

In Reply Refer To: MS 5231

October 7, 1996

Amerada Hess Corporation  
Attention: Mr. Keith J. Dupuis  
One Allen Center  
500 Dallas Street  
Houston, Texas 77002

Gentlemen:

Reference is made to the following plan received September 23, 1996:

Type Plan - Supplemental Development Operations Coordination Document  
Leases - OCS-G 3484 and 6238  
Blocks - A-557 and A-556  
Area - High Island  
Activities Proposed - Wells M through Q

In accordance with 30 CFR 250.34, this plan is hereby deemed submitted and is now being considered for approval.

Your control number is S-4151 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

*[Signature]*

Donald C. Howard  
Regional Supervisor  
Field Operations

bcc: Lease OCS-G 3484 POD File (MS 5032)  
Lease OCS-G 6238 POD File (MS 5032)  
MS 5034 w/public info. copy of the plan  
and accomp. info.

MTolbert:cic:10/07/96:DOCD COM

NOTED - SCHEXNAILDRE

# AMERADA HESS CORPORATION

K. J. DUPUIS  
SUPERVISOR, ENVIRONMENTAL & REGULATORY AFFAIRS

ONE ALLEN CENTER, 500 DALLAS ST.  
HOUSTON, TEXAS 77002  
(713) 609-5926  
FAX (713) 609-5604

September 20, 1996



UNITED STATES DEPARTMENT OF THE INTERIOR  
Minerals Management Service  
Gulf of Mexico OCS Region  
1201 Elmwood Park Blvd.  
New Orleans, LA 70123-2394

## PUBLIC INFORMATION

Attn: Mr. Donald C. Howard  
Regional Supervisor  
Field Operations (MS 5231)

RE: Supplemental Development Operations Coordination Document  
High Island Blocks A-556, A-557  
OCS-G-6238, 3484  
Offshore, Texas

Gentlemen:

In accordance with Minerals Management Service Regulations 30 CFR 250.34 (q) (2) relative to revisions to approved or pending Development and Production Plans, Amerada Hess Corporation (AHC) hereby submits for review and approval nine (9) copies of a Supplemental Development Operations Coordination Document (DOCD) for High Island Blocks A-556, A-557 (OCS-G-6238, 3484).

Five (5) copies of the Supplemental DOCD are considered "Confidential" and include certain geological/geophysical data which is to be exempt from public inspection. Four (4) "Public Information" copies of the Supplemental DOCD are enclosed which exclude "Confidential" information.

It is our estimation that drilling of the well "M" could begin on October 20, 1996.

Please contact me at (713) 609-5926 if any additional information is required.

With kindest regards,

A handwritten signature in black ink, appearing to read "Keith J. Dupuis".

Keith J. Dupuis

KJD/fet

Enclosures

cc: E. L. Ardoin  
J. C. Nicholson  
J. M. Calbeck  
C. Files - HI A-557 (File 2.212)  
U.S. Dept. of the Interior - MMS  
Lake Jackson District Office

AMERADA HESS CORPORATION  
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT  
GULF OF MEXICO - OFFSHORE, TEXAS  
HIGH ISLAND BLOCKS A-556, A-557  
OCS-G-6238, 3484

SEPTEMBER 20, 1996

COMPANY CONTACT

KEITH J. DUPUIS (713) 609-5926  
AMERADA HESS CORPORATION  
500 DALLAS ST., LEVEL 2  
HOUSTON, TEXAS 77002

## LIST OF ATTACHMENTS

- A. Vicinity Map
- B. Well Location Map
- C. Well Location Table
- D-1. Geologic Structure Map (confidential copies only)
- D-2. Geologic Description (confidential copies only)
- D-3. Geologic Cross Section (confidential copies only)
- D-4. General Stratigraphic Column (confidential copies only)
- E. Bathymetry Map
- F. Discharge Quantities and Rates (confidential copies only)
- G. Typical Drilling Mud Components
- H. Air Emissions Report

AMERADA HESS CORPORATION  
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT  
HIGH ISLAND BLOCKS A-556/A-557  
OCS-G-6238, 3484

I. PROPOSED TYPE AND SEQUENCE OF ACTIVITIES

Amerada Hess Corporation (AHC) proposes additional development of High Island Blocks A-556, A-557 (OCS-G-6238, 3484) by drilling five new wells, the M-Q wells. The surface location of these wells will be on AHC's High Island Block A-557 "A" Platform (OCS-G-3494), which is 7180' FSL and 3832' FEL of High Island Block A-557.

Existing production facilities on the "A" Platform will be utilized to process produced hydrocarbons from the five wells and the existing pipeline network in the field will be utilized to transport production to shore.

The expected production from the five wells is estimated to be 30 MMCFD and 2500 BOPD, extending the field life of High Island Blocks A-556, A-557 an additional 2 years.

Plans are to spud well "M" on October 20, 1996. This well is expected to take approximately 50 days to drill and 20 days to complete. If all five wells are drilled consecutively, all drilling operations will be completed in the fourth quarter of 1997. The following is an estimate of time required for drilling and completing each of the five wells:

	<u>LOCATION</u>	<u>DRILLING/ABANDONMENT</u>	<u>COMPLETION</u>
High Island A-556, A-557	M	50 Days	20 Days
	N	50 Days	20 Days
	O	50 Days	20 Days
	P	50 Days	20 Days
	Q	50 Days	20 Days

Upon drilling and completion of each of the wells, the wells will be redesignated in accordance with the May 14, 1991 Letter to Lessees (LTL) (i.e., A-9, A-10 etc.).

Attachment A is a Vicinity Map which indicates the location of High Island Blocks A-556, A-557 to the shoreline. Attachment B is a map identifying the surface and bottomhole locations of wells M-Q. A table further delineating the surface, bottom location and total depth of each of the wells is included as Attachment C.

II. DESCRIPTION OF DRILLING UNIT

The three wells are expected to be drilled with a typical cantilever jack-up drilling rig. The specifications of the exact drilling rig to be utilized will be submitted as part of each Application for Permit to Drill.

Diverter and BOP Schematics for the drilling rig proposed for use will also be included in the Application for Permit to Drill.

III. WELL LOCATIONS

As previously mentioned in Section I, a Well Location Map indicating the position of the wells within High Island Blocks A-556, A-557 is included as Attachment B.

- B. Load Out Time - The time required to transfer the equipment to the transportation vessel will be approximately 1.5 hours. 1.5 hours
- C. Travel Time - Based on a transit speed of approximately 10 knots, it is estimated that 8.5 hours would be required to move equipment from the CGA Venice base to the deployment site. This time frame is based on a transit distance of 75 miles from Galveston and 1.0 hour for the vessel to reach open water. 8.5 hours
- D. Equipment Deployment - The time required to initiate clean-up operations once the transportation vessel arrives at the spill site is estimated to be 1.0 hour. 1.0 hour
- \*Estimated Total Time: 13.0 hours

\*NOTE: Response time could, due to unforeseen circumstances at the time of a spill, be greater or lesser than the above estimates.

According to the Final Environmental Impact Statements for Gulf of Mexico Sales 142 and 143 and Sales 157 and 161, particularly Section IV regarding oil spill trajectory analysis, there is a 4% probability that an oil spill greater than or equal to 1000 bbls. occurring in High Island Block A-557 will contact land within 10 days.

The above-mentioned EIS contains oil spill trajectory simulations based on 500 hypothetical oil spills occurring in each of the four seasons of the year. These trajectories were simulated for each of the potential launch sites. Movement of the oil slick for each spill was simulated as a series of displacements resulting from the influence of winds and currents over three hour increments.

Utilizing the summary of the trajectory analysis (for 10 days) as presented in the EIS summary, the following is a detailed summary of the projected landfall of an oil spill in High Island Block A-557. Also shown is the CGA Map Number (Operations Manual, Volume II) corresponding to the land segment which will be utilized to determine environmentally sensitive areas that may be affected by a spill.

<u>AREA</u>	<u>LANDFALL SEGMENT</u>	<u>% PROBABILITY</u>	<u>CGA MAP NUMBER</u>
HI A-557	Matagorda, TX	4	LA/TX Map No. 4
	Brazoria, TX	4	LA/TX Map No. 4
	Galveston, TX	3	LA/TX Map No. 4

Most important is the fact that should a spill occur attributable to the M-Q wells in High Island Block A-557, Amerada Hess will react as quickly as possible to avoid environmental impact, as would be expected of a prudent operator.

#### VIII. NEW OR UNUSUAL TECHNOLOGY

As previously stated in the Initial DOCD, no new techniques or unusual technology will be required for the proposed operations in High Island Block A-557.

#### IX. LEASE STIPULATIONS

Lease Stipulations Nos. 1 and 3 of the August 1983 Western Gulf of Mexico Lease Sale (Cultural Resources, Military Warning Area) were invoked during the issuance of High Island Block A-556 to TXP Operating Company and Amerada Hess Corporation in September 1983.

The proposed surface and bottomhole location and depth of each of the wells in this Supplemental DOCD are detailed in a Well Location Table on Attachment C. Where applicable, "confidential" information has been excluded in the Public Information copies of this DOCD.

#### IV. STRUCTURE MAP

A Geologic Structure Map drawn to the top of the prospective hydrocarbon accumulation showing the surface and bottomhole location of the five wells are included as Attachment D-1. A Geologic Description of High Island Blocks A-556, A-557 is included as Attachment D-2. Attachment D-3 is a Geologic Cross Section and Attachment D-4 is a General Stratigraphic Column which further describes the geology of High Island Blocks A-556, A-557. These five attachments are excluded from the Public Information copies of the DOCD.

#### V. BATHYMETRY MAP

A Bathymetry Map showing the surface location of the "A" Platform and the five proposed wells is included as Attachment E.

#### VI. SHALLOW HAZARDS

All drilling and other development operations previously conducted in High Island Blocks A-556, A-557 were done as a result of the Multi-Sensor Engineering Survey (Decca Survey Systems, Inc.) submitted with the Initial Plan of Exploration.

Since the M-Q wells will be drilled on the existing "A" Platform, no shallow hazards are expected to be encountered.

#### VII. OIL SPILL INFORMATION

Amerada Hess Corporation is a member of Clean Gulf Associates (CGA), and would utilize CGA equipment in the event of an oil spill at High Island Block A-557. CGA stores pollution control equipment at several locations along the Gulf of Mexico.

Amerada Hess Corporation's Oil Spill Contingency Plan (OSCP) has been submitted and approved by MMS in accordance with 30 CFR 250.42 (a-i). CGA spill recovery equipment suitable for spills in the Gulf of Mexico is detailed in this Plan. The Amerada Hess OSCP designates an Emergency Response Team consisting of Amerada Hess personnel and contract personnel. The team's duties are to eliminate the source of any spill, remove all sources of potential ignition, deploy transportation to monitor the movement of a slick, and contain and remove the slick if possible.

In the event of a oil spill in High Island Block A-557, the primary location for procurement of clean-up equipment would be the CGA stockpile at Galveston, Texas. Additional clean-up equipment could be mobilized from the Cameron and Intracoastal City, Louisiana CGA stockpile areas.

The Galveston stockpile area is located approximately 75 miles northwest of High Island Block A-557.

In accordance with LTL's dated October 12, 1988 and September 5, 1989, the following is an estimation of time periods for procurement, mobilization, transportation, and deployment of oil spill response equipment.

#### HOURS

- |  |           |
|--|-----------|
| A. Procurement Time - It is estimated that 2.0 hours will be required to secure a support vessel for mobilization of the oil spill response equipment from the Galveston stockpile area. | 2.0 hours |
|--|-----------|



Lease Stipulation No. 2 (Cultural Resources) of Lease Sale no. 47 was invoked during the issuance of High Island Block A-557 to Marathon Oil Company and Amerada Hess Corporation in August 1977. These stipulations were previously addressed in the submittal of the Initial DOCD and require no further action. Amerada Hess will continue to comply with the provisions of these lease stipulations.

#### X. DISCHARGES

All discharges from operations conducted under this Supplemental DOCD will be in strict compliance with the provisions of the Environmental Protection Agency National Pollution Discharge Elimination System General Permit for the Gulf of Mexico (GMG 290000).

Amerada Hess Corporation has been assigned coverage under EPA NPDES Permit GMG 290003 for Gulf of Mexico operations. High Island Block A-557 has been assigned outfall number 067A for discharges occurring in the lease.

The anticipated discharge quantities and drill cuttings discharge rates for the proposed well are included as Attachment F.

Typical drilling mud components which may be used in the drilling of the proposed well are included as Attachment G.

Solid wastes such as paper, plastic, cloth and metal will be collected and transported to shore for disposal at an approved disposal facility. Solid wastes generated from the transportation/service vessels will be collected and returned to shore for disposal with the drilling rig refuse. Scrap metal and other metal wastes will be recycled or sold as scrap and will not be shipped to a disposal facility with the other refuse.

Sanitary wastes will be treated in approved marine sanitation devices in accordance with the Clean Water Act. All biodegradable wastes, such as kitchen food scraps will be comminuted or ground and discharged in accordance with Annex V of MARPOL 73/78.

Hazardous wastes from the drilling rig, such as paint or paint thinner will be collected in sealed metal containers and transported to an approved disposal site in accordance with RCRA guidelines.

#### XI. HYDROGEN SULFIDE CLASSIFICATION

To our knowledge none of the previously filed Plans of Exploration and/or Development Operations Coordination Documents for High Island Block A-557 specifically addressed the issue of hydrogen sulfide as all of the submittals occurred prior to the implementation of MMS Operating Regulations in 30 CFR 250 Subparts A-P.

However, a review of the gas production from wells in and/or near High Island Blocks A-556 and A-557 indicated no evidence of the presence of hydrogen sulfide.

Amerada Hess Corporation therefore requests that High Island Blocks A-556 and A-557 be classified as "zones where the absence of H<sub>2</sub>S has been confirmed".

#### XII. SUPPORT BASE/ENVIRONMENTAL REPORTS

Amerada Hess will utilize a contract onshore support base located in Galveston, Texas for the following functions: loading point for tools, equipment and machinery to be delivered to the drilling rig, transportation base and temporary storage area for materials and equipment. Twenty-four hour a day contact with offshore personnel is maintained by full-time dispatchers at the shorebase.

The Vicinity Plat (Attachment A) indicates the High Island Block A-557 lease relative to the shoreline and depicts transportation routes. All support vessels are expected to operate out of the Galveston shorebase.

Crew boats are expected to make four (4) trips to the wellsite per week, supply boats are expected to make three (3) trips per week and helicopters are expected to make seven (7) trips per week.

Since this Supplemental DOCD does not propose the installations of additional multi-well platforms or pipeline facilities, an Environmental Report is not required.

### XIII. AIR EMISSIONS REPORT

Projected air emissions resulting from activities detailed in this Supplemental Development Operations Coordination Document have been calculated and are included as Attachment H.

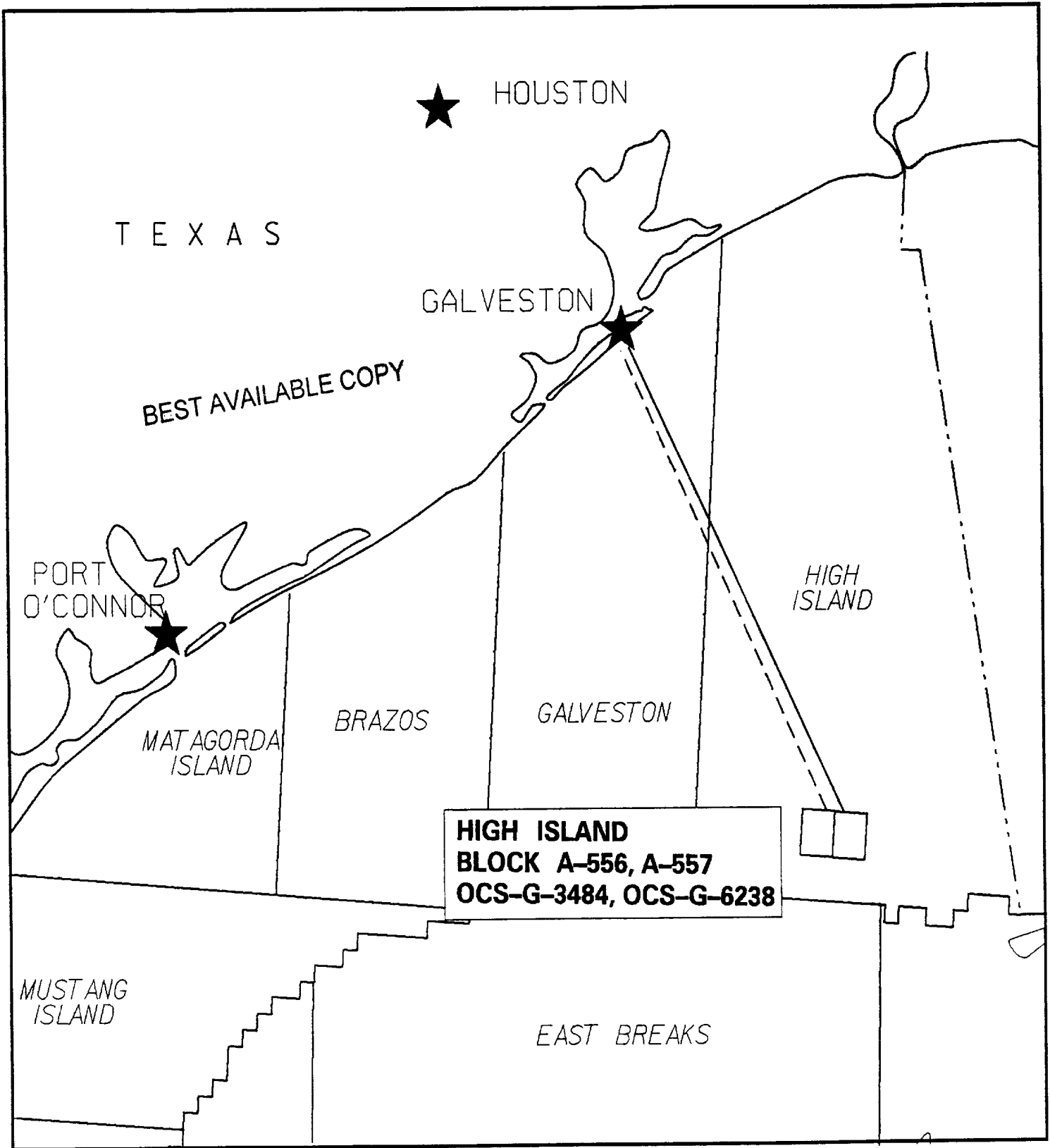
### XIV. SURETY BOND REQUIREMENTS - 30 CFR 256.61

In order to comply with the requirements of the amended surety bond regulations detailed in the November 5, 1993 Letter to Lessees and Operators, Amerada Hess Corporation submitted a supplement to our existing area-wide bond number 496746-30 to the GOM OCS Region Office of Leasing/Environment on November 24, 1993.

### XV. COMPANY CONTACT

Any inquiries regarding this Plan may be addressed to the following individual:

Keith J. Dupuis  
Supervisor, Environmental/Regulatory Affairs  
Amerada Hess Corporation  
500 Dallas Street  
One Allen Center, Level 2  
Houston, Texas 77002  
(713) 609-5926



**LEGEND**

**PROPOSED TRANSPORTATION ROUTES**

- HELICOPTER
- BOAT

**APPROX. 98 MILES TO GALVESTON**  
**APPROX. 98 MILES TO NEAREST SHORE**

PUBLIC

Attachments

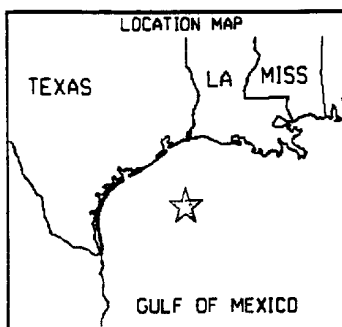
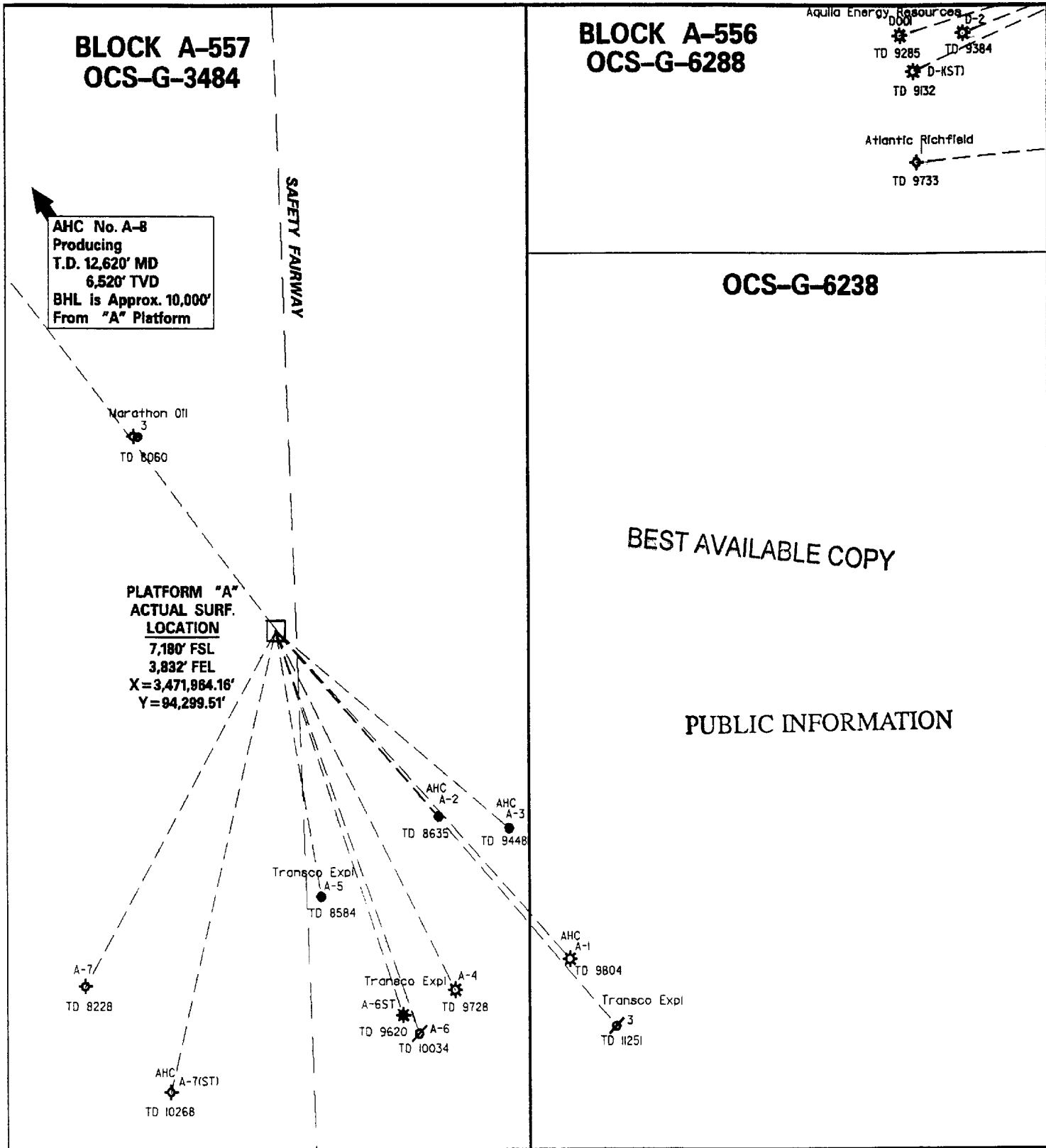
**AMERADA HESS CORPORATION**  
 UNITED STATES OFFSHORE EXPLORATION

**HIGH ISLAND BLKS. A-556, A-557**

**VICINITY MAP**

Date: 9-96  
 C.L.

X981627DC-PL



**LEGEND**

- SURFACE LOCATION
- OIL WELL
- ACTIVE WELL
- DRY HOLE
- SUSPENDED WELL

PUBLIC

**AMERADA HESS CORPORATION**  
UNITED STATES OFFSHORE EXPLORATION

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**HIGH ISLAND BLKS. A-556, A-557**  
**WELL LOCATION MAP**

0'                      2000'                      4000'

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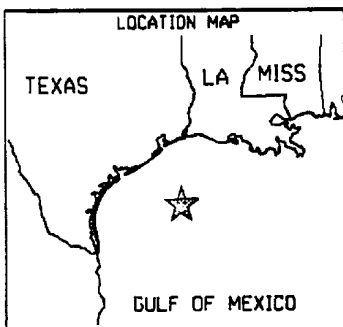
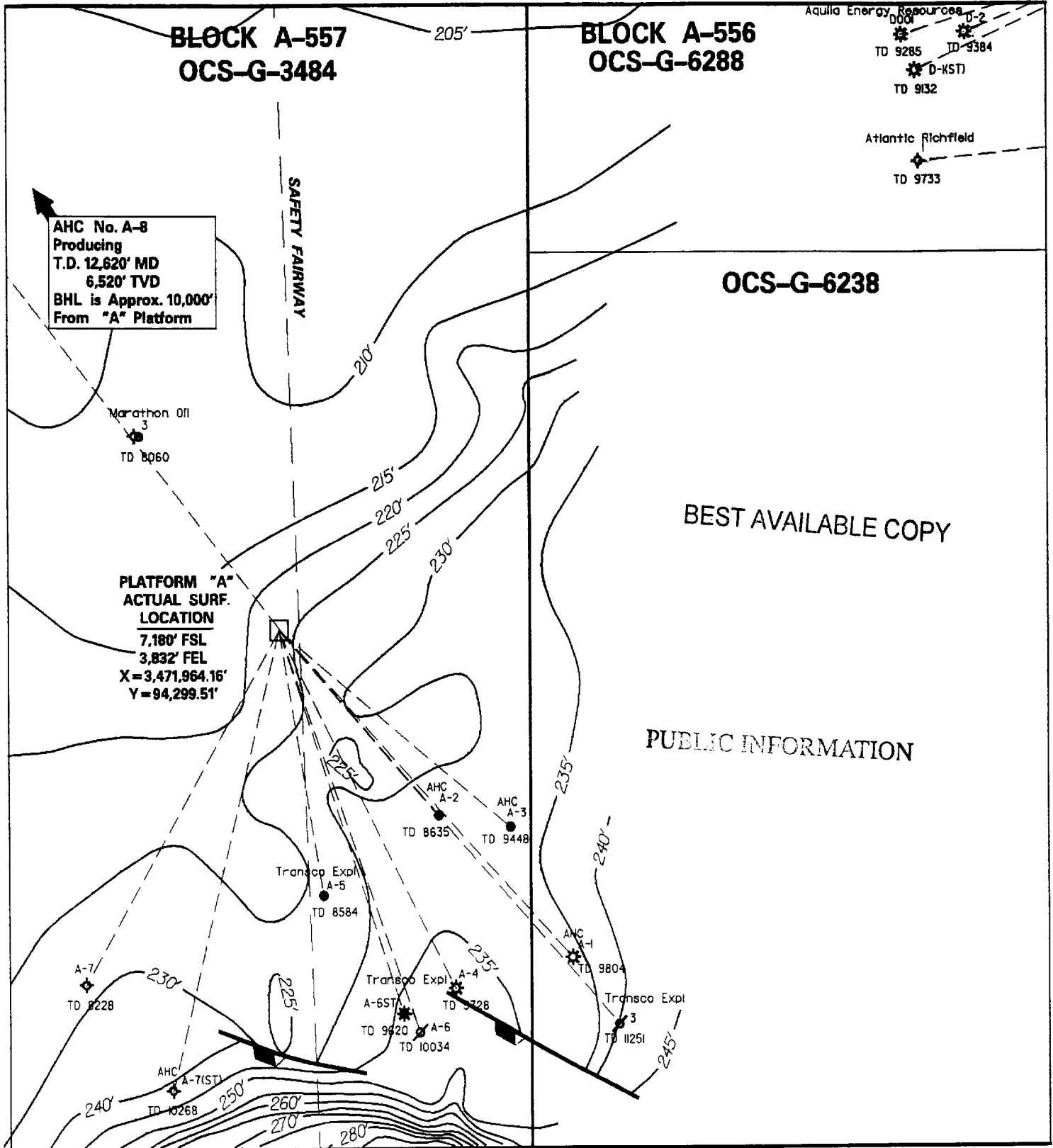
Dates: 9-96  
E.L.S.

AMERADA HESS CORPORATION  
SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT  
HIGH ISLAND BLOCKS A-556/A-557  
OCS-G-6238, 3484

WELL LOCATION TABLE

<u>WELL</u>	<u>*PROPOSED SURFACE LOCATION</u>	<u>WATER DEPTH</u>
M	7,180' FSL & 3,800' FEL of HI A-557  x = 3,471,964.16 y = 94,299.51	224'
N	7,180' FSL & 3,800' FEL of HI A-557  x = 3,471,964.16 y = 94,299.51	224'
O	7,180' FSL & 3,800' FEL of HI A-557  x = 3,471,964.16 y = 94,299.51	224'
P	7,180' FSL & 3,800' FEL of HI A-557  x = 3,471,964.16 y = 94,299.51	224'
Q	7,180' FSL & 3,800' FEL of HI A-557  x = 3,471,964.16 y = 94,299.51	224'

PUBLIC INFORMATION



**LEGEND**

- SURFACE LOCATION
- ⚙ ACTIVE WELL
- ◇ DRY HOLE
- ⊘ SUSPENDED WELL

PUBLIC

**AMERADA HESS CORPORATION**  
UNITED STATES OFFSHORE EXPLORATION

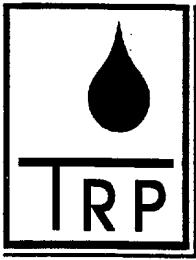
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**HIGH ISLAND BLKS. A-556, A-557**  
**BATHYMETRY MAP**

0'                      2000'                      4000'

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Date: 9-96  
C.L.: 5'



# TECHNICAL RESPONSE PLANNING CORPORATION

*Contingency Planning, Exercises, Training, OPA 90 Compliance*

## AIR QUALITY REVIEW

09/06/96

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COMPANY:	Amerada Hess Corporation
AREA:	High Island, South Addition
BLOCK:	A-556 / A-557
LEASE:	OCS-G 6238 / OCS-G 3484
PLATFORM:	"A" (Existing)
WELLS:	"A-9" through "A-13"
LATITUDE:	28° 00' 49"
LONGITUDE:	94° 26' 16"
COMPANY CONTACT:	Susan E. Wilson
TELEPHONE NO.:	(713) 587-1000
REMARKS:	Drill, Complete and Produce 5 Wells from an Existing Structure, Platform "A", in High Island Block A-557, No Well Testing

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## GULF OF MEXICO AIR EMISSION CALCULATIONS

### General

This document (MMS.XLW) was prepared through the cooperative efforts of those professionals in the oil industry including the API/OOC Gulf of Mexico Air Quality Task Force, who deal with air emission issues. This document is intended to standardize the way we estimate an air emission inventory for Plans of Exploration (POE) and Development, Operations, Coordination Documents (DOCD) approved by the Minerals Management Service (MMS). It is intended to be thorough but flexible to meet the needs of different operators. This first file gives the basis for the emission factors used in the emission spreadsheet as well as some general instructions. The following files, Title Sheet, Factors Sheet, Emissions Spreadsheet, and Summary Sheet will describe and calculate emissions from an activity.

### Title Sheet

The Title Sheet requires input of the company's name, area, block, OCS-G number, platform and/or well(s) in the necessary lines. This data will automatically be transferred to the spreadsheet and summary sheet.

### Factor Sheet

The emission factors were compiled from the latest AP-42 references or from industry studies if no AP-42 reference was available. Factors can be revised as more data becomes available. A change to this Factor Sheet will be automatically changed in Emission Spreadsheet.

The basis for the factors is as follows:

1. NG Turbines      Fuel usage scf/hr = HP X 9.524 (10,000 btu/HP-hr / 1050 btu/scf)
2. NG Engines      Fuel usage scf/hr = HP X 7.143 (7,500 btu/HP-hr / 1050 btu/scf)
3. Diesel            Fuel usage gals/hr = HP X 0.0483 (7,000 btu/HP-hr / 145,000 btu/gal)

### Emission Factors

#### *Natural Gas Prime Movers*

1. TNMOC refers to total non-methane organic carbon emissions and these can be assumed equivalent to VOC emissions.
3. The sulfur content assumed is 2000 grains /mmscf (3.33 ppm). If your concentration is different then ratio your emission factor up or down.



*Diesel-Fired Prime Movers*

1. Diesel sulfur level 0.4% by wt
2. For boats use > 600 HP factors based on AP-42 Vol. II, Table II-3-3.  
Those figures closely match the above values. Include only the emissions from the boats within 25 mile radius of the well/platform.
3. For diesel engines <600 HP VOC emissions equal total HC emissions; for diesel engines >600 HP VOC emissions equal non-methane HC emissions.

*Heaters/Boilers/Firetubes/NG-Fired*

1. NG Sulfur content is 2000 grains per million cu ft
2. VOCs emissions based on total non-methane HCs

*Gas Flares*

1. Flare is non-smoking
2. 1050 btu/cu. ft. for NG heating value
3. The sulfur content assumed is 2000 grains /mmscf (3.33 ppm). If your concentration is different then ratio your emission factor up or down or you may use the following formula:

$$\text{H}_2\text{S flared (lbs/hr)} = \text{Gas flared (cu ft/hr)} \times \text{ppm H}_2\text{S} \times 10\text{E-}06 \times 34/379$$

$$\text{SO}_x \text{ emis (lbs/hr)} = \text{H}_2\text{S flared (lbs/hr)} \times 64/34$$

*Liquid Flares*

1. Assume 1% by wt Sulfur maximum in the crude oil.
2. VOC equals non-methane HCs
3. Particulate emissions assumes Grade 5 oil.

*Tanks*

1. Tank emissions assumes uncontrolled fixed roof tank.

*Fugitives*

1. Fugitives are based on the 1993 Star Environmental Report. It requires that you count or estimate

your components.

*Glycol Dehydrator Vent*

1. The dehydrated gas rate in SCF/HR must be entered in the spreadsheet. The emission factor is from the compilation of the Louisiana Survey and an average emissions per gas rate.

*Gas Venting*

1. The emission factor is based on venting unburned natural gas of average weight.

**Emissions Spreadsheet**

The emissions from an operation should be presented for a calendar year (1994, 1995, etc.). The operation may include drilling only or drilling in conjunction with other activities such as pipeline installation or production operations. For additional years the Emissions Spreadsheet is renamed Emissions 2, 3, etc. The different operating parameters for each year should be entered to calculate revised emissions for that year. The spreadsheet will calculate maximum fuel usage (UNIT/HR) using the known horsepower. It will assume maximum fuel usage is equal to actual fuel (UNIT/DAY) usage unless the actual fuel usage is known. If so, insert actual fuel usage in appropriate column. The emissions will be calculated as follows:

$$\text{Emission rate (lb/hr)} = (\text{HP or fuel rate}) \times \text{Emission Factor} \quad (\text{Potential to emit})$$

$$\text{Emissions (tpy)} = \text{Emission rate (lb/hr)} \times \text{load factor (Act Fuel/Max Fuel)} \times \text{hrs} \times \text{days} \times \text{ton/2000 lbs} \quad (\text{Actual emissions})$$

To customize the spreadsheet for your application it is possible to delete lines for non-applicable equipment/activities or copy/insert an entire line if more than one similar type of equipment is present.

Also, the production equipment can be customized further by adding the use of the equipment behind each type of engine, i.e.,

Turbine  
Turbine - Gas Compressor

Burner  
Burner - Line Heater

**Summary Sheet**

The Summary Sheet is designed to show a proposed estimate of emissions from an activity over a future period of time. In this example ten years was chosen. The first line (Row 7-1994) of the summary sheet is linked to the yearly totals in the Emissions Spreadsheet. The second line (Row 8-1995) is referenced to Emissions2 Spreadsheet. The third line (Row 9-1996) is referenced to Emissions3 Spreadsheet. If more years of calculations are necessary to reach a constant then the spreadsheet can be copied and linked to the summary sheet for years 1997, 1998 etc. Once emissions are constant the values are carried to the end of the ten year period.

**AIR EMISSION CALCULATIONS**

Fuel Usage Conversion Factors	Natural Gas Turbines		Natural Gas Engines		Diesel Recip. Engine		REF.	DATE
	SCF/hp-hr	9.524	SCF/hp-hr	7.143	GAL/hp-hr	0.0483		
<b>Equipment/Emission Factors</b>	units	TSP	SOx	NOx	VOC	CO	REF.	DATE
NG Turbines	gms/hp-hr		0.00247	1.3	0.01	0.83	AP42 3.2-2	4/93
NG 2-cycle lean	gms/hp-hr		0.00185	11	0.43	1.5	AP42 3.2-2	4/93
NG 4-cycle lean	gms/hp-hr		0.00185	12	0.72	1.6	AP42 3.2-2	4/93
NG 4-cycle rich	gms/hp-hr		0.00185	10	0.14	8.6	AP42 3.2-2	4/93
Diesel Recip. < 600 hp.	gms/hp-hr	1	0.931	14	1.12	3.03	AP42 3.3-1	4/93
Diesel Recip. > 600 hp.	gms/hp-hr	0.24	1.49	11	0.33	2.4	AP42 3.4-1	4/93
NG Heaters/Boilers/Burners	lbs/mmcsf	5	0.6	140	2.8	35	AP42 1.4-1/2/3	4/93
NG Flares	lbs/mmcsf		0.57	71.4	60.3	388.5	AP42 11.5-1	9/91
Liquid Flaring	lbs/bbl	0.42	6.6	2.3	0.01	0.21	AP42 1.3-1	4/93
Tank Vapors	lbs/bbl				0.03		E&P Forum	1/93
Fugitives	lbs/hr/comp.				0.000025		API Study	12/93
Glycol Dehydrator Vent	lbs/mmcsf				6.6		La. DEQ	1991
Gas Venting	lbs/scf				0.0034			

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	LATITUDE	LONGITUDE	CONTACT	PHONE	REMARKS	TONS PER YEAR						
											TSP	SOX	NOX	VOC	CO	TSP	SOX
OPERATIONS	HIGH ISLAND, SOUTH ADDITION	A-556 / A-557	OCS-G 6238 /	in HIGH ISLAND	"A-9" - "A-13"	28 00' 48"	84 26' 18"	SUSAN WILSON	(713) 567-1000	DRL, COMP & PROD S WELLS, NO WELL TESTING	POUNDS PER HOUR						
											TSP	SOX	NOX	VOC	CO	TSP	SOX
		HP	MAX. FUEL	ACT. FUEL	HR/D	DAYS	TSP	SOX	NOX	VOC	CO	TSP	SOX	NOX	VOC	CO	
	Diesel Engines	MMBTU/HR	SCF/HR	SCF/D													
DRILLING	PRIME MOVER>600hp diesel	5760	278.208	6676.99	24	42	3.04	18.90	139.56	4.19	30.45	1.53	9.53	70.34	2.11	15.35	
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSLS>600hp diesel	2500	120.75	2898.00	4	24	1.32	8.20	60.57	1.82	13.22	0.08	0.39	2.91	0.09	0.63	
	VESSLS>600hp diesel	2500	120.75	2898.00	6	18	1.32	8.20	60.57	1.82	13.22	0.07	0.44	3.27	0.10	0.71	
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FACILITY INSTALLATION	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	JACKUP BOAT	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PRODUCTION	CRANE<600hp diesel	200	9.66	231.84	2	365	0.44	0.41	6.17	0.49	1.33	0.16	0.15	2.25	0.18	0.49	
	COMPRESSOR<600hp diesel	500	24.15	579.60	24	365	1.10	1.03	15.42	1.23	3.34	4.82	4.49	67.53	5.40	14.62	
	GENERATOR<600hp diesel	700	33.81	811.44	24	365	0.37	2.30	16.96	0.51	3.70	1.62	10.06	74.29	2.23	16.21	
	SUPPORT VESSEL diesel	2500	120.75	2898.00	4	52	1.32	8.20	60.57	1.82	13.22	0.14	0.85	6.30	0.19	1.37	
	SUPPORT VESSEL diesel	650	31.395	753.48	1	104	0.34	2.13	15.75	0.47	3.44	0.02	0.11	0.82	0.02	0.18	
	TURBINE nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP.4 cycle lean nat gas	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECIP.4 cycle rich nat gas	1	952.38	22857.14	24	270	0.00	0.00	0.13	0.00	0.03	0.02	0.00	0.00	0.43	0.01	0.11
	RECIP.2 cycle rich nat gas	0.75	714.29	17142.86	24	365	0.00	0.00	0.10	0.00	0.03	0.02	0.00	0.00	0.44	0.01	0.11
	MISC.	BPD		SCF/HR	COUNT												
	TANK-	1400				24	365				1.75					7.67	
FLARE-		0	0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
PROCESS VENT-		0	0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
FUGITIVES-				5000.0	365	365				13.20					57.82		
GLYCOL STILL VENT-		2,000,000			24	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
OIL BURN	0				0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GAS FLARE		0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1996 YEAR TOTAL							9.62	51.52	391.55	27.90	65.40	8.47	26.08	228.91	76.38	49.85	
EXEMPTION CALCULATION							2497.50	2497.50	2497.50	2497.50	2497.50	2497.50	2497.50	2497.50	2497.50	2497.50	61343.70





**AIR EMISSION CALCULATIONS**

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
AMERADA HESS CORP	HIGH ISLAND, SOUT	A-556 / A-557	OCS-G 6238 / OCS-G	PLATFORM "A" in HI	"A-9" THRU "A-13"
<b>Emitted</b>					
Year	<b>Substance</b>				
	<b>TSP</b>	<b>SOx</b>	<b>NOx</b>	<b>HC</b>	<b>CO</b>
1996	8.47	26.08	228.91	76.38	49.85
1997	19.09	92.01	715.60	140.80	156.04
1998	6.79	15.67	152.06	123.89	33.08
1999	6.79	15.67	152.06	123.89	33.08
2000	6.79	15.67	152.06	123.89	33.08
2001	6.79	15.67	152.06	123.89	33.08
2002	6.79	15.67	152.06	123.89	33.08
2003	6.79	15.67	152.06	123.89	33.08
2004	6.79	15.67	152.06	123.89	33.08
2005	6.79	15.67	152.06	123.89	33.08
Allowable	2497.50	2497.50	2497.50	2497.50	61343.70