive life will be minimal, and will result in air emissions which will be well below the exemption level.

The projected emissions are based on data from "Compilation of Air Pollutant Emission Factors", third edition AP-42, EPA, 1977, Table 3.3.3-1 and Table 3.2.1-3.

AREA East High Island BLOCK A-303 PLATFORM E.H.I. A-303 OCS-G-2733 "A"

PROJECTED EMISSIONS FROM EACH SOURCE

BY AIR POLLUTANT FOR 1981 Year

SOURCE	AIR POLLUTANT (T/YR.)				
	SO_2	NOx	CO	TSP	VOC
Derrick Barge Emissions (Platform Instl. Phase)	1,778	26,733	5,814	1,910	2,138
Transportation Cargo Boat & Crew Boat (Platform Instl. Phase)	14	226	48	16	18
Jack-up Rig (Completion Phase)	752	11,306	2,458	808	904
Transportation Cargo Boat, Crew Boat & Helicopter (Compl. Phase)	14	84	44	18	33
Subtotal	2,558	38,349	8,364	2,752	3,093
Miscellaneous (25% of Subtotal)	640	9,587	2,091	688	773
Total in Pounds	3,198	47,936	10,455	3,440	3,866
Total from Facility in Tons Per Year	1.6	24.0	5.2	1.7	1.9

AREA East High Island BLOCK A-303 PLATFORM E.H.I. A-303 OCS-G-2733 "A"

PROJECTED EMISSIONS FROM EACH SOURCE

BY AIR POLLUTANT FOR 1982-1988
Year

SOURCE	AIR POLLUTANT (T/YR.)				
	SO_2	NOx	CO	TSP	VOC
Note: No Continuous Emissions					
25% of 1981 Miscellaneous	160	2,397	523	172	193
Note: Projected life of well is only six (6) years. An additional year of emissions is added in case reservoir is depleted slower than anticipated.					
Total from Facility In Tons Per Year	0.1	1.2	0.3	0.1	0.1

AREA East High Island BLOCK A-303 PLATFORM EHI A-303
OCS-G-2733 "A"

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 = 99.8 Statute Miles (526,837 ft.)

E = 73,146 CO

E = 3,323 SO_2, NOx, TSP, and VOC

POLLUTANTS	"E" (T/YR.)	1981 HIGHEST YEAR PROJECTED EMISSIONS (T/YR.)	EXEMPT (YES OR NO)
SO_2	3,323	1.6	Yes
NOx	3,323	24.0	Yes
CO	73,14	5.2	Yes
TSP	3,323	1.7	Yes
VOC	3,323	1.9	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.

AREA East High Island BLOCK A-303 PLATFORM EHI A-303
OCS-G-2733 "A"

FREQUENCY DISTRIBUTION OF TOTAL EMISSIONS

SO_2, NOx, CO, TSP, VOC (Pollutant(s)) FOR 1981 (Year(s))

POLLUTANT	YEAR	EMISSION RATES POUNDS/DAY	DAYS/YEAR
SO_2	1981	54.0	14
		179.2	10
	1982-1988	6.7	365
NOx	1981	813.6	14
		2,695.9	10
	1982-1988	99.9	365
CO	1981	178.7	14
		586.2	10
	1982-1988	21.8	365
TSP	1981	59.0	14
		192.6	10
	1982-1988	7.2	365
VOC	1981	66.9	14
		215.6	10
	1982-1988	8.0	365

REMARKS: No continuous emissions from this facility. All emissions are estimates except for the 24 days in 1981 which covers the construction and completion phase.

PROJECTED AIR EMISSION FOR E.H.I. A-303 OCS-G-2733 "A" PLATFORM

Emission Source	Running Time/Day	Takeoffs & Landings Per Day	Fuel Cons. Gals./Day	Emission Factors Pound/1,000 gals.					Emission Factors Airfraft Takeoff & Landings					Projected Emission, 24 -day projection in #				
				SO_2	NOx	CO	TSP	VOC	SO_2	NOx	CO	TSP	VOC	SO_2	NOx	CO	TSP	VOC
Calculations for 14 day completion phase.																		
Drilling Rig	24 hrs.		1,722	31.2	469	102	33.5	37.5						752	11,306	2,458	808	904
Cargo Boat (In Berth)	2 hrs.		4	31.2	469	102	33.5	37.5						2	26	6	2	2
Crew Boat (In Berth)	2 hrs.		4	31.2	469	102	33.5	37.5						2	26	6	2	2
Helicopter Takeoffs & Landings		4							18	.57	.57	.25	.52	10	32	32	14	29
Calculations for 10 day platform - installation phase.																		
Derrick Barge	24 hrs.		5,700	31.2	469	102	33.5	37.5						1,778	26,733	5,814	1,910	2,138
Cargo Boat (In Berth)	12 hrs.		24	31.2	469	102	33.5	37.5						7	113	24	8	9
Crew Boat (In Berth)	12 hrs.		24	31.2	469	102	33.5	37.5						7	113	24	8	9

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
2,558	38,349	8,364	2,752	3,093

Total in Pounds