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In Reply Refer To: MS 5231

July 19, 1996

TOTAL Minatome Corporation
Attention: Ms. Dianne LaBorde
Post Office Box 4326
Houston, Texas 77210-4326

Gentlemen:

Reference is made to the following plan received July 5, 1996:

Type Plan - Supplemental Development Operations Coordination Document
Lease - OCS-G 6237
Block - A-553
Area - High Island
Activities Proposed - Wells A through F

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-4064 and should be referenced in your communication and correspondence concerning this plan.

Sincerely,

(sig. Sgd.) Keni E. Soffer

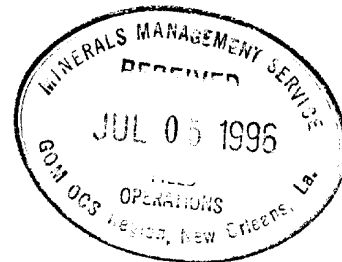
Donald C. Howard
Regional Supervisor
Field Operations

bcc: Lease OCS-G 6237 POD File (MS 5032)
MS 5034 w/public info. copy of the plan
and accomp. info.

MTolbert:cic:07/10/96:DOCDCOM

NOTED - SCHEXNAILDRE

TOTAL



TOTAL MINATOME CORPORATION

PUBLIC INFORMATION

June 27, 1996

United States Department of the Interior
Minerals Management Service
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394

ATTENTION: Ralph Melancon
Regional Supervisor
Field Operations
Plans Unit - 5231

RE: OCS-G 6237, High Island Block A-553
High Island Area
Development Operations
Coordination Document

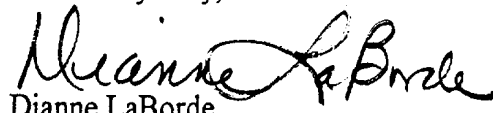
Dear Mr. Melancon,

According to the provisions of Title 30 CFR 250.34-1, TOTAL Minatome Corporation (TMC) is hereby submitting nine (9) copies (5 confidential, 4 public information) of a Supplemental Development Operations Coordination Document for High Island Block A-553, Lease OCS-G 6237, Offshore, Texas.

Development operations should begin on or about September 1, 1996.

Please contact the undersigned at 713-739-3092 should any additional information be required.

Yours very truly,


Dianne LaBorde
Regulatory Affairs

/DRL

Enclosures



SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

In compliance with 30 CFR 250.34, the following information is being submitted for the Supplemental Development Operations Coordination Document (DOCD) for High Island Block A-553.

Description and Schedule

Location of the Lease Block and Onshore Facilities

A total of six (6) wells are proposed to be drilled in the development and production activity for High Island Area Block A-553. These wells will add to the capacity of production coming from Platform "A". At this time there are no plans to construct any additional pipelines or structures in the block. High Island Block A-553 is located approximately 85 miles southeast of Galveston. A location map of Block A-553 relative to the shoreline is given as ATTACHMENT NO. 1.

Development and production activities will occur from the surface location of the "A" Platform, 4928 FSL, 3484 FWL, as indicated on the plat labeled ATTACHMENT NO. 2

Full wellstream production will continue to be transported by flowline from the "A" platform to the Amerada Hess production platform in High Island 552 for separation, compression, dehydration and sales.

Existing onshore base facilities at Galveston will be utilized for transporting supplies and crews offshore. It is anticipated that crewboats will travel to this location 7 times each week while supply boats will travel 3 times a week. Helicopters will travel 7 trips to the location each week.

The following listing details a chronological order of proposed events leading to full production capability:

<u>Activity</u>	<u>Approximate Start-Up Date</u>	<u>Complete Operations</u>
1) Commence drilling operations	09-01-96	12-01-96
2) Completion operations	12-01-96	02-01-97
3) Commence production		02-01-96

Description of Drilling Rig and Safety and Environmental Safeguards

Safety features during drilling operations will include well control and blowout prevention equipment that meets or exceeds the requirements of 30 CFR 250.34 (a) (2). A drawing of the diverter system, the well control system and the location of the safe welding area (ATTACHMENT NO. 3) of the Noble Drilling Corporation's Jim Thompson submersible rig is being submitted as a typical type of submersible rig that will be utilized to drill the proposed wells. The subject offshore mobile drilling unit is equipped with drip pans under the rig floor. All oil from diesel engines is pumped to a sump and then pumped into barrels for return to an onshore disposal site.

TMC personnel are instructed in the techniques and methods necessary to prevent pollution. Non-operator personnel are instructed and supervised to insure that non-pollution practices are adhered to.

The facilities will be inspected on a daily basis.

Table of well locations (ATTACHMENT NO. 4)

A, B, C,D,E,F	-- surface location of 4928 FSL, 3484 FWL	-- Water depth 260"
	X = 3,526,801	Y = 92,048.0
	LAT. 28° 0' 5.47363"	LONG. -94° 16' 5.34978"

A
B
C
D
E
F

Geological and Geophysical Data

Information on geological hazards and surface locations relative to anomalies was included in the Plan of Exploration for High Island Block A-553. A review of the Shallow Surface Hazards Survey data indicates the location to be free of natural gas seafloor hazards with no existence of significant gas anomalies. A statement of the findings of the hazard review is labeled ATTACHMENT NO. 5.

The estimated life of reserves for Block 553 is six years. Production from the wells is expected to be 5.4 MCFD and 34 BCD.

Structure maps of the anticipated sands showing the proposed well locations are enclosed as ATTACHMENT NO. 6, a bathymetry map labeled ATTACHMENT NO. 7, and a geological cross section labeled ATTACHMENT NO. 12..

Oil Spill Contingency Plan and Trajectory Analysis

TMC has an approved Oil Spill Contingency Plan on file with the Minerals Management Service. The plan designates an Oil Spill Team consisting of TMC personnel and contract personnel. The team's duties are to eliminate the sources of the oil spill, remove all sources of possible ignition, deploy the most viable means of available transportation to monitor the movement of the slick, and contain and remove the slick if possible.

TOTAL is a member of Clean Gulf Associates (CGA). The bases for Texas are located in Galveston, Port Aransas, and Fulton. Each base is equipped with fast response skimmers and there is a barge mounted high volume open sea skimmer based at Grand Isle, Louisiana. In addition to providing equipment, the CGA also supplies advisors for clean-up operations.

Equipment located in Galveston will be utilized first with additional equipment transported from the nearest equipment base as required.

Estimated response time for a spill at High Island A-553 could vary from 15 to 16 hours minimum based on:

- | | | |
|----|---|-----------|
| 1. | Procure a boat and deploy to base in Galveston | 4.0 hours |
| 2. | Load out fast response unit and oil spill containment equipment | 2.0 hours |
| 3. | Travel time to lease site (85 miles @ 10 mph) | 8.5 hours |

ESTIMATED TOTAL TIME	14.5 Hours
----------------------	------------

In the event a spill occurs from High A-553 Island, our company has projected trajectory of a spill utilizing information in the most current Environmental Impact Statement (EIS) (**GOM Sales 166 and 168 Central and Western Planning Areas**). The EIS contains oil spill trajectory simulations using seasonal surface currents coupled with wind data, adjusted every 3 hours for 30 days or until a target is contacted.

A hypothetical spill trajectory was simulated for each of the potential launch sites across the entire Gulf. The simulations presume 500 spills occur in each of the four seasons of the year. The results in the EIS were presented as probabilities that an oil spill beginning from a particular launch site would contact a certain land segment within 3, 10, or 30 days. Utilizing the summary of the trajectory analysis (for 10 days) as presented, the probable projected land fall of an oil spill from High Island A-553 is listed with the CGA Map Number 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>Land Segment Contact</u>	<u>%</u>	<u>CGA Map No.</u>
High Island A-553 Launch Site 17	High Island Area Land Segment 10, 11	1,-1	Texas Offshore

Hydrogen Sulfide

Oil and gas production was established at this location in High Island Block A-553 in 1990. A review of production data does not indicate the presence of hydrogen sulfide. Therefore, in accordance with 30 CFR 250.67, TMC hereby requests a determination be made that our company will be drilling in zones where the absence of hydrogen sulfide has been confirmed.

Technology

No new or unusual technology will be required for the operations.

Discharges

Oil in any form shall not be deposited into the waters of the Gulf of Mexico.

Drilling muds and cuttings that are generated while using an oil-based or invert emulsion mud shall not be disposed of into the Gulf of Mexico. These types of muds shall be loaded and barged to shore for proper disposal. Drilling muds containing toxic substances shall be neutralized prior to disposal.

Any discharges from this operation shall be done in accordance with the EPA NPDES General Permit for the Western Gulf of Mexico -- Permit No. GMG 290000.

The anticipated discharges are based on the average hole size for each section of hole. The anticipated discharges per well are enclosed as ATTACHMENT NO. 8 and a list of mud components is shown as ATTACHMENT NO. 9.

Air Emissions Data

An Air Quality Review is labeled ATTACHMENT NO. 10.

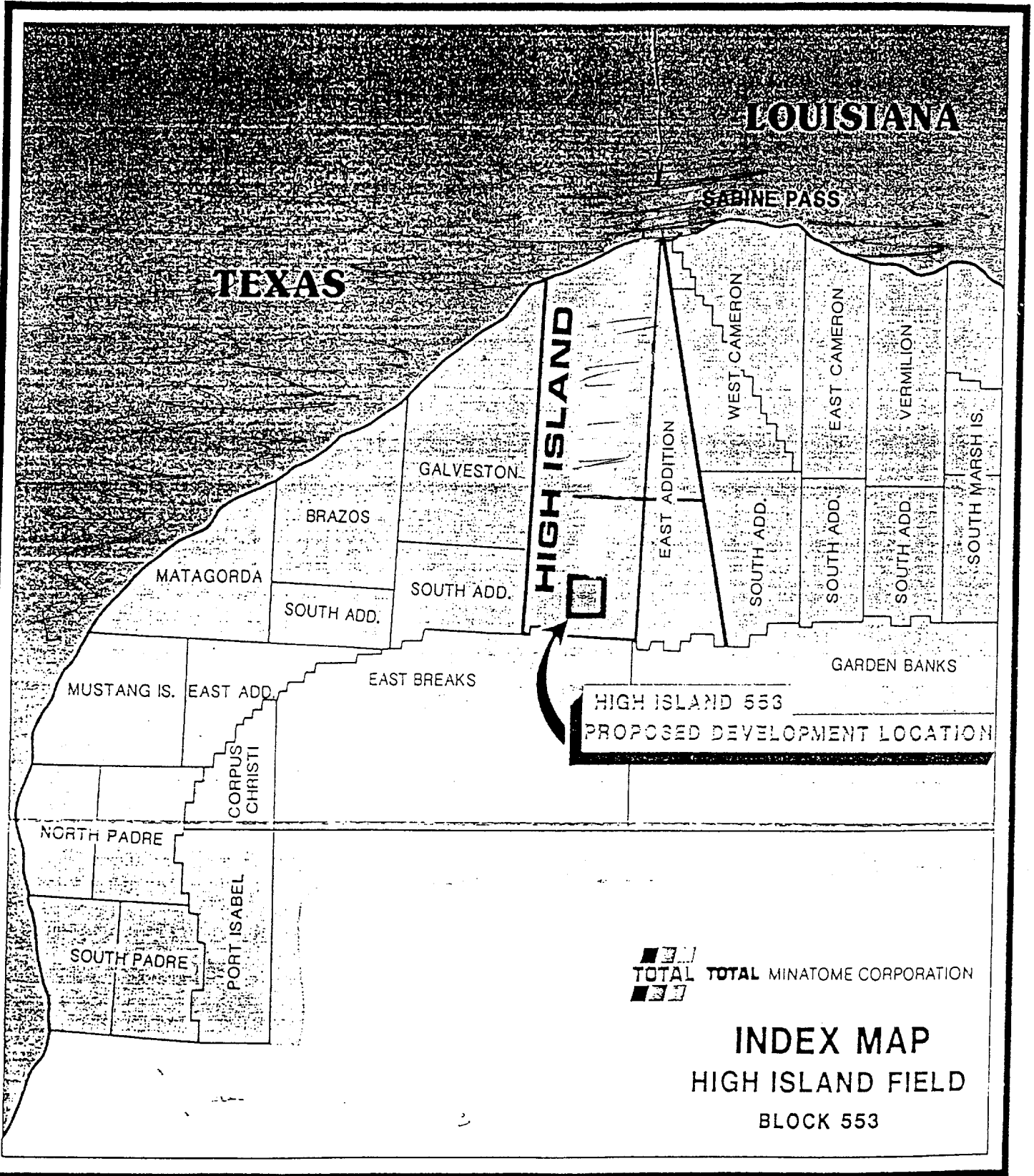
Lease Stipulations

The lease stipulations for High Island A-553 are enclosed as ATTACHMENT NO. 11.

Bonding Information

The appropriate lease bond, as prescribed in 30 CFR Part 256, surety bond requirements, was accepted by the GOM OCS Region Office of Leasing Environment 1 April, 1994.

ATTACHMENT NO. 1
SHORE LINE VICINITY PLAT



 TOTAL MINATOME CORPORATION

INDEX MAP HIGH ISLAND FIELD

BLOCK 553

ATTACHMENT NO. 2
SURFACE LOCATION PLAT

3,530,000

MINATOMÉ
OCS-G-6237

553A

BEST AVAILABLE COPY

C & K OFFSHORE
2
8028 MD
-7937 TVD

3
6905 MD
-4747 TVD

TOTAL MINATOMÉ

C & K OFFSHORE
3
11416 MD
-11324 TVD

SURFACE
LOCATION
X = 3,526,801
Y = 920480

TOTAL MINATOMÉ

3484' FVL

4928' FSL

TOTAL MINATOMÉ
4505 MD
-4404 TVD

100,000

90,000

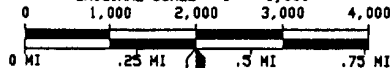
566A

QUINTANA OFFSHORE IN
1
12481 MD
-10458 TVD

PROJECTION PARAMETERS

MAP PROJECTION: LAMBERT, TEXAS SOUTH CENTRAL ZONE
CLARKE'S SPHEROID 1866
CENTRAL MERIDIAN: 99°00'W
X ORIGIN = 2,000,000 FT. AT C.M.
Y ORIGIN = 0 FT. AT 27°50'N LATITUDE

ORIGINAL SCALE: 1" = 1,000'



TOTAL MINATOMÉ CORPORATION

HIGH ISLAND A-553 FIELD


SURFACE LOCATION

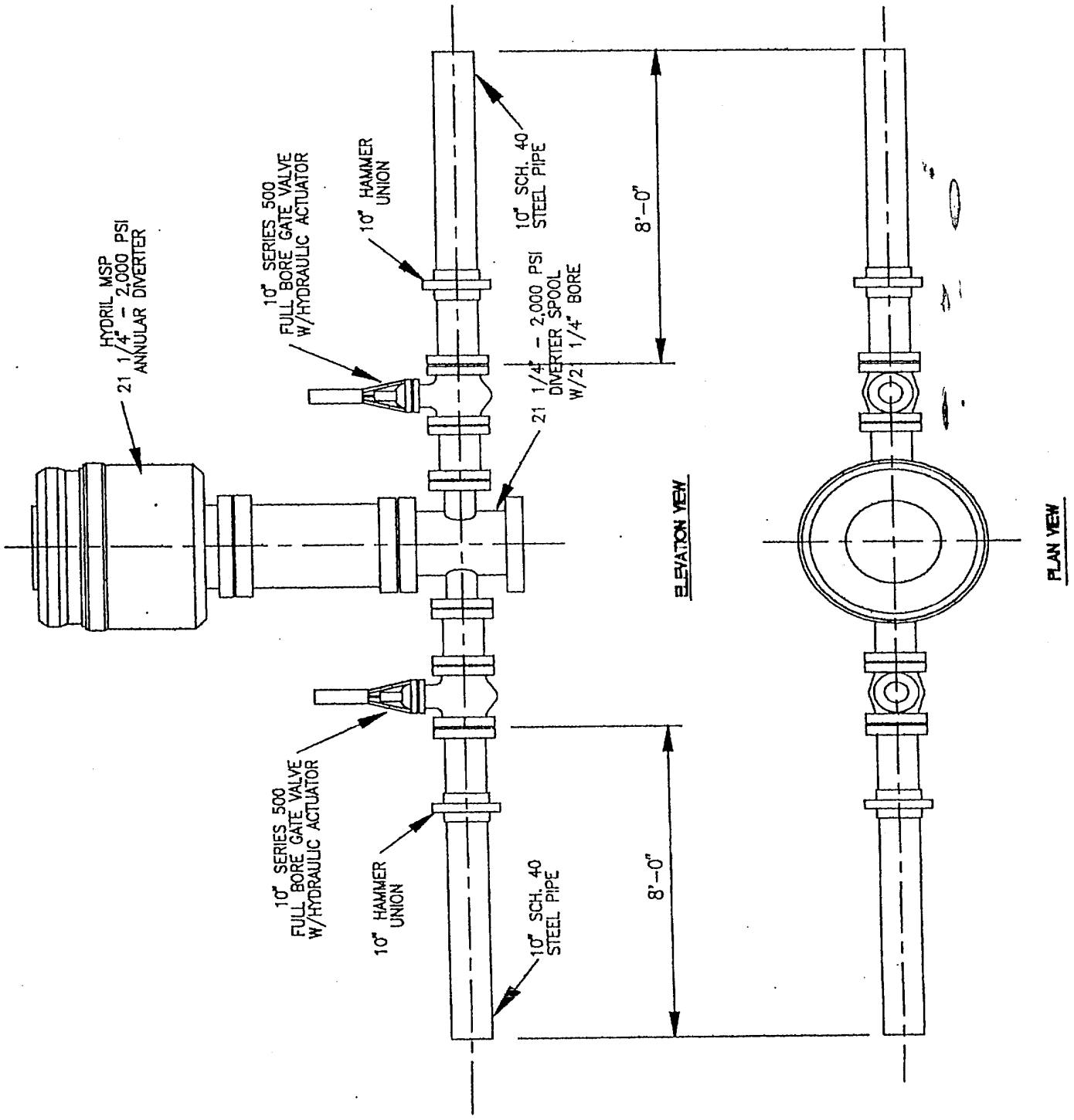
DATE	Geologist:	Geophysicist:
05/96	N. Sackheim	D. Bernet-Rolland

ATTACHMENT NO. 3

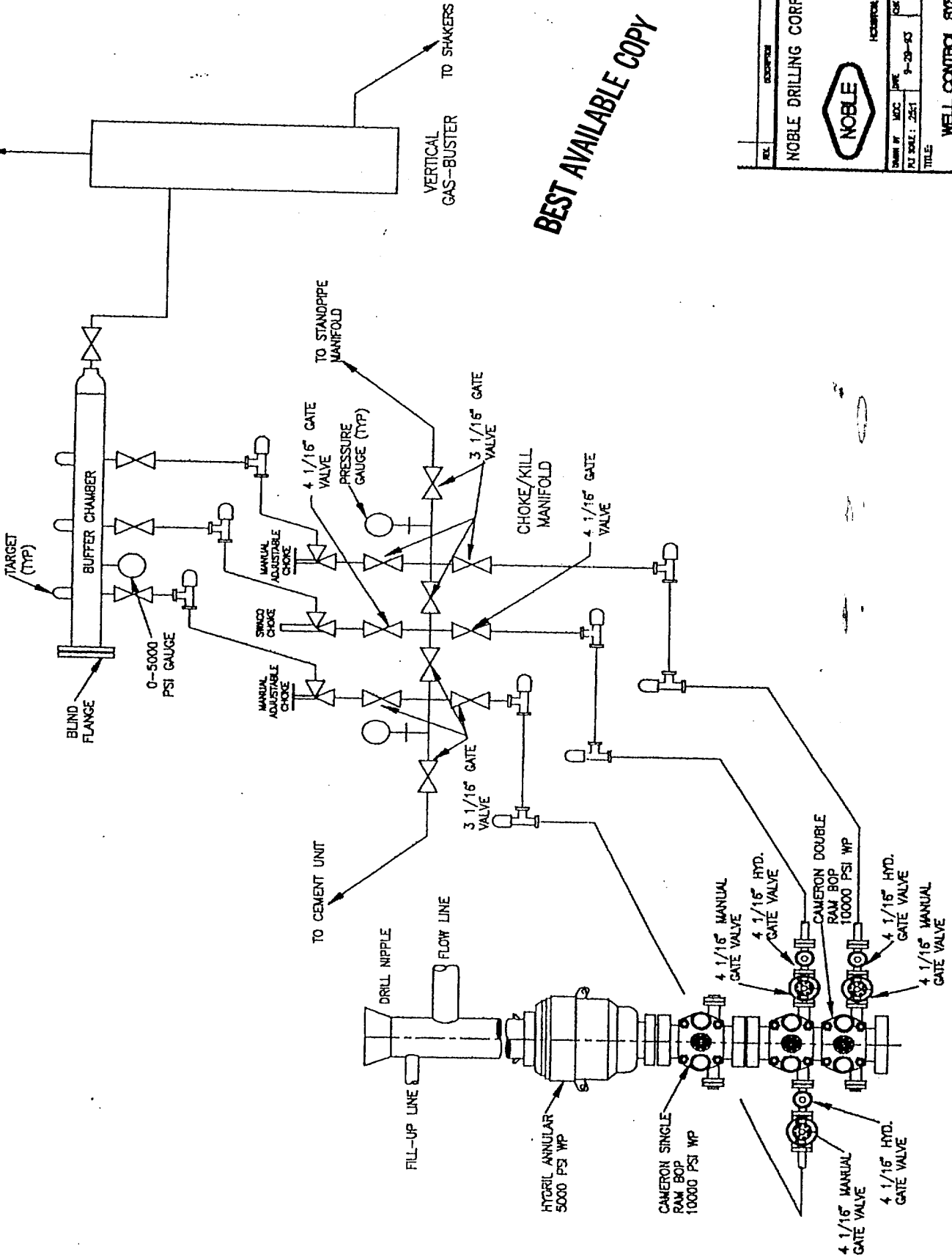
DIVERter SYSTEM, WELL CONTROL SYSTEM,
AND SAFE WELDING AREA

BEST AVAILABLE COPY


REV.	DESCRIPTION	BY	CHK
NOBLE DRILLING CORPORATION			
			
DATE	BY	CHK	APP
NOV 19 1983	9-28-83	OK	JPT
TITLE: DIVERTER SYSTEM			
SCALE: N/A	REV. 0	DES. JIM THOMPSON	
PROJECT NO. 1352-901	SHEET 1 OF 1		



6" VENT UP DERRICK



BEST AVAILABLE COPY

NO. _____	DESCRIPTION _____	DATE _____	BY _____
NOBLE DRILLING CORPORATION		HOUSTON, TEXAS, U.S.A.	
		DATE BY MOD. DATE	DATE
		PL. NO. 251	9-29-53
TITLE: WELL CONTROL SYSTEM (FLOW DIAGRAM)			
SCALE: N/A	SHEET: 0	DESIGNER: J.M. THOMPSON	DRAWN: J.M. THOMPSON
PROJECT NO. 1352-902		SHEET 1 OF 1	

ATTACHMENT NO. 4

SURFACE AND BOTTOM HOLE LOCATIONS
(PROPRIETARY INFORMATION)

3,530,000

MINATOMÉ
OCS-G-6237

553A

100,000

000,06

3520' FNL

PBHL
A

12,452.5' MD

C & K OFFSHORE
8028 MD

10,381' FVL

3
6905 MD

TOTAL MINATOMÉ

C & K OFFSHORE
11416 MD

BEST AVAILABLE COPY

SURFACE
LOCATION
X = 3,526,801
Y = 920480

PBHL

13,759.3' MD

TOTAL MINATOMÉ

8900' FVL

3484' FVL

10407 MD

2300' FVL

6430 MD

10,524' MD

3350' FSL

5356' FVL

4988' FSL

3250' FSL

5250' FSL

5250' FSL

8733 MD

10,403' MD

14,660.5' MD

7987' FVL

9140 MD

8776.3' MD

3855' FSL

5125' FSL

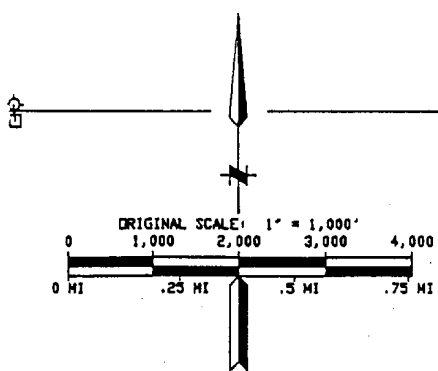
3855' FSL

14,660.5' MD

TOTAL MINATOMÉ
4505 MD

566A

QUINTANA OFFSHORE IN
12481 MD



PROJECTION PARAMETERS

MAP PROJECTION: LAMBERT, TEXAS SOUTH CENTRAL ZONE
CLARKE'S SPHEROID 1866
CENTRAL MERIDIAN: 99° 04' W
X ORIGIN = 2,000,000 FT. AT C.M.
Y ORIGIN = 0 FT. AT 27° 56' N LATITUDE

TOTAL MINATOMÉ CORPORATION

HIGH ISLAND A-553 FIELD

PROPOSED WELLS

DATE	Geologist:	Geophysicist:
04/12/96	H. Sackheim	D. Jersset-Rellade

ATTACHMENT NO. 5
SHALLOW HAZARD REVIEW

ATTACHMENT NO. 6

STRUCTURE MAPS

ATTACHMENT NO. 7

BATHYMETRY MAP

ATTACHMENT NO. 8

DISCHARGES

(Approximate Per Well)
Wells A, B,C,D,E,F

<u>Depth (MD)</u>	<u>Hole Size</u>	<u>Quantity (Bbls)</u>	<u>Discharge Rate</u>
0' - 300'	30"	Driven	MAX 1000 BPH
300' - 700'	20"	1300	MAX 1000 BPH
3000'	13-1/2"	1600	MAX 1000 BPH
14,600'	9-7/8"	3200	MAX 1000 BPH

Discharges will be treated. All that cannot be treated and discharged will be transported to shore via a barge and disposed of at a licensed disposal facility.

ATTACHMENT NO. 9

DRILLING MUD COMPONENTS

<u>COMMON CHEMICAL OR CHEMICAL TRADE NAME</u>	<u>DESCRIPTION OF MATERIAL</u>
Aluminum Stearate	Aluminum Stearate
"AXTAFLO-S"	Nonionic Surfactant
Barite	Barium Sulfate (BaSO ₄)
Calcium Carbonate	Aragonite (CaCO ₃)
Calcium Chloride	Hydrophilite (CaCl ₂)
Calcium Oxide	Lime (Quick)
Calcium Sulfate	Anhydrite (CaSO ₄)
Carboxymethyl Cellulose	Carboxymethyl Cellulose
Caustic Potash	Potassium Hydroxide
Caustic Soda	Sodium Hydroxide (NaOH)
Chrome Lignite	Chrome Lignite
Chrome Lignosulfonate	Chrome Lignosulfonate
Drilling Detergent	Soap
"E-Pal"	Non-toxic, biodegradable defoamer
Ferrochrome Lignosulfonate	Derived from wood pulp
Gel	Sodium Montmorillonite, bentonite, attapulgite
Gypsum	CaSO ₄ .2H ₂ O
Lignite	Lignite
Lignosulfonate	Lignosulfonate
"Mud Sweep"	Cement Pre-flush
"MOR-REX"	Hydrolyzed Cereal Solid
"Shale-Trol"	Organo-aluminum complex
Sapp	Sodium Carbonate
Sodium Bicarbonate	NaHCO ₃
Sodium Carboxymethyl Cellulose	Sodium Carboxymethyl Cellulose
Sodium Chloride	NaCl
Sodium Chromate	Na ₂ Cr ₂ O ₇ .10H ₂ O
Starch	Corn Starch
"TX-9010"	Biodegradable drilling lubricant
"TORQ-Trim"	Biodegradable drilling lubricant
"Black Magic"	Oil base mud concentrate.

"Black Magic Supermix"
Diesel

"Jelflake"
MICA
"Pipe-Lax"
"Wall-Nut"
Wood Fibers

Sacked concentrated oil base mud
Used to mix certain loss-circulation
pills
Plastic foil, shredded cellophane
Loss-circulation material
Surfactant mixed with diesel
Ground walnut shells
Loss-circulation material

ATTACHMENT NO. 10

AIR QUALITY REVIEW

AIR QUALITY REVIEW
FOR
HIGH ISLAND AREA BLOCK A-553
OCS-G-6237

TOTAL MINATOME CORPORATION
909 FANNIN, SUITE 2200
HOUSTON, TEXAS 77010

PREPARED BY:
TIM MORTON & ASSOCIATES, INC.
REGULATORY & ENVIRONMENTAL CONSULTANTS
JOB NO. 96-149

JUNE 24, 1996

GULF OF MEXICO AIR EMISSION CALCULATIONS

General

This document (MMS.WK3) 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 sheet gives the basis for the emission factors used in the emission spreadsheet as well as some general instructions. This file contains 8 sheets: A,B,C,D,E,F,G,& H. A is the Instruction Sheet, B is the Title Sheet, C is the Factors Sheet, D,E,F, & G are the Emission Spreadsheets and H is the Summary Sheet. These sheets 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.
2. 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

$$\text{H2S flared (lbs/hr)} = \text{Gas flared (cu ft/hr)} \times \text{ppm H2S} \times 10\text{E-}06 \times 34/379$$

$$\text{SOx emis (lbs/hr)} = \text{H2S flared (lbs/hr)} \times 64/34$$

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 the first year use sheet D, for the second year use sheet E, third

use F, fourth use G and if you need more you will have to insert a sheet and copy the spreadsheet to the new sheet. The year (CELL D:A38) should be changed and the different operating parameters entered to calculate revised emissions for that subsequent 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:

Emission rate (lb/hr) = (HP or fuel rate) X Emission Factor (Potential to emit)

Emissions (tpy)=Emission rate (lb/hr) X load factor(Act Fuel/Max Fuel) X hrsX daysX ton/2000 lbs
(Actual emissions)

To customize the spreadsheet for your application you may want to delete lines for non-applicable equipment/activities or you can input "0" for the HP of equipment that does not apply. You may also need to copy/insert an entire line if more than one similiar 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. Each row links to the corresponding emission calculation spreadsheet for that year. For example, Row 7 of the summary corresponds to the annual totals from Sheet D. Row 8 links to the second emission calculation spreadsheet, Row 9 to the third and Row 10 to the fourth. Row 11 - 16 will carry down the emissions from the last spreadsheet with an emission rate greater than zero. The Summary Sheet will always carry down the last non-zero emission total. For example, if emission calculations are done for the years 1994 and 1995, then the the 1995 total will be carried down through the year 2003. Row 17 of the summary sheet reflects the allowable for the air quality review exemption determination. If more or less years are needed you will will have to modify the spreadsheet.

Print Instructions

The table below lists macros that were written to print sheets A, C, D, E, F, G, & H.

- \A - This macro prints 3 pages of instructions (sheet A).
- \C - This macro prints the emissions factors sheet (sheet C).
- \D - This macro prints the emissions calculations sheet (sheet D).
- \E - This macro prints the emissions calculations sheet (sheet E).
- \F - This macro prints the emissions calculations sheet (sheet F).
- \G - This macro prints the emissions calculations sheet (sheet G).
- \H - This macro prints the emissions calculations sheet (sheet H).
- \X - This macro prints all sheets - A, C, D, E, F, G, & H.

To run one of these macros, hold down ALT and press the letter in the macro range name. For example, to run the macro \A, press ALT-a.

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	AP42 3.2-1	4/76 & 8/84	
Equipment/Emission Factors	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/mm scf	5	0.6	140	2.8	35	AP42 1.4-1	4/93	
NG Flares	lbs/mm scf		0.57	71.4	60.3	388.5	AP42 11.5-1	9/91	
Liquid Flaring	lbs/bbls	0.42	6.6	2.3	0.01	0.21	AP421.3-1	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/mm scf				6.6		La. DEQ	1991	
Gas Venting	lbs/scf				0.0034				

AIR EMISSION CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELLS	
TOTAL	Minatome Corp.	A-553	6237		A, B, D & E	
Emissions						
Substance						
		TSP	SOX	NOX	HC	CO
1996		5.67	34.76	257.19	7.77	56.11
1997		2.72	16.77	123.94	3.78	27.04
1998		1.45	8.98	66.33	2.04	14.47
1999		1.45	8.98	66.33	2.04	14.47
2000		1.45	8.98	66.33	2.04	14.47
2001		1.45	8.98	66.33	2.04	14.47
2002		1.45	8.98	66.33	2.04	14.47
Allowable		2830.50	2830.50	2830.50	2830.50	66709.79

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ATTACHMENT 11
LEASE STIPULATIONS

BEST AVAILABLE COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

Outer Continental Shelf, Western Gulf of Mexico
Oil and Gas Lease Offering (August 1983)

STIPULATION NO. 1 - CULTURAL RESOURCE OCS-G 6237

- (a) "Cultural resource" means any site, structure, or object of historic or prehistoric archaeological significance. "Operations" means any drilling, mining, or construction or placement of any structure for exploration, development, or production of the lease.
- (b) If the Regional Manager (RM) believes a cultural resource may exist in the lease area, the RM will notify the lessee in writing. The lessee shall then comply with subparagraphs (1) through (3).
- (1) Prior to commencing any operations, the lessee shall prepare a report, as specified by the RM, to determine the potential existence of any cultural resource that may be affected by operations. The report, prepared by an archaeologist and geophysicist, shall be based on an assessment of data from remote-sensing surveys and other pertinent cultural and environmental information. The lessee shall submit this report to the RM for review.
- (2) If the evidence suggests that a cultural resource may be present, the lessee shall either:
- (i) Locate the site of any operation so as not to adversely affect the area where the cultural resource may be; or
- (ii) Establish to the satisfaction of the RM that a cultural resource does not exist or will not be adversely affected by operations. This shall be done by further archaeological investigation, conducted by an archaeologist and a geophysicist, using survey equipment and techniques deemed necessary by the RM. A report on the investigation shall be submitted to the RM for review.
- (3) If the RM determines that a cultural resource is likely to be present on the lease and may be adversely affected by operations, he will notify the lessee immediately. The lessee shall take no action that may adversely affect the cultural resource until the RM has told the lessee how to protect it.
- (c) If the lessee discovers any cultural resource while conducting operations on the lease area, the lessee shall report the discovery immediately to the RM. The lessee shall make every reasonable effort to preserve the cultural resource until the RM has told the lessee how to protect it.

STIPULATION NO. 3 - WARNING AREA W-602

- (a) Hold Harmless

Whether compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occur in, on, or above the Outer Continental Shelf, to any persons or to any property of any person or persons who are agents, employees, or invitees of the lessee, its agents, independent contractors, or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the United States Government, its contractors or subcontractors, or any of their officers, agents, or employees, being conducted as a part of, or in connection with, the programs and activities of the Director of Training, Deputy Chief of Staff, Operations, Headquarters Strategic Air Command, Offutt AFB, Nebraska.

Notwithstanding any limitation of the lessee's liability in section 14 of the lease, the lessee assumes this risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of its officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee.

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and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents, or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

(b) Electromagnetic Emissions

The lessee agrees to control his own electromagnetic emissions and those of his agents, employees, invitees, independent contractors, or subcontractors emanating from individual designated defense warning areas in accordance with requirements specified by the commander of the command headquarters listed in the first paragraph under (a) above to the degree necessary to prevent damage to, or unacceptable interference with, DOD flight, testing, or operational activities, conducted within individual designated warning areas. Necessary monitoring control and coordination with the lessee, his agents, employees, invitees, independent contractors or subcontractors, will be effected by the commander of the appropriate onshore military installation conducting operations in the particular warning area; provided, however, that control of such electromagnetic emission shall in no instance prohibit all manner of electromagnetic communication during any period of time between a lessee, its agents, employees, invitees, independent contractors, or subcontractors and onshore facilities.

(c) Operational

The lessee, when operating or causing to be operated on its behalf, boat or aircraft traffic into the individual designated warning areas, shall enter into an agreement with the commander of the individual command headquarters listed in the first paragraph under (a) above, prior to commencing such traffic. Such an agreement will provide for positive control of boats and aircraft operating into the warning areas at all times.

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Whether compensation for such damage or injury might be due under a theory of strict or absolute liability or otherwise, the lessee assumes all risks of damage or injury to persons or property, which occur in, on, or above the Outer Continental Shelf, to any persons or to any property of any person or persons who are agents, employees, or invitees of the lessee, its agents, independent contractors, or subcontractors doing business with the lessee in connection with any activities being performed by the lessee in, on, or above the Outer Continental Shelf, if such injury or damage to such person or property occurs by reason of the activities of any agency of the United States Government, its contractors or subcontractors, or any of their officers, agents, or employees, being conducted as a part of, or in connection with, the programs and activities of the Director of Training, Deputy Chief of Staff, Operations, Headquarters Strategic Air Command, Offutt AFB, Nebraska.

Notwithstanding any limitation of the lessee's liability in section 14 of the lease, the lessee assumes this risk whether such injury or damage is caused in whole or in part by any act or omission, regardless of negligence or fault, of the United States, its contractors or subcontractors, or any of its officers, agents, or employees. The lessee further agrees to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the lessee, and to indemnify and save harmless the United States against all claims for loss, damage, or injury sustained by the agents, employees, or invitees of the lessee, its agents, or any independent contractors or subcontractors doing business with the lessee in connection with the programs and activities of the aforementioned military installations, whether the same be caused in whole or in part by the negligence or fault of the United States, its contractors, or subcontractors, or any of its officers, agents, or employees and whether such claims might be sustained under a theory of strict or absolute liability or otherwise.

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ATTACHMENT 12
GEOLOGICAL CROSS SECTION

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