

UNITED STATES GOVERNMENT  
MEMORANDUM

August 4, 2003

To: Public Information (MS 5034)  
From: Plan Coordinator, FO, Plans Section (MS  
5231)

Subject: Public Information copy of plan  
Control # - N-07825  
Type - Initial Development Operations Coordinations Document  
Lease(s) - OCS-G16541 Block - 384 Viosca Knoll Area  
OCS-G21721 Block - 383 Viosca Knoll Area  
Operator - Chevron U.S.A. Inc.  
Description - Well A-5  
Rig Type - Not Found

Attached is a copy of the subject plan.

It has been deemed submitted as of this date and is under review for approval.

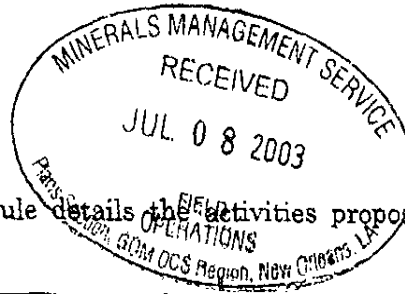
*Karen Dunlap*  
Karen Dunlap  
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/A-5	G21721/VK/383	6278 FNL, 7713 FWL	G16541/VK/384

NOTED - SCHEXNAILDRE

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N-7825  
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### SCHEDULE

The following schedule details the activities proposed under this Document:

Activity	Start Date	End Date
Install 30" conductor	9/15/2003	09/22/2003
Hook-up and Commence Production from Well No. A-5	11/01/03 11/02/03	11/02/03 11/02/09

### LOCATION

A Location/Bathymetry Plat depicting the surface location is enclosed as Attachment A-1.

We have included as Attachment A-2 Form MMS-137 "OCS Plan Information Form" in accordance with Appendix J. The form includes a table indicating the surface location, bottom hole location, TVD, MD and water depth of the proposed wells and the surface location and water depth of each facility. Also included in the table is the distance from the lease lines, the Lambert x-y coordinates and the latitude and longitude. The type of lift/derrick barge to be used during the construction activities will be either a self elevating lift barge, spud barge or a dynamic positioning type barge, which uses thrusters to hold the barge in place during operations. In any case, an anchor pattern is not required.

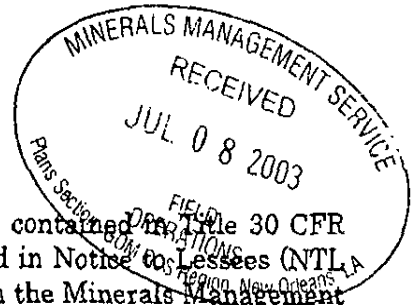
### DRILLING UNIT

Chevron addressed the drilling of Well No. A-5 under our previously approved Initial Exploration Plan.

The activities in this Document will be performed by a lift/derrick barge. The barge will be equipped with the necessary safety, fire fighting and lifesaving equipment. All operations will be conducted in a manner so as to maximize pollution prevention in accordance with Title 30 CFR Part 250.



One Proprietary Copy Only  
of Production Rates  
Included  
No Public Info Sent



### BONDING INFORMATION

In accordance with the regulations contained in Title 30 CFR 256, Subpart 1 and further clarified in Notice to Lessees (NTLA 2000-G16); Chevron has on file with the Minerals Management Service and is covered by a \$3,000,000.00 area-wide bond 103312842-0012 effective October 18, 2001.

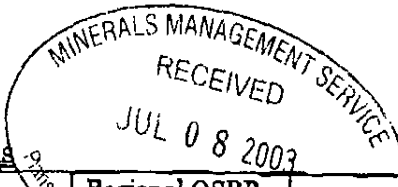
### ONSHORE BASE AND SUPPORT VESSELS

Viosca Knoll Blocks 383 and 384 are approximately 40.12 statute miles from the nearest shoreline, and approximately 55 miles from our shore base located in Pascagoula, MS. A vicinity plat showing the location of Viosca Knoll Blocks 383 and 384 relative to the shoreline and the onshore base is included as Attachment B-1.

The Pascagoula Shorebase will serve as port of debarkation for supplies and crews. No onshore expansion or construction is anticipated with respect to the proposed activities. This base is capable of providing the services necessary for the proposed activities. It has 24-hour service, a radio tower with a phone patch, dock space, equipment and supply storage base, drinking and drill water, etc.

Helicopters will travel to and from this location and Chevron's Pascagoula Base and other platforms in the area. Travel frequencies of helicopters and support vessels during drilling and completion operations are listed below.

	Drilling	Construction	Production
Crewboat	N/A	1/day	2/week
Workboat	N/A	1/week	N/A
Helicopters	N/A	1/day	1/week



**Worst-Case Discharge Analysis**

Category	Regional OSRP "Nearshore" Worst-Case Discharge Scenario	Regional OSRP <sup>FIELD OPERATIONS</sup> Farshore Worst-Case Discharge Scenario	EP or DOCD
Type of Activity (Types of activities include P/L, P/F, Caisson, subsea completions or manifold, and mobile drilling rig)	Pipeline	Sub-sea Completion	Mobile Drilling Rig
Spill Location (area/block)	Chandeleur Sound Addition Block 11, (inside barrier islands)	Green Canyon Block 205, OCS-G-5911	VK Block 384 OCS-G-21721-16541
Facility Designation (e.g., Well #2, Platform JA, Pipeline Segment No. 6373)	20" Crude Oil Line from Empire, LA to Pascagoula, MS - in state waters	Well No. A-2, Genesis Deepwater Spar - MMS Facility ID No. 67	Well No. A-5 VK 384 ("A" Location On VK 383 EP)
Distance to Nearest Shoreline (miles)	2-miles	81-miles	41.0 miles
Volume Storage Tanks (total) Flowlines (on facility) Lease Term Pipelines Uncontrolled Blowout (volume per day)  Total Volume	Not itemized since WCD based on pipeline calculations as defined by CFR 254.470  146,847 barrels	4000 barrels 250 barrels 80,000 barrels  84,250 barrels	100 barrels N/A barrels N/A barrels 60 barrels  160 barrels
Type of Oil(s) (crude oil, condensate, diesel)	Crude Oil	Crude Oil	Condensate
APIE Gravity(s)-Provide APIE gravity of all oils given under "Type of Oil(s)" above. Estimate for EP's)	22.3°	27.7°	43.0°

Since Chevron has the capability to respond to the worst-case spill scenario included in its Regional OSRP, approved September 10, 2002, and since the worst-case scenario determined for our Initial Development Operations Coordination Document does not replace the worst-case scenario in our Regional OSRP; I hereby certify that Chevron has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our Initial Development Operations Coordination Document.



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*Complex  
Emissions*

AIR EMISSION CALCULATIONS - FIRST YEAR

07/08/2003

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CHEVRONTEXACOESPCHES

PAGE 12/20

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	CONTACT	PHONE	REMARKS								
OPERATIONS	Waco4 KACB	384	16341	'A'	OC5-G-21121 #5	S. A. RONDELD	(504) 592-4353	AREF:								
	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR				ESTIMATED TONS					
	Diesel Engines	HP	GAL/HR	GAL/D												
	Gas Engines	HP	SCF/HR	SCF/D												
	BURNERS	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	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
	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
	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
	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
	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
	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
	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
	BURNER 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
	VESSELS >600hp diesel (crew)	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
	VESSELS >600hp diesel (supply)	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
	VESSELS >600hp diesel (tugs)	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 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
	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
	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
	VESSELS >600hp diesel (crew)	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
	VESSELS >600hp diesel (supply)	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	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
	VESSELS >600hp diesel (crew)	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
	VESSELS >600hp diesel (supply)	2000	96.6	2316.40	24	10	1.41	6.47	48.46	1.45	10.57	0.17	0.76	5.81	0.17	1.27
PRODUCTION	RECIP. <600hp diesel Crane	150	7.245	173.88	2	61	0.33	0.49	4.83	0.37	1.00	0.02	0.03	0.28	0.02	0.06
	RECIP. >600hp diesel Air Comp	110	5.313	127.51	12	61	0.08	0.36	2.67	0.08	0.58	0.03	0.13	0.98	0.03	0.21
	SUPPORT VESSEL diesel	2000	96.6	2316.40	2	17	1.41	6.47	48.46	1.45	10.57	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	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	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-FLARE	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
	PROCESS VENT-FLUGITIVES	0	1000	5000.0	24	61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GLYCOL STILL VENT-	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
DRILLING WELL TEST	OIL BURN	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
	GAS FLARE	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
2003 YEAR TOTAL							3.23	15.77	104.21	9.26	22.73	0.24	1.05	7.90	4.57	1.72
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES						1365.30	1365.30	1365.30	1365.30	40426.69					
	41.0															

MINERALS MANAGEMENT SERVICE  
 RECEIVED  
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 FIELD OPERATIONS  
 Gulf of Mexico Region, New Orleans

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AIR EMISSIONS CALCULATIONS - SECOND YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	CONTACT	PHONE	REMARKS									
Mesa Reef		304	16241	"A"	DCS-Q-21721 #3	S. A. RONDELO	(344) 367-4863	REF1									
OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS					
	Diesel Engines	HP	Gal/HR	Gal/D													
	Nat. Gas Engines	HP	SCF/HR	SCF/D													
		MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO	
DRILLING	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	BURNER diesel	0			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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS>600hp diesel(fugs)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
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	
	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	
	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	
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FACILITY INSTALLATION	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	
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PRODUCTION	RECIP. <600hp diesel	150	7.245	173.88	2	104	0.33	0.49	4.63	0.37	1.00	0.03	0.05	0.48	0.04	0.10	
	RECIP. >600hp diesel	110	5.313	127.51	12	365	0.08	0.38	2.67	0.08	0.58	0.17	0.78	5.84	0.18	1.27	
	SUPPORT VESSEL diesel	2000	96.6	2318.40	2	104	1.41	6.47	48.46	1.45	10.57	0.15	0.67	5.04	0.15	1.10	
	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	
	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	
	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	
	RECIP 4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	MISC.	BFD	SCF/HR	COUNT													
	TANK-	0			0	0				0.00						0.00	0.00
	FLARE-	0			0	0			0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-	1000			24	365				3.40					14.89		0.00
	FUGITIVES-			5000.0		365				2.50					10.95		0.00
GLYCOL STILL VENT-	0			0	0				0.00					0.00		0.00	
DRILLING 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	0.00	
WELL TEST GAS FLARE	0			0	0				0.00	0.00	0.00			0.00	0.00	0.00	
2004 YEAR TOTAL							1.82	7.31	55.75	7.80	12.16	0.35	1.50	11.36	28.21	2.48	
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											1365.30	1365.30	1365.30	1365.30	40424.69	
	41.0																



AIR EMISSION CALCULATIONS

OMB Control No. xxxx-xxxx  
Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
	Viosca Knoll	384	16541	"A"	OCS-G-21721 #5
Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2003	0.24	1.05	7.90	4.57	1.72
2004	0.35	1.50	11.36	26.21	2.48
2005	0.35	1.50	11.36	26.21	2.48
2006	0.35	1.50	11.36	26.21	2.48
2007	0.35	1.50	11.36	26.21	2.48
2008	0.35	1.50	11.36	26.21	2.48
2009	0.35	1.50	11.36	26.21	2.48
Allowable	1365.30	1365.30	1365.30	1365.30	40426.69

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*Plan  
Innovation*

AIR EMISSION CALCULATIONS - FIRST YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	CONTACT	PHONE	REMARKS								
	Maeco Knot	384	18941	"A"	OCS-G-21721-05	S A. RONDENO	(504) 532-8353	(REF)								
OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D	HR/D	DAYS	PM	SOx	NOx	VOG	CO	PM	SOx	NOx	VOG	CO
	Natural Gas Engines	HP	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOG	CO	PM	SOx	NOx	VOG	CO
DRILLING	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
	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
	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
	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
	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
	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
	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
	BURNER 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
	VESSELS >600hp diesel (crew)	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
VESSELS >600hp diesel (supply)	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	
VESSELS >600hp diesel (tugs)	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 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	
	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	
	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	
	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	
	VESSELS >600hp diesel (crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
VESSELS >600hp diesel (supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
FACILITY INSTALLATION	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	
	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	
	VESSELS >600hp diesel (crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	VESSELS >600hp diesel (supply)	2000	98.6	2318.40	24	10	1.41	6.47	48.46	1.45	10.57	0.17	0.78	5.81	0.17	
PRODUCTION	RECIP. <600hp diesel Crane	150	7.245	173.88	2	61	0.31	0.49	4.63	0.37	1.00	0.02	0.03	0.28	0.02	
	RECIP. >600hp diesel Air Comp	110	5.313	127.51	12	61	0.08	0.36	2.67	0.08	0.58	0.03	0.13	0.98	0.03	
	SUPPORT VESSEL diesel	2000	98.6	2318.40	2	17	1.41	6.47	48.46	1.45	10.57	0.02	0.11	0.82	0.02	
	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	
	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	
	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	
	RECIP 4 cycle rich 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	
	RECIP 4 cycle rich 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	
	MISC. TANK-FLARE	BPD	SCF/HR	COUNT								0.00	0.00	0.00	0.00	0.00
	PROCESS VENT-FUGITIVES		1000	5000.0	24	61		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	GLYCOL STILL VENT-		0			61									1.83	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
	GAS FLARE		0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003 YEAR TOTAL							3.21	13.77	104.21	9.26	22.44	0.24	1.05	7.90	4.57	1.72
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES															
	41.0															

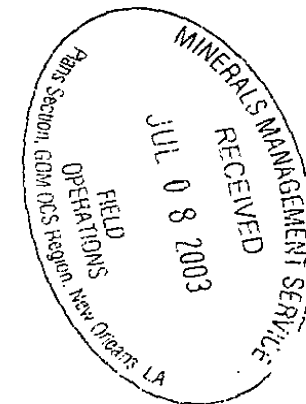
RECEIVED  
 ENVIRONMENTAL MANAGEMENT SERVICE  
 JUL 08 2003  
 FIELD OPERATIONS  
 Gulf of Mexico Region, New Orleans

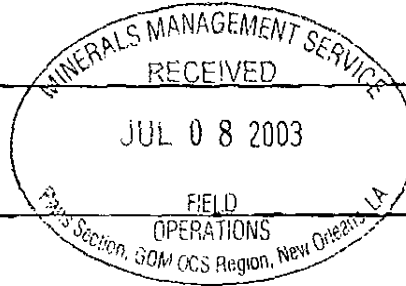
BEST AVAILABLE COPY

AIR EMISSION CALCULATIONS

OMB Control No. xxxx-xxxx  
Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
	Viosca Knoll	384	16541	"A"	OCS-G-21721 #5
Year	Emitted			Substance	
	PM	SOx	NOx	VOC	CO
2003	0.24	1.05	7.90	4.57	1.72
2004	0.24	1.05	7.90	4.57	1.72
2005	0.24	1.05	7.90	4.57	1.72
2006	0.24	1.05	7.90	4.57	1.72
2007	0.24	1.05	7.90	4.57	1.72
2008	0.24	1.05	7.90	4.57	1.72
2009	0.24	1.05	7.90	4.57	1.72
<b>Allowable</b>	<b>1365.30</b>	<b>1365.30</b>	<b>1365.30</b>	<b>1365.30</b>	<b>40426.69</b>





JOHN CHANCE LAND SURVEYS, INC.

least commonly reported marine turtle in the Northern Gulf, with Texas being the only state with regular occurrences. It is more common in tropical Caribbean waters. Kemp's Ridley is the most endangered species of marine turtle and is common in Texas and Mexico. Loggerheads occur worldwide in depths varying from those found in estuaries to the continental shelf. Major Gulf nesting areas for this species include the beaches along the Florida panhandle, South Florida, and Padre Island, Texas. In the Central Gulf loggerheads are known to nest on the beaches and the turtles are commonly observed around platforms. Some of these turtles, particularly the loggerhead, may temporarily utilize Viosca Knoll Area Block 384, however it would be infrequent and no impacts would be expected from the project. All known turtle nesting areas are in locations where landfall of oil spills from this block would be unlikely.

IPFs such as vessel traffic, noise, shore bound waste losses, effluents, and accidental oil spills could possibly impact through stress or even kill small numbers of turtles. Oil spills and response activities have the potential to harm individuals through consumption of oil particles or oiled food sources. The Oil Pollution Act of 1990 has response planning techniques and protections in place to alleviate most of these issues.

The majority of impacts are not expected to be lethal, however the impacts that are expected through nonlethal IPFs could cause declines in survival and reproductive rates, which would have detrimental effects on the population as a whole, yet as stated above mitigative steps are already in place via the Oil Pollution Act of 1990.

#### Air Quality

No IPFs should impact the Air Quality within the immediate vicinity of the work proposed within Viosca Knoll Area Block 384. Emissions will be kept within accepted standards and Effluents, Physical Disturbances to the seafloor, and Shore Bound Wastes are not expected to decrease the air quality. In the unlikely event that an accidental oil spill would occur there might be some Air Quality impacts however these would be kept to a minimum.

#### Shipwreck sites (known or potential)

The proposed work is from an existing location; therefore a Shallow Hazard Survey is not required. There are no known shipwreck sites in Viosca Knoll Block 384, and the area is not set aside as having a high probability for such. It is highly unlikely that any of the IPFs, especially Physical Disturbances to the seafloor, would cause any impacts to known or suspected shipwrecks.

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### Prehistoric Archaeological sites

An Archeological Assessment is required for Viosca Knoll Block 384, however the proposed work is being conducted from an existing location. Therefore, it is highly unlikely that any of the IPFs, especially Physical Disturbances to the seafloor, would cause any impacts to known or suspected pre-historic archeological features. Effluents, Emissions, Shore Bound Wastes, and Accidents would not be expected to impact any archeological sites. ✓

### **Vicinity of Offshore Location**

#### Essential Fish Habitat

Viosca Knoll Area Block 384 lies outside the limits of the principal menhaden harvest area, the principal seabob grounds, the white and brown shrimp harvesting grounds, coastal demersal fish, and principal industrial bottomfish harvest and area coastal pelagics. This block lies within the fishing limits of Principle Industrial Bottomfish Harvesting Area and the major finfish harvest area. This area is located to the east and the south of important blue crab and oyster lease producing areas, which near the coast (USIDOI, MMS, 1986, Visual No. 2).

Based on the proposed activities it is highly unlikely that an accidental surface or subsurface spill would occur. If a spill were to occur or Effluents discharged the finfish and shellfish that could be impacted would probably evacuate the area of impact, and if any finfish and shellfish did come into contact with any spill residue the affect would most likely not be lethal as the finfish can metabolize the hydrocarbons and avoid increased exposure. The other IPFs that could occur within this area are unlikely to impact any of the above-mentioned fisheries. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

#### Marine and Pelagic Birds

Many of the IPFs would have no impact upon Marine and Pelagic Bird species. Effluents, Emissions, Physical Disturbances to the Seafloor, and Shore Bound Wastes would not affect any avian species that would occur within Viosca Knoll Area Block 384. Accidental oil spills have the ability to impact individual birds, mainly due to the oiling of the individual's feathers and well as possible ingestion of the oil product. It is unlikely that a spill would occur from the proposed activities and if one did occur the activities proposed in this document

CHEVRON U.S.A. INC.

INITIAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

VIOSCA KNOLL BLOCK 384  
OCS-G-16541

VIOSCA KNOLL BLOCK 383  
OCS-G-21721

OFFSHORE, ALABAMA AND MISSISSIPPI

June 17, 2003



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SECTION A	CONTENTS OF PLAN
SECTION B	GENERAL INFORMATION
SECTION C	GEOLOGICAL, GEOPHYSICAL & H2S INFORMATION
SECTION D	BIOLOGICAL INFORMATION
SECTION E	WASTES AND DISCHARGES INFORMATION
SECTION F	OIL SPILL INFORMATION
SECTION G	AIR EMISSIONS INFORMATION
SECTION H	ENVIRONMENTAL IMPACT ANALYSIS
SECTION I	CZM CONSISTENCY INFORMATION
SECTION J	OCS PLAN INFORMATION FORM

**PUBLIC INFORMATION**

## SECTION A

## CONTENTS OF PLAN

(Lease Description/Activity, Objective, Schedule, Location, Drilling Unit, Production Facilities)

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### LEASE DESCRIPTION

Lease OCS-G-16541, Viosca Knoll Block 384 was acquired from El Paso on or about December 17, 2001. Lease OCS-G-21721, Viosca Knoll Block 383 was acquired by Chevron in Central Gulf Lease Sale No. 175 on March 15, 2001 and the effective date of the lease is July 1, 2000. Both leases are located off the Alabama and Mississippi Coast in the Central Gulf of Mexico.

### OBJECTIVE

Chevron submits this Initial Development Operations Coordination Document to allow for the production and development of VK 383 OCS-G-21721 Well #A-5.

### SCHEDULE

The following schedule details the activities proposed under this Document:

Activity	Start Date	End Date
Install 30" conductor	9/15/2003	09/22/2003
Hook-up and Commence Production from Well No. A-5	11/01/03	11/02/03



## LOCATION

A Location/Bathymetry Plat depicting the surface location is enclosed as Attachment A-1.

We have included as Attachment A-2 Form MMS-137 "OCS Plan Information Form" in accordance with Appendix J. The form includes a table indicating the surface location, bottom hole location, TVD, MD and water depth of the proposed wells and the surface location and water depth of each facility. Also included in the table is the distance from the lease lines, the Lambert x-y coordinates and the latitude and longitude. The type of lift/derrick barge to be used during the construction activities will be either a self elevating lift barge, spud barge or a dynamic positioning type barge, which uses thrusters to hold the barge in place during operations. In any case, an anchor pattern is not required.

## DRILLING UNIT

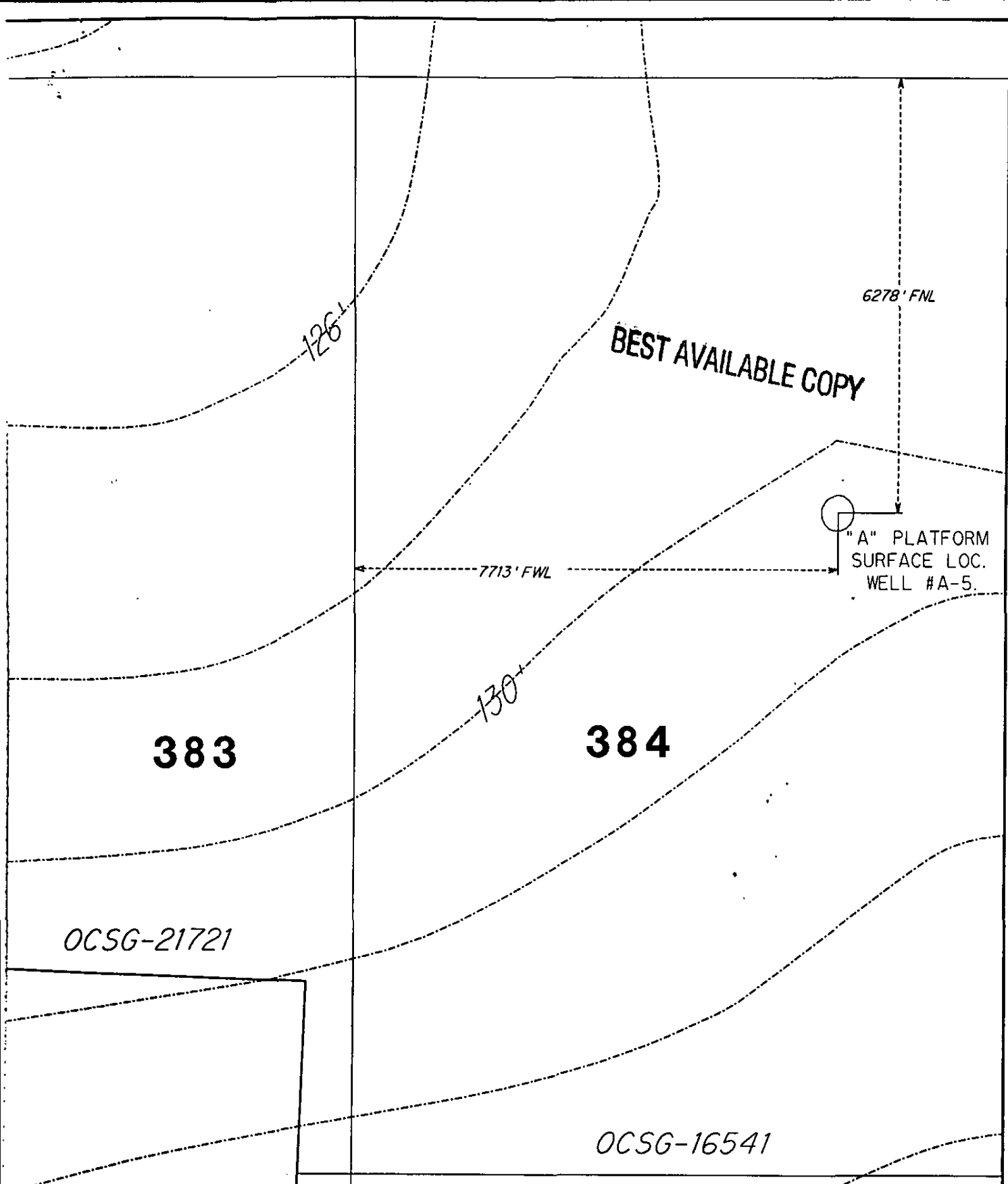
Chevron addressed the drilling of Well No. A-5 under our previously approved Initial Exploration Plan.

The activities in this Document will be performed by a lift/derrick barge. The barge will be equipped with the necessary safety, fire fighting and lifesaving equipment. All operations will be conducted in a manner so as to maximize pollution prevention in accordance with Title 30 CFR Part 250.

## PRODUCTION FACILITIES

Viosca Knoll Block 384 "A" Structure is a three pile satellite structure. It contains minimal surface facilities: separation system, well headers, air compressor and crane. The structure is designed for remote operations consistent with the latest MMS Guidelines.

Bulk production from VK 384 "A" Structure is transported via the existing HP Bulk Pipeline to VK 251 "A" Structure.



VK383 A-5  
SURFACE LOC.

X= 1, 290, 745  
Y= 10, 749, 080  
LAT: 29:36:49.879  
LON: -88:06:02.746

**ATTACHMENT #A-1**

Revision	<b>ChevronTexaco</b>	
	DOCD	
	Viosca Knoll BLK 383	
	Offshore Alabama	
	LOCATION/BATHYMETRY MAP	
	OCS-G-21721 A-5	
DATE	BY: R COLEMAN	C. I. = 20'
	SCALE: 1"=2000'	DATE: 06/24/03
	0' 1000' 2000'	
	VK383 384 LOC	

**OCS PLAN INFORMATION FORM**  
 (USE SEPARATE FORM FOR EACH LEASE)

Exploration Plan		Development Operations Coordination Document	X	Development & Production Plan	
Operator: CHEVRON U.S.A. INC.			Address: 935 GRAVIER STREET		
MMS Operator Number: 00078			NEW ORLEANS, LA 70112		
Contact person: S. A. RONDENO			Phone number: (504) 592-6853		
Proposed start date: 09/1503/2003		Rig type: JU X SS PF DS Other		Distance to closest land (in miles): 41.0	
New or unusual technology	Yes	No X	Onshore support base(s): PASCAGOULA		
Narrative description of proposed activities: CHEVRON U.S.A. INC. PROPOSES TO DRILL ONE WELL (1) OCS-G-21721 #A-5:					
Project name, if applicable: N/A					

**PROPOSED WELL/STURCTURE LOCATIONS**

WELL/STRUCTURE NAME	SURFACE LOCATION	BOTTOM - HOLE LOCATION (FOR WELLS)	
Platform X or Well Name: OCS-G-21721#A-5	CALLS: 6278 F N L and 7713 F W L OF LEASE OCS G-16541, VIOSCA KNOLL AREA, BLOCK 384	CALLS: F N L and F E L OF LEASE OCS V AREA, BLOCK	
	X: 1,290,745 Y: 10,749,080	X: Y:	
	LAT: 29 36' 49.879" LONG: 88 06' 02.746"	LAT: LONG:	
	TVD (IN FEET):	MD (IN FEET):	WATER DEPTH (IN FEET): 130'
Platform or Well Name:	CALLS: F L and F L OF LEASE OCS AREA, BLOCK	CALLS: F L and F L OF LEASE OCS AREA, BLOCK	
	X: Y:	X: Y:	
	LAT: LONG:	LAT: LONG:	
	TVD (IN FEET):	MD (IN FEET):	WATER DEPTH (IN FEET):
Platform or Well Name:	CALLS: F L and F L OF LEASE OCS AREA, BLOCK	CALLS: F L and F L OF LEASE OCS AREA, BLOCK	
	X: Y:	X: Y:	
	LAT: LONG:	LAT: LONG:	
	TVD (IN FEET):	MD (IN FEET):	WATER DEPTH (IN FEET):
Platform or Well Name:	CALLS: F L and F L OF LEASE OCS AREA, BLOCK	CALLS: F L and F L OF LEASE OCS AREA, BLOCK	
	X: Y:	X: Y:	
	LAT: LONG:	LAT: LONG:	
	TVD (IN FEET):	MD (IN FEET):	WATER DEPTH (IN FEET):

Form MMS - 137 (October 2000)

The Paperwork Reduction Act of 1995 (44 U.S.C Chapter 35) requires us to inform you that MMS collects this information as part of an applicant's Exploration Plan or Development Operations Coordination Document submitted for MMS approval. We use the information to facilitate our review and data entry for OCS plans. We will protect proprietary data according to the Freedom of Information Act and 30 CFR 250.196. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget Control Number. Responses are mandatory. The public reporting burden for this form is included in the burden for preparing Exploration Plans and Development Operations Coordination Documents. We estimate that burden to average 580 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W., Washington, DC 20240.

**PUBLIC INFORMATION**

## SECTION B

### GENERAL INFORMATION

(Contact, Project Name, Production rates and life of reserves, New or Unusual Technology, Bonding Information, Onshore Base and Support Vessels, Lease Stipulations, Related OCS facilities and operations, Transportation Information)

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#### CONTACT

Shirley A. Rondeno  
Chevron U.S.A. Inc.  
935 Gravier Street, Room 731  
New Orleans, LA 70112  
(504) 592-6853

Email: sron@chevrontexaco.com

#### PROJECT NAME

There is no project name for this Document.

#### PRODUCTION RATES AND LIFE OF RESERVES

The estimated life and production rates are as follows:

Well	Life of Reservoir	Average/Peak Production Rate
Well No. A-5		

#### NEW OR UNUSUAL TECHNOLOGY

This document does not propose the use of any new or unusual technologies.

## BONDING INFORMATION

In accordance with the regulations contained in Title 30 CFR 256, Subpart 1 and further clarified in Notice to Lessees (NTL 2000-G16); Chevron has on file with the Minerals Management Service and is covered by a \$3,000,000.00 area-wide bond 103312842-0012 effective October 18, 2001.

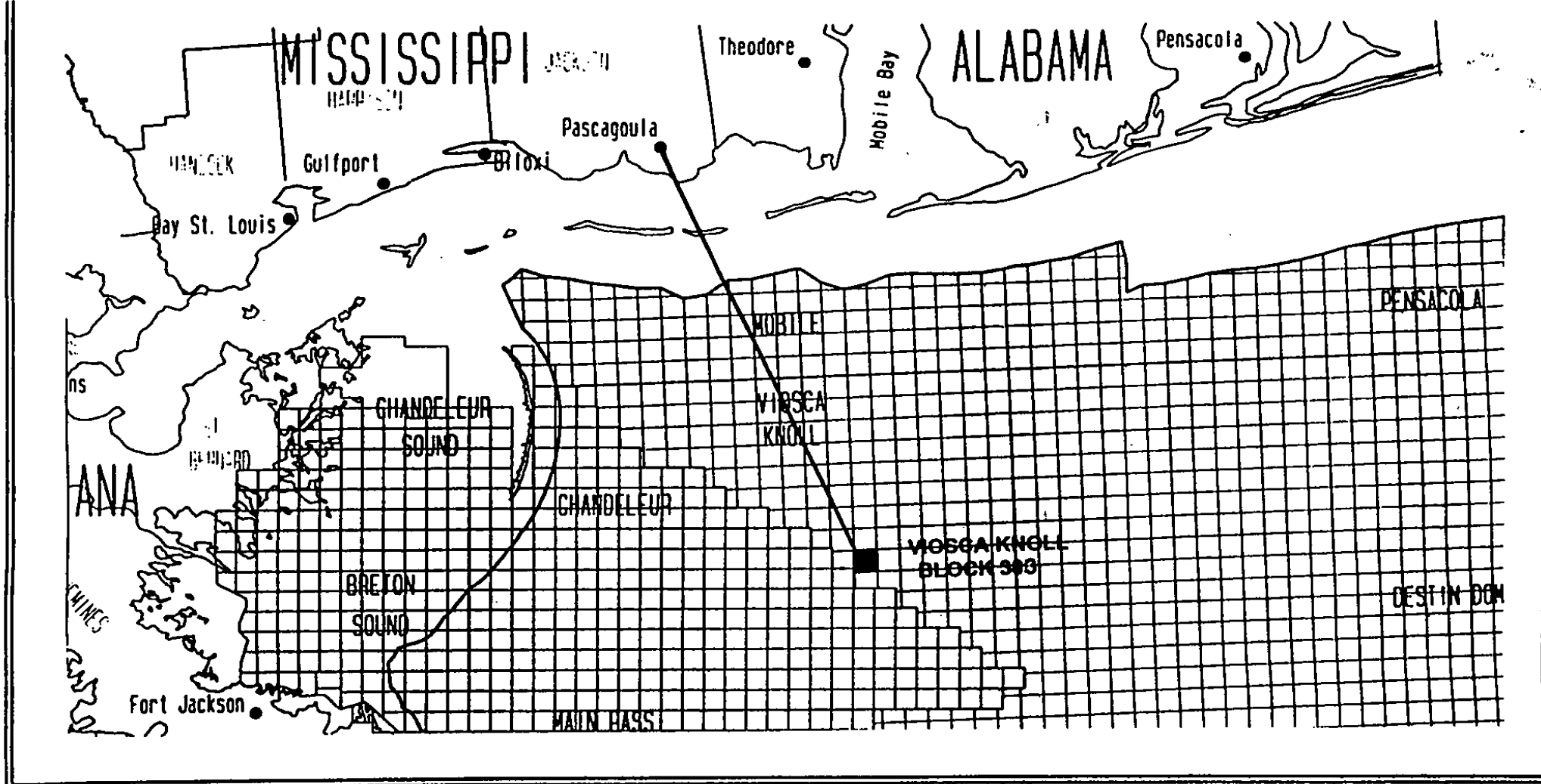
## ONSHORE BASE AND SUPPORT VESSELS

Viosca Knoll Blocks 383 and 384 are approximately 40.12 statute miles from the nearest shoreline, and approximately 55 miles from our shore base located in Pascagoula, MS. A vicinity plat showing the location of Viosca Knoll Blocks 383 and 384 relative to the shoreline and the onshore base is included as Attachment B-1.

The Pascagoula Shorebase will serve as port of debarkation for supplies and crews. No onshore expansion or construction is anticipated with respect to the proposed activities. This base is capable of providing the services necessary for the proposed activities. It has 24-hour service, a radio tower with a phone patch, dock space, equipment and supply storage base, drinking and drill water, etc.

Helicopters will travel to and from this location and Chevron's Pascagoula Base and other platforms in the area. Travel frequencies of helicopters and support vessels during drilling and completion operations are listed below.

	Drilling	Construction	Production
Crewboat	N/A	1/day	1/week
Workboat	N/A	1/week	N/A
Helicopters	N/A	1/day	1/week



PROPOSED ACTIVITY IS LOCATED APPROXIMATELY 40.12 STATUTE MILES FROM THE NEAREST SHORELINE AND APPROXIMATELY 55 STATUTE MILES FROM SHOREBASE IN PASCAGOULA, MISSISSIPPI.

**ROUTE OF TRANSPORTATION**

PREPARED BY:  
 C. H. FENSTERMAKER & ASSOCIATES, INC. LAFAYETTE & NEW ORLEANS, LOUISIANA HOUSTON, TEXAS

**CHEVRON U.S.A. INC**

VICINITY MAP  
 VIOSCA KNOLL BLOCK 383  
 GULF OF MEXICO  
 July, 2001

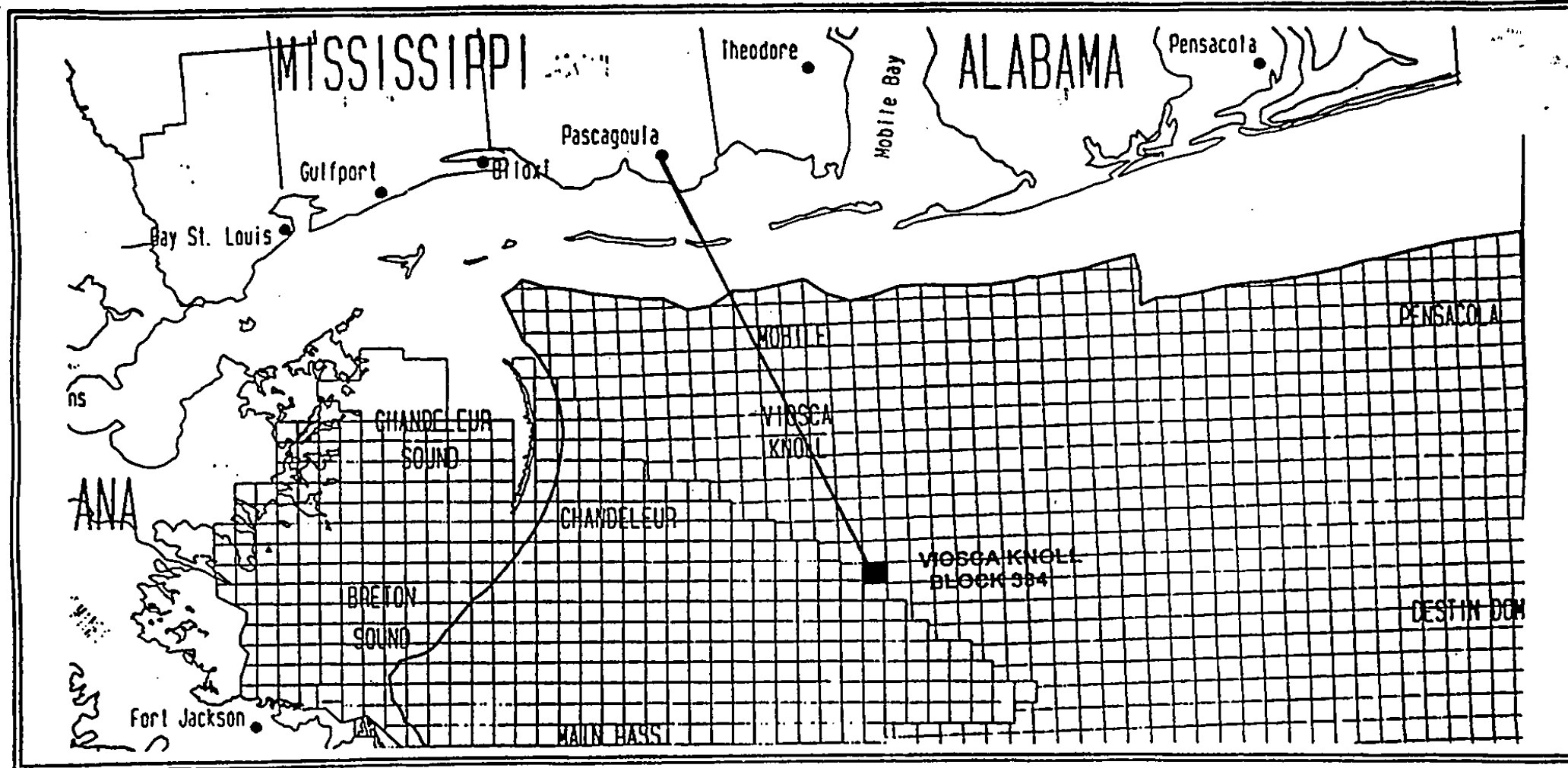


Scale: 1" = 30 Miles

ATTACHMENT #B-1



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↑  
 ATTACHMENT #B-1  
 N

*Route of Transportation from the Block to Pascagoula Shorebase*

**BEST AVAILABLE COPY**

PREPARED BY:  
 C. H. FENSTERMAKER & ASSOCIATES, INC.  
 LAFAYETTE & NEW ORLEANS, LOUISIANA  
 HOUSTON, TEXAS

**CHEVRON U.S.A. INC.**  
 VICINITY MAP  
 VIOSCA KNOLL BLOCK 384  
 GULF OF MEXICO  
 June, 1999

Scale: 1" = 20 Miles

## LEASE STIPULATIONS

Chevron acknowledges that Lease OCS-G-21721 contains the below listed stipulations. All operations will be conducted in compliance with said stipulations.

Stipulation No. 3 - Military Warning Area W-453. The proposed activities in Viosca Knoll Block 383 will be coordinated with the appropriate military authorities due to the lease's inclusion in Military Warning Area W-453. Like coordination will be required for helicopters to support the drilling operations. Coordination with the appropriate military installation regarding restrictions and/or agreements necessary for conducting traffic in the warning area will therefore be established.

## RELATED OCS FACILITIES AND OPERATIONS

Gas and liquid production from the proposed well will flow directly to a HP or LP bulk pipeline to VK 251 "A" Structure or to a designated Test Separator for separation and metering. After metering, the gas and liquid production is recombined and will flow directly to a HP or LP bulk pipeline to VK 251 "A" Structure.

Gas and liquid production from the proposed well will flow directly into the H.P. Bulk pipeline to VK 251. The well can be diverted into a test separator at VK 384 for individual well testing and production allocation. At VK 251, the production enters a bulk separator. The condensate is re-injected into the gas stream and the water is injected into a disposal well. Both the gas and condensate is metered at VK 251 prior to entering the Williams 12" sour gas pipeline. The pipeline transports wet sour gas to Shell's Yellowhammer Gas Plant where full processing takes place.



## TRANSPORTATION METHOD

Production from the proposed well will be handled by existing transportation lines departing VK 384 "A" Structure.

Chevron does not anticipate the installation of any new downstream pipelines and/or processing facilities as a result of the new production from the proposed well.

## **SECTION C**

### **GEOLOGICAL & GEOPHYSICAL**

(Structure Maps, Interpreted Seismic Lines, Cross-Sections, Shallow Hazards Report, Shallow Hazards Assessment, High Resolution Seismic Lines, Stratigraphic Columns, H2S Information)

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#### **STRUCTURE MAPS**

Current structure maps contoured for the lease block and drawn to the top of the prospective hydrocarbon accumulation showing the surface and bottom hole location of the proposed well have been omitted from this document.

#### **INTERPRETED SEISMIC LINES**

The proposed operations will be conducted from a previously approved surface location as provided for in the Initial DOCD (Plan Control No. N-7217); therefore, no interpreted seismic lines are required for the proposed activity.

#### **CROSS-SECTION MAPS**

Interpreted geological structure Cross-Section Map showing the location and depth of each proposed well, and at least one key horizon and the objective sands labeled using standard biostratigraphic terms have been omitted from this document.

#### **SHALLOW HAZARDS/ARCHAEOLOGICAL REPORTS**

An Archaeological and Hazard Study Report was prepared for VK Block 383 by Fugro Geoservices, Inc. in July, 2000. A Shallow Hazard and Archaeological Survey was performed in Block 384 by Gulf Ocean Services, Inc. in April of 1999. Three copies of these reports have previously been submitted to the Minerals Management Service with our Initial Exploration Plan for VK 383 and Initial DOCD for VK 384.

## SHALLOW HAZARD ASSESSMENT

A Shallow Hazard Analysis has been prepared for the proposed surface location, evaluating seafloor and subsurface geological and manmade features and conditions. The possibility of any shallow geologic hazard will be taken into account prior to the drilling of the proposed well or performing any of the other development activities.

A copy of the Shallow Hazard Analysis was previously submitted.

## HIGH RESOLUTION SEISMIC LINES

The proposed operations will be conducted from an existing surface location provided for under a previously approved Initial DOCD (Control No. N-7217); therefore, copies of the high resolution seismic lines are not required.

## HYDROGEN SULFIDE (H<sub>2</sub>S)

The presence of H<sub>2</sub>S is anticipated. Chevron will be in complete compliance with the requirements of 30 CFR 250.417 regarding drilling operations in the Gulf of Mexico in areas known to contain H<sub>2</sub>S. A site-specific H<sub>2</sub>S Contingency Plan will be submitted concurrently with the Application for Permit to drill the proposed well.

## SECTION D

## BIOLOGICAL INFORMATION

(Chemosynthetic, Topographic Information)

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### CHEMOSYNTHETIC

The seafloor disturbing activities proposed under this Document are in water depths less than 400 meters (1312 feet). This section of the plan is not applicable.

### TOPOGRAPHIC INFORMATION

MMS and the National Marine Fisheries Service (NMFS) have entered into a programmatic consultation agreement for Essential Fish Habitat that requires that no bottom disturbing activities including anchors or cables from a semi-submersible drilling rig may occur within 500 feet of the no-activity zone of a topographic feature. If such proposed bottom disturbing activities are within 500 feet of a no activity zone, the MMS is required to consult with the NMFS.

The activities proposed under this Document are not affected by a topographic feature.

### LIVE BOTTOM (PINNACLE TREND) INFORMATION

In accordance with NTL 99-G16, a survey report containing a bathymetry map prepared by using remote sensing techniques must be submitted to the Gulf of Mexico OCS Region (GOMR) before you can conduct any drilling activities or install any structures, including lease term pipelines on leases affected by the Live Bottom Stipulation.

Viosca Knoll Blocks 383 and 384 are not located within the vicinity of a proposed live bottom area and therefore, this section of the plan is not applicable.

## REMOTELY OPERATED VEHICLE (ROV) SURVEYS

Pursuant to NTL 2001-G04, operators may be required to conduct remote operated vehicle (ROV) surveys during pre-spud and post drilling operations for the purpose of biological and physical observations.

The seafloor disturbing activities proposed under this Document are in water depth less than 400 meters (1312 feet), therefore, an ROV survey plan is not required.

## SECTION E

## WASTE AND DISCHARGE INFORMATION

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### DISCHARGES

Discharges describe those wastes generated by your proposed activities that you dispose of by releasing them into the waters of the Gulf of Mexico at the site where they are generated, usually after receiving some form of treatment before they are released, and in compliance with applicable NPDES permits or State requirements.

In accordance with NTL 2002-G08 overboard discharges generated by our proposed activities proposed by this Document are required to be submitted in this Initial Development Operations Coordination Document. All discharges will be in compliance with our NPDES General Permit GMG 280000. The overboard discharges detailed in Attachment E-2 are those anticipated as a result of our proposed drilling activities.

### DISPOSED WASTES

Disposed wastes describe those waste generated by your proposed activities that are disposed of by means other than by releasing them into the waters of the Gulf of Mexico at the site where they are generated. These wastes can be disposed of by offsite release, injection, encapsulation, or placement at either onshore or offshore permitted locations for the purpose of returning them back to the environment.

Chevron U.S.A., Inc. will manifest these wastes prior to being offloaded from the structure and transported to shore for disposal at approved sites regulated by the State of Louisiana. Chevron will utilize the UIC-28 Waste Manifest Shipping Tickets to monitor the transportation and disposition of this associated waste; and will comply with any approvals or reporting and record keeping requirements imposed by the State where ultimate disposal will occur.

The Table included in Attachment E-1 details those wastes generated by our proposed activities that are disposed of by means of offsite release, injection, encapsulation or placement at either onshore or offshore permitted locations for the purpose of returning them back to the environment.

## Waste and Discharges Information

**Table 1. Discharges Table Example (wastes to be discharged overboard) Attachment E-2**

Type of Waste Approximate Composition	Amount to be Discharged (volume or rate)	Maximum Discharge Rate	Treatment and/or Storage, Discharge Location *and Discharge Method
Water-based drilling fluids	8000 bbl/well	200 bbl/hr	Viosca Knoll Block 384. Shunt through downpipe
Drill cuttings associated with water-based fluids	2000 bbl/well	1000 bbl/hr	Viosca Knoll Block 384. Shunt through downpipe
Drill cuttings associated with synthetic drilling fluids	No Discharge	No Discharge	No Discharge
Muds, cuttings and cement at the seafloor	Gel – 5000 bbl WMB – 8000 bbl Cuttings – 10,000 bbl Seawater and caustic- 400 bbl Cement – 200 bbls	Not applicable	Viosca Knoll , Block 384. Discharged at seafloor
Produced water	No Discharge	No Discharge	No Discharge
Sanitary wastes	25 gal/person/day	Not Applicable	Viosca Knoll, Block 384. Chlorinate and discharge
Domestic waste	25 gal/person/day	Not Applicable	Viosca Knoll, Block 384. Remove floating solids and discharge
Deck drainage	0-4000 bbl/day (Dependent upon rainfall)	15 bbl per hour (maximum separator discharge)	Viosca Knoll, Block 384. Remove oil and grease and discharge
Well treatment, workover or completion fluids	No Discharge	No Discharge	No Discharge
Uncontaminated fresh or seawater	60,000 bbl (drilling)	Not applicable	Viosca Knoll, Block 384. Discharged overboard
Desalinization Unit Water	700 bbl/day	Not applicable	Viosca Knoll, Block 384. Discharged overboard
Uncontaminated bilge water	2000 bbl	260 m <sup>3</sup> /hr	Viosca Knoll, Block 384. Discharged overboard
Uncontaminated ballast water	20,000 bbl	2600 m <sup>3</sup> /hr	Viosca Knoll, Block 384. Discharged overboard
Misc. discharges to which treatment chemicals have been added.	100 bbl/day	10 bbl/hr	Viosca Knoll, Block 384. Discharged overboard
Misc. discharges (permitted under NPDES) (Excess cement with cementing chemicals)	100 bbl	Not applicable	Viosca Knoll, Block 384, Discharged at seafloor without treatment

\* Area, block, MMS facility ID (if available)

**Table 2. Disposal Table Example (Wastes to be disposed of, not discharged) Attachment E-1**

Type of Waste Approximate Composition	Amount*	Rate per Day	Name/Location of Disposal Facility	Treatment and/or Storage, Transport and Disposal Method
Spent oil-based drilling fluids and cuttings	No Discharge	No Discharge	Not Applicable	Not Applicable
Spent synthetic-based drilling fluids and cuttings	No Discharge	No Discharge	Not Applicable	Not Applicable
Oil-contaminated produced sand	No Discharge	No Discharge	Not Applicable	No Discharge
Waste oil	No Discharge	No Discharge	Not Applicable	Not Applicable
Produced water	No Discharge	No Discharge	Not Applicable	Not Applicable
Produced water	No Discharge	No Discharge	Not Applicable	Not Applicable
Norm-contaminated wastes	No Discharge	No Discharge	Not Applicable	Not Applicable
Trash and debris	1000 ft <sup>3</sup>	3 ft <sup>3</sup> /day	Waste Management Inc., Pascagoula, MS.	Transport in storage bins on crew boat to shorebase
Chemical product wastes	No Discharge	No Discharge	Not Applicable	Not Applicable
Chemical product wastes	No Discharge	No Discharge	Not Applicable	Not Applicable
Workover fluids	150 bbl	2 bbl/day	Environmental Treatment, Theodore, Alabama	Transport on crew boat or barge

\*can be expressed as a volume, weight, or rate



## SECTION F OIL SPILL INFORMATION

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The following information is regarding our Regional Oil Spill Response Plan (OSRP) submitted to the Minerals Management Service for approval on February 28, 2002 and approved on September 10, 2002.

Chevron USA, Inc., Four Star Oil and Gas Co.; Chevron Pipeline Company, Inc.; and Texaco Pipelines L.L.C., all of which are wholly or partially owned subsidiaries of Chevron Texaco Corporation are covered under the above referenced OSRP as well as the activities proposed in this Initial Development Operations Coordination Document.

All produced liquid hydrocarbons associated with this application will be transported by pipeline.

Clean Gulf Associates (CGA) and Marine Spill Response Corporation (MSRC) are our primary oil spill removal organizations and they will supply the necessary equipment and personnel. CGA and MSRC have equipment pre-staged around the Gulf of Mexico. The major locations of this equipment are Lake Charles, Intracoastal City, Houma, Grand Isle, Fort Jackson and Venice, Louisiana; Galveston, Texas; and Pascagoula, Mississippi.

As noted in our Regional Oil Spill Response Plan, approved on September 10, 2002, Grand Isle Shipyard, Grand Isle, LA and Mississippi State Port Authority-Port of Gulfport, Gulfport, MS are possible staging areas in the worst-case discharge scenarios. Additional staging areas are Chevron's four (4) shore bases located in Intracoastal City, Leeville and Venice, Louisiana and Pascagoula, Mississippi. Other staging areas will be pursued as warranted by any specific response.

Please refer to the attached table to compare worst-case scenario from our OSRP to the worst-case scenario from the proposed activities in our Initial Development Operations Coordination Document.

### Worst-Case Discharge Analysis

Category	Regional OSRP "Nearshore" Worst-Case Discharge Scenario	Regional OSRP "Farshore" Worst-Case Discharge Scenario	EP or DOCD
Type of Activity ( <i>Types of activities include P/L, P/F, Caisson, subsea completions or manifold, and mobile drilling rig</i> )	Pipeline	Sub-sea Completion	Mobile Drilling Rig
Spill Location ( <i>area/block</i> )	Chandeleur Sound Addition Block 11, (inside barrier islands)	Green/Canyon Block 205, OCS-G-5911	VK Block 384 OCS-G-21721
Facility Designation ( <i>e.g., Well #2, Platform JA, Pipeline Segment No. 6373</i> )	20" Crude Oil Line from Empire, LA to Pascagoula, MS – in state waters	Well No. A-2, Genesis Deepwater Spar – MMS Facility ID No. 67	Well No. A-5 VK 384 ("A" Location On VK 383 EP)
Distance to Nearest Shoreline ( <i>miles</i> )	2-miles	81-miles	37 miles
Volume Storage Tanks (total) Flowlines (on facility) Lease Term Pipelines Uncontrolled Blowout (volume per day)  Total Volume	Not itemized since WCD based on pipeline calculations as defined by CFR 254.47©  146,847 barrels	4000 barrels 250 barrels 80,000 barrels  84,250 barrels	100 barrels N/A barrels N/A barrels 60 barrels  160 barrels
Type of Oil(s) ( <i>crude oil, condensate, diesel</i> )	Crude Oil	Crude Oil	Condensate
APIE Gravity(s) Provide APIE gravity of all oils given under "Type of Oil(s)" above. Estimate for EP's)	22.3°	27.7°	43.0°

Since Chevron has the capability to respond to the worst-case spill scenario included in its Regional OSRP, approved September 10, 2002, and since the worst-case scenario determined for our Initial Development Operations Coordination Document does not replace the worst-case scenario in our Regional OSRP; I hereby certify that Chevron has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in our Initial Development Operations Coordination Document.

### Facility Tanks, Production Vessels

The following table provides information on tanks and/or production vessels at the facility that will store oil with a capacity of 25 barrels or more.

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
None					

### Diesel Oil Supply Vessels

The following table provides information on the diesel oil supply vessels used during the proposed activities.

Size of Supply Vessel	Capacity of Fuel Supply Vessel	Frequency of Fuel Transfers	Route Fuel Supply Vessel Will Take
160 feet	310 bbls	Weekly	From the Shorebase in Pascagoula to VK Block 384

### Support Vessels Fuel Tanks

The following table details the estimated total storage capacity of the fuel tanks on supply, service and/or crew vessels to be used to support the proposed activities.

Type of Vessel	Number in Field Simultaneously	Estimated Maximum Fuel Tank Storage Capacity
Supply Vessel	1	2300 bbls
Crew Vessel	1	310 bbls

### Produced Liquid Hydrocarbons Transportation Vessels

Chevron proposes to transport the produced liquid hydrocarbons by lease pipelines; therefore this section of the Document is not applicable.

## SECTION G      AIR EMISSIONS INFORMATION

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Offshore air emissions related to the proposed activities result mainly from drilling and completion operations, helicopters and vessels. These emissions occur mainly from burning fuels and natural gas and from venting or evaporation of hydrocarbons. The combustion of fuel occurs primarily on diesel-powered generators, pumps or motors and from lighter fuel motors.

Primary air pollutants associated with OCS activities are nitrogen oxides, carbon monoxide, sulphur oxides, volatile organic compounds and suspended particulates.

Included in this section as Attachment G-1 is the Projected Air Quality Emissions Report (Form MMS-139), prepared in accordance with NTL 2002 G-08. H2S Dispersion Modeling was submitted to your office for review and approval was granted on October 28, 2002.

**AIR EMISSIONS REPORT  
INITIAL DOCD  
VIOUCA KNOLL BLOCK 383  
LEASE OCS-G-21721  
VIOUCA KNOLL BLOCK 384  
OCS-G-16541**

**CHEVRON U.S.A. INC.  
S. A. RONDENO  
Date: June 27, 2003**

**ATTACHMENT #G-1**

Please be advised that VK 383 OCS-G-21721 #A-5 will be drilled as the "A" location well on the previously approved VK 383 Exploration Plan. This Initial DOCD is submitted to allow for the production and development of this well.

Screening Questions for EP's	Yes	No
Is any calculated Complex Total (CT) Emission amount (in tons) associated with your proposed exploration activities more than 90% of the amounts calculated using the following formulas: $CT = 3400D^{2/3}$ for CO, and $CT = 33.3D$ for the other air pollutants (where D = distance to shore in miles)?		
Do your emission calculations include any emission reduction measures or modified emission factors?		
Are your proposed exploration activities located east of 87.5° W longitude??		
Do you expect to encounter H <sub>2</sub> S at concentrations greater than 20 parts per million (ppm)?		
Do you propose to flare or vent natural gas for more than 48 continuous hours from any proposed well?		
Do you propose to burn produced hydrocarbon liquids?		

Screening Questions for DOCD's	Yes	No
Is any calculated Complex Total (CT) Emission amount (in tons) associated with your proposed exploration activities more than 90% of the amounts calculated using the following formulas: $CT = 3400D^{2/3}$ for CO, and $CT = 33.3D$ for the other air pollutants (where D = distance to shore in miles)?		X
Do your emission calculations include any emission reduction measures or modified emission factors?		X
Does or will the facility complex associated with your proposed development and production activities process production from eight or more wells?		X
Do you expect to encounter H <sub>2</sub> S at concentrations greater than 20 parts per million (ppm)?	X	
Do you propose to flare or vent natural gas in excess of the criteria set forth under 250.1105(a)(2) and (3)?	X	
Do you propose to burn produced hydrocarbon liquids?		X
Are your proposed development and production activities located within 25 miles from shore?		X
Are your proposed development and production activities located within 200 kilometers of the Breton Wilderness Area?	X	

In calculating CT for addressing the first question in the above tables, express the distance to shore (D) in tenths of a statute mile for distances up to 20 miles and in whole statute miles for distances 20 miles and beyond. Use the nearest point of any land, which is the distance from the facility complex to the mean high water mark of any State, including barrier islands and shoals, to determine the distance to shore.

- (1) If you answer *no* to all of the above screening questions from the appropriate table, provide:
  - (a) Summary information regarding the peak year emissions for both Plan Emissions and Complex Total Emissions, if applicable. This information is compiled on the summary form of the two sets of worksheets. You can submit either these summary forms or use the format below. You do not need to include the entire set of worksheets.

DOCD AIR QUALITY SCREENING CHECKLIST

OMB Control No. 1010-0049

OMB Approval Expires: September 30, 2003

COMPANY	
AREA	Viosca Knoll
BLOCK	384
LEASE	16541
PLATFORM	"A"
WELL	OCS-G-21721 #5
COMPANY CONTACT	S. A. RONDENO
TELEPHONE NO.	(504) 592-6853
REMARKS	COMPLEX TOTAL EMISSIONS

LEASE TERM PIPELINE CONSTRUCTION INFORMATION:		
YEAR	NUMBER OF PIPELINES	TOTAL NUMBER OF CONSTRUCTION DAYS
1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008		
2009		



**AIR EMISSION COMPUTATION FACTORS**

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	PM	SOx	NOx	VOC	CO	REF.	DATE
NG Turbines	gms/hp-hr		0.00247	1.3	0.01	0.83	AP42 3.2-1& 3.1-1	10/96
NG 2-cycle lean	gms/hp-hr		0.00185	10.9	0.43	1.5	AP42 3.2-1	10/96
NG 4-cycle lean	gms/hp-hr		0.00185	11.8	0.72	1.6	AP42 3.2-1	10/96
NG 4-cycle rich	gms/hp-hr		0.00185	10	0.14	8.6	AP42 3.2-1	10/96
Diesel Recip. < 600 hp.	gms/hp-hr	1	1.468	14	1.12	3.03	AP42 3.3-1	10/96
Diesel Recip. > 600 hp.	gms/hp-hr	0.32	1.468	11	0.33	2.4	AP42 3.4-1	10/96
Diesel Boiler	lbs/bbl	0.084	2.42	0.84	0.008	0.21	AP42 1.3-12,14	9/98
NG Heaters/Boilers/Burners	lbs/mmscf	7.6	0.593	100	5.5	84	P42 1.4-1, 14-2, & 14	7/98
NG Flares	lbs/mmscf		1424.800	71.4	60.3	388.5	AP42 11.5-1	9/91
Liquid Flaring	lbs/bbl	0.42	6.83	2	0.01	0.21	AP42 1.3-1 & 1.3-3	9/98
Tank Vapors	lbs/bbl				0.03		E&P Forum	1/93
Fugitives	lbs/hr/comp.				0.0005		API Study	12/93
Glycol Dehydrator Vent	lbs/mmscf				6.6		La. DEQ	1991
Gas Venting	lbs/scf				0.0034			

Sulfur Content Source	Value	Units
Fuel Gas	3.33	ppm
Diesel Fuel	0.4	% weight
Produced Gas( Flares)	8000	ppm
Produced Oil (Liquid Flaring)	1	% weight

AIR EMISSION CALCULATIONS - FIRST YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	CONTACT	PHONE	REMARKS								
	Viosca Knoll	384	16541	"A"	OCS-G-21721 #5	S. A. RONDENO	(504) 592-6853	#REF1								
OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	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
	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
	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
	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
	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
	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
	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
	BURNER 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
	VESSELS>600hp diesel(crew)	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
	VESSELS>600hp diesel(supply)	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
	VESSELS>600hp diesel(tugs)	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 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
	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
	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
	VESSELS>600hp diesel(crew)	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
	VESSELS>600hp diesel(supply)	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	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
	VESSELS>600hp diesel(crew)	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
	VESSELS>600hp diesel(supply)	2000	96.6	2318.40	24	10	1.41	6.47	48.46	1.45	10.57	0.17	0.78	5.81	0.17	1.27
PRODUCTION	RECIP <600hp diesel Crane	150	7.245	173.88	2	61	0.33	0.49	4.63	0.37	1.00	0.02	0.03	0.28	0.02	0.06
	RECIP >600hp diesel Air Comp	110	5.313	127.51	12	61	0.08	0.36	2.67	0.08	0.58	0.03	0.13	0.98	0.03	0.21
	SUPPORT VESSEL diesel	2000	96.6	2318.40	2	17	1.41	6.47	48.46	1.45	10.57	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	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
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK- FLARE-	0	0	0	0	0				0.00	0.00			0.00	0.00	0.00
	PROCESS VENT- FUGITIVES-		1000	5000.0	24	61		0.00	0.00	3.40	0.00		0.00	0.00	2.49	0.00
	GLYCOL STILL VENT-		0	0	0	0				2.50	0.00			1.83	0.00	0.00
DRILLING WELL TEST	OIL BURN	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
	GAS FLARE	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
<b>2003 YEAR TOTAL</b>							<b>3.23</b>	<b>13.77</b>	<b>104.21</b>	<b>9.26</b>	<b>22.73</b>	<b>0.24</b>	<b>1.05</b>	<b>7.90</b>	<b>4.57</b>	<b>1.72</b>
<b>EXEMPTION CALCULATION</b>	<b>DISTANCE FROM LAND IN MILES</b>											<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>37752.59</b>
	37.0															

AIR EMISSIONS CALCULATIONS - SECOND YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	CONTACT	PHONE	REMARKS								
	Viosca Knoll	384	18541	"A"	OCS-G-21721 #5	S. A. RONDENO	(504) 592-8453	#REF!								
OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0	0	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(tugs)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
	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
	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
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	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
	VESSELS>600hp diesel(crew)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP. <600hp diesel	150	7,245	173.88	2	104	0.33	0.49	4.63	0.37	1.00	0.03	0.05	0.48	0.04	0.10
	RECIP. >600hp diesel	110	5,313	127.51	12	365	0.08	0.36	2.67	0.08	0.58	0.17	0.78	5.84	0.18	1.27
	SUPPORT VESSEL diesel	2000	96.6	2318.40	2	104	1.41	6.47	48.46	1.45	10.57	0.15	0.67	5.04	0.15	1.10
	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	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
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-FLARE-	0	0	0	0	0				0.00	0.00					0.00
	PROCESS VENT-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	FUGITIVES-		1000		24	365				3.40					14.89	
	GLYCOL STILL VENT-			5000.0		365				2.50					10.95	
			0		0	0				0.00					0.00	
DRILLING WELL TEST	OIL BURN	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
	GAS FLARE	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
<b>2004 YEAR TOTAL</b>							<b>1.82</b>	<b>7.31</b>	<b>55.75</b>	<b>7.80</b>	<b>12.16</b>	<b>0.35</b>	<b>1.50</b>	<b>11.36</b>	<b>26.21</b>	<b>2.48</b>
<b>EXEMPTION CALCULATION</b>	<b>DISTANCE FROM LAND IN MILES</b>											<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>37752.59</b>
	37.0															

**AIR EMISSION CALCULATIONS**

OMB Control No. xxxx-xxxx

Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
	Viosca Knoll	384	16541	"A"	OCS-G-21721 #5
Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2003	0.24	1.05	7.90	4.57	1.72
2004	0.35	1.50	11.36	26.21	2.48
2005	0.35	1.50	11.36	26.21	2.48
2006	0.35	1.50	11.36	26.21	2.48
2007	0.35	1.50	11.36	26.21	2.48
2008	0.35	1.50	11.36	26.21	2.48
2009	0.35	1.50	11.36	26.21	2.48
2010	0.35	1.50	11.36	26.21	2.48
2011	0.35	1.50	11.36	26.21	2.48
2012	0.35	1.50	11.36	26.21	2.48
<b>Allowable</b>	<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>37752.59</b>

DOCD AIR QUALITY SCREENING CHECKLIST

OMB Control No. 1010-0049

OMB Approval Expires: September 30, 2003

COMPANY	
AREA	Viosca Knoll
BLOCK	384
LEASE	16541
PLATFORM	"A"
WELL	OCS-G-21721 #5
COMPANY CONTACT	S. A. RONDENO
TELEPHONE NO.	(504) 592-6853
REMARKS	PLAN EMISSIONS

LEASE TERM PIPELINE CONSTRUCTION INFORMATION:		
YEAR	NUMBER OF PIPELINES	TOTAL NUMBER OF CONSTRUCTION DAYS
1999		
2000		
2001		
2002		
2003		
2004		
2005		
2006		
2007		
2008		
2009		

AIR EMISSION CALCULATIONS - FIRST YEAR

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL	CONTACT	PHONE	REMARKS									
	Mosca Knoll	384	16541	"A"	OCS-G-21721 #5	S. A. RONDENO	(504) 592-6853	#REF!									
OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME	MAXIMUM POUNDS PER HOUR					ESTIMATED TONS						
	Diesel Engines	HP	GAL/HR	GAL/D													
	Nat. Gas Engines	HP	SCF/HR	SCF/D													
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	DAYS	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO	
DRILLING	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	
	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	
	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	
	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	
	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	
	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	
	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	
	BURNER diesel	0			0	0	0.00	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	0.00
	VESSLS>600hp diesel(crew)	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	0.00
VESSLS>600hp diesel(supply)	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	0.00	
VESSLS>600hp diesel(tugs)	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	0.00	
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	
	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	
	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	
	VESSLS>600hp diesel(crew)	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(supply)	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	0.00	
FACILITY INSTALLATION	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	
	VESSLS>600hp diesel(crew)	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(supply)	2000	96.6	2318.40	24	10	1.41	6.47	48.46	1.45	10.57	0.17	0.78	5.81	0.17	1.27	
PRODUCTION	RECIP.<600hp diesel Crane	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.>600hp diesel Air Comp	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	
	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	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	
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	MISC.	BPD	SCF/HR	COUNT													
	TANK-FLARE-	0			0	0		0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
PROCESS VENT-FUGITIVES-		0		0	0				0.00	0.00				0.00	0.00	0.00	
GLYCOL STILL VENT-		0		0.0	0				0.00	0.00				0.00	0.00	0.00	
DRILLING WELL TEST	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	
2003 YEAR TOTAL							1.41	6.47	48.46	1.45	10.57	0.17	0.78	5.81	0.17	1.27	
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											1232.10	1232.10	1232.10	1232.10	37752.59	
	37.0																

**AIR EMISSION CALCULATIONS**

OMB Control No. xxxx-xxxx

Expiration Date: Pending

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
	Viosca Knoll	384	16541	"A"	OCS-G-21721 #5
Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2003	0.17	0.78	5.81	0.17	1.27
2004	0.17	0.78	5.81	0.17	1.27
2005	0.17	0.78	5.81	0.17	1.27
2006	0.17	0.78	5.81	0.17	1.27
2007	0.17	0.78	5.81	0.17	1.27
2008	0.17	0.78	5.81	0.17	1.27
2009	0.17	0.78	5.81	0.17	1.27
2010	0.17	0.78	5.81	0.17	1.27
2011	0.17	0.78	5.81	0.17	1.27
2012	0.17	0.78	5.81	0.17	1.27
<b>Allowable</b>	<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>1232.10</b>	<b>37752.59</b>

*A Revised DOCD (Control No. R-03846) and H2S Dispersion Modeling for VK Block 384 was previously approved by MMS on November 4, 2002. H2S Dispersion Modeling that was submitted with the Revised DOCD is attached. As a result of these changes, the emissions are still below the exemption level.*



CHEVRON USA PRODUCTION CO  
VK-384 / VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

Hydrogen sulfide concentrations were analyzed to determine the Radius of Exposure due to the addition of two wells from Viosca Knoll 384 facility. Several pipe rupture scenarios were modeled using Canary software (Version 4.0):

- 1) CASE 1 – Full-line rupture of 8" submerged pipeline from VK-384 to VK-251 in middle of line
- 2) CASE 2 – Full-line rupture of 8" VK-384 riser from VK-384 to VK-251 at +30'
- 3) CASE 3 – Pin-hole leak (1/4") on VK-384 Test Separator 6" gas outlet piping
- 4) CASE 4 – Pin-hole leak (1/4") on VK-251 H.P. Separator 6" gas outlet piping

The ROE's for all scenarios were calculated using an H<sub>2</sub>S concentration of 26,000 ppm.

The following items were requested by MMS and are included in this document:

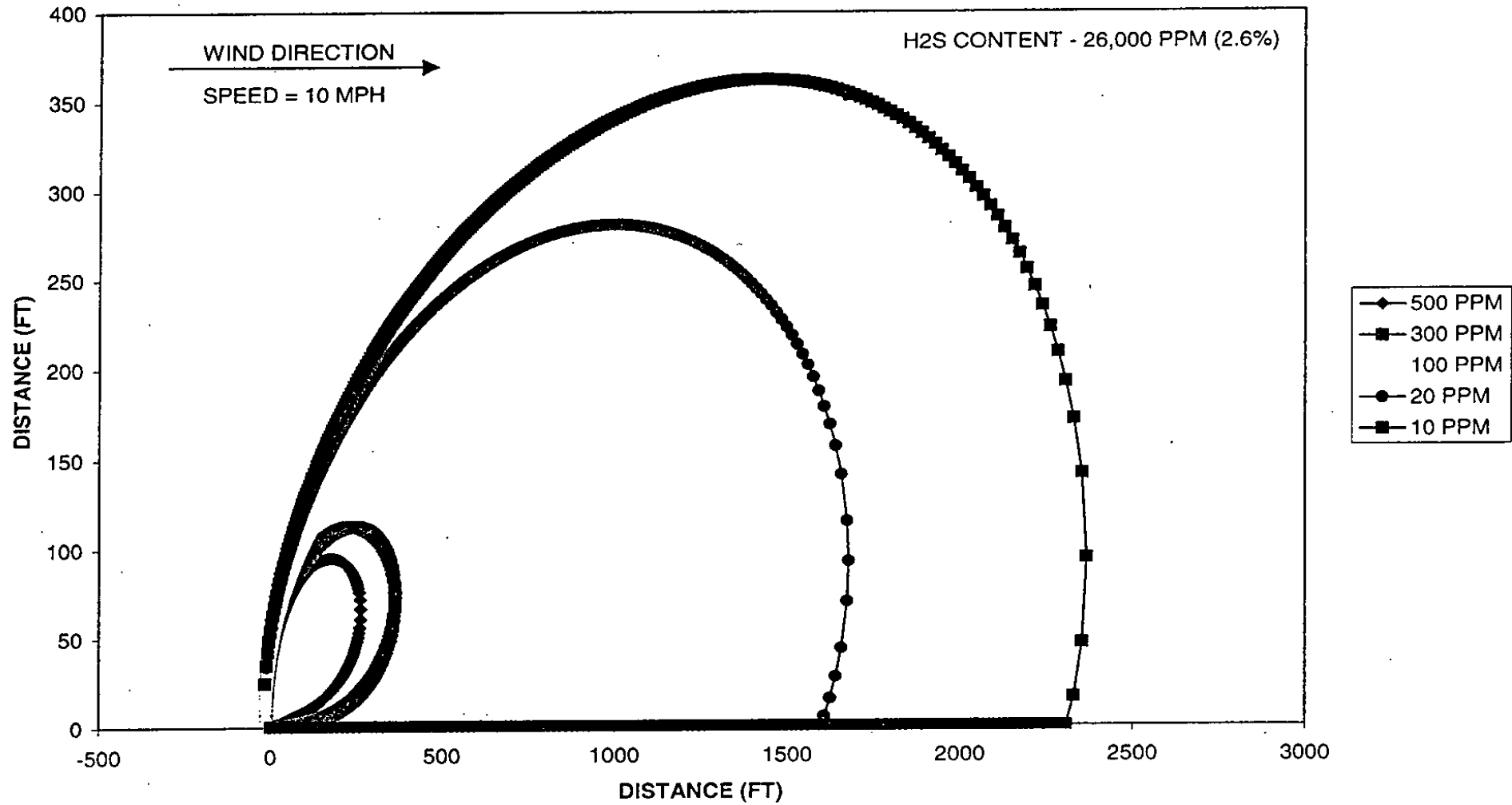
- 1) The operator needs to submit updated modeling for the new or revised accidental release scenarios. Provide the model input and output.
- 2) Provide the worst-case scenario (and emission calculations), such as including the blow down.
- 3) Provide the source terms calculation (the emission rates), starting from the first principle of physics, and
- 4) Provide the User's Guide documents (information on the model formulations and assumptions, etc).

CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

DESCRIPTION OF SCENARIO (AT 2.6% H2S CONCENTRATION)	500 PPM ROE (FT)	300 PPM ROE (FT)	100 PPM ROE (FT)	20 PPM ROE (FT)	10 PPM ROE (FT)	1.5 PPM ROE (FT)
CASE 1 - Full-line rupture of 8" sch 80 submerged pipeline in middle of line (30,000 ft). Flowrate of 40 MMscfd with upstream pressure of 1800 psig. Flow continues unabated for 5 minutes until the wells shut in.	262	362	696	1676	2365	5221
CASE 2 - Full-line rupture of 8" sch 80 pipeline riser (50 ft of piping upstream of break). Flowrate of 40 MMscfd with upstream pressure of 1800 psig. Flow continues unabated for 5 minutes until the wells shut in.	292	389	688	1521	2108	4562
CASE 3 - Pin-hole (1/4") rupture on Test Separator Skid (Main Deck) on VK-384	5	9.5	27.2	84	127	360
CASE 4 - Pin-hole (1/4") rupture on H.P. Separator Skid (Main Deck) on VK-251	4	8	23	71	108	307

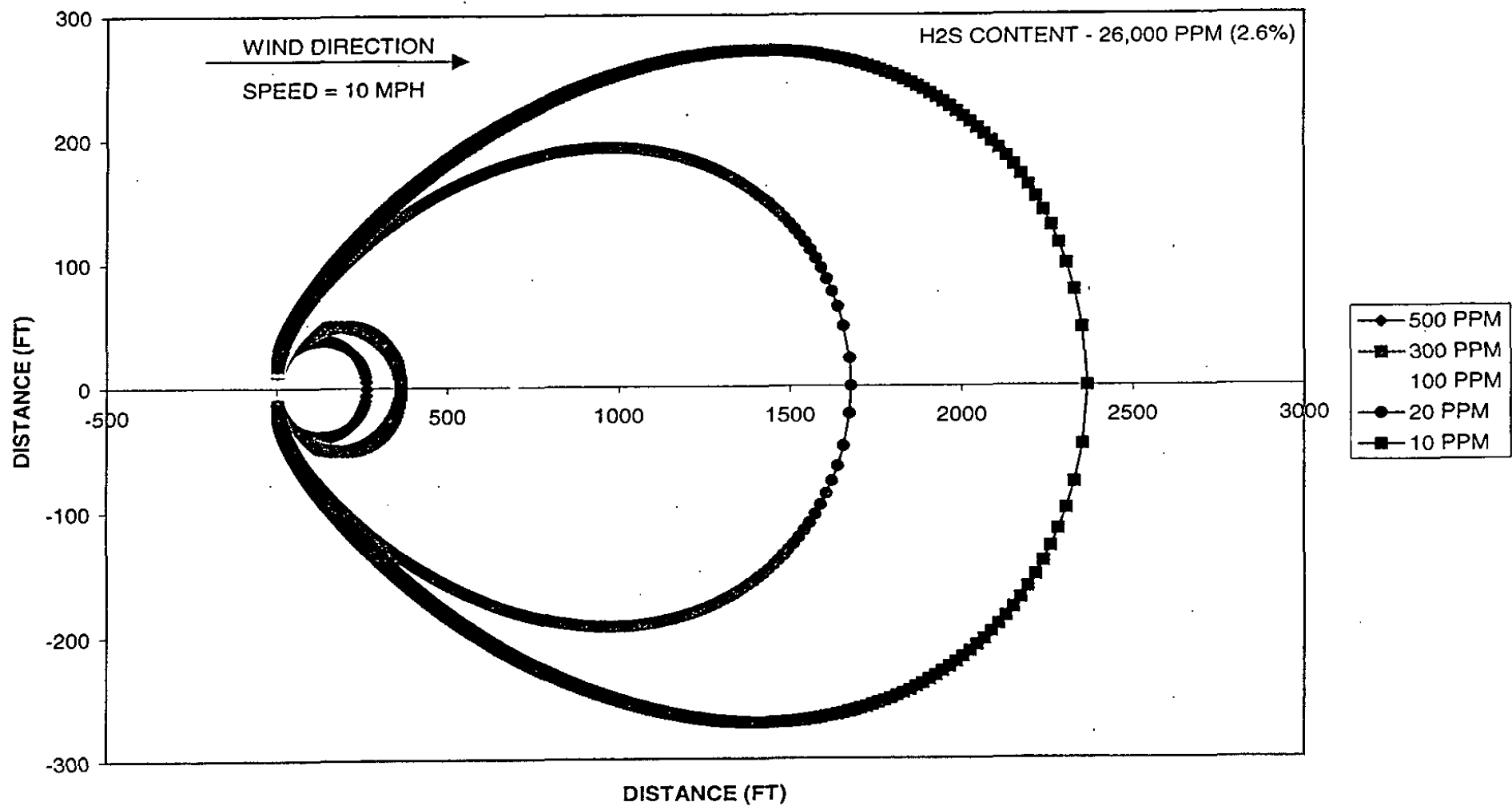
CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

CASE 1 - Full-line Rupture of 8" sch 80 Pipeline (from VK-384 to VK-251)  
Vertical Isopleths



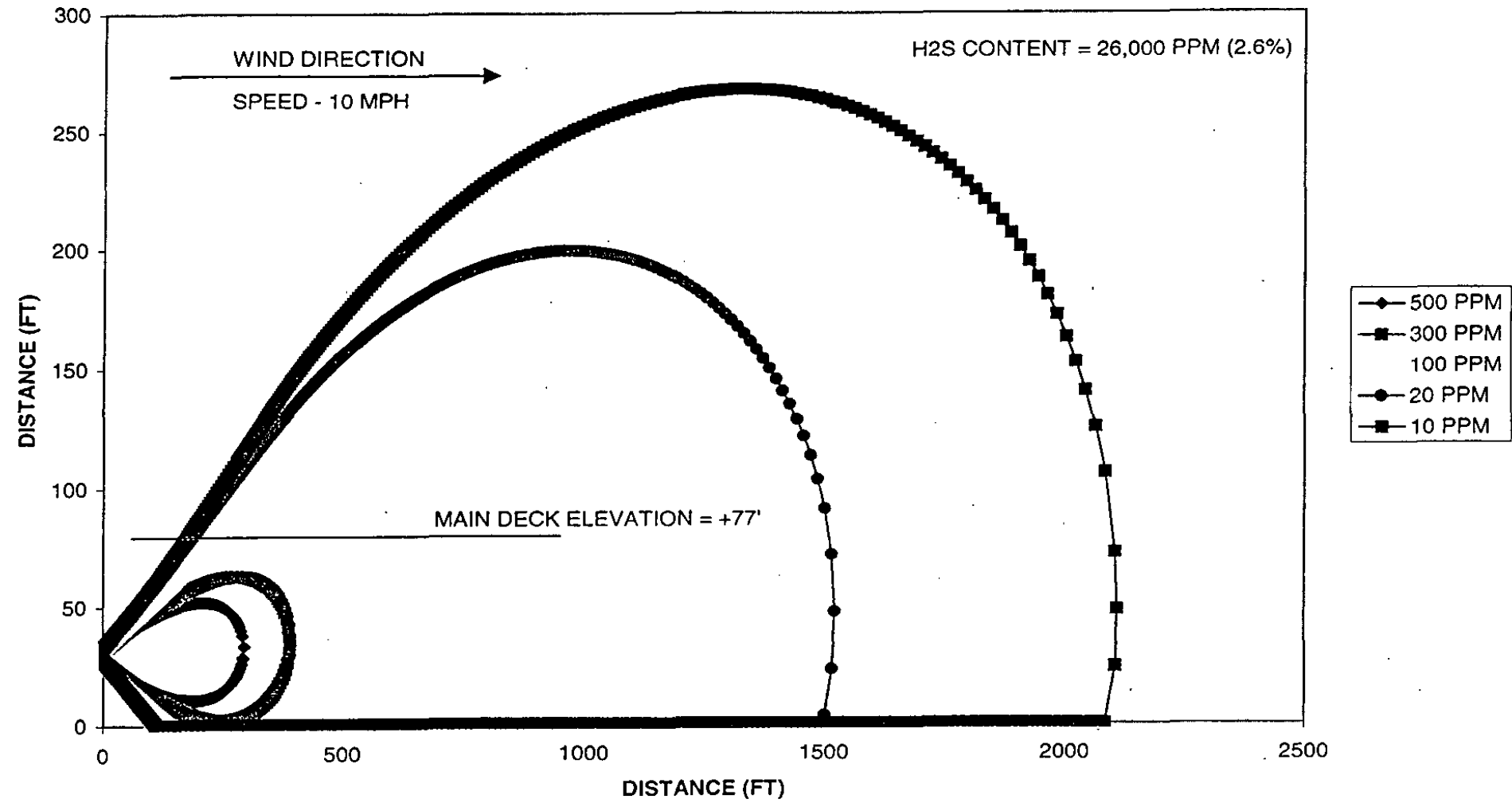
CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

CASE 1 - Full-line Rupture of 8" sch 80 Pipeline (from VK-384 to VK-251)  
Horizontal Isoleths



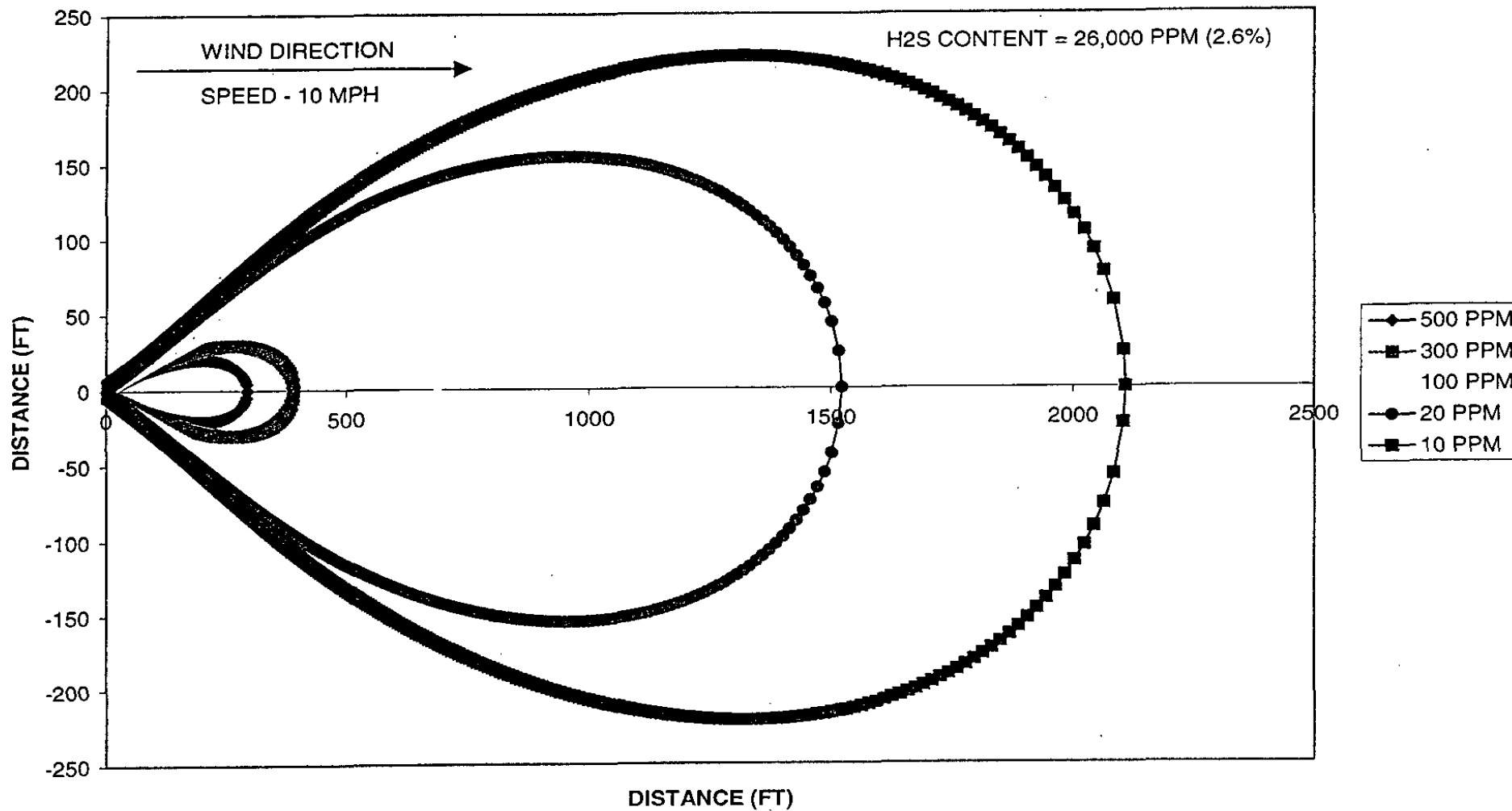
CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

CASE 2 - Full-line Rupture of 8" sch 80 Pipeline Riser (VK-384)  
Vertical Isopleths



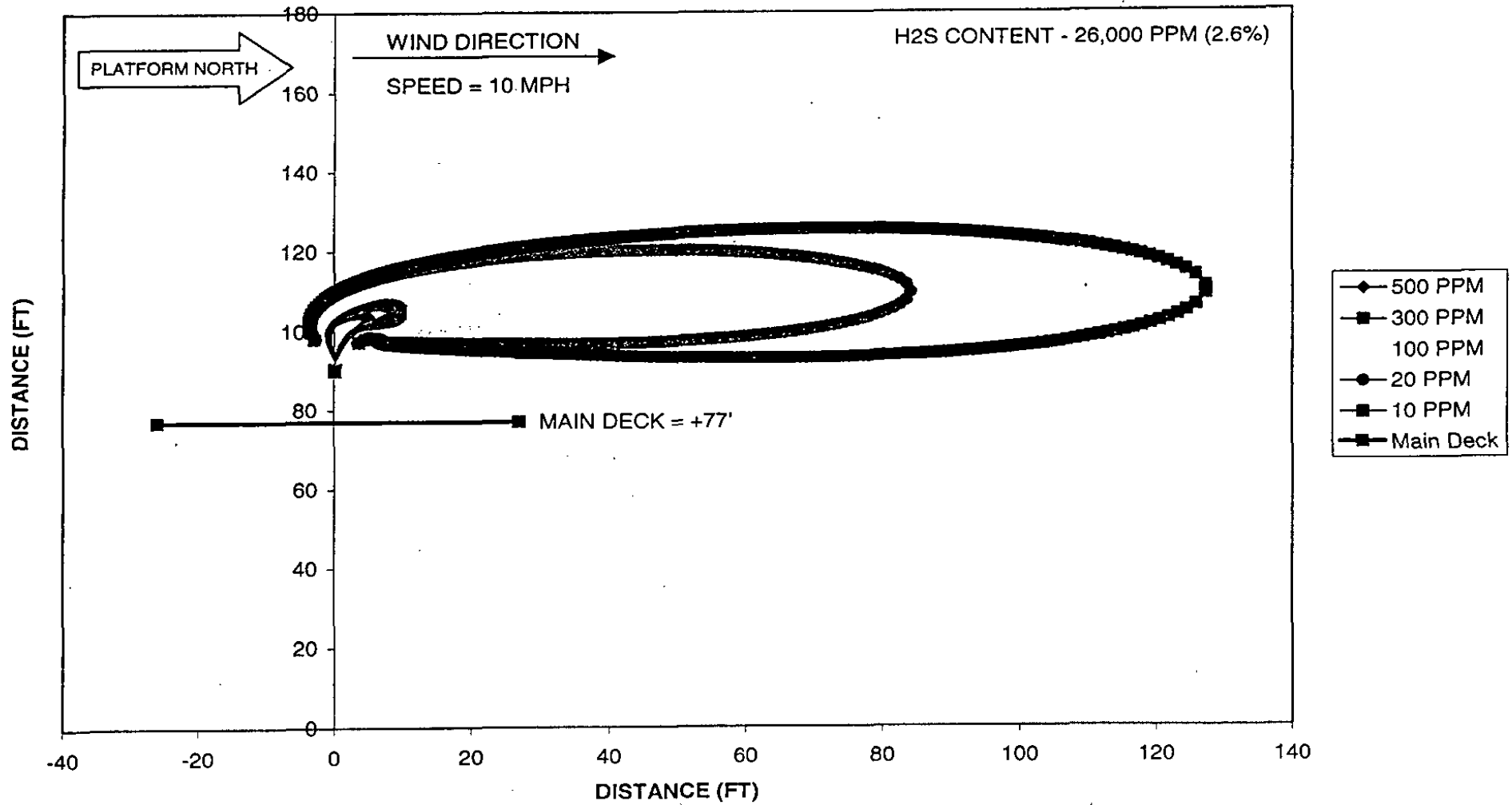
CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H<sub>2</sub>S DISPERSION ANALYSIS (UPDATE)

CASE 2 - Full-line Rupture of 8" sch 80 Pipeline Riser (VK-384)  
Horizontal Isoleths



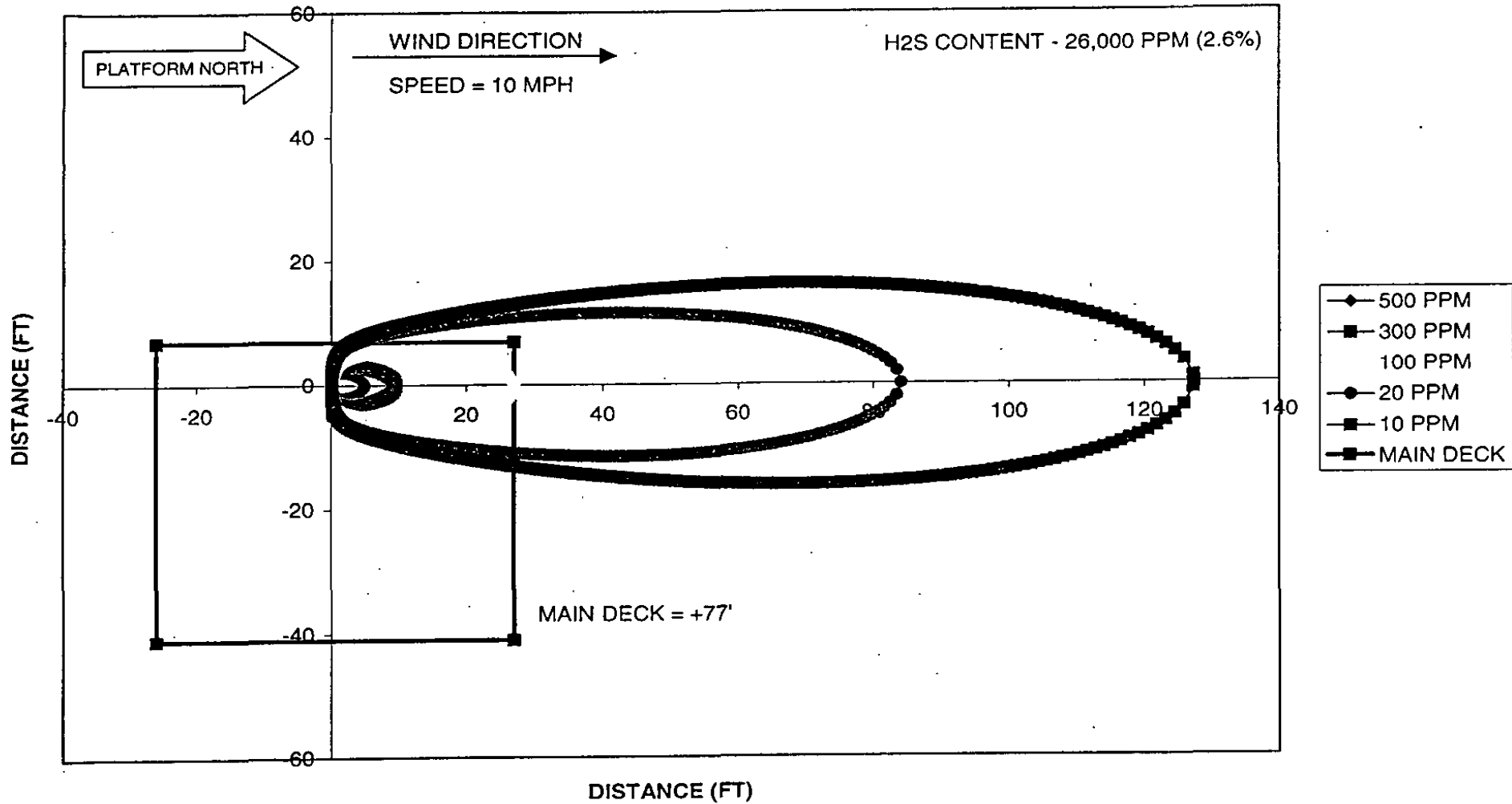
CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

CASE 3 - Pin-hole (1/4") Rupture of VK-384 Test Separator 6" sch 40 Gas Outlet  
Vertical Isopleths



CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

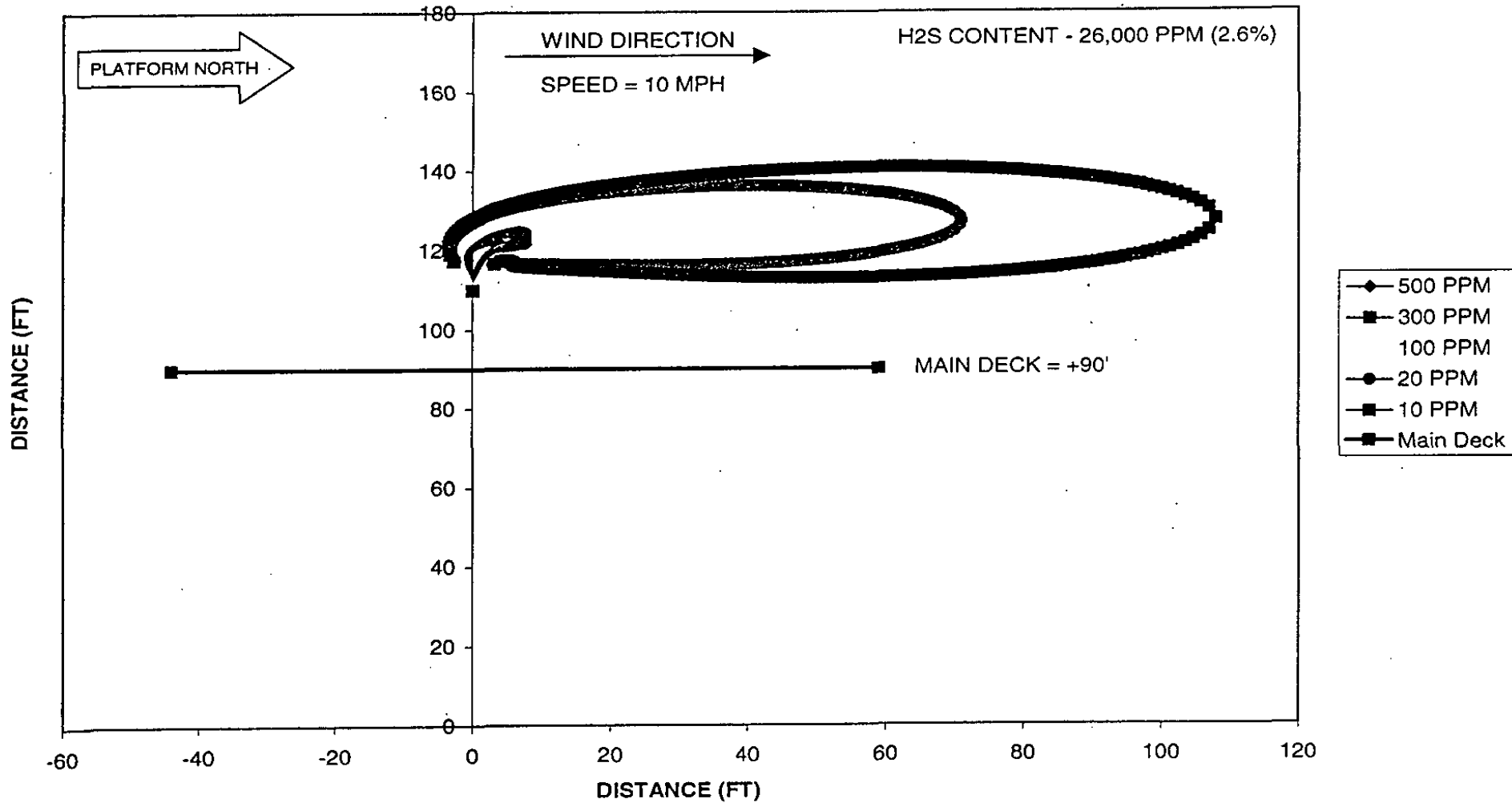
CASE 3 - Pin-hole (1/4") Rupture of VK-384 Test Separator 6" sch 40 Gas Outlet  
Horizontal Isoleths





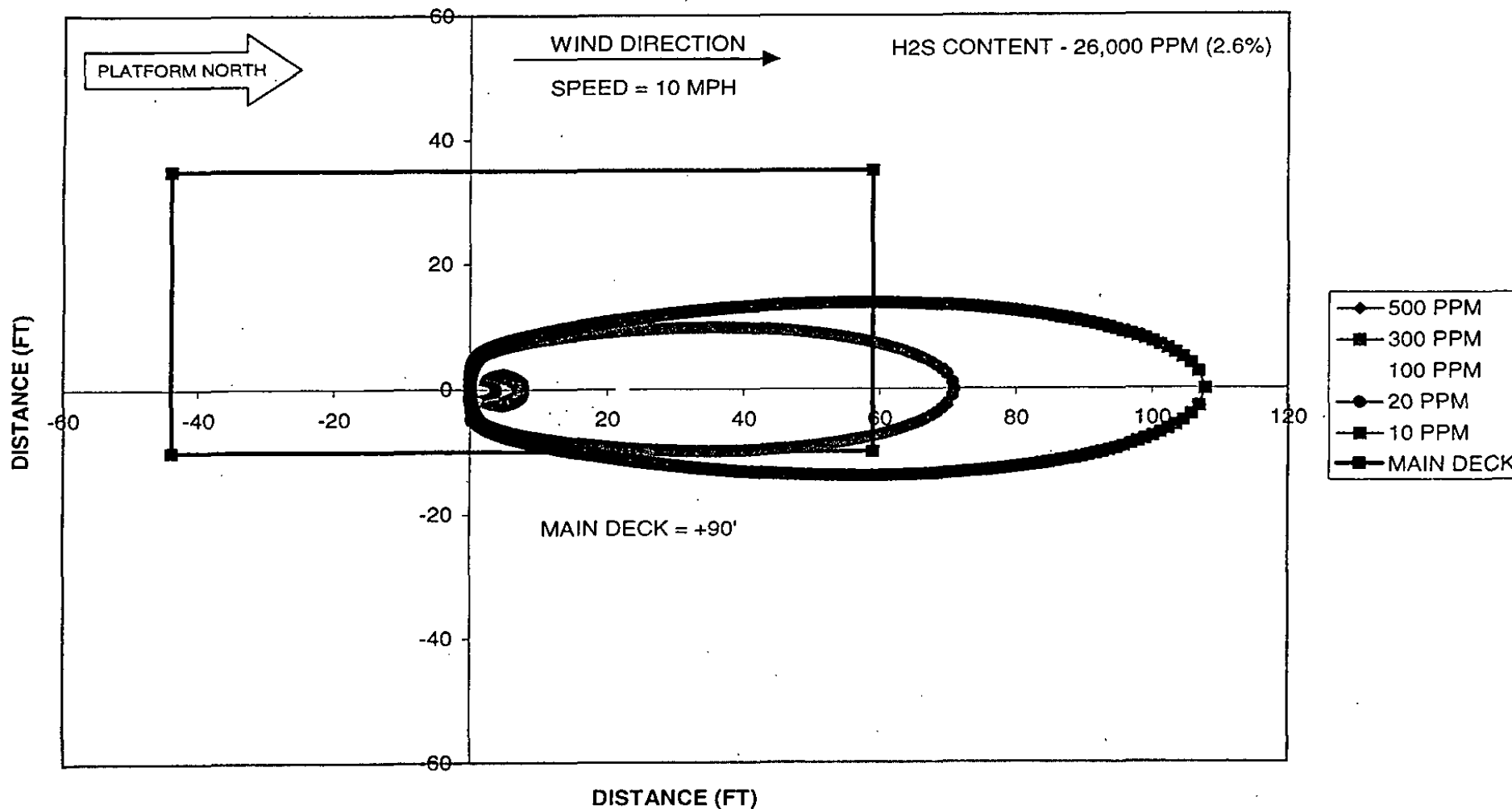
CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

CASE 4 - Pin-hole (1/4") Rupture of VK-251 H.P. Separator 6" sch 40 Gas Outlet  
Vertical Isopleths



CHEVRON USA PRODUCTION CO  
VK-384, VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

CASE 4 - Pin-hole (1/4") Rupture of VK-251 H.P. Separator 6" sch 40 Gas Outlet  
Horizontal Isoleths



CHEVRON USA PRODUCTION CO  
VK-384 / VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

## PARAMETERS / ASSUMPTIONS USING CANARY (V 4.0):

- **CASE 1** – Full-line rupture of 8" submerged pipeline from VK-384 to VK-251 in middle of line
  - o **RELEASE RATE CALCULATIONS FROM RUPTURE** – Using the Release Description mode, the following case was run to determine the 60 sec average release rate from the pipeline rupture. It assumes that the normal flow of 40 MMSCFD flows continually for 5 minutes before the shut-down valve is able to close. The amount of gas released after the shut-down valve closes is less than the initial release rate and therefore, the plume decreases in size. It is not necessary to model the release after the shut-down valve is closed. The worse case release rate occurs before the shut-down valve is closed.

RELEASE RATE CALC INPUTS	BASE CASE1
FILE NAME	DBC1-26
PIPE SIZE	8" SCH 80
NORMAL FLOWRATE	40 MMSCFD
LENGTH OF PIPE UPSTREAM OF RUPTURE	30,000 FT
SUBMERGED PIPELINE LENGTH	60,000 FT
H2S CONTENT	26,000 PPM
VOLUME OF UPSTREAM VESSEL	0 FT <sup>3</sup>
DURATION OF FLOW	5 MIN
TYPE OF MODEL	DISPERSION
TYPE OF RELEASE (SPECIFIC TO CANARY)	UNREGULATED CONTINUOUS
RELEASE RATE CALC DESIRED OUTPUT	BASE CASE1
60 SEC AVE INITIAL RELEASE RATE	202.5 lb/s

- ❖ Pressure of gas at the water level was assumed to be the pipeline pressure at the point of rupture (~1750 psig) minus the pressure due to the seawater at the pipeline depth (~60 psig) = 1690 psig (~1705 psia)

- o **DISPERSION MODEL CALCULATIONS** – This case is modeled using the worse case release rate from above and determines the worse case rate of exposure.

DISPERSION MODEL CALC INPUTS	CASE 1X	CASE 1Y
FILE NAME	DC1X-26	DC1Y-26
DIAMETER OF PLUME AT WATER LINE	11 FT	11 FT
TOTAL RELEASE RATE (FROM ABOVE)	202.5 lb/s	202.5 lb/s
RELEASE ELEVATION	0 FT	0 FT
RELEASE ANGLE	90	90
H2S CONTENT	26,000 PPM	26,000 PPM
H2S TOXIC LIMITS (CANARY ALLOWS 3)	500, 300, 100 PPM	20, 10, 1.5 PPM
WIND SPEED	10 MPH	10 MPH
DURATION OF FLOW	5 MIN	5 MIN
TYPE OF MODEL	DISPERSION	DISPERSION
TYPE OF RELEASE (SPECIFIC TO CANARY)	REGULATED CONTINUOUS	REGULATED CONTINUOUS
DISPERSION MODEL CALC DESIRED OUTPUT		ROE WRT LINEAR DISTANCE

CHEVRON USA PRODUCTION CO  
VK-384 / VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

- ❖ The diameter of the plume at the water line was determined by assuming an exit velocity of the gas to be 30 mph (used for previous dispersion calculations). Using the density of the gas at atmospheric conditions, the cross-sectional area can be established, which is used to calculate the diameter.

$$Area = release\ rate\ (lb/s) \times 3600\ sec/hr + \left[ 30\ mi/hr \times 5280\ ft/mi \times 0.048265\ lb/ft^3 \right]$$

$$Diameter = \sqrt{\frac{4 \times Area}{\pi}}$$

• **CASE 2 – Full-line rupture of 8" VK-384 riser from VK-384 to VK-251 at +30'**

- o **DISPERSION MODEL CALCULATIONS** – The release rate was calculated within the Canary model and was not inputted separately. The calculated release rate from Canary is assumed to be the worse case. See CASE 1 for further explanation.

DISPERSION MODEL CALC INPUTS	CASE2 X	CASE2 Y
FILE NAME	DC2X-26	DC2Y-26
PIPE SIZE	8" SCH 80	8" SCH 80
NORMAL FLOWRATE	40 MMSCFD	40 MMSCFD
RELEASE ELEVATION	+30 FT	+30 FT
RELEASE ANGLE	0	0
LENGTH OF PIPE UPSTREAM OF RUPTURE	15,000 FT	15,000 FT
H2S CONTENT	26,000 PPM	26,000 PPM
H2S TOXIC LIMITS (CANARY ALLOWS 3)	500, 300, 100 PPM	20, 10, 1.5 PPM
WIND SPEED	10 MPH	10 MPH
VOLUME OF UPSTREAM VESSEL	10 <sup>6</sup> FT <sup>3</sup>	10 <sup>6</sup> FT <sup>3</sup>
DURATION OF FLOW	5 MIN	5 MIN
TYPE OF MODEL	DISPERSION	DISPERSION
TYPE OF RELEASE (SPECIFIC TO CANARY)	UNREGULATED CONTINUOUS	UNREGULATED CONTINUOUS
<b>DISPERSION MODEL CALC DESIRED OUTPUT</b>		<b>ROE WRT LINEAR DISTANCE</b>

- ❖ The 'Volume of Upstream Vessel' represents the reservoir volume. Prior dispersion models included only a small amount of upstream piping from the reservoir to the rupture (~50 to 100 ft), which leads to a greater release rate at the rupture. To mimic reality as close as possible, the length of piping from the reservoir to the rupture was inputted as the upstream piping for this model (~15,000 ft). This lowers the release rate with respect to the release rate calculated using only 50 ft of upstream piping. We believed the prior model was conservative when using this small amount of upstream pipe.

• **CASE 3 – Pin-hole leak (1/4") on VK-384 Test Separator 6" gas outlet piping**

- o **DISPERSION MODEL CALCULATIONS** - The release rate was calculated within the Canary model and was not inputted separately. The calculated release rate from Canary is assumed to be the worse case.

CHEVRON USA PRODUCTION CO  
VK-384 / VK-251  
H2S DISPERSION ANALYSIS (UPDATE)

RELEASE RATE CALC INPUTS	CASE3 X	CASE3 Y
FILE NAME	DC3X-26	DC3Y-26
PIPE SIZE	6" SCH 40	6" SCH 40
NORMAL FLOWRATE	40 MMSCFD	40 MMSCFD
RELEASE ELEVATION	+90 FT	+90 FT
RELEASE ANGLE	90	90
H2S CONTENT	26,000 PPM	26,000 PPM
H2S TOXIC LIMITS (CANARY ALLOWS 3)	500, 300, 100 PPM	20, 10, 1.5 PPM
VOLUME OF UPSTREAM VESSEL	125 FT <sup>3</sup>	125 FT <sup>3</sup>
WIND SPEED	10 MPH	10 MPH
DURATION OF FLOW	5 MIN	5 MIN
TYPE OF MODEL	DISPERSION	DISPERSION
TYPE OF RELEASE (SPECIFIC TO CANARY)	UNREGULATED CONTINUOUS	UNREGULATED CONTINUOUS
DISPERSION MODEL CALC DESIRED OUTPUT		ROE WRT LINEAR DISTANCE

❖ The 'Volume of Upstream Vessel' represents the Test Separator volume (approximately).

- CASE 4 – Pin-hole leak (1/4") on VK-251 H.P. Separator 6" gas outlet piping
  - o DISPERSION MODEL CALCULATIONS - The release rate was calculated within the Canary model and was not inputted separately. The calculated release rate from Canary is assumed to be the worse case.

RELEASE RATE CALC INPUTS	CASE4 X	CASE4 Y
FILE NAME	DC4X-26	DC4Y-26
PIPE SIZE	6" SCH 40	6" SCH 40
NORMAL FLOWRATE	40 MMSCFD	40 MMSCFD
RELEASE ELEVATION	+110 FT	+110 FT
RELEASE ANGLE	90	90
H2S CONTENT	26,000 PPM	26,000 PPM
H2S TOXIC LIMITS (CANARY ALLOWS 3)	500, 300, 100 PPM	20, 10, 1.5 PPM
VOLUME OF UPSTREAM VESSEL	295 FT <sup>3</sup>	295 FT <sup>3</sup>
WIND SPEED	10 MPH	10 MPH
DURATION OF FLOW	5 MIN	5 MIN
TYPE OF MODEL	DISPERSION	DISPERSION
TYPE OF RELEASE (SPECIFIC TO CANARY)	UNREGULATED CONTINUOUS	UNREGULATED CONTINUOUS
DISPERSION MODEL CALC DESIRED OUTPUT		ROE WRT LINEAR DISTANCE

## SECTION H ENVIRONMENTAL IMPACT ANALYSIS

(Environment Report)

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Pursuant to NTL 2002-G08, Chevron USA, Inc. has included with this Initial Development Operations Coordination Document an Environmental Impact Analysis prepared by John Chance Land Survey, Inc, which addresses the activities proposed for the proposed well.

## SECTION I

## COASTAL ZONE CONSISTENCY CERTIFICATION

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The Coastal Zone Management Consistency Certification is included in the document as Attachment #I-1. To the best of our knowledge, the set of findings included in the Environmental Impact Analysis and DOCD indicates that the proposed activity and its associated facilities and effects are all consistent with, and comply with, the provisions and guidelines of the Mississippi Coastal Program (MCP), which is included due to the onshore support base location in Pascagoula, Mississippi and Alabama Coastal Area Management Program (ACAMP). The proposed activity will be conducted in a manner consistent with such programs.

APPENDIX I

COASTAL ZONE MANAGEMENT  
CONSISTENCY CERTIFICATION

Initial DOCD  
Type of OCS Plan

Viosca Knoll Block 383  
Area and Block

OCS-G-21721  
Lease Number

*The proposed activities described in detail in this OCS Plan comply with Alabama and Mississippi's Coastal Management Program(s) and will be conducted in a manner consistent with such programs.*

Chevron U.S.A. Inc.  
Lessee or Operator

*J. A. Rondens*  
Certifying Official

*June 27, 2003*  
Date



## **SECTION I COASTAL ZONE CONSISTENCY CERTIFICATION**

### **Alabama Coastal Program**

In accordance with the Coastal Zone Management Program of the State of Alabama, Chevron U.S.A. Inc. has described, within other portions of this document, in detail, the proposed permit activities and described how they will comply with the policies of the States approved coastal zone program.

A statement attesting to Chevron U.S.A. Inc.'s consistency with Alabama's Coastal Zone Management Program, signed by Chevron U.S.A. Inc.'s authorized representative, is submitted with this document as Attachment I-1. To the best of Chevron U.S.A. Inc. knowledge the activities described in the Initial Development Operation Coordination Document and the Environmental Impact Analysis will be conducted in a manner that is consistent with all existing Federal and State laws, regulations and program policies as stated in the Coastal Zone Management Program for the State of Alabama.

In order to clearly cover the Policies of Alabama's Coastal Program, they are discussed below.

#### **A. Coastal Resources Use Policies**

##### **Coastal Development**

Chevron U.S.A Inc. proposed project will not have any affect on coastal development.

##### **Mineral Resources Exploration and Extraction**

Chevron U.S.A. Inc. project is proposed to perform oil and gas exploration and extraction.

##### **Commercial Fishing**

The effects of this project on commercial fishing are discussed in detail in the EIA of Appendix H.

##### **Hazard Management**

Chevron U.S.A. Inc. will conduct business as safely as possible to prevent any hazards.

### **Shoreline Erosion**

Chevron U.S.A. Inc. proposed project should not increase any amount of shoreline erosion.

### **Recreation**

Chevron U.S.A. Inc. proposed project should not affect any recreational use of the Alabama Coastal Zone.

### **Transportation**

Chevron U.S.A. Inc. project is not anticipated to have any effect on transportation.

## **B. Natural Resources Protection Policies**

### **Biological Productivity**

The effects of Chevron U.S.A. Inc. project on biological productivity are discussed in detail in the EIA of Appendix H.

### **Water Quality**

Chevron U.S.A. Inc. proposed project should not have any affects on the water quality and is further discussed in detail in the EIA of Appendix H.

### **Water Resources**

Chevron U.S.A. Inc. project is not expected to decrease the quality of Alabama's Water Resources.

### **Air Quality**

The effects of Chevron U.S.A. Inc. project on air quality are discussed in detail in the EIA of Appendix H.

### **Wetlands and Submerged Grassbeds**

Chevron U.S.A. Inc. project takes place offshore therefore there should be no impacts to wetlands or submerged grassbeds.

### **Beach and Dune Protection**

Chevron U.S.A. Inc. project takes place offshore therefore there should be no impacts to any beaches or dunes.

### **Wildlife Habitat Protection**

The effects of Chevron U.S.A. Inc. project on wildlife habitat are discussed in detail in the EIA of Appendix H.

### **Endangered Species**

The effects of Chevron U.S.A. Inc. project on endangered species are discussed in detail in the EIA of Appendix H.

### **Cultural Resources Protection**

There will be no impact to any cultural resources as a result of Chevron U.S.A. Inc. project.

## **SECTION I COASTAL ZONE CONSISTENCY CERTIFICATION**

### **Mississippi Coastal Program**

In accordance with the Coastal Zone Management Program of the State of Mississippi, Chevron U.S.A. Inc. has described, within other portions of this document, in detail, the proposed permit activities and described how they will comply with the policies of the States approved coastal zone program.

A statement attesting to Chevron U.S.A. Inc.'s consistency with Mississippi's Coastal Zone Management Program, signed by Chevron U.S.A. Inc.'s authorized representative, is submitted with this document as Attachment I-1. To the best of Chevron U.S.A. Inc. knowledge the activities described in the Initial Development Operation Coordination Document and the Environmental Impact Analysis will be conducted in a manner that is consistent with all existing Federal and State laws, regulations and program policies as stated in the Coastal Zone Management Program for the State of Mississippi.

In order to clearly cover the Goals of Mississippi's Coastal Program, they are discussed below.

#### **Goal 1**

Chevron U.S.A. Inc. project will not require any additional waterfront industrial sites, therefore insuring efficient utilization of waterfront industrial sites.

#### **Goal 2**

No coastal wetlands or ecosystems will be impacted by Chevron U.S.A. Inc. project, since the well will be drilled offshore, insuring goal 2.

#### **Goal 3**

Chevron U.S.A. Inc. project is not anticipated to have any effect on the fishing industry and is discussed further in detail in the EIA of Appendix H.

#### **Goal 4**

Chevron U.S.A. Inc. project does not intend to overly degrade the quality of the air or waters. Additionally it will not decrease the quality of Mississippi's coast.

**Goal 5**

Chevron U.S.A. Inc. project will beneficially use the waters of the State of Mississippi to its fullest extent.

**Goal 6**

Chevron U.S.A. Inc. project is not anticipated to have any effect on the historical and archaeological resources and is discussed further in detail in the EIA of Appendix H.

**Goal 7**

Chevron U.S.A. Inc. project takes place offshore as to not affect the natural scenic view of coastal Mississippi.

**Goal 8**

Does not apply to Chevron U.S.A. Inc. proposed project.

Chevron U.S.A. Inc.  
GOM SBU/HES  
935 Gravier Street  
New Orleans, LA 70112-1625  
Tel 504 592 6853  
Fax 504 592 6668  
sron@chevrontexaco.com

S. A. Rondeno  
Permit Specialist

# ChevronTexaco

July 2, 2003

ADEM Coastal Programs  
4171 Commanders Drive  
Mobile, Alabama 36615

**Initial DOCD**  
**Viosca Knoll Block 383**  
**OCS-G-21721**  
**Offshore, Alabama and Mississippi**

Attention Mr. Allen Phelps

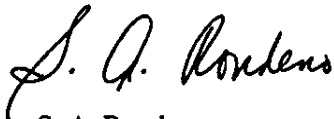
Dear Mr. Phelps,

Enclosed is a courtesy Public Information copy of an Initial DOCD submitted to the MMS for the drilling of one well in Viosca Knoll Block 383, Lease OCS-G-21721 Offshore, Alabama and Mississippi. Also enclosed is our check in the amount of \$2,250 for a Consistency Certification of the Initial DOCD.

Although the MMS will be forwarding a copy of the Plan for your review, Chevron desires to specifically communicate with the State regarding the development plan for the area. Your consideration in this matter would be greatly appreciated.

Please call me should you have any questions or need additional information.

Very truly yours,



S. A. Rondeno

enclosure

BEST AVAILABLE COPY

**ChevronTexaco**

ChevronTexaco Exploration Production Company  
A Division of Chevron U.S.A. Inc.  
New Orleans, Louisiana

No. 332414660

93-516  
929

JULY 1 2003

Pay to  
order of

ALABAMA DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
4171 COMMANDERS DRIVE  
MOBILE, AL 36615

\$2,250.00

Not Valid For More Than \$100,000.00

*Charles W. Clark*

Wells Fargo Bank Montana, N.A.  
404 West Broadway, Lewistown, MT 59457

⑈ 332414660⑈ ⑆ 092905168⑆ 4990003068⑈

Inquiries regarding this check should be addressed to: **ChevronTexaco Exploration Production Company** A Division of Chevron U.S.A. Inc. **No. 332414660**  
935 Gravier Street, New Orleans, LA 70112

Date	Description	Amount	Discount	Total
07/01/03	Consistency Certification for DOCD Viosca Knoll Block 383		\$2,250.00	

Please Detach Before Depositing Check

CK-254 (11-02)

**SECTION J      PLAN INFORMATION FORM**

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The MMS-137 Plan Information Form is included as Attachment A-2.





**ENVIRONMENTAL IMPACT ANALYSIS  
INITIAL DEVELOPMENT OPERATIONS CORDINATION DOCUMENT**

**VIOSCA KNOLL AREA BLOCK 384  
OCS-G-16541 WELL DRILLED FROM EXISTING STRUCTURE "A"  
OFFSHORE LOUISIANA, MISSISSIPPI, AND ALABAMA**

**CHEVRON U.S.A., INC.  
935 GRAVIER ST.  
NEW ORLEANS, LA 70112**

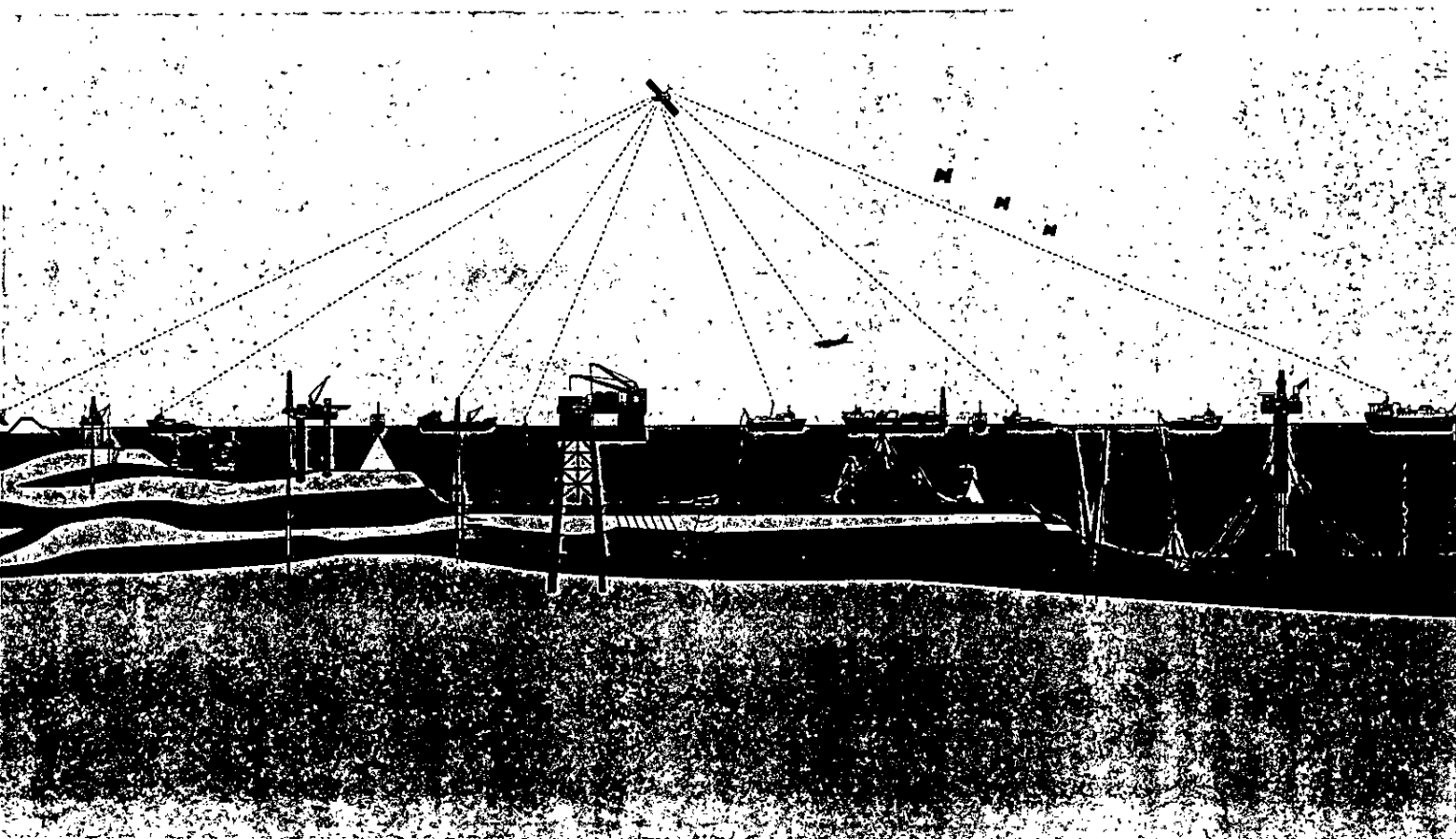
**SUBMITTED TO:  
MS. SHIRLEY A. RONDENO  
PERMIT SPECIALIST**

**JUNE 2003**

**PREPARED BY:  
JOHN CHANCE LAND SURVEYS, INC.  
REGULATORY AND ECOLOGICAL SERVICES GROUP  
200 DULLES DRIVE  
LAFAYETTE, LOUISIANA 70506**

**CHANCE PROJECT NO. 03-5350**

**BEST AVAILABLE COPY**



### (A) Impact-Producing Factors (IPFs)

Contained below is a worksheet provided by the MMS that identifies the environmental resources that could be impacted by IPFs. If an "x" is noted in one of the fields below it is because we determined that that specific environmental resource might be impacted by that specific IPF. Footnotes have been included for some of the cells and these correspond to a statement that explains the applicability for the proposed activity for Viosca Knoll Area Block 384. Where any of the IPFs may affect a specific environmental resource an analysis of that effect is provided.

### Environmental Impact Analysis Worksheet

Environmental Resources	Impact Producing Factors (IPFs) Categories and Examples					
	Refer to a recent GOM OCS Lease/Sales EIS for a more complete list of IPFs					
	Emissions (air, noise, light, etc.)	Effluents (muds, cuttings, other discharges to the water column or seafloor)	Physical disturbances to the seafloor (rig or anchor emplacements, etc.)	Wastes sent to shore for treatment or disposal	Accidents (e.g. oil spills, chemical spills, H <sub>2</sub> S releases)	Other IPFs identified
<b>Site-specific at Offshore Location</b>						
Designated topographic features		(1)	(1)		(1)	
Pinnacle/rend/area/live bottoms		(2)	(2)		(2)	
Eastern Gulf/live bottoms		(3)	(3)		(3)	
Chemosynthetic communities			(4)			
Water quality		x			x	
Fisheries		x			x	
Marine mammals	x (8)	x		x	x (8)	
Sea turtles	x (8)	x		x	x (8)	
Air quality	x (9)					
Shipwreck sites (known or potential)			(7)			
Prehistoric/archaeological sites			(7)			
<b>Vicinity of Offshore Location</b>						
Essential fish habitat		x			x (6)	
Marine and pelagic birds					x	
Public health and safety					(5)	
<b>Coastal and Onshore</b>						
Beaches					x (6)	
Wetlands					x (6)	
Shore birds and coastal nesting birds					x (6)	
Coastal wildlife refuges					x	
Wilderness areas						
<b>Other Resources Identified</b>						

## Footnotes for Environmental Impact Analysis Worksheet

1. Activities that may affect a marine sanctuary or topographic feature. Specifically, if the well or platform site or any anchors will be on the seafloor within the:
  - (a) 4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank;
  - (b) 1000-m, 1-mile or 3-mile zone of any topographic feature (submarine bank) protected by the Topographic Features Stipulation attached to an OCS lease;
  - (c) Essential Fish Habitat (EFH) criteria of 500 ft from any no-activity zone; or
  - (d) Proximity of any submarine bank (500 ft buffer zone) with relief greater than 2 meters that is not protected by the Topographic Features Stipulation attached to an OCS lease.
2. Activities with any bottom disturbance within an OCS lease block protected through the Live Bottom (Pinnacle Trend) Stipulation attached to an OCS lease.
3. Activities within any Eastern Gulf OCS block where seafloor habitats are protected by the Live Bottom (Low-relief) Stipulation attached to an OCS lease.
4. Activities on blocks designated by the MMS as being in water depths 400 meters or greater.
5. Exploration or production activities where H<sub>2</sub>S concentrations greater than 500 ppm might be encountered.
6. All activities that could result in an accidental spill of produced liquid hydrocarbons or diesel fuel that is determined to impact these environmental resources. If the proposed action is located a sufficient distance from a resource that no impact would occur, the EIA will note that in a sentence or two.
7. All activities that involve seafloor disturbances, including anchor placement, in any OCS block designated by the MMS as having high-probability for the occurrence of shipwrecks or prehistoric sites, including such blocks that will be affected that are adjacent to the lease block in which the planned activity will occur. If the proposed activities are located at sufficient distance from a shipwreck or prehistoric site that no impact would occur, the EIA will note that in a sentence or two.
8. All activities that are determined to possibly have an adverse effect on endangered or threatened marine mammals or sea turtles or their critical habitats.
9. Production activities that involve transportation of produced fluids to shore using shuttle tankers or barges.

## **(B) Analysis**

### **Site-specific at Offshore Location**

#### Designated Topographic Features

There are no anticipated impacts to any marine sanctuaries or topographic features from the site-specific proposed activity in Viosca Knoll Area Block 384. The following Impact Producing Factors (IPFs) would not have any effects on topographic features: Effluents (including muds, cuttings, and other discharges), Emissions (including air, noise, light, etc.), Shore Bound Wastes, and Physical Disturbances to the seafloor. This lack of impacts is primarily due to the fact that the nearest designated topographic feature stipulation is for Sackett Bank, located within West Delta Area Block 147, approximately 106.7 miles away from the proposed activities.

The Viosca Knoll Area Block 384 proposed activities are not within 500 feet of any submarine bank that has a relief greater than 2 meters. There is no designated Essential Fish Habitat (EFH) within the Block therefore all activity will be at least 500 feet away from no-activity zone for EFH.

The proposed activities are unlikely to affect the area via a surface or subsurface oil spill. No ecological impacts are expected since the gulfs depth would typically not allow any oil to reach the seafloor to impact any organisms found there. The dispersion rate would also be high enough that the oil that may remain in a subsea location due to a subsea leak would be moved away from any banks by natural current flow around that bank. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

#### Pinnacle Trend Area Live Bottoms

The nearest block with a pinnacle trend live bottom stipulation occurs approximately 4.4 miles away in Main Pass Area Block 190. Therefore, no Impact Producing Factors (IPFs) from Viosca Knoll Area Block 384 such as Effluents (including muds, cuttings, and other discharges), Emissions (including air, noise, light, etc.), Shore Bound Wastes, and Physical Disturbance to the seafloor are anticipated to affect these Site-specific features.

It is unlikely that any accidental surface or subsurface oil spill from the proposed activities would occur. No impact to any biota associated with the pinnacle trends area live bottoms found in the Central Gulf of Mexico is expected due to a spill within this block, as the nearest block that falls within that stipulation is 4.4 miles away. This distance alleviates any impacts due to oiling as most of the subsurface oil would immediately rise up higher in the water column or to the

surface, and surface oil would never come into contact with any pinnacle trends at such a depth. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

#### Eastern Gulf Live Bottoms

The nearest Eastern Gulf Live Bottom Area is over 4.4 miles away, in Main Pass Area Block 190; from the proposed activity within Viosca Knoll Area Block 384 therefore no IPFs (Emissions, Effluents, Shore Bound Wastes, Physical Disturbances to the Seafloor, and Accidents) are expected to impact any Eastern Gulf Live Bottom area.

It is unlikely that any Eastern Gulf Live Bottom Area would be affected via an accidental surface or subsurface oil spill generated by the proposed activities. Due to the tendency of oil to rise in the water column, and the dispersal that would affect a surface or subsurface spill there would be little or no impact to Eastern Gulf Live Bottoms due to the distance from this block. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

#### Chemosynthetic Communities

The proposed activities for Viosca Knoll Area Block 384 will occur in water that is approximately 130 feet deep thereby eliminating any threat to Chemosynthetic communities which would normally occur in water depths of at least 400 meters or 1312 feet. Therefore no IPFs (including: effluents, emissions, physical disturbances, accidents, or shore bound wastes) from the proposed activities in Viosca Knoll Area Block 384 would be expected to impact any chemosynthetic community.

#### Water Quality

As with all offshore activity there is always the probability for impacts to water quality. This usually occurs through accidents or effluent discharge. All discharges for the proposed activity are going to be in accordance with the National Pollutant Discharge Elimination System (NPDES), specifically Chevron U. S. A. Inc.'s general permit under GMG 290000 issued by the U.S. Environmental Protection Agency (EPA). Due to the analysis done by EPA no operational discharges are expected to impact water quality within Viosca Knoll Area Block 384.

It is unlikely that due to any of the proposed activities an oil spill would occur in Viosca Knoll Area Block 384. However if an accidental spill were to occur water quality would be adversely impact for a period of time by petroleum

products and byproducts. However this time frame would be shortened by the natural dispersion and breakdown (organic and microbial decomposition) that would remove the oil from the water or at the very least would dilute it to levels that would be less hazardous to the environment. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

### Fisheries

Viosca Knoll Area Block 384 lies outside the limits of the principal menhaden harvest area, the principal seabob grounds, the white and brown shrimp harvesting grounds, coastal demersal fish, and principal industrial bottomfish harvest and area coastal pelagics. This block lies within the fishing limits of Principle Industrial Bottomfish Harvesting Area and the major finfish harvest area. This area is located to the east and the south of important blue crab and oyster lease producing areas, which near the coast (USIDOI, MMS, 1986, Visual No. 2).

Based on the proposed activities it is highly unlikely that an accidental surface or subsurface spill would occur. If a spill were to occur or Effluents discharged the finfish and shellfish that could be impacted would probably evacuate the area of impact, and if any finfish and shellfish did come into contact with any spill residue the affect would most likely not be lethal as the finfish can metabolize the hydrocarbons and avoid increased exposure. The other IPFs that could occur within this area are unlikely to impact any of the above-mentioned fisheries. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

### Marine Mammals

Endangered or threatened whale species, which may occur in Viosca Knoll Area Block 384, are blue whale (*Balaenoptera musculus*), finback whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*), bryde whale (*Balaenoptera edeni*), black right whale (*Balaena glacialis*), sei whale (*Balaenoptera borealis*), and sperm whale (*Physter catdon*) (USDOJ, Region IV Endangered Species Notebook).

The black right whale, blue whale, bryde whale and sei whale have never been common in the Gulf of Mexico and have very few documented historical Gulf sightings. There is a small population of fin whales in the Gulf and Caribbean Sea (Schmidly 1981), with some Gulf sightings of fin whales in these deeper waters of the North-central Gulf (Mullin et al. 1991). The humpback whale is cosmopolitan being found in all oceans of the world; recent sightings in the Gulf of Mexico have been sporadic but included the Central and Eastern Gulf (Schmidly 1981). The sperm whale is the most abundant large whale in the Gulf

of Mexico, and has been sighted on most surveys conducted in the deeper waters. It is commonly seen off the continental shelf edge in the vicinity of the Mississippi River Delta (Mullin et al. 1991 in MMS 1992). Most of these whales, with the exception of the black right, blue, bryde, and sei whales, may utilize Viosca Knoll Area Block 384 at some time however this is very unlikely due to the shallow depths at which this work is taking place.

The West Indian manatee (*Trichechus manatus*), a federally endangered marine mammal, has historically utilized (seasonally) shallow protected estuarine waters of the northern Gulf of Mexico, including coastal Louisiana but would not be expected to utilize the open marine waters of Viosca Knoll Area Block 384 (MMS 1992).

Another utilization of this block would come from Cetaceans or more specifically Family Delphinidae, which includes the porpoises and dolphins, and species such as the Spotted dolphin (*Stenella plagiodon*), Common dolphin (*Delphinus delphis*), Atlantic Bottle-nosed dolphin (*Tursiops truncatus*), and the Short-Finned Pilot Whale (*Globicephala macrorhyncha*) (Lowery, 1974).

There may be adverse impacts by several of the IPFs to marine mammals due to the proposed activities for Viosca Knoll Area Block 384. These include but are not limited to: vessel traffic, noise, accidental oil spills, effluent discharge, and loss of shore bound wastes. The only lethal affect, which would be an extremely rare occurrence, if occurring at all, would be due to oil spills, ingestion of plastic material, or collision with a vessel. Some of the IPFs (noise, effluent discharge, etc.) would affect marine mammals in a non-lethal manner due to stress. When stressed the individuals in a population could become more prone to infection and weaken, this could affect entire pods, however these would be sporadic events and are unlikely to happen.

Any disturbance could theoretically affect populations of marine mammals but it is highly unlikely that this would occur due to their ability to travel to other areas within their home range. Fatalities are also unlikely and are unexpected barring catastrophic occurrences.

### Sea Turtles

The following species are protected and are found within the Gulf Of Mexico: Kemp's ridley turtle (*Lepidochelya kempii*), green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*), leatherback turtle (*Dermochelys coriacea*) and loggerhead turtle (*Caretta caretta*) (USDOI, Region IV Endangered Species Notebook).

The green turtle is found throughout the Gulf of Mexico with infrequent nesting occurrences throughout, and nesting aggregations on the Florida and Yucatan coasts. Green turtles prefer depths of less than 20 m (66 ft) where seagrasses are abundant (NRC 1990). Leatherbacks are oceanic turtles but do enter shallower waters at times. There are rare but reported cases of leatherbacks nesting on the Florida panhandle (MMS 1992). The hawksbill is the

least commonly reported marine turtle in the Northern Gulf, with Texas being the only state with regular occurrences. It is more common in tropical Caribbean waters. Kemp's Ridley is the most endangered species of marine turtle and is common in Texas and Mexico. Loggerheads occur worldwide in depths varying from those found in estuaries to the continental shelf. Major Gulf nesting areas for this species include the beaches along the Florida panhandle, South Florida, and Padre Island, Texas. In the Central Gulf loggerheads are known to nest on the beaches and the turtles are commonly observed around platforms. Some of these turtles, particularly the loggerhead, may temporarily utilize Viosca Knoll Area Block 384, however it would be infrequent and no impacts would be expected from the project. All known turtle nesting areas are in locations where landfall of oil spills from this block would be unlikely.

IPFs such as vessel traffic, noise, shore bound waste losses, effluents, and accidental oil spills could possibly impact through stress or even kill small numbers of turtles. Oil spills and response activities have the potential to harm individuals through consumption of oil particles or oiled food sources. The Oil Pollution Act of 1990 has response planning techniques and protections in place to alleviate most of these issues.

The majority of impacts are not expected to be lethal, however the impacts that are expected through nonlethal IPFs could cause declines in survival and reproductive rates, which would have detrimental affects on the population as a whole, yet as stated above mitigative steps are already in place via the Oil Pollution Act of 1990.

#### Air Quality

No IPFs should impact the Air Quality within the immediate vicinity of the work proposed within Viosca Knoll Area Block 384. Emissions will be kept within accepted standards and Effluents, Physical Disturbances to the seafloor, and Shore Bound Wastes are not expected to decrease the air quality. In the unlikely event that an accidental oil spill would occur there might be some Air Quality impacts however these would be kept to a minimum.

#### Shipwreck sites (known or potential)

The proposed work is from an existing location; therefore a Shallow Hazard Survey is not required. There are no known shipwreck sites in Eugene Island Block 339, and the area is not set aside as having a high probability for such. It is highly unlikely that any of the IPFs, especially Physical Disturbances to the seafloor, would cause any impacts to known or suspected shipwrecks.



### Prehistoric Archaeological sites

An Archaeological Assessment is not required for Eugene Island Block 339 therefore any proposed activities would not be expected to impact archeological features. It is highly unlikely that any of the IPFs, especially Physical Disturbances to the seafloor, would cause any impacts. Effluents, Emissions, Shore Bound Wastes, and Accidents would not be expected to impact any archeological sites.

### **Vicinity of Offshore Location**

#### Essential Fish Habitat

Viosca Knoll Area Block 384 lies outside the limits of the principal menhaden harvest area, the principal seabob grounds, the white and brown shrimp harvesting grounds, coastal demersal fish, and principal industrial bottomfish harvest and area coastal pelagics. This block lies within the fishing limits of Principle Industrial Bottomfish Harvesting Area and the major finfish harvest area. This area is located to the east and the south of important blue crab and oyster lease producing areas, which near the coast (USIDOI, MMS, 1986, Visual No. 2).

Based on the proposed activities it is highly unlikely that an accidental surface or subsurface spill would occur. If a spill were to occur or Effluents discharged the finfish and shellfish that could be impacted would probably evacuate the area of impact, and if any finfish and shellfish did come into contact with any spill residue the affect would most likely not be lethal as the finfish can metabolize the hydrocarbons and avoid increased exposure. The other IPFs that could occur within this area are unlikely to impact any of the above-mentioned fisheries. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

#### Marine and Pelagic Birds

Many of the IPFs would have no impact upon Marine and Pelagic Bird species. Effluents, Emissions, Physical Disturbances to the Seafloor, and Shore Bound Wastes would not affect any avian species that would occur within Viosca Knoll Area Block 384. Accidental oil spills have the ability to impact individual birds, mainly due to the oiling of the individual's feathers and well as possible ingestion of the oil product. It is unlikely that a spill would occur from the proposed activities and if one did occur the activities proposed in this document will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

## Public Health and Safety

There are no IPFs (including Emissions, Effluents, Physical disturbances to the seafloor, Shore Bound Wastes, or Accidents) that would cause any harm to public health and safety. The area is being requested to be classified, as H<sub>2</sub>S absent, H<sub>2</sub>S present, or H<sub>2</sub>S unknown, in accordance with 30 CFR 250.417 (c) by the Mineral Management Service, based on previous drillings from the same block.

## **Coastal and Onshore**

### Beaches

With the exception of an accidental oil spill no IPFs (including Emissions, Effluents, Physical disturbances to the seafloor, and Shore Bound Wastes) are expected to impact any of the beaches in onshore locations. An accidental oil spill from the proposed activities would have a 0/1/18 percent chance (based on 3, 10, or 30 days from spill) of causing impacts to the beaches that occur on shore, in Plaquemine's Parish, 60 miles Southwesterly from Viosca Knoll Area Block 384. This is the greatest chance with smaller chances for other parishes including the closest at 41 miles away. The distance along with the response capabilities implemented would greatly decrease the probability that an oil spill would have a large impact to these areas. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

### Wetlands

With the exception of an accidental oil spill no IPFs (including Emissions, Effluents, Physical disturbances to the seafloor, and Shore Bound Wastes) are expected to impact any of the wetlands in onshore locations. Upon reviewing the OCS EIS/EA MMS 2002-052 publication the historical spill data and trajectory / risk calculations show that there would be a small risk of impact to the coastline or other shoreline environmental resources of Louisiana, Mississippi and Alabama. An accidental oil spill from the proposed activities would have a 0/1/18 percent chance (based on 3, 10, or 30 days from spill) of causing impacts to the wetlands that occur at the shore, in Plaquemine's Parish, 60 miles from Viosca Knoll Area Block 384. This is the greatest chance with smaller chances for other parishes including the closest at 41 miles away. This distance along with the response capabilities implemented would greatly decrease the probability that an oil spill would have a large impact to these areas. The activities proposed in this

plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

### Shore Birds and Coastal Nesting Birds

With the exception of an accidental oil spill no IPFs (including Emissions, Effluents, Physical disturbances to the seafloor, and Shore Bound Wastes) are expected to impact any of the shore birds and coastal nesting birds in onshore locations. Upon reviewing the OCS EIS/EA MMS 2002-052 publication the historical spill data and trajectory / risk calculations show that there would be a small risk of impact to the coastline or other shoreline environmental resources of Louisiana, Mississippi, and Alabama. An accidental oil spill from the proposed activities would have a 0/1/18 percent chance (based on 3, 10, or 30 days from spill) of causing impacts to the shore birds and coastal nesting birds that occur on shore, in Plaquemine's Parish, 60 miles from Viosca Knoll Area Block 384. This is the greatest chance with smaller chances for other parishes including the closest at 41 miles away. This distance along with the response capabilities implemented would greatly decrease the probability that an oil spill would have a large impact to these areas. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

### Coastal Wildlife Refuges

With the exception of an accidental oil spill no IPFs (including Emissions, Effluents, Physical disturbances to the seafloor, and Shore Bound Wastes) are expected to impact any of Coastal Wildlife Refuges in onshore locations. Upon reviewing the OCS EIS/EA MMS 2002-052 publication the historical spill data and trajectory / risk calculations show that there would be a small risk of impact to the coastline or other shoreline environmental resources of Louisiana and Mississippi. An accidental oil spill from the proposed activities would have a 0/1/18 percent chance (based on 3, 10, or 30 days from spill) of causing impacts to the Coastal Wildlife Refuges that occur on shore, in St. Bernard and Plaquemine's Parish, approximately 46.4 miles from Viosca Knoll Area Block 384, specifically Breton National Wildlife Refuge. Other close refuges that also could be affected include Delta National Wildlife Refuge, and Pass-A-Loutre Wildlife Management Area. The distances to Coastal Wildlife Refuges along with the response capabilities implemented would greatly decrease the probability that an oil spill would have a large impact to these areas. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

### Wilderness Areas

With the exception of an Accidental oil spill no IPF's (including Emissions, Effluents, Physical disturbances to the seafloor, and Shore Bound Wastes) are expected to impact any of the Wilderness Areas in onshore locations. An accidental oil spill from the proposed activities could not cause impacts to any Wilderness Areas since Louisiana has only the Kisatchie Hills designated by congress as a "Wilderness Area", and this area is located in central Louisiana. The activities proposed in this plan will be covered by Chevron U. S. A. Inc.'s regional OSRP (refer to Section F which contains information submitted in accordance with NTL 2002-G08).

### **Other Environmental Resources Identified**

To the best of our knowledge the proposed activities in Viosca Knoll Area Block 384 will be conducted in a manner that is consistent with the Mississippi Coastal Program and the Alabama Coastal Area Management Program.

### **(C) Impacts on Viosca Knoll Area Block 384**

It is expected that the activities proposed for Viosca Knoll Area Block 384 will have no impacts on site-specific environmental conditions. The conditions of the site have been analyzed in order to make this judgment.

### **(D) Alternatives**

Due to the lack of Environmental Impacts no alternative was considered for the proposed activities in Viosca Knoll Area Block 384.

### **(E) Mitigation measures**

With the exception of measures required by regulation no mitigative steps will be taken to avoid, diminish, or eliminate potential impacts to environmental resources.

### **(F) Consultation**

John Chance Land Surveys, Inc. / FUGRO Ecological Scientists were consulted regarding potential for impacts to environmental resources due to the proposed activities.

### **(G) References**

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