

DATE 6-23-83

TO: OMS-2-2

FROM: OS-2-2

Plan of ~~Exploration~~ Development/Production and Environmental Report,

Leases OCS-G 3534 and 5366 Control No. N- 1224.

CB
law

10-1224

Tenneco Oil
Exploration and Production

A Tenneco Company

Central Gulf Division

P.O. Box 39100
Lafayette, Louisiana 70503
(318) 981-7000



June 20, 1983

U.S. Department of the Interior
Minerals Management Service
P.O. Box 7944
Metairie LA 70010

Attention: Mr. Alex Alvarado

Gentlemen:

Re: Development/Production Plan
East Cameron Block 129
OCS-G-3534

Dear Sir:

Please be advised that the Environmental Report included in the above referenced plan was compiled with the intent of including both the OCS-G-3534 lease (East Cameron 129), as well as the OCS-G-5366 lease (East Cameron 128).

Due to our recent submittal of an Environmental Report in the Plan of Development/Production for the OCS-G-5366 lease, the consultant felt that it would not be necessary to list it in the report. In addition, due to the blocks being adjacent to one another, the reports are very similar and again the consultant did not see the need for mentioning the East Cameron 128 lease.

Enclosed are diagrams of the proposed pipelines that would be used to transport production from the East Cameron 129 "A" Platform to the Vermilion 122 "A" Platform.

This information is being sent to you as per your request to Mr. Steve Durio of this office on June 17, 1983.

Should additional information be required, please advise.

Yours very truly,

TENNECO OIL COMPANY
Central Gulf Division

Keith Dupuis
Keith Dupuis
Production Analyst

KD/cmc

Enclosures

U. S. GEOLOGICAL SURVEY
JUN 22 1983
OPERATIONS
SUPPORT
GULF OF MEXICO REGION METAIRIE, LA

Office of
Management Support
JUN 23 1983
Records Management

X = 1,571,941.44
Y = 340,193.02
LAT. = 29° 35' 42.803"N
LONG. = 92° 41' 00.087"W

Y = 151,387.33
14,758.05

127

Tenneco Oil Company
O.C.S.-G-5366

Tenneco Oil Company
O.C.S.-G-3807

BLOCK CENTER
X = 1,575,927.31
Y = 146,008.30
LAT. = 29° 03' 41.006"N
LONG. = 92° 39' 38.139"W

BLOCK 129
O.C.S.-G-3534
EAST CAMERON AREA
OFFSHORE LOUISIANA



Y = 138,629.28

SURVEYED WELL LOCATION
X = 1,581,914.80
Y = 141,702.50
LAT. = 29° 02' 59.144"N
LONG. = 92° 38' 30.128"W

PROPOSED "A"
PLATFORM OVER
#3 LOCATION

PROPOSED 6" OR 8"
PIPELINES FROM
"A" PLATFORM
EC 129 TO "A"
PLATFORM VR 122

BLK. 128

145

EAST CAMERON AREA
VERMILION AREA

BLK. 122

A-B Surf. Loc'n. ("J" Slot)
X = 1,593,073.43
Y = 144,881.67
Lat. 29° 03' 31.860"
Long. 92° 36' 24.824"

141

PUBLIC
INFORMATION
PLAT

TENNECO OIL COMPANY
O.C.S.-G-5366 NO. A-

PERMIT PLAT
VERMILION AREA
EAST CAMERON AREA

SCALE 1" = 2000' 06/14

MEASUREMENTS, IN FEET, AND BEARINGS ARE BASED ON THE
(LAMBERT) PLANE COORDINATE SYSTEM, SOUTH ZONE.

FORMED BY O.C.S.I. ON JULY 18, 1982, USING
S. FOR ANGLE OBSERVATIONS AND ELECTROTAPES
FOR MEASUREMENTS.

1. DNG. 82-707-06906-G3A FOR SURVEY CONTROL MAP.

SURVEYED WELL LOCATION		TENNECO OIL COMPANY	
WELL NO. 3		BLOCK 129 EAST CAMERON AREA OFFSHORE LOUISIANA	
APP. TAG	FEAL. NO.	APP. TAG	FEAL. NO.
DATE 7-20-82	DATE 7-20-82	DATE 7-20-82	DATE 7-20-82

certify that the above surface
is correct.

R. J. Champagne
as Land Surveyor No. 305
Louisiana
Chance B Associates, Inc.

Tenneco Oil Exploration and Production

Development/Production Plan
East Cameron Block 129 (OCS-G-3534)
Page Two

features pertaining to safety and pollution control. The rig, in conjunction with the drilling platform in East Cameron 129, will be equipped with typical pollution control equipment, including but not limited to deck drains, sumps, drip pans, and sewage treatment facilities.

Please see the attached schematic and Environmental and Functional Loads Chart for the OCS-G-3534 "A" platform. The specifics of this platform will be detailed in the permitting process. The above mentioned platform is being designed for 100 years storm as per A.H. Glenn and Associates.

The cathodic protection for the jacket members will be designed for a minimum of 20 year life. The design and fabrication of this structure will be in accordance with the following codes and/or regulations.

1. The piling and jacket in accordance with API RE2A (latest edition) of the American Petroleum Institute;
2. All structural steel members comprising the main deck designed in all accordance with the latest edition of the AISC Steel Construction Manual;
3. All welding and fabrication will be in accordance with the American Welding Society. Curbs, gutters, and drains will be installed in all deck area.

The OCS-G-3534 "A" platform will be equipped with a sufficient number of life jackets, work vests, life floats, four (4) life rings, a D-15 Fire Boss Unit with on remote reel (1500 lbs. dry chemical fire fighting unit), several portable hand fire extinguishers strategically located, and a U.S.C.G. approved First Aid Unit, all in accordance with U.S. Coast Guard regulations pertaining to firefighting equipment and life-saving appliance requirements for artificial islands and fixed structures on the Outer Continental Shelf.

Additional lifesaving appliances and firefighting equipment will be provided by the drilling rig to accommodate all drilling and completion personnel. The rig meets all U.S.C.G. regulations independent of the platform safety equipment.

Attached is a brief description of procedures and personnel included in our Oil Spill Contingency Plan. An approved copy is on file with the Minerals Management Service. The primary equipment to be used including its location, deployment, and travel time is also listed.

Tenneco Oil Exploration and Production

DEVELOPMENT/PRODUCTION PLAN

EAST CAMERON AREA

BLOCK 129 (OCS-G-3534)

Tenneco Oil Company, as operator of East Cameron Block 129, plans to conduct development and production operations on the above mentioned lease. All development drilling will be done from the proposed "A" Platform location in East Cameron Block 129. The proposed location of the platform will be over the Number 3 Wildcat Well location of 3105' FSL and 1400' FEL of East Cameron 129.

Oil and gas production from the lease will be transported via two or three pipelines, depending upon the amount of production from the lease. These pipelines will be built by Tennessee Gas Transmission Company and will tie-in to the proposed production facilities on the Vermilion Block 122 "A" Platform. At that point oil production will be carried through an 8" line from the Vermilion 122 "A" production platform to either CAGC's 8" pipeline running from Vermilion Block 119 to Intracoastal City, La. or to Exxon's 12" pipeline running from South Marsh Island Block 6 to Burn's Facility. Gas production will run from the Vermilion 122 "A" platform via a pipeline, to be run by Tennessee Gas Transmission Company, to the Bluewater Pipeline at Vermilion Block 155 and then to Columbia Gulf's facility at Pecan Island.

The "Marlin I" is scheduled for the drilling and completion phases of the project.

The proposed schedule for this operation is as follows:

<u>DATE</u>	<u>PROPOSED OPERATIONS</u>
7/1/83	Install "A" drilling platform
1/1/84 to 12/1/84	Drill the A,B,C,D,E,F Wells
12/2/84 to 4/15/85	Complete A,B,C,D,E,F Wells
5/1/85	Bring A,B,C,D,E,F Wells on production through Tennessee Gas Transmission Company's pipelines to Vermilion 122 "A" Platform.

Attached is a copy of the specifications of the "Marlin I" describing the rig by showing the location, design, and important features, including

**Tenneco Oil
Exploration and Production**

A Tenneco Company

Central Gulf Division

P.O. Box 39100
Lafayette, Louisiana 70503
(318) 981-7000

June 17, 1983



U.S. Department of the Interior
Minerals Management Service
P.O. Box 7944
Metairie LA 70010

Attention: Mr. D.W. Solanas

Gentlemen:

Re: Development/Production Plan
East Cameron Block 129/128
OCS-G-3534/5366

NOTED-ALVARADO

Dear Sir:

Attached are nine (9) copies of Tenneco Oil Company's Development/Production Plan for East Cameron Block 129.

The Well Information Attachment, Structure Maps, and Schematic Cross Sections are considered proprietary data to be exempt from disclosure under the Freedom of Information Act and should therefore not be made available to the public or provided to any affected state or to the executive of any local government. In respect to the confidentiality of this report the proprietary data has been removed from all but five (5) copies of the Plan of Development/Production.

Should you require additional information, please advise.

Yours very truly,

TENNECO OIL COMPANY
Central Gulf Division

Keith Dupuis
Keith Dupuis
Production Analyst

KD/cmc

Attachments

Tenneco Oil Exploration and Production

Development/Production Plan
East Cameron Block 129 (OCS-G-3534)
Page Three

See the attached listing of employee breakdown by operational phase.

Computations of energy and material is estimated to be:

1. Electricity - No change. Existing utilities will be utilized.
2. Diesel Fuel - 22,656 barrels - Boats consume 24 bbls (42 gallons = 1 barrel) per 100 mile trip and will make approximately 250 trips. Rig consumes .2212 barrels per drill foot (total proposed measured depth is 707,709 feet).
3. Turbine Jet Fuel - 7,620 gallons. Puma 8 passenger helicopter consumes 180 gallons per hour and a Long Ranger helicopter consumes 30 gallons per hour. Average speed is 100 MPH, a round trip is 80 miles, and each makes 200 round trips.
4. Lubricating Oil - Used for routine maintenance and has little impact. This is based on conversations with rig and helicopter maintenance crews.
5. Materials - Tubular goods 2,317 tons, cement 1,603 tons, mud 31,944 bbls.

Due to the fact all wells in the Plan of Development will be drilled from the "A" Platform in East Cameron 129 (located at the location of the #3 Wildcat Well), no shallow hazard survey has been included.

Attached is a location map of the lease block relative to the shoreline with the location of the East Cameron 129 "A" platform indicated. In addition, a description of the onshore base facility is enclosed.

The Well Information Attachment with accompanying Spider Diagram depicting the location of the wells, Structure Maps and Schematic Cross Sections reflecting the most current interpretation are attached for your review. These attachments should be exempt from disclosure under the Freedom of Information Act (5 U.S.C. 552) and implementing regulations (43 CFR Part 2).

Tenneco Oil Company will adhere to those applicable environmental safeguards outlined in OCS Order Number 1 through 14 regarding the drilling and production operations of the development wells. Tenneco Oil Company is a member of Clean Gulf Associates and as such will utilize CGA manpower and equipment should the need arise in the event of an oil spill incident.

Tenneco Oil Company will not dispose drilling mud containing free oil into the Gulf. Curbs, gutters, and drains will be installed in all deck areas along with drip pans under the protection equipment. All contaminants and

Tenneco Oil Exploration and Production

Development/Production Plan
East Cameron Block 129 (OCS-G-3534)
Page Four

treated water will be piped to a sump which automatically maintains the oil at a level sufficient to prevent the discharge of oil into the Gulf waters, as per OCS Number 7. Tenneco's personnel have been instructed in the techniques of equipment maintenance and operation for the prevention of pollution. Pollution inspections will be performed as per OCS Order No. 7. All solid waste will be disposed of as per OCS Order No. 7.

Tenneco Oil Company's production facilities will be protected by the appropriate safety devices required by OCS Orders and API 14C.

All wells completed in Block 129 will be equipped with subsurface safety devices as specified in OCS Order Number 5. These devices will be periodically tested as prescribed by the Supervisor. The SCSSV panel will control the downhole ball valves that would shut off the flow of production from the wellbore in the case of a major facility upset. The Well Pilot Panel will monitor the pressures of each well and in the case of an undesirable event will actuate the SSV's (Surface Safety Valves). The Safety Control and Production Pilot Panel will monitor the conditions of the production vessels, ESD stations, fusible plugs, and gas detectors. This panel will alarm, annunciate, and actuate the appropriate device to alleviate or isolate any undesirable event. The production equipment is being designed to adhere to the following codes and regulations:

1. OCS Order Number 5
2. API RP 14D
3. API RP 14C, API RP 14E

The productive life of this platform is estimated to be ten (10) years. Please refer to the Air Emissions Attachment to comply with Air Quality Regulations 30 CFR 250.57.

Please see the attached mud components listing.

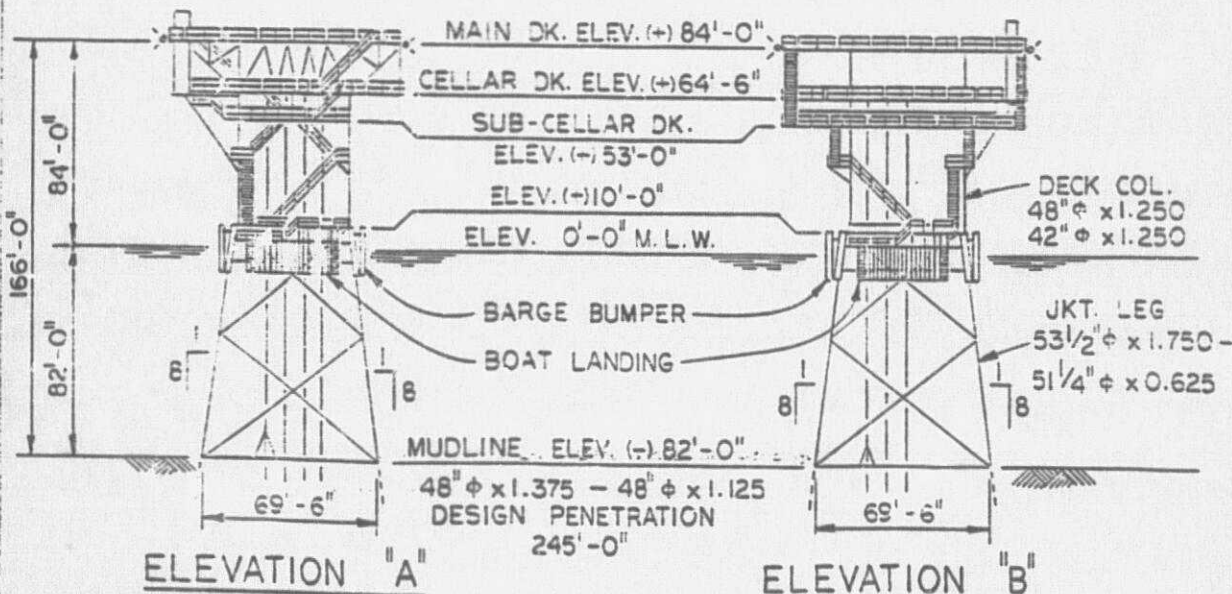
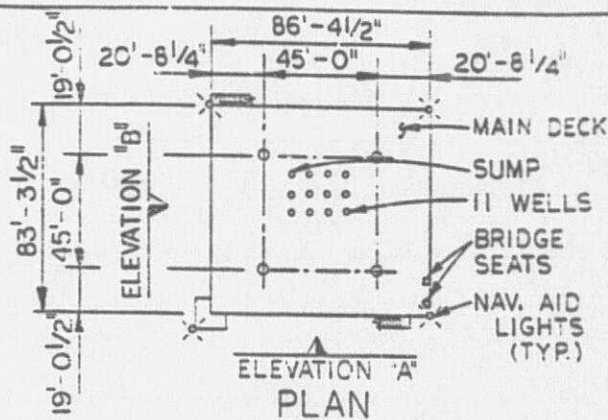
Please refer to the Certificate of Coastal Zone Consistency and the Environmental Report to comply with 30 CFR Part 250 and 15 CFR Part 930.

DESIGN LOADS PER PILE

MAX BEARING 3368K

MAX LATERAL 391K

MAIN DECK 1 x 3/16 SERR. BAR GRTG.
CELLAR DECK 1 x 3/16 SERR. BAR GRTG.
SUB CELLAR DECK 1 x 3/16 SERR. BAR GRTG.
WALKWAY @ (+) 10'-0" 1 x 3/16 SERR. BAR GRTG.



TENNECO OIL COMPANY certifies that the design of this platform structure has been certified by a registered professional structural engineer or a civil engineer specializing in structural design, and the platform structure will be fabricated, installed, and maintained as described in the application and any approved modification thereto. Certified design and as-built plans and specifications will be on file at Tenneco Oil Company's office in Lafayette, Louisiana.

APPLICATION BY
COMPANY TENNECO OIL CO.
SIGNATURE [Signature]
TITLE ENGINEER DATE 4-2-53

4 PILE DRILLING 12 WELL PLATFORM
LEASE NO. OCS-10-3534 BLOCK NO. 120
AREA EAST CAMERON SHEET 1 OF 1

Drilling Tender and Equipment

- 1 Non-self propelled drilling tender 260' long x 54' wide x 28' 3" molded depth at sides.

Quarters

Air conditioned quarters for fifty men with temperature controls in each room. Fireproof materials were used in construction of quarters. The galley is equipped with modern appliances including a walk-in reefer with chill box and freezer, stainless steel sinks and storage racks. The galley floor is finished in red quarry tile.

The dining room is arranged for serving cafeteria style. It is equipped with steam table and mess boy station.

A large recreation room with television and comfortable chairs is provided for the personnel.

A laundry with commercial type washer, extractor and dryer is provided for the convenience of the crew. Fluorescent lighting is installed throughout the tender in both quarters and machinery areas.

A Hose McCann sound powered telephone system is installed in 17 strategic locations throughout the tender and platform package.

Tender Machinery and Equipment

- 2 National single drum bow breast anchor winches powered by a 50 H.P. AC electric motor. Each of these units contain 1600' of 1½" anchor cable. These units have a maximum single line pull of 50,000#.
- 1 Markey single drum two-speed bow winch with a capacity of 1200' of 2" anchor cable.
- 2 National double drum stern anchor winches, each powered by a 50 H.P. AC electric motor. Each drum contains 1600' of 1½" anchor line. These units have a maximum single line pull of 50,000#.
- 6 12' x 18' raft type spring buoys. Each buoy has a net buoyancy of approximately 10 tons.

- 2 Danforth 2000# Ship anchors rigged to attach to the two bow breast winches.
- 2 Ingersoll-Rand Model HUL air hoist with 2000# single line pull at 80# PSI and a line speed of 130' per minute at 2000# pull. Each unit contains 1200' of ¾" wire line. One unit is installed on bow and one on stern of tender to expedite the stringing of anchor cables.
- 1 Ramp for transfer of materials and equipment between the tender and platform package.
- 1 Unit Mariner Model 500, 30 ton capacity revolving Crane mounted on pipe rack deck.
- 3 Gardner-Denver Model ADR 6¼" x 6¼" x 3½" x 4" - 45 CFM Air compressors. Two are powered by 15 H.P. AC Electric motors. One is powered by a Lister 12 H.P. diesel engine (for start up air). These units are connected to a common air receiver tank battery.
- 2 Caterpillar D-353D diesel electric sets. Generators are 275-KW AC, U.S. Coast Guard approved.
- 1 Petter Model AV2-12 H.P. Diesel electric set. Generator is 4 KW 110 volt AC. This unit is required by U.S. Coast Guard for tender emergency lighting system.
- 1 Way-wolf size 6042-14E ship heater with normal 525,000 BTU out put rating.
- 2 Mission Figure 5320-30, size 2" x 3" x 3 Rll centrifugal fire water pumps. These units are powered by 20 H.P. AC electric motors.
- 1 1500# Fire Boss w/150' Hose.
- 2 Mission Fig. 5820-64, size 5" x 6" x 3Rll Centrifugal cooling water pumps. These units are powered by 25 H.P. AC electric motors.
- 2 Gould Fig. 1942 rotary pumps; size 7 fuel transfer pumps. These units are powered by 5 H.P. AC electric motors.
- 1 Nash Engineering Company Model AL-571 priming pump powered by a one H.P. AC electric motors.
- 1 Lincoln Model S-7046, 400 amp electric driven welding machine.

There are ten pressure tanks for storage of bulk barite or cement. These tanks are 10' in diameter and have a total storage of 4,440 sacks of barite and 2,390 sacks of cement or a total barite storage capacity of 8,880 sacks. A dual pneumatic pressure transfer system is provided for loading, unloading and transferring bulk materials, necessary surge tanks, dust collectors and scales for weighing bulk barite are provided. Sack storage areas for 3000 sacks of mud materials and 1200 sacks of cement is provided.

Painting and Corrosion Protection

All exterior surfaces above the light-load line, including hull and deck houses are coated with inorganic zinc and finished with an epoxy color coat. The lower machinery areas received an epoxy coating system. All other interior areas are finished with appropriate oil base coating.

The underwater hull body was given three coats of Silver Primocon and finished with one coat of antifouling paint. The underwater hull body is also protected with an impressed current rectifier system.

Platform Equipment

- 1 30' x 30' base unitized derrick substructure unit with steel floor 30' x 52'. This unit contains and supports the Schlumberger unit, choke manifold, standpipe manifold, dog house with one double bunk room, drill line reel, air tugger, rotary unit with work platform, derrick and derrick equipment, weight indicator, air receiver tank, front porch of drawworks and miscellaneous equipment, to be moved as a unit. The total weight of this unit is approximately 180 tons.
- 1 30' x 20' base unitized engine substructure unit with 52' x 20' steel floored upper deck, with house. This unit contains and supports, the two 100-KW AC generator units, EMD 1000 H.P. D.C. standby generator set, Drawworks, B.O.P. closing unit, welding machine, two electric driven air compressors, AC electric panel, fuel tank and DC

electric panel, to be moved as a unit. The total weight of this unit is approximately 150 tons.

- 1 Gardner Denver ADR 6¼ x 6¼ x 3½" x 4" 45CFM air cooled compressor driven by a Petter AU2 12 H.P. diesel (For start up air)
- 1 30' x 45' base skid-frame which supports the derrick and engine units for drilling three in line wells on 8' centers. This unit is rigged so that it is lifted with the derrick substructure unit. The weight of the unit is approximately 50 tons.
- 1 Lee C. Moore 30' x 30' base x 140' high galvanized derrick 1,100,000-lb. capacity, designed to withstand 125-mph wind load.
- 1 National 1320 DE 1500 H.P. drawworks powered by two model D-59 DC electric motors. This unit includes sand reel, 60" type RC Parkersburg Hydromatic brake, National type A overrunning clutch, National Model Hydromatic drilling control and Model TCB Crown-O-Matic.
- 1 National C 275 rotary table with 27½ inch opening, powered by one model D-58 MB electric motor and equipped with two speed gear box.
- 1 Electric Motive SR-11A diesel engine-generator unit consisting of one 1000 H.P. Model 8-567 radiator cooled diesel engine driving two D-59 generators, complete with spark arrestor mufflers. This unit is connected to supply power to drawwork and rotary units only.
- 2 Caterpillar D-342 (series C) 100-KW AC diesel electric generator sets, complete with spark arrestor mufflers. These units are equipped with air starters
- 1 National type 754 Crown block 525 ton capacity with seven 54" diameter sheaves grooved for 1½" drill line.
- 1 National type 650-G-500 hook-block assembly, 500 ton capacity. The traveling block has six 50" diameter sheaves grooved for 1½" drill line.

- 1 Pioneer 16 cone desilter w/ 5 x 6 Mission Pump and 40 H.P. AC electric motor.
- 2 Mission 6" x 8" centrifugal mud mixing pumps with 12" impellers. Each unit is powered by a 50 H.P. AC electric motor. These units are piped independently so they can also be utilized for pumping sea water, drilling water, reserve mud and pump room sumps.
- 2 Mission 2" x 3" R centrifugal drilling water pumps with 11½" impeller. Each unit is powered by a 25 H.P. AC electric motor. These units are piped so that drilling water can be circulated across the platform drilling package at all times. This arrangement eliminates the need for drilling water storage on the platform.
- 1 Halliburton cementing unit (rental) with two HT 400 cementing pumps and an "A" mixing pump. Each pump is powered by a diesel engine.
- 2 "Lightnin" model 322-REQ-125 15 H.P. agitators installed in the active mud pit.
- 1 "Lightnin" model NS-1 1/3 H.P. portable chemical mixer installed on mud chemical tank.
- 1 RCA-P-7A-150 Radio-Marine Telephone.
- 1 RCA single side band radio.
- 1 Hose McCann sound powered telephone system with 14 stations.
- 1 Meco Model PES300K package type vacuum compression set water distillation unit, with minimum output of 300 GPH. This unit is powered by a 40 H.P. AC electric motor.
- 1 Helicopter flight deck measuring 64' x 54' is located over the bow end of the tender. The flight deck is provided with lighting, hand railing and mooring as required by standard regulations and helicopter operators.
- 2 Elliot 25-man self-inflatable type life rafts—U.S. Coast Guard approved.

- 1 C. J. Hendry Company "Sea Joy," 14-ft. aluminum rescue boat—U.S. Coast Guard approved.
- 1 U.S. Coast Guard approved general alarm system
- 1 U.S. Coast Guard approved fire fighting system and safety equipment.
- 2 Carrier 15-ton air conditioner units that are rigged for both cooling and heating.
- 3 EMD Model SR-12-W diesel engine generator skid assemblies. Each unit consists of one 1450 HP model 12-567-C diesel engine, heat exchanger and two D-59 DC generators.
- 1 EMD main D.C.-controlled parallel.
- 2 National N-1300 drilling pumps, 7" x 16" complete. Each unit is powered by two EMD D-59 DC electric motors. Each unit is also equipped with Hydrii type K-20-5000 pulsation dampner. These units are piped with two 5" schedule 160 mud discharge lines to platform rig package.

Storage Facilities

Drilling water tanks have a total capacity of 13,000 barrels.

Two fresh water tanks have a total capacity of 1250 barrels.

Two potable water tanks that have a total capacity of 480 barrels.

Two fuel oil tanks have a total capacity of 774 barrels.

Two active mud pits with a total capacity of 800 barrels of mud. These pits are equipped with "Lightnin" 15 H.P. mixers.

Two reserve mud storage tanks with a total capacity of 1500 barrels. These tanks are equipped with a fixed high pressure gun system.

The pipe rack deck has adequate storage for 15,000' of 5" drill pipe and necessary drill collar strings and 15,000' of 9½" O.D. Casing.

- 1 National type N-815 swivel, with Model A-1 Anc. 710 kelly spinner.
- 1 Martin Decker Type E weight indicator complete with National Type E wire line anchor, 4000# PSI compound mud gauge, two mud pump stroke tachometers and electric tachometer.
- 2 Westinghouse 5 VCH-19 air compressors driven by a 15 H.P. AC electric motor.
- 1 Halliburton .092 wireline unit with 15000' line.
- 1 Independently air operated blow out preventer handling equipment.
- 1 Ingersol Rand Model K4U air hoist, 3500# capacity at 60 PSI single line pull. Line capacity 850'-1 1/2" to 500'-5/8".
- 1 Set Deckard derrick equipment, consisting of all steel safety adjustable monkey board assembly with pipe rack beam, finger to rack 218 stands 5" OD drill pipe, stabbing finger, all steel belly band, all steel safety drill collar rack for 8 stands drill collars and all steel safety adjustable casing stabbing board assembly.
- 1 5 1/4" x 55' overall API hexagonal forged steel kelly with 3 1/4" diameter bore.
- 2 3 1/2" x 17" BJ type DB heavy weight rotary tongs.
- 1 5" BJ type MGG center latch drill pipe elevators for use with 18" taper tool joints, 275 tons rated capacity.
- 1 Set (2) BJ 1 3/4" x 1 1/2" weldless elevator links, 350 tons, rated capacity.
- 1 Varco KMPC unit complete with solid rotary master bushing, large size pin type kelly drive bushing type 27-4KRP for 5 1/4" API hex kelly and # 1320 kelly wiper assembly.
- 1 BJ type XH Wilson X-Heavy side door casing elevators with 7 1/8" bore for handling 7 1/4" drill collars.
- 1 BJ type X-Lite Side Door casing elevators with 5 1/4" bore for handling 6 1/4" drill collars.

- 1 Set (2) BJ 1 3/4" x 72" weldless elevator links complete with doll head to fit 5" drill pipe elevators for handling drill collar strings.
- 1 Set Baash-Ross Type "C" long drill collar slips.
- 1 Set Varco #3754 type SDXL slips for 5" drill pipe.
- 1 Baash-Ross CR 6 1/2" to 7 1/8" drill collar safety clamp.
- 1 OMSCO 6 3/4" OD, 15,000 PSI kelly safety valve.
- 2 Stine rig skidding jacks, 125 ton push capacity and 100 ton pull capacity complete with jaw type gripping assembly.
- 1 King 4SC Circulating head assembly complete with King 4AR wire line stripper.
- 1 Mud tank unit, approximately 150 bbl. capacity with SWACO desander and SWACO degasser and Dual Rumba shale shaken unit installed and piped as a complete unit.
- 1 Rumba No. 4360 dual model shale shaker unit powered with 3 H.P. explosion proof electric motors.
- 1 SWACO side 212 desander unit skid mounted with two size 112 Barclones. Prime mover is a mission 1000 watt centrifugal pump powered by 10 H.P. AC explosion proof electric motor. This pump unit is piped so as to be able to jet mud through the degasser and also fill up the hole in the event the tender is disconnected from the platform.
- 1 Schlumberger wire line logging unit (rental) mounted on derrick floor so that logging line can be run in hole without use of alignment sheaves.
- 1 SWACO degasser unit (rental)
- 1 Set Rig-A-Lite four foot fluorescent system for derrick derrick floor, engine levels and wellhead and mud tank areas.
- 1 1 3/8" x 1500' drill line.
- 1 9/16" x 15,000' galvanized plastic core 6 x 7 sand line.

2 5" OD X 7' schedule 160 standpipe assemblies complete with manifold with 4" ID 5000# WOG Cameron Mud-flex valves; stand pipe manifold rigged immediately above derrick floor level and are served by separate 5" mud lines.

2 Goodall S-7500 rotary hose assemblies 72' long.

1 Goodall 10" x 10" mud return hose assembly for returning mud from platform to tender.

1 Choke manifold assembly, 5000# WOG, complete with four 2" choke line assemblies, one 4" low pressure circulating line, choke discharge chamber and gas separator and with mud line and Halliburton line connected. This unit is permanently mounted and connected on derrick floor extensor.

1 Cameron type "D" double blow out preventer 13 1/8" bore, 5000# WOG providing 30" clearance between rams. Bottom flange 14" series 1500-5000# WOG, top prepared for 13 1/8" 5000# WOG Cameron #13 clamp. Assembled with 5" OD rams in lower unit, blind rams in upper unit, one 4" and one 2" series 1500-5000# WOG flanged outlets between rams and also below ram of lower units.

1 Cameron #2044-13 swing bolt clamp.

1 Hydril No. 38186 type GK-13 1/8" bore 5000# WOG blow out preventer with bottom connection prepared for Cameron No. 13, 5000# WOG swing bolt clamp.

1 Cameron 4" series 1500, 5000# WOG type HCR pressure operated valve.

1 Egan 2 1/4" type KF blow out preventer. This blow out preventer lower flange is adapted to a 20" series 500 flange.

1 Payne 76-8-240-SE, 20 gallons automatic accumulator and blow-out preventer closing unit with five valve fluid control manifold and Payne A-S-E-5 valve air remote control station.

1 Gray Fig. 162 automatic inside blow out preventer with release tool.

1 Lincoln Model S-7046, 400 AMP electric motor driven welding machine.
Miscellaneous tools, fittings and equipment necessary to outfit a complete drilling unit.

14,000' 5" OD Spunkweld 19.50# grade E range 3, seamless internal upset drill pipe including 6 1/2" OD x 5" X.H. tool joints. This drill pipe has been inspected and internally coated with tubecote TK 34 coating.

10 7 1/2" x 2 13/16" x 44' drill collars with 5" X H connections. Box end of drill collars have machined recesses to accommodate elevators and slips and eliminate the need for drill collar safety clamp and lift subs.

Note: Special elevator bails and elevator unit are used to expedite the handling of these drill collar strings when making trips.

TENNECO OIL COMPANY

C G D "3"

Drilling Platform

Environmental & Functional Loads

Wave Approach Direction	Horizontal Force (Kips) ¹	Vertical Force (Kips)	Overtuning Moment (Ft-K)
Longitudinal 0°	3179	4845	270176
Transverse 90°	3243	4829	275820
Diagonal 45°	3195	4864	276429

1. Horizontal force includes wind, wave, tide and current forces.

2. Vertical force can be itemized as follows:

Structural Weight	2778 Kips
Equipment & Live Load	2544 Kips
Buoyancy 0°	474 Kips
90°	493 Kips
45°	458 Kips

3. Design loads for pile are as follows:

Max. Pile Bending Moment	3999 Ft. Kips
Max. Pile Axial Load	3968 Kips

REPORTING OF OIL SPILLS OR SPILLS OF HAZARDOUS MATERIALS

OCS LEASES

The following governmental agencies will be notified depending on the amount spilled: (ALL SPILLS WILL BE REPORTED)

LESS THAN 6.3 BARRELS:

U.S. Coast Guard immediately, M.M.S. orally within twelve (12) hours and orally the Louisiana Department of Conservation if spill endangers the coast line. Confirm oral reports in writing on spill report form.

OVER 6.3 BARRELS:

U.S. Coast Guard, M.M.S. Oil and Gas Supervisor, M.M.S. District Supervisor immediately and orally. Orally to the EPA Regional Administrator, Louisiana Department of Conservation, and Louisiana Stream Control Commission. Confirm all oral reports in writing on spill report form.

All spills shall be reported to the U.S. Coast Guard immediately. Spills less than 6.3 barrels shall be reported to the appropriate M.M.S. District Office in the following manner:

If the spill occurs during the daylight hours of 7:00 A.M. through 5:00 P.M. Monday through Sunday call their office and report spill to the radio operator. If the spill occurs at night, report spill the following day.

If the spill is 6.3 or more barrels, notify the appropriate District Supervisor immediately. Their answering service will give you their number.

The information required by the governmental agencies is:

Location of spill, date and time spill occurred, amount and type material lost, cause of incident and corrective action taken, size of slick, coloration, direction of movement, and weather conditions.

If spill is a direct result of a load-out incident, the additional information will be required:

Name of Captain, his home address and telephone number, Z Card Name, call sign and agent.

Chemical dispersants will not be used on spill prior to obtaining approval from the appropriate governmental agencies.

The government agency assistant will report all spills of a minor nature (less than 6.3 barrels) during working hours. Our Intracoastal City facility will report minor spills (less than 3 barrels) to the M.M.S. on weekends and holidays. The production manager operations, or in his absence, the government agency assistant, will report all spills involving 6.3 or more barrels.

ALERT PROCEDURE

This Alert Procedure will become effective immediately upon the observance of an oil or hazardous material spill from a company installation of any kind which could possibly pollute shorelines, coastal or inland waters, or the open sea, or which could damage, foul or endanger any property or wild-life onshore or offshore.

INTERNAL ALERT PROCEDURE:

- (1) Any Company employee observing an oil or hazardous material spill of any quantity must immediately notify his supervisor (MANDATORY NOTIFICATION).
- (2) The supervisor will confirm the spill, its cause and basic nature, and notify the area engineer responsible for the area concerned. All of the information required on the "Report of Oil or Hazardous Material" is to be provided (MANDATORY NOTIFICATION).
- (3) The area engineer will make a preliminary determination of the seriousness of the spill and notify the division production superintendent, and the production manager operations. The area engineer will make an information report to his supervisor.
- (4) The production manager operations, and in his absence the division production superintendent, will assess the seriousness of the spill and if the situation requires it, he will notify the division production manager and appropriate members of the contingency task force. Calling the contingency task force into operation is under the authority of the production manager operations and in his absence the division production superintendent.

Situations requiring activation of the contingency task force are to be reported to the Houston office by the person activating the contingency task force and providing at least the spill report information.

EXTERNAL ALERT PROCEDURE:

The responsibility for the notification of an oil or hazardous material spill rests with any company employee observing a spill. The employee must immediately notify his supervisor who will follow the procedures in this manual to notify the appropriate governmental agencies (MANDATORY NOTIFICATION).

Any person other than an employee (visitor, contractor personnel, or third party) must immediately notify a company representative. The employee will then use the External Alert Procedure (MANDATORY NOTIFICATION).

Procedures defined in the following memorandums are to be followed in reporting spills.

EQUIPMENT

Tenneco Oil Company is a member of Clean Gulf Associates and will call upon them in the event of a spill. Also, we are a member of the Offshore Operator's Committee. This Committee maintains an inventory of member companies' equipment that is available for use by other members.

Clean Gulf Associates has a major base at Grand Isle, Louisiana, with a sub-base at Intracoastal City, Louisiana.

All procedures and equipment are designed to be in compliance with OCS ORDER NO. 7 (Pollution and Waste Control). Equipment to be used would mainly include the following:

- I. Fast Response, Skid-Mounted, Skimmer System
 - A. Nearest Location - Intracoastal City, Louisiana
 - B. Response Time - 2 hours loadout, 6 hrs. travel = 8 hours
 - C. Personnel Required - 4 men per shift
- II. Barge-Mounted, High Volume, Open Sea Skimmer System
 - A. Nearest Location - Grand Isle, Louisiana
 - B. Response Time - 2 hours loadout, 16 hrs. travel = 18 hours
 - C. Personnel Required - 13 men per shift
- III. Helicopter Spray System
 - A. Nearest Location - Intracoastal City, Louisiana
 - B. Response Time - 1 hour loadout, 1 hrs. travel = 2 hours
 - C. Personnel Required - 2 men per shift

BREAKDOWN OF EMPLOYEES

(The exact number of employees may vary from day to day, however, the list provided is typical).

PRODUCTION OPERATIONS

<u>Position</u>	<u>No. of Men</u>
Foreman	1
Pumpers	<u>4</u>
TOTAL	5

DERRICK BARGE

<u>Position</u>	<u>No. of Men</u>
Barge Captain	1
Clerk	1
Foreman	2
Leadman	2
Anchor Operators	2
Crane Operators	2
Barge Welder	2
Barge Mechanic	2
Mechanical Helpers	2
Riggers	10
Cooks and Galley Hands	8
Welders	9
Welder Helpers	8

<u>Position</u>	<u>No. of Men</u>
Laborers	5
X-ray Technicians	2
Inspectors (TOC)	2
Divers	3
Diver Tenders	<u>3</u>
TOTAL	66

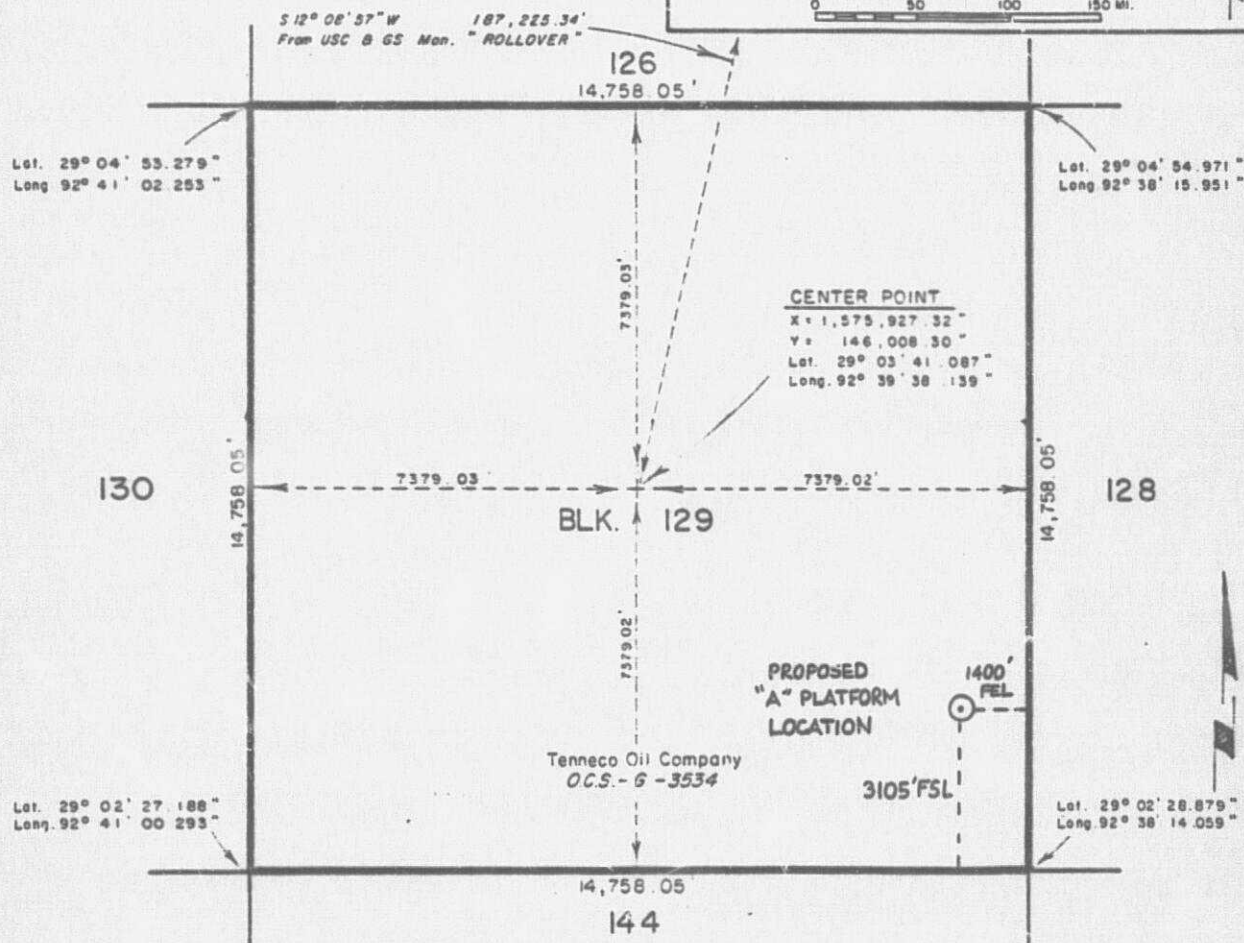
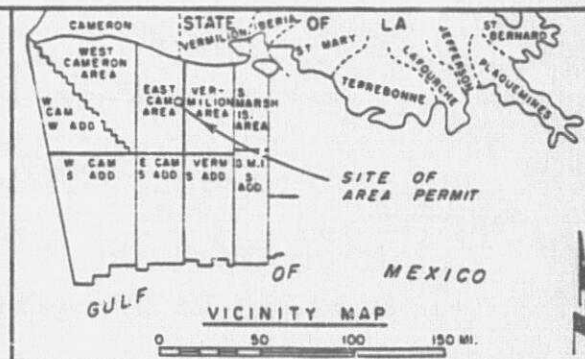
PLATFORM CONSTRUCTION OPERATIONS

<u>Position</u>	<u>No. of Men</u>
Superintendent	1
Field Engineer	1
Foremen	2
Riggers	8
Welder Helpers	4
Welder	6
Crane Operators	1
X-ray Technicians	2
Service Technicians	<u>6</u>
TOTAL	31

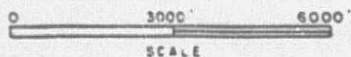
ONSHORE:

<u>Position</u>	<u>No. of Men</u>
Warehouse and Wharf	6
Helicopter	3
Crew Boat	6
Supply Boat	<u>10</u>
TOTAL	25

Assuming all phases of this Development/Production Plan are being conducted simultaneously, as many as 130+ personnel could be involved, both onshore and offshore. In all likelihood, no more than 75 personnel will be involved at any one time.



MASTER SHEET



SHEET 1 OF

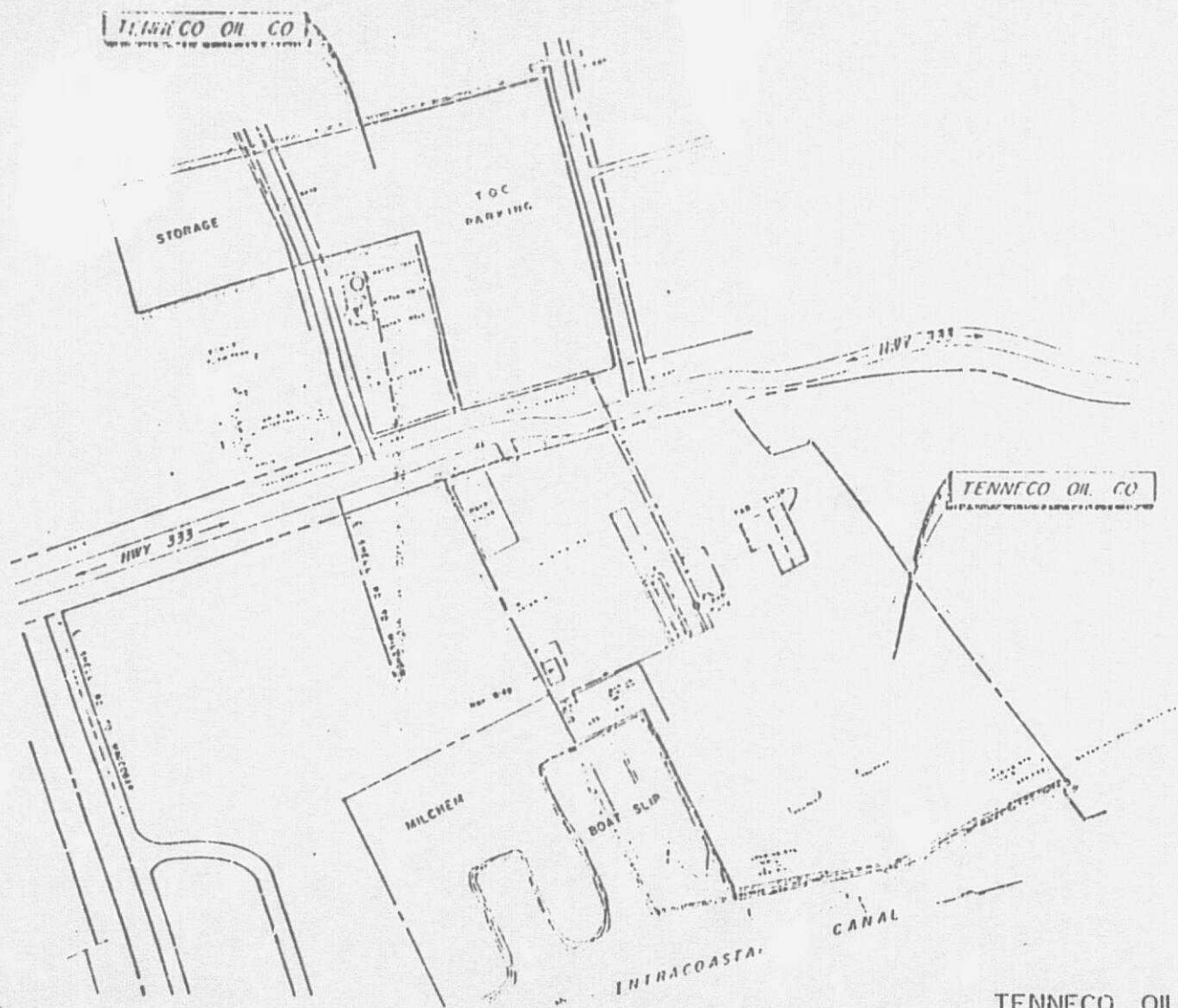
PROPOSED MINERAL DEVELOPMENT

EAST CAMERON AREA

GULF OF MEXICO

APPLICATION BY
MAY 11, 1982

TENNECO OIL COMPANY
LAFAYETTE, LA



SCHEMATIC

TENNECO OIL CO
INTRACOASTAL CITY
FACILITY

Tenneco Oil Exploration and Production

The Well Information Attachment, the Structure Maps, Schematic Cross Sections and Spider Diagram are considered proprietary data to be exempt from disclosure under the Freedom of Information Act and should therefore not be made available to the public or provided to any affected state or to the executive of any local government. In this respect, proprietary data have been removed from all but five (5) copies of the Plan of Development/Production.

AIR QUALITY CALCULATIONS

DEVELOPMENT & PRODUCTION

EAST CAMERON 128, 129

"A" PLATFORM (EAST CAMERON 129)

Air quality calculations are based upon the drilling of 6 wells from the "A" Platform in East Cameron 129. The B & C wells will have bottom hole locations beneath East Cameron 129 with a total combined measured depth of 21,610 feet. The A D E F wells will have bottom hole locations beneath East Cameron 128 with total combined measured depths of 49,101 feet. Total estimated footage for all wells is 70,709 feet. The combined footage for all wells has been used and the calculations prepared for Block 129 since that is where the emissions will occur. Drilling is expected to begin on or about July 15, 1983 and to require about one year. With fuel consumption for the drill rig estimated at .2212 barrels per drill foot (New England River Basin Comm., Factbook, 1976), daily consumption would approximate 1,715 gallons. Details of the calculations are presented in Tables 1-3. All emissions are below maximums and this operation is therefore exempt.

The products will be sent to the Vermilion 122 "A" Platform for processing. No new compression or generation facilities will be required. The life of the field is estimated at 10 years.

TABLE 1

PROJECTED AIR EMISSION
WELLS A-F
BLOCK East Camp n 129

EMISSION SOURCE	RUNNING TIME/DAY	TAKEOFF & LAND- INGS/DAY	FUEL CON- SUMPTION GALS/DAY	EMISSION FACTORS POUND/1,000 GALS.					EMISSION FACTORS AIRCRAFT TAKEOFF & LANDINGS					PROJECTED EMISSION 1-DAY PROJECTION IN #				
				SO ₂	NO _x	CO	TSP	VOC	SO ₂	NO _x	CO	TSP	VOC	SO ₂	NO _x	CO	TSP	VOC
DRILLING RIG	24 hrs		1715	31.2	469	102	33.5	37.5						53.5	804	175	57.5	64.
CARGO BOAT (IN BERTH)	2 hrs		4	31.2	469	102	33.5	37.5						0.1	1.9	0.4	0.1	0.
CREW BOAT (IN BERTH)	2 hrs		4	31.2	469	102	33.5	37.5						0.1	1.9	0.4	0.1	0.
HELICOPTER TAKE- OFF & LANDINGS		4							.18	.57	5.7	.25	.52	0.7	2.3	23	1.0	2.
1-DAY TOTAL														54.4	810	199	58.7	66.

ABOVE NUMBERS IN POUNDS

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

TABLE 2

AREA East Cameron BLOCK 129 WELLS A-F

PROJECTED EMISSIONS FROM EACH SOURCE
BY AIR POLLUTANT FOR 1983-84
Year

DRILLING OPERATIONS - WELLS

SOURCE	AIR POLLUTANT (T/YR)				
	CO ₂	NO _x	CO	TSP	VOC
Drilling Rig Projected Emissions lb/day	53.5	804	175	57.5	64.3
Transportation-- Cargo Boat, Crew Boat, & Helicopter lb/day	0.9	6.1	23.8	1.2	2.4
SUB-TOTAL lb/day	54.4	810	199	58.7	66.7
Miscellaneous 25% of Sub-Total	13.6	202.5	49.8	14.7	16.7
TOTAL in lb/day	68	1012.5	249	73.4	83.4
TOTAL in Tons/year	12.4	185	45.4	13.4	15.2

TABLE 3

AREA East Cameron BLOCK 129 WELLS A-F

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

$D = 35$ Statute Miles

$E = 36,378$ CO

$E = 1,166$ SO₂, NO_x, TSP, and VOC

POLLUTANTS	"E" (T/YR.)	1983-84 HIGHEST YEAR	EXEMPT
		PROJECTED EMISSIONS (T/Yr.)	
SO ₂	1166	12.4	yes
NO _x	1166	185	yes
CO	36378	45.4	yes
TSP	1166	13.4	yes
VOC	1166	15.2	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.

OCS-G-3634 WELLS A,B,C,D,E,F
DRILLING MUD COMPONENTS

1. The surface hole will be drilled with a fresh water-Milgel-caustic soda mud. Products used include:

TRADE NAME

Milgel
Caustic Soda
Uni-Cal

GENERIC NAME

Wyoming Bentonite
NaOH
Lignosulfonate

2. A seawater-lignosulfonate mud will be used to drill below surface casing. Products to be used include:

TRADE NAME

Milgel
Caustic Soda
Uni-Cal
Ligco
Mil-Bar
Drispac
Soltex
Mil-Plug
Aluminum Stearate
Soda Ash
Lime

GENERIC NAME

Wyoming Bentonite
NaOH
Lignosulfonate
Western Lignite
Barite
Carboxymethyl Cellulose
Sulfonated Asphaltic Residuum
Walnut Hulls
Aluminum Stearate
Na₂CO₃
Ca(OH)₂

LIQUID DISPOSAL

This mud is a non-oil base mud and will be treated prior to disposal into the Gulf.

ENVIRONMENTAL REPORT
DEVELOPMENT & PRODUCTION
EAST CAMERON AREA, BLOCK 129
"A" PLATFORM

TENNECO OIL COMPANY
Exploration and Production
Lafayette, Louisiana

contact person
Steve Durio
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(318) 269-7696

June 16, 1983

prepared by
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Lafayette, Louisiana 70502

(2) DESCRIPTION OF PROPOSED ACTION

(a) TRAVEL MODES AND ROUTES

Tenneco Oil Company plans to install a production platform, the "A" structure, on East Cameron Block 129. Six wells are planned. Two will have bottom hole locations beneath Block 129 and 4 will have bottom hole locations beneath Block 128.

The support base will be Intracoastal City, Louisiana. It is estimated that a crew boat will make a daily round trip to the rig with a supply boat making a round trip every other day. Two round trips daily are anticipated for helicopters.

Boat traffic from Intracoastal City will be through Fresh Water Bayou to the Gulf and then directly to the Block. Helicopter traffic is normally by the most direct route, weather and traffic conditions permitting.

(b) SUPPORT BASE

The onshore support base will be the Tenneco facility at Intracoastal City, Louisiana. This proposed activity will serve to support this base at or near its present level of activities. No new jobs are expected to be created and no expansion of physical facilities is anticipated.

(c) NEW SUPPORT FACILITIES

No new onshore support facilities such as new land bases, refineries, storage facilities, pumping stations, boat docks, helicopter pads, or fueling facilities will be required. The hydrocarbons will be sent by pipeline to Vermilion Block 122, "A" platform, where

processing will occur. The oil and gas will then be transported to shore through the existing pipeline system.

(d) NEW TECHNIQUES OR UNUSUAL TECHNOLOGY

No new techniques or unusual technology are expected to be required for the development of Block 129.

(e) MAPS OF PROPOSED ACTIVITY

A plat map is included at the end of this report which shows the Block in relation to affected states.

(f) TRANSPORTATION OF OIL OR GAS

The "A" Platform will be set in East Cameron Block 129. The products will be transported to a nearby Block, Vermilion 122, for processing. At that point the oil and gas will go into the existing pipeline system for shipment to shore. The field is expected to have a useful life of 10 years with expected production of 5218 MMCF of gas and 50 MBO of oil/condensate. It is likely that the oil will be re~~fin~~ed in southeastern Texas or southern Louisiana and that a substantial portion of the gas will be marketed in states east of the Mississippi River.

(3) DESCRIPTION OF THE AFFECTED ENVIRONMENT

(a) PHYSICAL AND ENVIRONMENTAL

(1) Commercial Fishing

The project Block is located in the National Marine Fisheries Service Statistical Zone 16 with water depths in the 12-14 fathom range (7-84 feet). Shrimping is one of the major types of commercial fishing activities in this area. Block 129 is seaward of the menhaden fishing

grounds as this species is normally caught near shore in waters of less than 60 feet in depth.

The 1980 shrimp harvest for the state of Louisiana was 86,700,000 pounds (heads-on weight). About $\frac{1}{2}$ of this catch normally comes from the 6-20 fathom zone with brown shrimp accounting for about $\frac{1}{3}$ of the catch in this zone and white shrimp $\frac{2}{3}$ of the catch. Thus the project area lies within one of the prime shrimping areas off the Louisiana coast. Offshore shrimping is conducted year round as there is no closed season in this area. The most concentrated activity usually occurs as the weather turns cool in the autumn and adult shrimp begin to move offshore. A small area of seabottom, about 5 acres, will be removed from that potentially available for shrimping. Due to the large area of seabottom remaining, no detectable impact to commercial shrimping is anticipated.

No hard bottom (reefs, snapper banks) has been reported in the project area. It is unlikely that there would be any fishing for reef type fishes such as snapper or grouper on Block 129. There are platforms on some of the other Blocks in the area such as Vermilion 122. Consequently there should be some harvest of these type fish in adjacent areas due to the artificial reef function of production platforms. The industrial bottomfish harvest areas lie well to the east of Block 129, therefore no impacts are expected upon this type of fishing.

(2) Shipping

Block 129 does not lie in or adjacent to any shipping fairway,

transit zone, or anchorage area.

(3) Recreation

The primary recreational activity in the waters off Louisiana is fishing. This activity is concentrated around production platforms and areas of exposed hard bottom (snapper banks); the absence of either of these features on Block 129 makes it unlikely that significant recreational or sport fishing occurs here. Some trolling for species such as mackerel may occur here and reef type fishes are undoubtedly taken in adjacent Blocks around some of the production platforms. No impacts are expected to sport fishing.

(4) Cultural Resources

The planned activities are for development and production. No cultural resources analysis is required at this time.

(5) Ecologically Sensitive Features

No ecologically sensitive features are known in the vicinity of Block 129.

(6) Pipelines and Cables

A map is included showing any existing and planned facilities for Block 129.

(7) Other Minerals

There are no known plans at this time for the development of minerals other than hydrocarbons on Block 129.

(8) Ocean Dumping

Ocean dumping is prohibited in this area.

(9) Endangered or Threatened Species

The coastal waters off Louisiana are utilized to some degree by

five endangered species of whales, three endangered species of sea turtles, and two threatened species of sea turtles. The endangered species are the blue whale, sei whale, sperm whale, finback whale, humpback whale, Atlantic ridley turtle, hawksbill turtle, and leatherback turtle. Threatened species include the loggerhead and green sea turtles. Of the whale species, the sperm whale is perhaps the most common in the Gulf of Mexico and the blue whale the least common, with only two sightings of the latter having been reported. The other three species of whales may be considered uncommon in the Gulf, although the humpback was once hunted commercially in the central Gulf during the 19th century (Schmidly, 1981). The leatherback is believed to prefer the deeper oceanic waters while the other species of turtles are considered to be more coastal in nature. However, it is possible that any of these turtle species may occur in the project area at one time or another.

General over-exploitation of both the turtles and whales for food and other products has contributed significantly to their decline in numbers. Sea turtles are caught by commercial fishermen while trawling for other species and are often killed accidentally in this manner. Also, new evidence indicates that many sea turtles are being killed by eating plastic trash that when floating in the water appears to resemble jellyfish, a natural food of turtles.

Support vessel traffic may cause a limited disturbance of whales and turtles in the work area. However, there is no scientific evidence that this type of activity has had a detrimental effect on these animals.

Therefore no significant impacts are expected to endangered or threatened species as a result of the activities associated with Block 129.

(b) SOCIO-ECONOMIC

(1) Related New Employment

Not applicable at this time.

(4) UNAVOIDABLE ADVERSE IMPACTS

Gallaway (1981) completed an extensive review of petroleum activities in the Texas-Louisiana continental shelf region. Potential negative impacts addressed by Gallaway were discharge of drill cuttings, drilling fluids, and produced formation waters and oil spills. Drill cuttings are small fragments of the formation cut by the drill bit and discharged into the water from the equipment which separates the cuttings from the drilling fluids (mud). Overboard discharge of drill cuttings occurs nearly continuously during the drilling.

The discharge of drilling fluids usually occurs 8 to 10 times during the drilling of a single well. Large cuttings fall nearly straight to the Gulf floor; adhering drilling fluids wash over as the drill cuttings descend. Flocculated clay particles in the drilling fluid drift toward the bottom, whereas drilling fluids and finer drill cuttings form a plume which is diluted with increasing distance from the point of discharge. Suspended solids released during mud discharge have been observed to reach ambient levels within 1,600 to 3,200 feet of the discharge point, and to have minimal effect on water quality. This localized turbidity plume may temporarily reduce phytoplankton production locally by diminishing light penetration in the water column.

Often drill cuttings accumulate in piles on the bottom. These accumulations may smother benthic fauna in the immediate area. The debris piles are eventually colonized themselves by other bottom-dwelling species. In addition, drill cutting piles usually diminish gradually in size, and eventually disappear. Usually, drilling fluids are relatively non-toxic at concentrations encountered in the environment near active drilling sites. The chief danger of significant adverse impacts from drilling mud discharge appears to be associated with coral reefs located nearby; no such reefs are found in or near the proposed work site.

The major discharge from oil and gas production platforms is the briny formation water; this water is separated from the hydrocarbons prior to being discharged into the Gulf. A typical production platform generally discharges less than 1,500 barrels of formation water per day; this water typically contains high concentrations of inorganic salts and low levels of hydrocarbons and other organic compounds. Studies have shown that these formation waters are slightly toxic to marine life but that direct adverse impacts are limited to within a few yards of the discharge point.

As previously noted, the presence of a fixed platform in the work area will remove a small area of the Gulf floor from potential use by commercial shrimp trawlers. However, the platform will serve as an artificial reef, and will facilitate sport and commercial fishing and diving through its attraction of reef type fishes.

Installation of pipelines will temporarily exclude from use by

trawlers a small area of seafloor and will also disturb and reduce the population of benthic organisms along the route.

Oil spills are always a possibility, however, adherence to applicable rules and regulations and good industry practices have greatly reduced the chances of a damaging spill.

In summary, adverse impacts associated with the proposed work are considered minor, localized, and temporary. No significant, irreversible environmental damage is anticipated.

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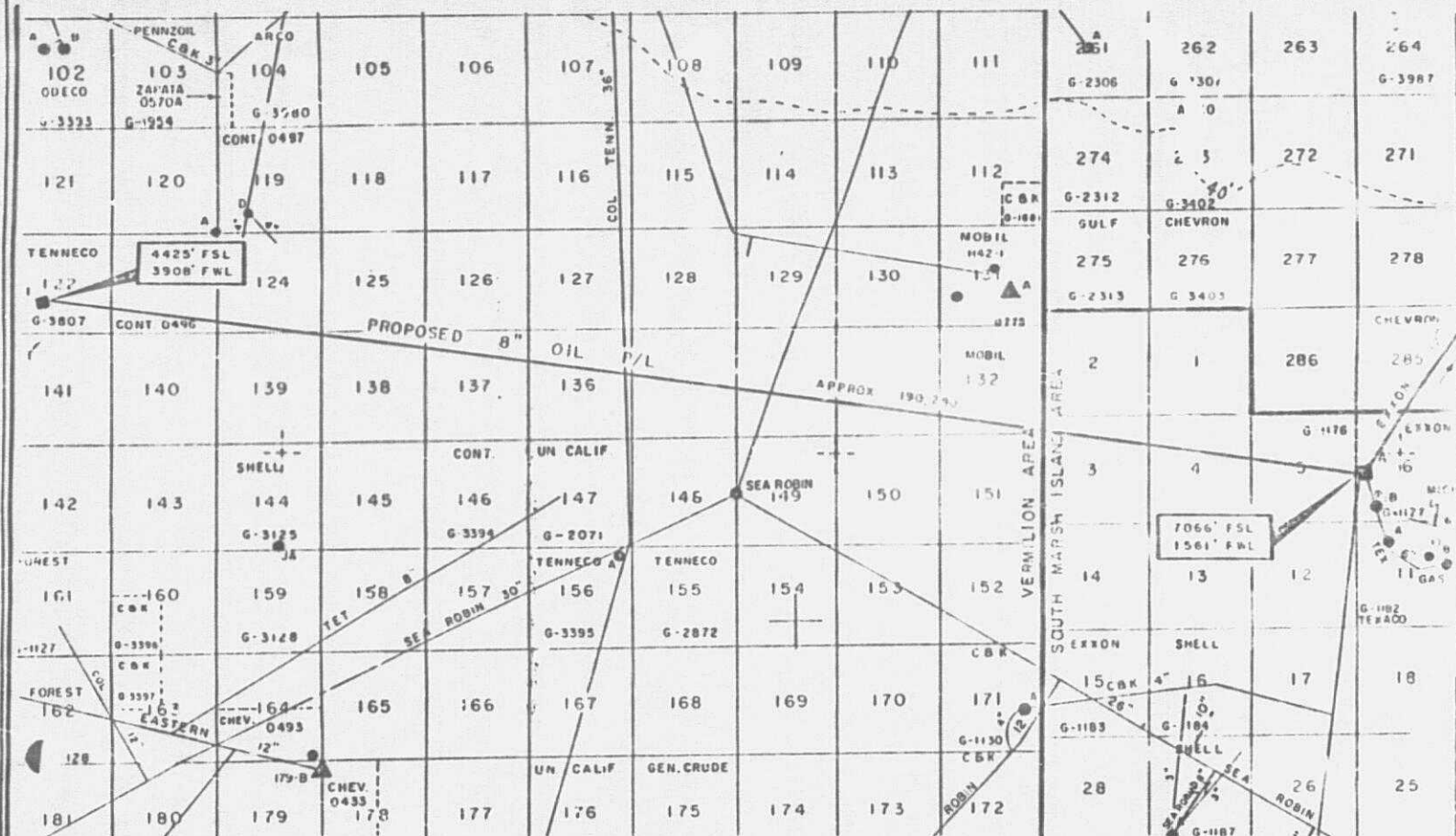
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VERM. 122 TO S.M.I. 6 DEVELOPMENT / PRODUCTION PLAN
PLATFORM / PIPELINE FACILITY MAP

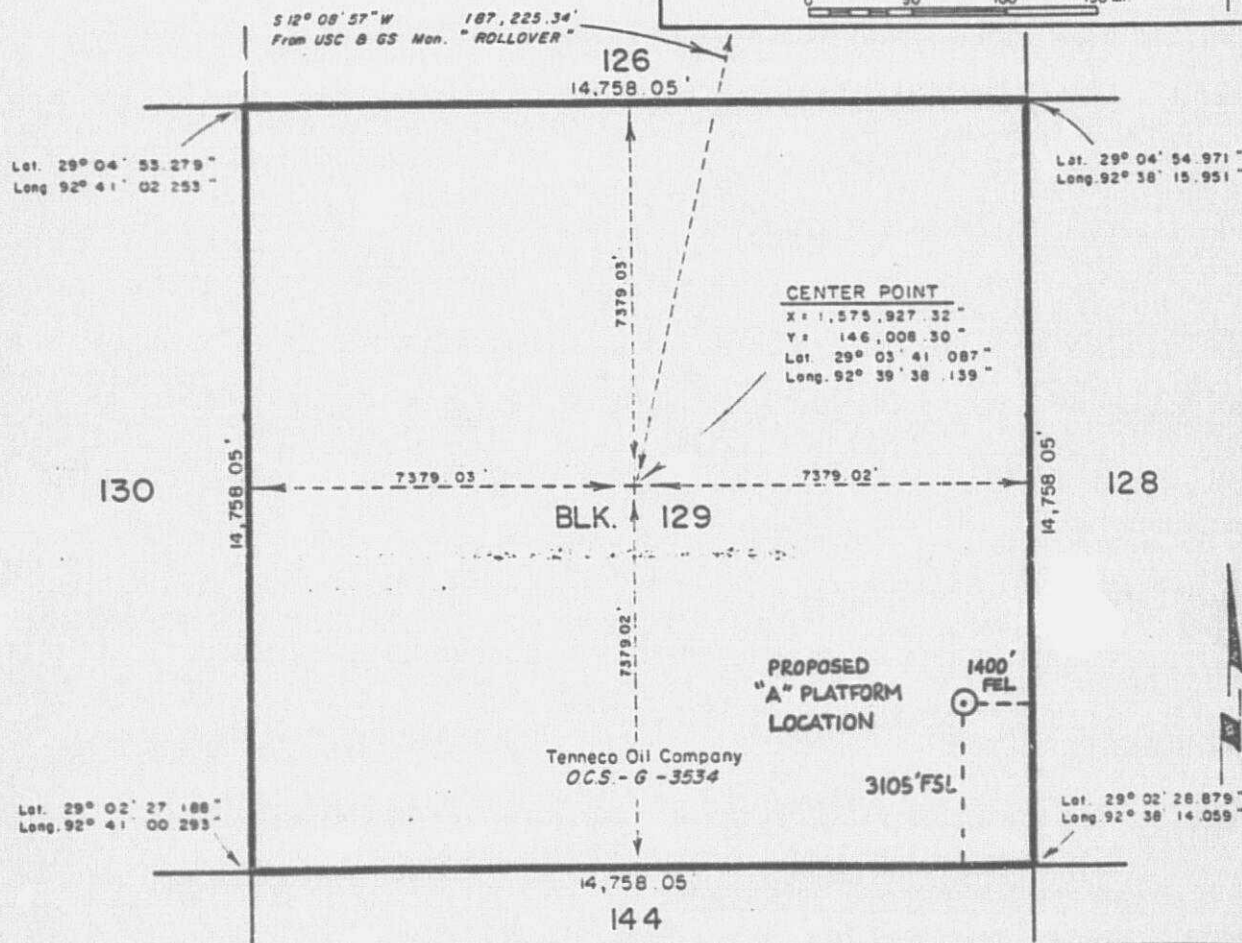
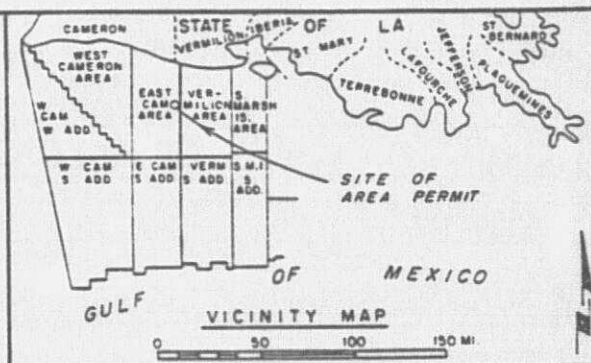
(6) STATEMENT

The proposed activity will be carried out and completed with the guarantee of the following items:

(a) The best and safest techniques will be utilized throughout the project. This includes meeting all applicable requirements for equipment types, general project layout, safety systems and equipment and monitoring systems.

(b) All operations will be covered by a Minerals Management Service approved oil spill contingency plan.

(c) All applicable Federal, state, and local requirements regarding air emission and water quality and discharge for the proposed activities, as well as any other permit condition, will be complied with.



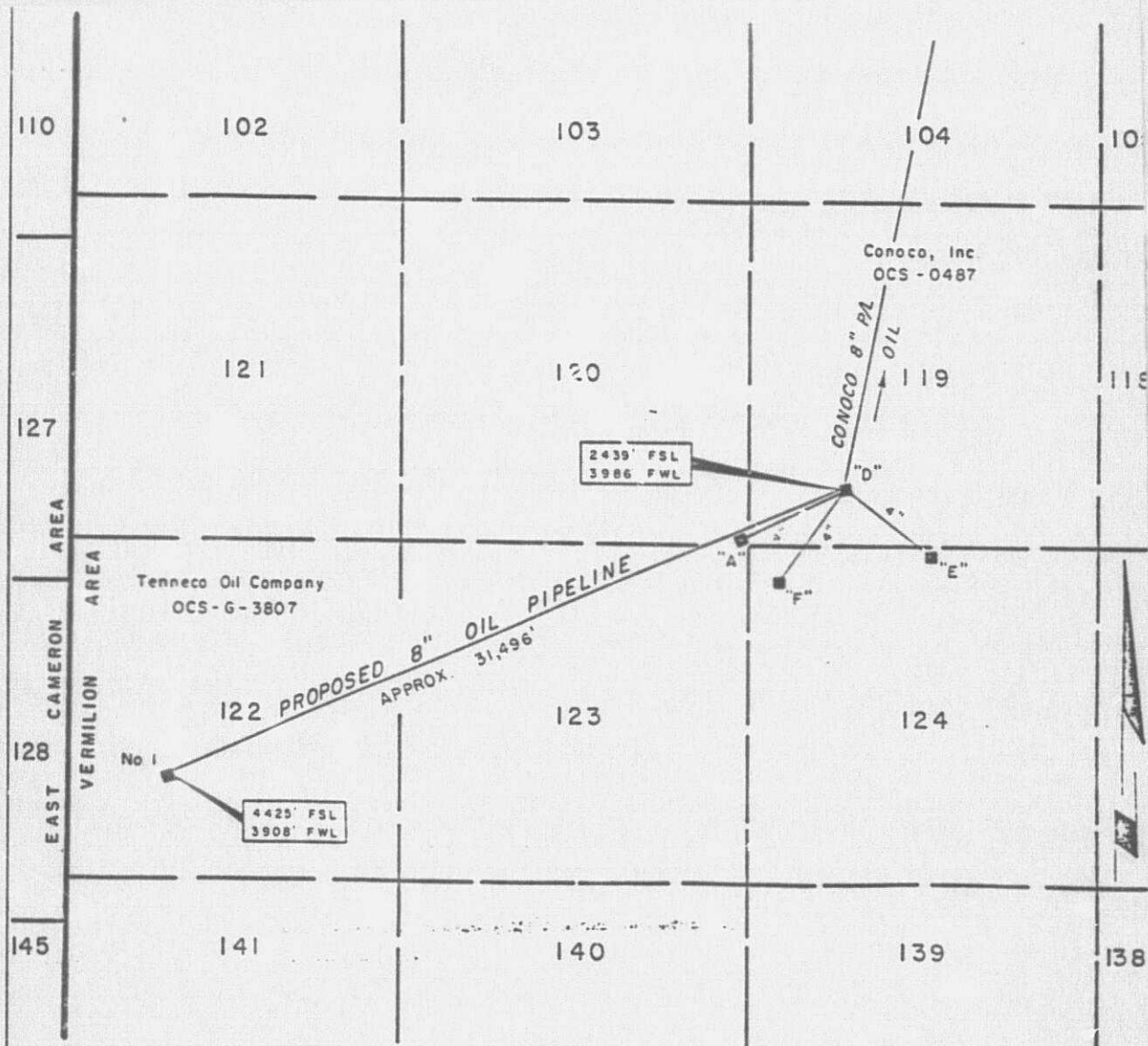
MASTER SHEET

PROPOSED MINERAL DEVELOPMENT
EAST CAMERON AREA
GULF OF MEXICO

APPLICATION BY
MAY 11, 1982

TENNECO OIL COMPANY
LAFAYETTE, LA

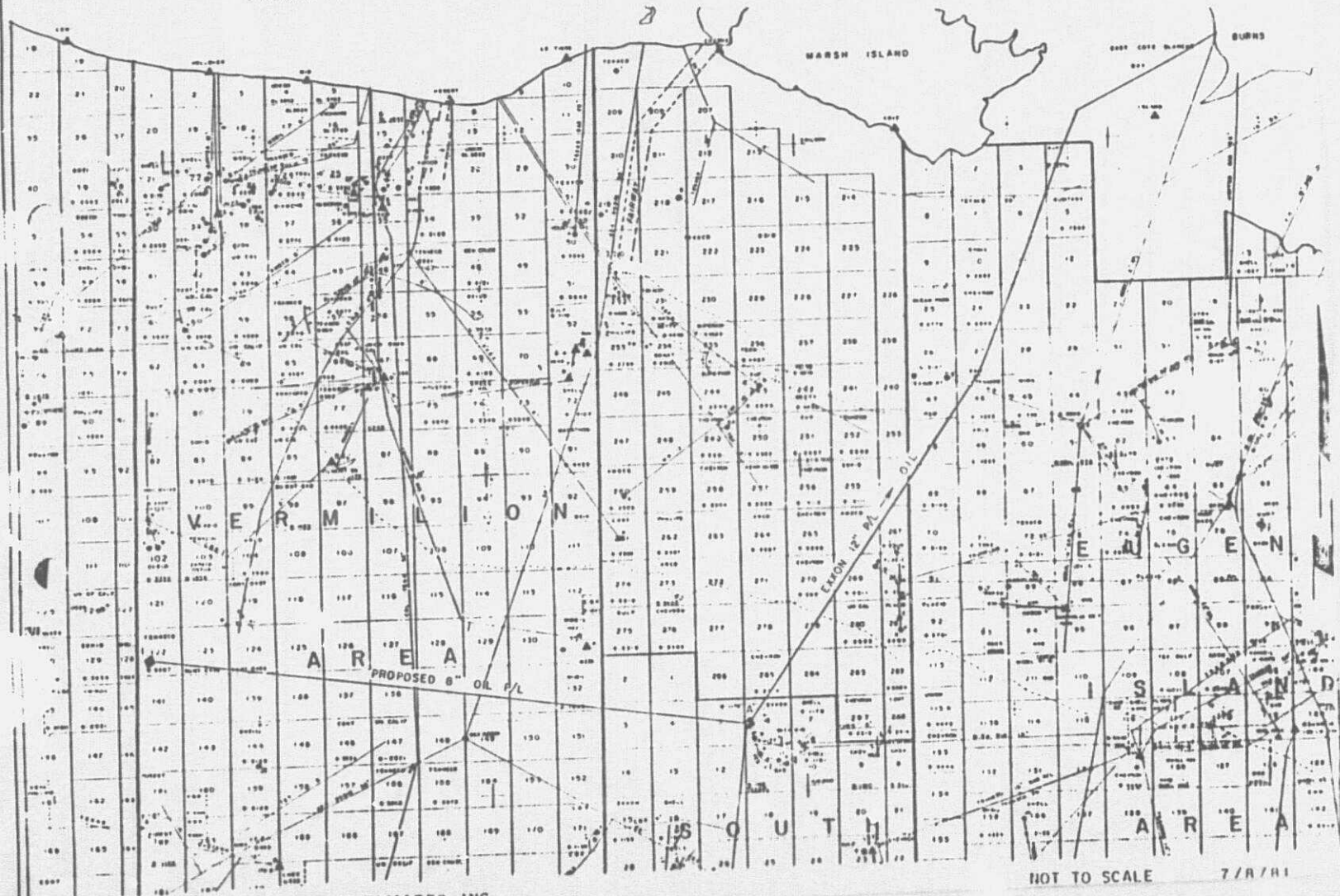
SHEET 1 OF



VERMILION 122 TO 119 DEVELOPMENT / PRODUCTION PLAN
PLATFORM / PIPELINE FACILITY MAP

VICINITY PLAT TRANSPORTATION FACILITIES

OIL VERM. BLK. 122 WELL NO 1 TO S.M.I. BLK 6 EXXON PLATFORM TO EXXON 12" P/L TO BURNS FACILITY.



COASTAL ZONE MANAGEMENT

CONSISTENCY CERTIFICATION

Plan of Development/Production
Type of Plan

East Cameron Block 129
Area and Block

OCS-G-3534
Lease Number

The proposed activities described in detail in this Plan comply with Louisiana's approved Coastal Management Program and will be conducted in a manner consistent with such Program.

Tenneco Oil Company
Lessee or Operator

W.R. Taylor
W.R. Taylor - Vice President
Certifying Official

June 17, 1983
Date