

UNITED STATES GOVERNMENT  
MEMORANDUM

April 27, 2005

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

Subject: Public Information copy of plan  
Control # - N-08386  
Type - Initial Exploration Plan  
Lease(s) - OCS-G21539 Block - 177 West Cameron Area  
Operator - Stone Energy Corporation  
Description - Wells F and G  
Rig Type - JACKUP

Attached is a copy of the subject plan.

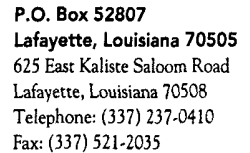
It has been deemed submitted as of this date and is under review for approval.

  
Karen Dunlap  
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/F	G21539/WC/177	550 FNL, 6000 FWL	G21539/WC/177
WELL/G	G21539/WC/177	3500 FNL, 5700 FWL	G21539/WC/177

NOTED - SCHEXNAILDRE

199 APR 27 05 PM 4:28



U.S. Department of Interior  
Minerals Management Service  
1201 Elmwood Park Blvd.  
New Orleans, LA 70123

Attn: Mr. Nick Wetzel  
Section Chief  
Plans Section  
Office of Field Operations



Mr. Wetzel,

In accordance with the provisions of Title 30 CFR 250, Stone Energy Corp. hereby submits for your review and approval nine (9) copies of a Initial Plan of Exploration for Lease OCS-G 21539, West Cameron Block 177, Offshore, Louisiana. Five (5) copies are "Proprietary Information" and four (4) copies are "Public Information". Excluded from the Public Information are certain geologic discussions, depths of well, bottom hole location and structure map.

Stone Energy Corp. anticipates activities will commence under this proposed Initial POE on or about May 15, 2005 or as soon as the applicable permits are approved. Any assistance you can give to expedite the approval of this plan will be greatly appreciated.

Should you require additional information, please contact me at (337) 237-0410.

Sincerely,

Amy Fell  
Amy Fell  
OCS Permitting Specialist

Enclosures: (5) Copies of Initial POE (Proprietary)  
(4) Copies of Initial POE (Public)  
(3) Folders- Shallow Hazard Statements w/ Arch and Hazard Map WC 177  
(1) Folder of Raw Hazard Survey Data  
(1) Seismic Map

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# INITIAL PLAN OF EXPLORATION

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FOR

**STONE ENERGY CORP.**

*GULF OF MEXICO  
OFFSHORE, LOUISIANA*

***WEST CAMERON 177  
LEASE OCS-G 21539***

COMPANY CONTACT

Tom Shinn  
Stone Energy Corp.  
P.O. Box 52807  
Lafayette, LA 70505  
Phone: (337) 237-0410  
Fax: (337) 233-2276

**APRIL 2005**

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**STONE ENERGY CORP.**  
**INITIAL DEVELOPMENT OPERATIONS**  
**COORDINATION DOCUMENT**  
**WEST CAMERON 177**  
**OCS-G 21539**

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Stone Energy Corp. (Stone), as operator of subject lease, submits the following information for planned development and production activities in, offshore, Louisiana. This proposed INITIAL PLAN OF EXPLORATION (POE) in accordance with the regulations contained in Title 30 CFR 250.203 and more specifically defined in the Minerals Management Service (MMS) Notice to Lessees (NTL) and Operators dated August 27, 2003.

***I. HISTORY OF LEASE***

**LEASE OCS-G 21539** was acquired at Gulf of Mexico Lease Sale No. 175, Primary Term effective date July 1, 2000 and ending June 30, 2005. Stone Energy currently holds the lease. Stone Energy is designated operator of the lease OCS-G 21539. Stone Energy is designated operator of the lease.

***II. LEASE STIPULATIONS***

In response to the Military Areas; no Lease Stipulations on this Block. In response to the lease stipulation for protected species, Stone will comply with NTL 2003-G08 - "Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program", NTL 2003-G10 - "Vessel Strike Avoidance and Injured/Dead Protected Species Reporting" and NTL 2003-G11 - "Marine Trash and Debris Awareness and Elimination".

West Cameron 177 is a block listed on the Letter to Lessees (LTL) issued by MMS on September 5, 1995 as being within the high-probability area for prehistoric archaeological resources on the OCS. A Shallow Hazard Statement for Location "F" is being submitted with this application. Stone Energy Corporation is also submitting an Archeological and Hazard Survey Report with this application for OCS-G 21539. Stone Energy Corporation will take no action that will adversely affect any archeological resource. If an archeological resource is discovered while conducting operations in the lease area, Stone Energy will report the discovery immediately, and will make every reasonable effort to preserve the resource until the Regional Director advises how to protect it.

***III. BONDING REQUIREMENTS***

In fulfillment of the requirements of MMS Notice to Lessees and Operators (NTL) 98-18N, dated December 28, 1998, which amends Title 30 CFR Part 256 surety bond requirements applicable to OCS lessees and operators, please be advised that Stone has in place a \$3 million area wide bond number (6195940) to cover operations on this lease in the Gulf of Mexico.

#### **IV. SCHEDULE OF OPERATIONS**

Under this proposed INITIAL PLAN OF EXPLORATION, Stone plans to drill, evaluate, and complete two (2) exploratory wells "F" & "G". We estimate 58 drilling and 14 days to complete per well.

The following schedule details the chronological order of the proposed events leading to the full start up of drilling and completion:

PROPOSED ACTIVITY	ESTIMATED START DATE
Drill, evaluate and complete well "F"	May 15, 2005 – July 25, 2005
Drill, evaluate and complete well "G"	June 26, 2005 – <del>October</del> 5, 2005

*Sept.*

#### **V. NEW OR UNUSUAL TECHNOLOGY**

No new techniques or unusual technology will be required for these operations.

#### **VI. DESCRIPTION OF DRILLING UNIT AND POLLUTION PREVENTION EQUIPMENT**

Safety features on the drilling rig will include well control and blowout prevention equipment as described in 30 CFR 250.400. The appropriate life rafts, life jackets, ring buoys, etc., as prescribed by the U.S. Coast Guard, will be maintained on the facility at all times. In addition, the rig and platform will be equipped with typical pollution control equipment including, but not limited to, deck drains, sumps, drip pans and sewage treatment facilities.

Drilling and completion operations will be done with typical jack up rig. The rig specifications and will be included in application to drill.

The goal of this developmental program is the gathering of information on the productivity of the leased area, in a safe manner, with minimal disruption of the environment. Production operations will be conducted by qualified Stone representatives. Regular training of operations personnel is a necessary complement to the pollution prevention features in the design of equipment and operations.

#### **VII. DESCRIPTION OF PLATFORM**

Under this proposed INITIAL PLAN OF EXPLORATION, Stone plans to drill, evaluate, and complete two (2) exploratory wells on WC 177 Lease OCS G-21539.

##### **Description of Platform installation-**

Will be included in the DOCD application.

##### **Transportation to shore –**

Will be included in the DOCD application.

### ***VIII. WELL LOCATIONS***

The locations of the 177 wells are shown on the "OCS Plan Information Plan" included as **Attachment "A"**. The bottom-hole locations are considered Proprietary and are excluded from the Public Information copies of the plan.

### ***IX. STRUCTURE MAP GEOLOGIC CROSS-SECTIONS***

Current structure maps drawn to the top of the prospective hydrocarbon accumulation showing the surface and bottom-hole locations of the development wells are included as **Attachment "B"**. This attachment also includes a cross-section map depicting the proposed well locations and the geologic name and age of the anticipated structures. This information is considered Proprietary and excluded from Public Information copies of the plan.

### ***X. WATER DEPTH***

Water depths across West Cameron Block 177 range from 39 to 53 feet. Water depth at the proposed locations is approximately 49 feet and 50 feet. A Bathymetry Map is included for WC 177 as **Attachment "G"**.

### ***XI. SHALLOW HAZARDS***

Shallow Hazard Statement for proposed surface locations is included as **Attachment "I"**.

### ***XII. LOCATION OF THE LEASE AND ONSHORE FACILITIES***

WEST CAMERON 177 is located approximately 23 miles from the nearest Louisiana coastline and approximately 34 miles from the shore base located in Cameron, Louisiana. A vicinity map of 177 relative to the shoreline and onshore base is included in this plan as **Attachment "C"**.

The onshore support base required to support these offshore operations will be located at Cameron, Louisiana. This 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.

Stone Energy Corporation anticipates using on helicopter, one supply boat, one crew boat, and one support vessel to support their 177 activities. The helicopter will travel to the location as needed. The crew boat will travel to the location a total of two times per week, and the supply boat will travel to the location a total of two times per week and the support vessel for production one time per week.

### ***XIII. OIL SPILL RESPONSE PLAN***

All drilling, completion, and production operations shall be performed in accordance with industry standards to prevent pollution of the environment. Stone Energy Corporation is the only entity covered in the Regional Oil Spill Response Plan **OSRP update Approved 07/02/04 and lastly modified 12/23/2004 to update WCD for exploratory to reflect the SMI 231 in lieu of VK 773. Approval date of WCD modification 01/13/05. Per MMS request for modification approved**

**2/18/05. The next biannual update is scheduled for 04/28/06.** Stone Energy requests that the activities proposed in this POE be covered by our OSRP.

This plan designates an Oil Spill Response Team consisting of contract personnel through Environmental Safety and Health Consulting Services, Inc. 877-437-2634. This team's duties are to eliminate the source of any spill, remove all sources of possible ignition, and deploy the most reliable means to monitor the movement of a slick, and contain and remove the slick if possible. Stone's Oil Spill Response Team attends drills for familiarization with pollution control equipment and operations procedures on an annual basis.

Stone is a member company of Clean Gulf Associates (CGA). The CGA stores pollution control equipment throughout the Gulf Coast.

In the event of a spill, the primary location for the procurement of clean-up equipment would be the CGA stockpile at Lake Charles, Louisiana. Cameron, Louisiana is the staging area for CGA's equipment. Additional clean-up equipment could be mobilized from the Houma and Fort Jackson Louisiana, and Galveston and Ingleside, Texas CGA stockpile areas. The Lake Charles stockpile is located approximately 59 miles from block 177.

Worst Case Discharge = (Daily Volume from Uncontrolled Blowout) + (Maximum capacity of Oil Storage Tanks and Flowlines at Facility) + (Volume of Oil Leaked from Break in Pipelines Connected to the Facility)

Worst Case Discharge = 744 + 0 + 0 = 744 barrels

The Worst Case Discharge scenario calculated in accordance with 30 CFR 254.21 through 254.29 will be less than 1,000 barrels.

**Worst Case Scenario Comparison Table**

Category	Regional OSRP	POE
Type of Activity	MODU/Exploratory Drlg	Exploratory Drilling
Facility Designation	SMI 231	WC 177
Distance to Nearest Shoreline (miles)	12 mi	23 miles
Volume		
Storage tanks (total)	2300 BBLS	2000 BBLS
Flowlines (on facility)	0 BBLS	0BBLS
Lease term pipelines	0 BBLS	0 BBLS
Uncontrolled blowout (volume per day)	4000 BBLS	744 BBLS
Total Volume	6300 BBLS	744 BBLS
Type of Oil(s)-(crude oil, condensate, diesel)	<del>Diesel</del> / Condensate	Condensate
API Gravity(s)	<del>36.0</del> / est. 52.8°	42.0°



“Since Stone Energy Corporation has the capability to respond to the worst-case spill scenario included in its regional OSRP. OSRP update Approved 07/02/04 and lastly modified 12/23/2004 to update WCD for exploratory to reflect the SMI 231 in lieu of VK 773. Approval date of WCD modification 01/13/05. Per MMS request for modification approved 2/18/05. The next biannual update is scheduled for 04/28/06, and since the worst-case scenario determined for our Initial POE does not replace the worst-case scenario in our regional OSRP, I hereby certify that Stone Energy Corporation 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 POE.”

**Facility Tanks, production vessels.**

Type of Storage Tank	Type of Facility	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil	Jack up	1000	2	2000	No. 2 Diesel
Production	Platform “B”	NA	NA	NA	NA

**Diesel oil supply vessels.**

Size of fuel Supply Vessel	Capacity of Fuel Supply Vessel	Frequency of Fuel Transfers	Route Fuel Supply Vessel Will Take
190 feet	1,500 bbls	Weekly	From the shorebase in Cameron, LA, to EC 46 , EC 64 then to WC 177

**Support vessels fuel tanks.**

Type of Vessel	Number in Field Simultaneously	Estimated ;Maximum Fuel Tank Storage Capacity
Tug boats	1	1000
Supply vessels	1	1500
Service vessels	2	1000
Crew vessels	1	400

**Produced liquid hydrocarbons transportation vessels.** Liquid hydrocarbons will be transported by pipeline.

**Oil and synthetic-based drilling fluids.**

Type of Drilling Fluid	Estimated Volume of Mud Used per Well	Mud Disposal Method	Estimated Volume of Cuttings Generated	Cuttings Disposal Method
Oil-based	1200	Onshore Disposal	2150	Onshore disposal
Synthetic-based	1200	Recycle	2150	Discharge*

\*Stone Energy has approval under EPA General Permit #GMG 290000 set forth in Part II.D.10 of the permit and 40 CFR 122.22.

**Blow Out Scenario.**

Estimated Spill Flow Rate	744 BCPD
Volume	53,568 BCPD
Time Frame	72 DAYS
Potential for well to bridge over	Moderate Probability

Likelihood for surface intervention to stop blowout	Moderate Probability
Availability of rig to drill relief well	High Probability
Rig Package constraints	None
Estimated time to drill relief well	72 DAYS

#### **Spill response sites.**

Primary response sites	Preplanned Staging Location(s)
Cameron, LA	Cameron, LA

**Spill response.** Stone Energy has ensured, by means of contract, an experienced Spill Management Team as well as an extensive response resource contractor team in order to ensure it is well prepared to address the issues involved. Whenever possible, Stone Energy Corporation will attempt to use alternative response to dissipate an oil slick before it can impact land segments. Mechanical recovery and containment equipment will also be deployed to the spill site in a proactive manner. **Attachment "J"**

**Pollution prevention measures.** Stone Energy will ensure our Spill Management Team is well versed with the probable impacted land segment, which in this case the spill originating at the West Cameron 177 Area is Cameron Parish, La and Jefferson County Parish, LA areas. In addition, ensure safety briefings are conducted. The pollution prevention will consist of identifying the hazardous spilled material, control the source, maximize protection of environmentally sensitive areas and contain and recover spilled material. The early spill detection measure will consist of using aircraft, whenever possible. In the event of a night-time spill- the use of Infa-Red sensing cameras are capable of detecting petroleum on the water during the day or at night and in all weather conditions. **Attachment "K"**

#### ***XIV. DISCHARGES***

All discharges associated with the proposed activities will be in accordance with regulations implemented by MMS, U.S. Environmental Protection Agency (EPA) and U.S. Coast Guard (USCG). **Wastes and Disposal Table Attachment "N"**.

In accordance with EPA's Gulf of Mexico NPDES General Permit, discharges will contain no free oil and will be monitored and in compliance with the general permit. Any drilling fluid contaminated with oil will be transported to shore for proper disposal at an authorized disposal site.

EPA Region VI will be advised prior to and upon completion of discharges for the proposed drilling and production operations addressed in the subject Plan. Surveillance of fluids is accomplished through daily inventory of mud and chemicals added to the system, in addition to monthly and end-of-well LC50 toxicity tests required by EPA.

Produced water will be discharged from the platform. The discharge will be monitored to ensure the absence of sheen, and all testing will be performed as required by EPA Permit No. GMG290000.

Solid domestic wastes will be transported to shore for proper disposal at an authorized disposal site, and sewage will be treated on location by USCG approved marine sanitation devices on the drilling rig.

Typical mud components, which may be used in the drilling of the proposed wells, are included in **Attachment "D"**. The quantities and rates of discharge are included as **Attachment "E"**.

#### ***XV. HYDROGEN SULFIDE***

In accordance with Title 30 CFR 250.67, Stone Energy requests that West Cameron Block 177 be classified by Minerals Management Service as an area where absence of hydrogen sulfide has been confirmed.

The basis of this request is that the objective M2 and L3 sands in proposed wells F, and G correlate with production from the Conoco #3 well in WC 177 (**excluded from Public Copy**) and with #8ST in WC 176. EC 64 field also has **excluded from Public Copy** sand production. No hydrogen sulfide was produced or detected from correlative sand reservoirs in any of the field wells.

The Location G objective **excluded from Public Copy** and **excluded from Public Copy** have been penetrated in several wells in the immediate area. The closest well showing the sands is the Marathon (Energy Res Tech) #8 OCS G 1471 in the southeast of WC 177, which drilled to 18,625' with no reported detection of hydrogen sulfide.

Based on analysis of produced fluids these reservoirs and the proposed objective sands have been determined to be hydrogen sulfide-free.

#### ***XVI. PROJECTED AIR EMISSIONS***

An Air Quality Report has been prepared and is included as **Attachment "F"**.

#### ***XVII. ENVIRONMENTAL IMPACT ANALYSIS***

An Environmental Impact Analysis has been prepared and is included as **Attachment "L"**.

#### ***XVIII. COASTAL ZONE CONSISTENCY CERTIFICATION***

Issues identified in the Louisiana Coastal Zone Management Program include the following: general coastal use guidelines, levees, linear facilities (pipelines), dredged soil deposition, shoreline modifications, surface alterations, hydrologic and sediment transport modifications, waste disposal, uses that result in the alteration of waters draining into coastal waters, oil, gas or other mineral activities, and air and water quality.

A Certificate of Coastal Zone Management Consistency for Louisiana and Statement regarding proposed activities to comply with Louisiana's approved Coastal management Program and with the applicable enforceable policies has been prepared and is included as **Attachment "M"**.

## ***XIX. BIOLOGICAL INFORMATION***

Stone Energy does not propose using a semi submersible drilling rig to be placed within 500 feet of the no- activity zone of an identified topographic feature. Stone Energy will utilize a jack-up drilling rig. Due to the water depth and proposed surface location there is not **“Deepwater Chemosynthetic Communities”** Stone Energy does not propose bottom-disturbing activities, within 100 feet of any **pinnacle trend feature** with vertical relief equal to or greater than 8 feet.

## ***XX. AUTHORIZED REPRESENTATIVE***

Inquiries may be made to the following authorized representative:

Stone Energy Corp.

P.O. Box 52807

Lafayette, LA 70505

Phone: (337) 237-0410

Fax: (337) 233-2276

ATTN: Tom Shinn

Safety and Compliance Manager

## ***XXI. ATTACHMENTS***

Attachment A	-	OCS Plan Information Form and Plat
Attachment B	-	Structure Maps, Cross Sections, Strat Columns, and Geological Description Geopressure Statement
Attachment C	-	Vicinity Map
Attachment D	-	Typical Mud Components
Attachment E	-	Quantities and Rates of Discharge
Attachment F	-	Air Quality Report
Attachment G	-	Bathymetry Map
Attachment H	-	BOP and Diverter Schematic
Attachment I	-	Shallow Hazard Statement
Attachment J	-	Spill Response
Attachment K	-	Pollution Prevention Measures
Attachment L	-	Environmental Impact Analysis
Attachment M	-	Coastal Zone Consistency Certification
Attachment N	-	Wastes and Disposal Tables

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

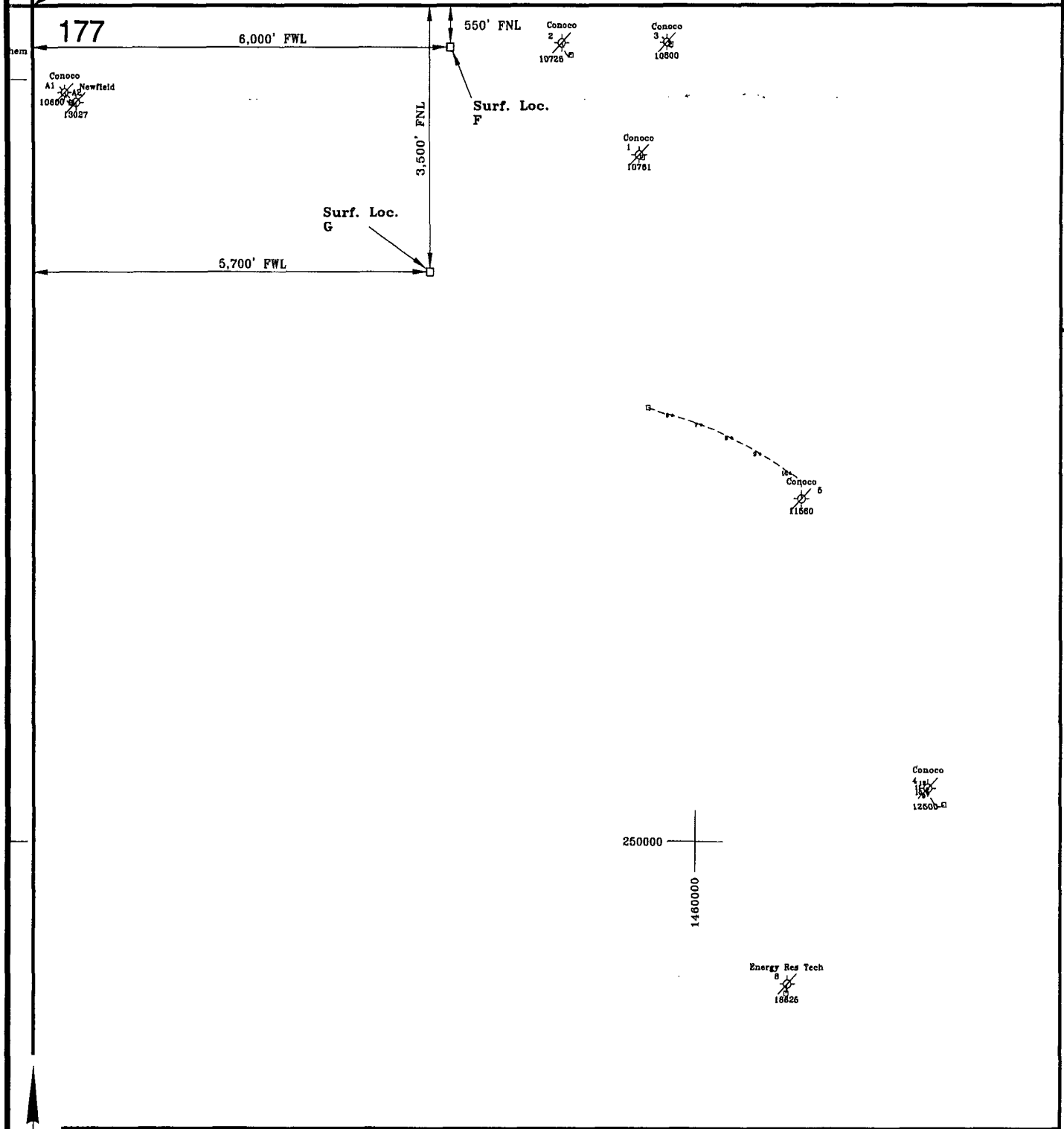
EXPLORATION PLAN	X	DEVELOPMENT OPERATIONS COORDINATION DOCUMENT		DEVELOPMENT & PRODUCTION PLAN
OPERATOR: Stone Energy Corporation			ADDRESS: P.O. Box 52807	
MMS OPERATOR NO.: 01834			Lafayette, LA 70505	
CONTACT PERSON: William Scaife			PHONE NO. (337) 237-0410	
PROPOSED START DATE: 5/15/05		RIG TYPE: <input checked="" type="checkbox"/> U <input type="checkbox"/> SS <input type="checkbox"/> PF <input type="checkbox"/> DS <input type="checkbox"/> OTHER	DISTANCE TO CLOSEST LAND (IN MILES): 76.23	
NEW OR UNUSUAL TECHNOLOGY	YES	<input type="checkbox"/> NO	ONSHORE SUPPORT BASE(S): Cameron, La	
NARRATIVE DESCRIPTION OF PROPOSED ACTIVITIES: Drill, evaluate, and complete Locations "F" and "G"				
PROJECT NAME, IF APPLICABLE:				

**PROPOSED WELL/STRUCTURE LOCATIONS**

WELL/ STRUCTURE NAME	SURFACE LOCATION	BOTTOM-HOLE LOCATION (FOR WELLS)
Well <u>F</u> Name: <u>West Cameron 177</u>	CALLS: 6000' F W L and 550' F N L OF LEASE <u>OCS G21539, West Cameron AREA,</u> BLOCK 177 X: <u>1,456,484</u> Y: <u>260,418</u> LAT: <u>29°22'17.9841"</u> LONG: <u>93°02'22.9567"</u>	CALLS: <u>OMITTED</u> LEASE <u>OCS G 21539, West Cameron AREA,</u> BLOCK 177 X: <u>OMITTED</u> Y: <u>OMITTED</u> LAT: <u>OMITTED</u> LONG: <u>OMITTED</u>
	TVD (IN FEET): <u>OMITTED</u>	MD (IN FEET): <u>OMITTED</u> WATER DEPTH (IN FEET): <u>49'</u>
Well <u>G</u> Name: <u>West Cameron 177</u>	CALLS: 5700' F W L and 3500' F N L OF LEASE <u>OCS G21539, West Cameron AREA,</u> BLOCK 177 X: <u>1,456,184</u> Y: <u>257,468</u> LAT: <u>29°21'48.7380"</u> LONG: <u>93°02'25.8501"</u>	CALLS: <u>OMITTED</u> LEASE <u>OCS G 21539, West Cameron AREA,</u> BLOCK 177 X: <u>OMITTED</u> Y: <u>OMITTED</u> LAT: <u>OMITTED</u> LONG: <u>OMITTED</u>
	TVD (IN FEET): <u>OMITTED</u>	MD (IN FEET): <u>OMITTED</u> WATER DEPTH (IN FEET): <u>50'</u>
Platform <u>    </u> , Well <u>    </u> Name:	CALLS: <u>    </u> and <u>    </u> OF <u>    </u> LEASE: <u>    </u> , <u>    </u> AREA, BLOCK <u>    </u> X: <u>    </u> Y: <u>    </u> LAT: <u>    </u> LONG: <u>    </u>	CALLS: <u>    </u> and <u>    </u> OF <u>    </u> LEASE: <u>    </u> , <u>    </u> AREA, BLOCK <u>    </u> X: <u>    </u> Y: <u>    </u> LAT: <u>    </u> LONG: <u>    </u>
	TVD (IN FEET): <u>    </u>	MD (IN FEET): <u>    </u> WATER DEPTH (IN FEET): <u>    </u>
Platform <u>    </u> , Well <u>    </u> Name:	CALLS: <u>    </u> and <u>    </u> OF <u>    </u> LEASE: <u>    </u> , <u>    </u> AREA, BLOCK <u>    </u> X: <u>    </u> Y: <u>    </u> LAT: <u>    </u> LONG: <u>    </u>	CALLS: <u>    </u> and <u>    </u> OF <u>    </u> LEASE: <u>    </u> , <u>    </u> AREA, BLOCK <u>    </u> X: <u>    </u> Y: <u>    </u> LAT: <u>    </u> LONG: <u>    </u>
	TVD (IN FEET): <u>    </u>	MD (IN FEET): <u>    </u> WATER DEPTH (IN FEET): <u>    </u>

**PUBLIC  
INFORMATION**

NW CORNER WC 177  
 X = 1,450,484  
 Y = 260,968  
 LAT. = 29°22'22.5391"  
 LONG. = 93°03'30.8536"



192

WELL	FEET E-W	FEET N-S	X	Y	LAT	LONG	MD	TVD
SURF LOC. F	6,000' FWL	550' FNL	1,456,484	260,418	29°22'17.9841"	93°02'22.9567"		
SURF LOC. G	5,700' FWL	3,500' FNL	1,456,184	257,468	29°21'49.7380"	93°02'25.8501"		

Lat-Long Conversion  
 Derived Using CORPSCON  
 Version 5.22.03 Using  
 NADCON 2.1



# PROPOSED SURF. LOC. WELLS G, F

REVISIONS			AREA	CONT. INT.	OCS #
BY	DATE	COMMENT			
			WEST CAMERON BLK. 176	-	G-21539
			GEOLOGIST: T G		
			GEOPHYSICIST: LPK		
			DRAWN BY: LPK		
				DATE DRAWN: April 1, 2005	

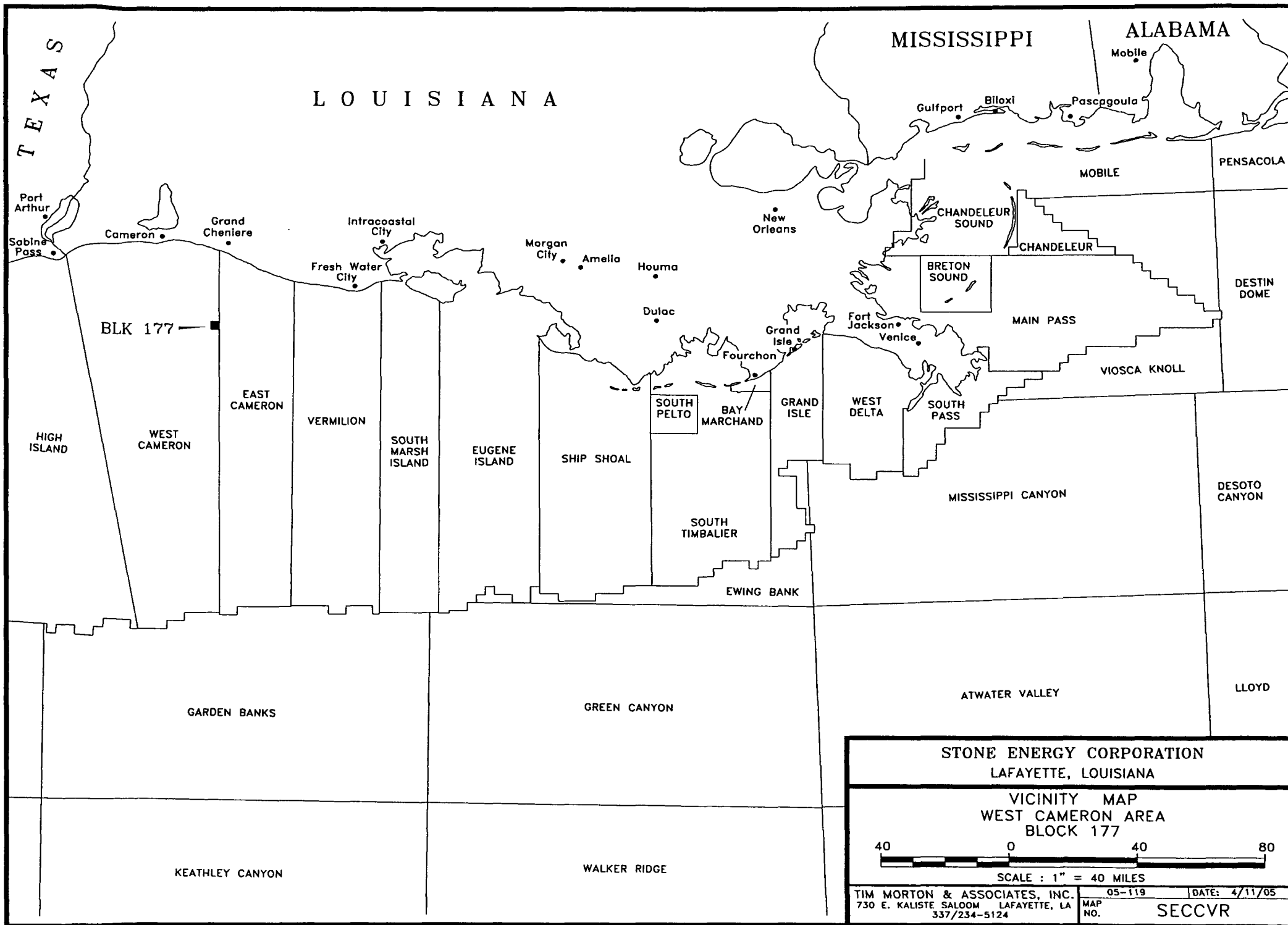
***STRUCTURE MAPS & GEOLOGIC  
CROSS-SECTIONS  
ARE  
EXCLUDED FROM  
PUBLIC INFORMATION  
COPIES OF PLAN***

**ATTACHMENT "B"**

# **VICINITY MAP**

**ATTACHMENT "C"**





# **DRILLING FLUID PRODUCT LIST**

**ATTACHMENT "D"**

# **DRILLING FLUID ADDITIVES PRODUCT CROSS REFERENCE**

MILPARK	BAROID	M-I	DESCRIPTION
<b>WEIGHT MATERIALS</b>			
MIL-BAR	BAROID	M-I BAR	API bante, 4.2 specific gravity
DENSIMIX	BARODENSE	FER-OX	Macaceous nematite
W.O. 30	BARACAB	LO-WATE	Calcium Carbonate
<b>VISCOSIFIERS</b>			
MILGEL	AQUAGEL	M-I GEL	API-grade Wyoming bentonite
MILGEL NT	AQUAGEL GOLD SEAL		Untreated Wyoming bentonite
SALTWATER GEL	ZEOGEL	SALT GEL	API-grade attapulgite
SUPER-COL	QUIK-GEL	KWIK-THIK	High-yield bentonite, treated
NEW-VIS			Organic polymer blend
XCD POLYMER	XCD POLYMER	XCD POLYMER	XC Dispersable
MIL-BEN	SHUR-GEL		Bentonite-OCMA Spec DCFP4
<b>DEFLOCCULANTS</b>			
MIL-TEMP	THERMA-THIN DP	MELANEX-T	High-temperature deflocculant
NEW-THIN	THERMA-THIN	TACKLE (Liquid)	Polymeric deflocculant
UNI-CAL	Q-BROXIN	SPERSENE	Chrome lignosulfonate
UNI-CAL CF	Q-B II	SPERSENE CF	Chrome-free lignosulfate
MIL-KEM	LIGNOX	RD 2000	Lime mud thinner
SAPP	SAPP	SAPP	Sodium acid pyrophosphate
OILFOS	BARAFOS	PHOS	Sodium tetrphosphate
MIL-THIN	THERMA-THIN	THIN X (Liquid)	Anionic copolymer thinner
<b>FILTRATION CONTROL AGENTS</b>			
BIO-LOSE			Modified polysacchande
CHEMTROL X	DURENEX	RESINEX	Polymer blend, high-temperature
FILTREX	BARANEX	RESINEX	Polyanionic lignin resin
LIGCO	CARBONOX	TANNATHIN	Lignite
LIGCON	CC-16	CAUSTLIG	Causticized lignite
MILSTARCH	IMPERMEX	MY-LO-GEL	Pregelatinized starch
NEW-TROL	POLYAC	SP-101	Sodium polyacrylate
PERMA-LOSE HT	DEXTRID	POLY-SAL	Nonfermenting starch, high-temp.
PYRO-TROL	THERMA-CHEK	POLY RX	Polymeric, high-temperature
KEM-SEAL	THERMA-CHEK		Copolymer, high-temperature
MIL-PAC	PAC R	POLYPAC	Polyanionic cellulose
MIL-PAC LV	PAC L	POLYPAC	Low-viscosity polyanionic cellulose
MILPARK CMC HV	CELLEX (High Vis)	CMC HV	Sodium carboxymethylcellulose
MILPARK CMC LV	CELLEX	CMC LV	Sodium carboxymethylcellulose
<b>CORROSION CONTROL CHEMICALS</b>			
MIL-GARD	NO-SULF	SULF-X	Basic zinc carbonate
MIL-GARD R	BARASCAV-L	SULF-X ES	Chelated Zinc
NOXYGEN	COAT-888; BARACOR 113	OXYGEN SCAVENGER	Oxygen scavenger
SCALE-BAN	SURFLO-H35; BARACOR 129	SI-1000	Scale Inhibitor
AMI-TEC	BARA FILM; BARACOR 300 COAT-B 1400; COAT-C 1815	CONQOR 202; CONQOR 101; CONQOR 303	Film-forming amine
<b>CARBO-DRILL OIL MUD ADDITIVES</b>			
CARBO-MUL	INVERMUL NT; VERSACOAT	VERSAWET	Emulsifier (and weting agent) primarily
CARBO-MUL HT	EZ MUL NT		High-temperature emulsifier and wetting agent
CARBO-TEC	INVERMUL	VERSAMUL	Emulsifier
CARBO-GEL	GELTONE II	VERSAGEL	Organophyllic clay nectonte
CARBO-VIS	GELTONE II	VERSAMOD	Organophylliic clay
CARBO-TROL		VERSATROL	Filtration control arent
CARBO-TROL A-9	DURATONE HT	VERSALIG	Nonasphaltic filtration control, high-temperature
SURF-COTE	DRILTREAT or OMC	VERSAWET	Oil wetting agent for oil muds
CARBO-MIX	DRILTREAT		Nonionic emulsifier, high-activity
CARBO-TEC HW			HW oil mud emulsifier

# **DRILLING FLUID ADDITIVES** **PRODUCT CROSS REFERENCE**

MILPARK	BAROID	M-I	DESCRIPTION
<b>SHALE CONTROL ADDITIVES</b>			
ALPEX			Aluminum complex
BIO-DRILL 1402			Oil mud alternative
NEW-DRILL	EZ MUD	POLY-PLUS	PHPA liquid
NEW-DRILL HP			Powdered PHPA
NEW-DRILL PLUS	EZ MUD DP		Powdered PHPA
SHALE-BOND	SHALE-BAN	HOLECOAT	Resinous shale stabilizer
PROTECTOMAGIC			Oil-soluble blown asphalt
PROTECTOMAGIC M	AK-70	STABIL-HOLE	Water-dispersants. Blown asphalt
<b>SPOTTING FLUIDS</b>			
BLACK MAGIC			Oil-base spotting fluid
BLACK MAGIC LT	EX SPOT		Low toxicity oil-base spotting fluid
BLACK MAGIC SFT		OIL-FAZE	Oil -based spotting fluid concentrate
MIL-FREE	SCOT-FREE: ENVIRO-SPOT	PIPE-LAX	Liquid spotting fluid
BIO-SPOT	ENVIRO-SPOT		Nontoxic water-base spotting fluid
BIO-SPOT II			Nontoxic water-base spotting fluid
MIL-SPOT 2	SCOT-FREE	PIPE-LAX W	Weighted (oil-base) spotting fluid concentrate
<b>LUBRICANTS</b>			
AQUA-MAGIC			Low-toxicity lubricant
LUBRI-FILM	EP MUDLUBE	E.P. LUBE	Extreme-pressure lubricant
MIL-LUBE		LUBE-106	General lubricant
<b>DETERGENTS/FOAMERS</b>			
AMPLI-FOAM	DRILFOAM	FOAMER 80	Mist and stiff foaming agent
MIL CLEAN	BAROID RIG WASH BARA-KLEAN	KLEEN-UP	Biodegradable detergent
MILPARK MD	CON-DET	DD	Drilling Detergent
<b>DEFOAMING AGENTS</b>			
LD-8	BARA DEFOAM	DEFOAM-X	Hydrocarbon-base refoamer
W.O. DEFOAM	BARA BRINE; DEFOAM	DEFOAM-A	Alcohol-base, saltwater muds
ALUMINUM STEARATE	ALUMINUM STEARATE	ALUMINUM STEARATE	Aluminum Stearate
<b>LOST-CIRCULATION MATERIALS</b>			
CHEK-LOSS			Seepage loss control differential sticking preventative
MIL-CEDAR FIBER	PLUG-GIT	M-I CEDAR FIBER	Cedar fiber
MIL-FIBER	FIBERTEX	M-I FIBER	Fiber blend
MILFLAKE	JELFLAKE	FLAKE	Shredded cellophane flake
MILMICA	MICATEX	MICA	(Muscovite) mica graded
MIL-PLUG		NUT-PLUG	Ground pecan shells
MIL-SEAL	BARO-SEAL	KWIKSEAL	Blended lost-circulation material
COTTONSEED HULLS	Cottonseed Hulls	Cottonseed Hulls	Cottonseed Hulls
PAPER			Ground paper
WALNUT SHELLS	WALL-NUT		Ground walnut shells
MAGNE-SET			Acid-soluble cement
<b>WORKOVER AND COMPLETION FLUID ADDITIVES</b>			
MUD-PAC	COAT-44 & 45	CONQOR 404; X-CORE	Corrosion (packer fluid) inhibitor
BRINE-PAC	BARACOR-A		Corrosion inhibitor clean brine fluids
W.O. 21L	LIQUI-VIS	VIS-L	Liquid HEC polymer
<b>PRESERVATIVES</b>			
DRYOCIDE			Dry (biodegradable) biocide
X-CIDE 207	BARA B466	BACBAN II & III	Biocide

X-CIDE 207 is a registered trademark of Petrolite Corporation.  
 DRYOCIDE is a registered trademark of Nalco Chemical Company.  
 XCD (in XCD POLYMER) is a registered trademark of Marck & Co., Inc.  
 OILFOS is a registered trademark of Monsanto Company.

**STONE ENERGY CORP.**

**INITIAL PLAN OF EXPLORATION**

**LEASE OCS-G 21539**

**WEST CAMERON BLOCK 177**

**QUANTITIES AND RATES OF DISCHARGES<sup>(1)</sup>**

**(PUBLIC INFORMATION)**

<u>WELL</u>	<u>DEPTH</u>	<u>HOLE SIZE</u>	<u>QUANTITY(bbls)<sup>(2)</sup></u>	<u>DISCHARGE RATE*</u>
"F"	OMITTED	20"	307	Maximum 1000 bblshr.
	OMITTED	14-34"	827	Maximum 1000 bblshr
	OMITTED	9-78"	739	Maximum 1000 bblshr
"G"	OMITTED	27"	560	Maximum 1000 bblshr.
	OMITTED	23"	2881	Maximum 1000 bblshr
	OMITTED	17-1/2"	2320	Maximum 1000 bblshr
	OMITTED	12-1/4"	210	Maximum 1000 bblshr
	OMITTED	9-7/8"	341	Maximum 1000 bblshr
	OMITTED	6-1/2"	79	Maximum 1000 bblshr

**PUBLIC  
INFORMATION**

A list of mud additives that may be used while conducting drilling operations is shown in Attachment "D".

Mud and drill cuttings will be discharged at the well site in accordance with EPA regulations.

Mud and drill cuttings which have been contaminated with oil will be transported to shore for proper disposal at an authorized disposal site.

\* The discharge rate will not exceed 1000 bblshr., in accordance with EPA regulations.

<sup>(1)</sup> Discharge consists of cuttings and drilling fluid.

<sup>(2)</sup> Quantity (bbls) = Capacity of hole (cuttings) + 20% (loss of drilling fluids).

**ATTACHMENT "E"**

# **AIR QUALITY REPORT**

**ATTACHMENT "F"**

**EXPLORATION PLAN (EP)  
AIR QUALITY SCREENING CHECKLIST**

OMB Control No. 1010-0049  
OMB Approval Expires: September 30, 2003

<b>COMPANY</b>	Stone Energy Corporation
<b>AREA</b>	West Cameron
<b>BLOCK</b>	177
<b>LEASE</b>	OCS-G-21539
<b>PLATFORM</b>	
<b>WELL</b>	F & G
<b>COMPANY CONTACT</b>	Amy Fell
<b>TELEPHONE NO.</b>	337/237-0410
<b>REMARKS</b>	

"Yes"	"No"	Air Quality Screening Questions
	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)?
	No	Do your emission calculations include any emission reduction measures or modified emission factors?
	No	Are your proposed exploration activities located east of 87.5° W longitude?
	No	Do you expect to encounter H <sub>2</sub> S concentrations greater than 20 parts per million (ppm)?
	No	Do you propose to flare or vent natural gas for more than 48 continuous hours from any proposed well?
	No	Do you propose to burn produced hydrocarbon liquids?

If ALL questions are answered "No":

Submit summary information regarding the peak year emissions for both Plan Emissions and Complex Total Emissions, if applicable.

If ANY question is answered "Yes":

Prepare and submit a full set of EP spreadsheets with your plan.

**STONE ENERGY CORPORATION  
WEST CAMERON AREA BLOCK 177  
OCS-G-21539**

<b>Air Pollutant</b>	<b>Plan Emission Amounts (tons)</b>	<b>Calculated Exemption Amounts (tons)</b>	<b>Calculated Complex Total Emission Amounts (tons)</b>
Carbon monoxide (CO)	82.63	26694.84	82.63
Particulate matter (PM)	11.02	732.60	11.02
Sulphur dioxide (SO2)	50.54	732.60	50.54
Nitrogen oxides (NOx)	378.73	732.60	378.73
Volatile organic compounds (VOC)	11.36	732.60	11.36

Contact: Joe Morton, P.E., 337/234-5124, [jmorton@mortoninc.com](mailto:jmorton@mortoninc.com)



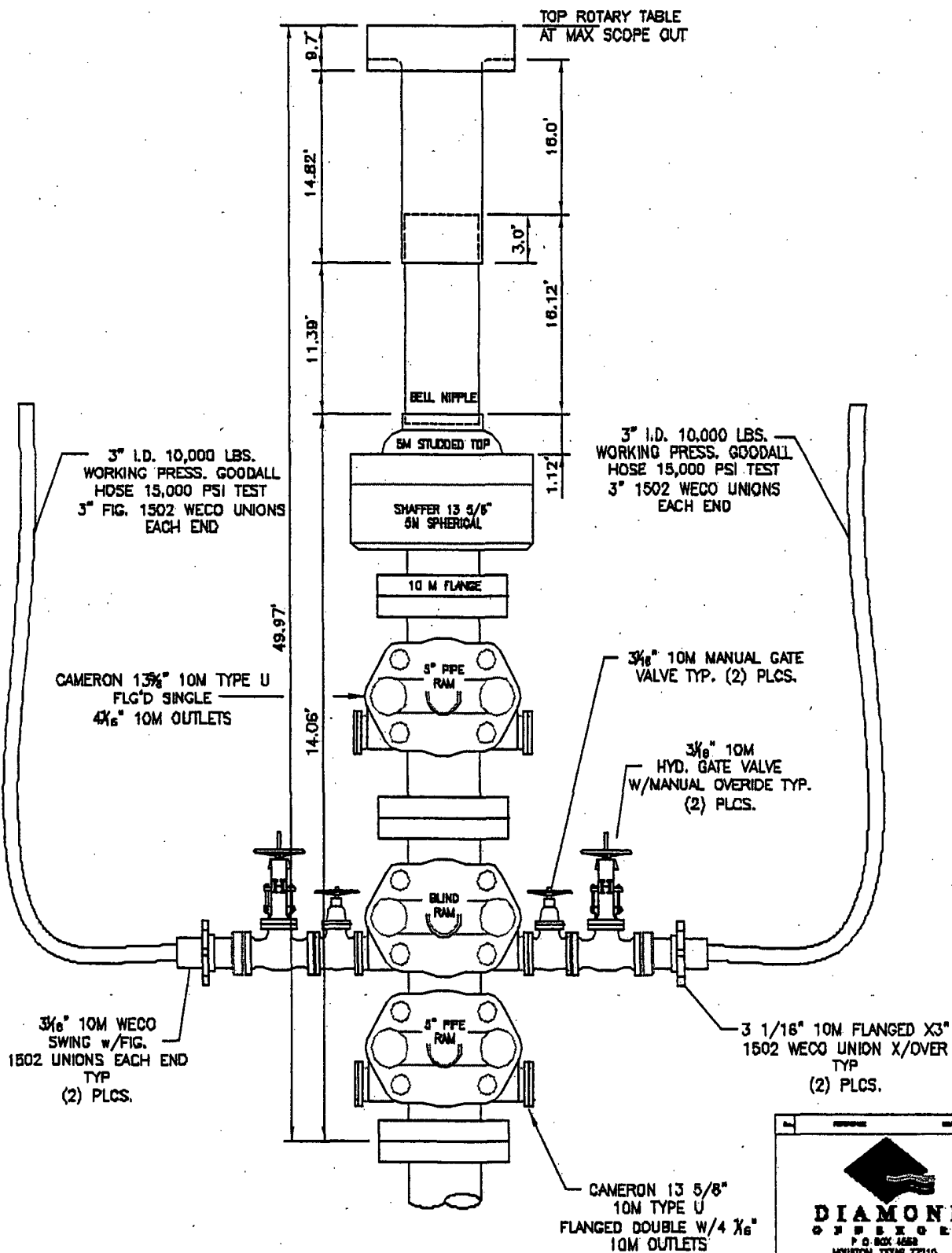
# **BATHYMETRY MAP**

**ATTACHMENT "G"**

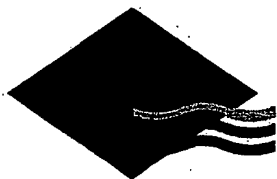


## **BOP AND DIVERTER SCHEMATIC**

**ATTACHMENT "H"**



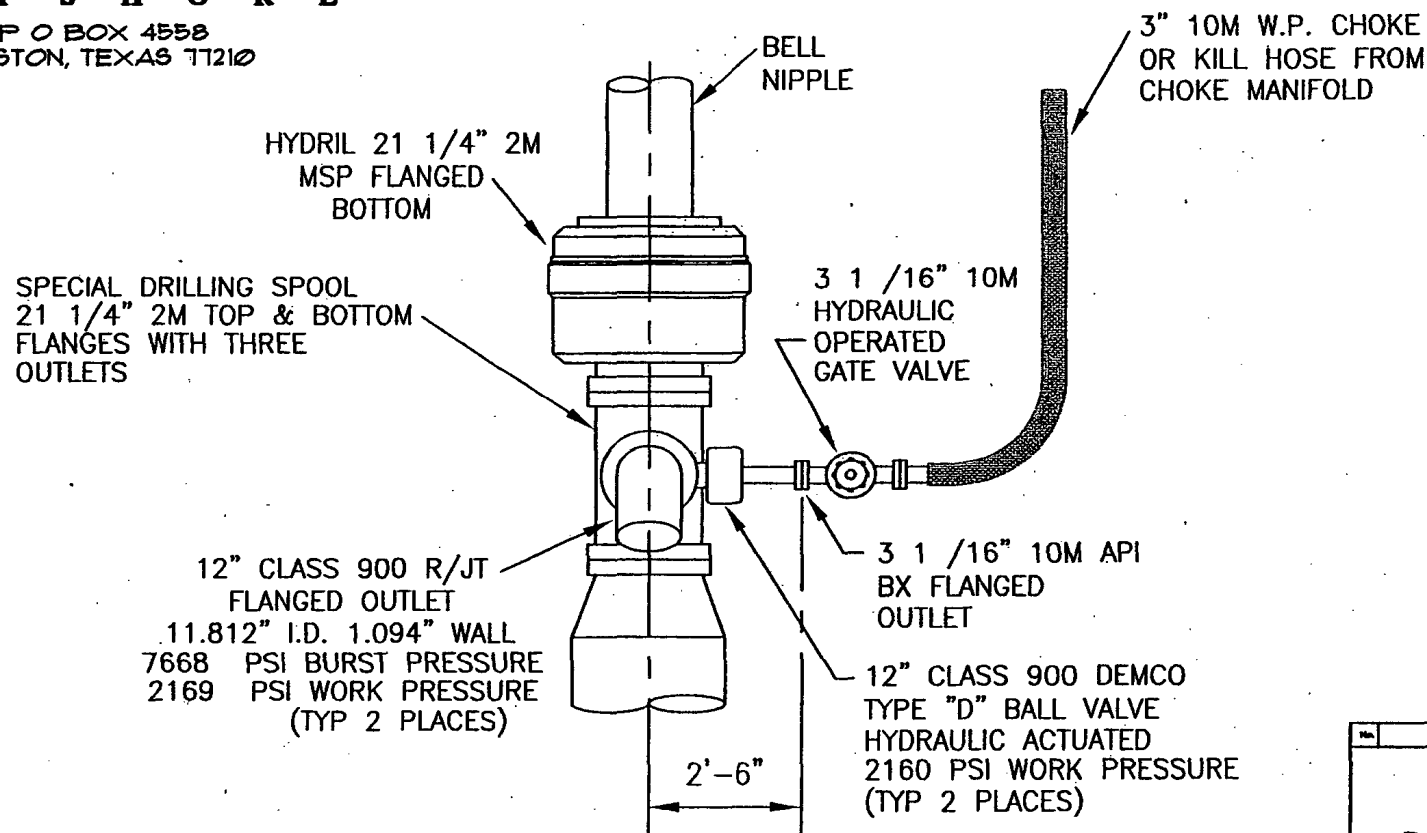
 <b>DIAMOND</b> <b>DRILLING EQUIPMENT</b> P.O. BOX 1688 HOUSTON, TEXAS 77210 OCEAN CRUISER	
BOP STACK BELL NIPPLE SYSTEM	
DATE	REV
10/2/90	102-PD-003
DATE	REV
10/2/90	102-PD-003
DATE	REV
10/2/90	102-PD-003




**DIAMOND  
OFFSHORE**

P O BOX 4558  
HOUSTON, TEXAS 77210

DIVERTER LAYOUT



ELEVATION VIEW  
(FROM STBD LOOKING PORT)

No.		REFERENCE		DRAWING No.	
 <b>DIAMOND OFFSHORE</b> P O BOX 4558 HOUSTON, TEXAS 77210					
<b>OCEAN CRUISER</b>					
<b>DIVERTER LAYOUT</b>					
Rev.	Drawn	Drawn By			
1	1/1/90	152-PD-002			
Scale	1/4" = 1'-0"	Scale	1/4" = 1'-0"	Scale	1/4" = 1'-0"
Date	6/16/90	Rev	3 of 3	152p0002c0	Rev

RS-3 (6/28/90)

# **SHALLOW HAZARD STATEMENT**

**ATTACHMENT "I"**

**STONE ENERGY CORP**  
**OCS G 21539, BLOCK 177 LOCATION F, G**  
**WEST CAMERON AREA, OFFSHORE LOUISIANA**

April 7, 2005

**Shallow Drilling Hazards – Archaeological Statement**

In April 2003 Fugro Geophysical Services Inc. completed a geophysical and archaeological survey of West Cameron Block 177 as contractor for Stone Energy Corp. The purpose of the study was to examine seafloor and subsurface conditions within the survey area and inspect for potential hazards to future drilling and construction activity. Comments in this statement are based on survey data and the report entitled Archaeological and Hazard Survey Block 177 (OCS G 21539) West Cameron Area Gulf of Mexico.

The survey field operations were conducted aboard the M/V *L'Arpenteur* on March 14-16, 2003. Horizontal positioning of the survey vessel was accomplished with the Fugro STARFIX® differential global positioning system. Survey instruments include the Odem Echotrac 3200 (200 kHz) digital sounder, O.R.E. Model 140 3.5 kHz Subbottom Profiler, Marine Magnetics SeaSPY Proton Magnetometer, Edge Tech Model 260-TH Side Scan Sonar, 90 cubic inch G.I. Air Gun Profiler, OYO DAS-1 GEOSPACE Recording System. The Seabird SBE-19 Velocimeter was used to measure sound velocity in seawater.

The survey grid consists of 31 primary N – S tracklines spaced 150 meters apart (lines 1 – 31) and 6 E–W tielines spaced 900 meters apart (lines 32 - 37). The trackline grid was designed to provide 100 percent sonar imagery and magnetic coverage and a representative sampling of seismic and magnetic systems to conform to MMS guidelines in effect at the time of the survey.

Water depths in the survey area ranged from -39 feet to -53 feet with zero datum at sea level (Map 1). The seafloor slopes gently to the southeast at 1 foot/mile in the northeast half of the block. The southeast half of the block has northwest-oriented shoal ridges as shallow as -39 feet above an average seafloor -50 to -53 feet deep. Seafloor sediments in the area are reported to be clayey sand. The uppermost sediment sequence seen on subbottom profiles consists of parallel strata locally modified by fluvial processes associated with ancestral channels. An extensively reworked zone of channel deposits underlies the southern two-thirds of the block (Map 2). The highly complex and variable stratigraphy and presence of shallow biogenic gas in the area combine to make individual channel cuts and thalwegs indistinct. Several individual channels are discernable with thalweg depths 13 feet to 72 feet in the northern part of the block and superimposed on the southern complex of deposits. Gas saturation in the channel sediment is interpreted to be in a state of low-pressure equilibrium with no active seepage detected in the water column and no likely drilling hazard indicated. Wells F and G will be placed either within or outside channels because of contrasting relative stability along the channel margins. Air gun data revealed a shallow down-to-the-north fault buried 250 feet below the seafloor and mapped trending northeast-southwest one mile south of proposed well site G.

Manmade features in the study area include well structures and pipelines shown on Map 2. The table on Pages 7 and 8 lists the pipelines crossing Block 177. Seventy-four unidentified

magnetic anomalies are listed specifically on the report Magnetic Anomaly Table in Appendix B and plotted on Map 2. None of the anomalies are located in the vicinity of the proposed wells. The anomalies are believed to largely represent modern debris associated with historic oil and gas activity. No areas having high probability for archeological sites were identified in the survey.

Stone Energy Corporation plans to drill from the following surface location in West Cameron Block 177:

<b><u>Location F</u></b>	<b>X = 1,456,484 Y = 260,418</b>	<b>6000' FWL, 550' FNL Block 177</b>
	<b>Lat: 29° 22' 17.9841"</b>	<b>Long: 93° 02' 22.9567"</b>

<b><u>Location G</u></b>	<b>X = 1,456,184 Y = 257,468</b>	<b>5700' FWL, 3500' FNL Block 177</b>
	<b>Lat: 29° 21' 48.7380"</b>	<b>Long: 93° 02' 25.8501"</b>


Location F is in 49 feet of water. A buried channel margin trending northwest-southeast is mapped 600 feet southwest of the location. An east-west trending TGP 20" pipeline is located 400 feet north of the location along the edge of block WC 177. Caution will be exercised to avoid and protect the pipeline and it is not expected to interfere with proposed drilling operations. The well location for Conoco #2 OCS G 1471 plugged and abandoned well is 1700 feet east of proposed Location F. No structure remains at the well site and it is far enough from proposed operations to have no effect. No other features in the area pose any operational risk or hazard to proposed drilling of Location F.

Location G is in 50 feet of water. The location is in the middle near the 50 foot deep thalweg of a northwest trending 1200 foot wide ancestral channel. Unidentified magnetic anomaly #32 (6 gammas, 64 feet duration) is mapped 800 feet north of the location. An Offshore Energy 10" and a TETCO 30" pipeline cross 1800 feet west of the proposed location. None of these features are expected to interfere with planned drilling operations.

Stone's proposed locations F and G are clear of any natural or manmade hazards that would preclude or interfere with drilling operations.

Attached are sample copies of the geophysical data strip charts pertaining to the proposed locations F and G.

Sincerely,



Theodore M. Gard  
Geologist



Nick Repar  
Chief Geophysicist



## **SPILL RESPONSE**

**ATTACHMENT "J"**

OFFSHORE SKIMMING EQUIPMENT (CLEAN GULF SUPPLIED)

[illegible]

## **POLLUTION PREVENTION MEASURES**

**ATTACHMENT "K"**

## LAND SEGMENT IDENTIFICATION

According to the risk assessment analysis conducted by the Minerals Management Service as part of their OSRAM project, spills originating in the West Cameron Block 177, Launching Area C30, have the potential for impacting land segments from Calhoun, TX to Vermillion, LA within 30 days of oil persisting on the water. The probabilities of impacts are summarized below. The most likely impact areas are the Cameron Parish, LA and Jefferson County, LA areas.

### PROBABILITY OF LAND IMPACT FROM West Cameron 177 (% Chance)

LAND AREA	3 DAYS	10 DAYS	30 DAYS
Calhoun, TX	-	-	1
Matagorda, TX	-	1	5
Brazoria, TX	-	2	4
Chambers, TX	-	8	14
Jefferson, TX	4	17	22
Cameron, LA	25	41	47
Vermillion, LA	1	1	2

# **ENVIRONMENTAL IMPACT ANALYSIS**

**ATTACHMENT "L"**

# **Environmental Impact Analysis**

*West Cameron Area  
Block 177  
OCS-G-21539*

April 11, 2005

Prepared for Stone Energy Corporation  
by Tim Morton & Associates, Inc.

Filename: C:\2005\Stone\West Cameron\119-Block177\EIAWC177.wpd

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## **I. Description of the Proposed Activity**

This environmental impact analysis addresses the activity proposed by Stone Energy Corporation (Stone) for West Cameron Area Block 177 (OCS-G-21539). The approximate location of the activity is presented on a general vicinity map of the Outer Continental Shelf (OCS) lease areas off the coast of Louisiana (Figure 1).

Stone proposes to utilize a jackup rig to drill two wells in West Cameron Area Block 177. More specific information can be found in the attached Exploration Plan.

The proposed activities will be carried out by Stone with a guarantee of the following:

- The best available and safest technologies will be utilized throughout the projects. This includes meeting all applicable requirements for equipment types, general project layout, safety systems, equipment and monitoring systems.
- All operations will be covered by a Minerals Management Service (MMS) approved Oil Spill Response Plan.
- All applicable Federal, State, and local requirements regarding air emissions, water quality, and discharge for the proposed activities, as well as any other permit conditions, will be complied with.



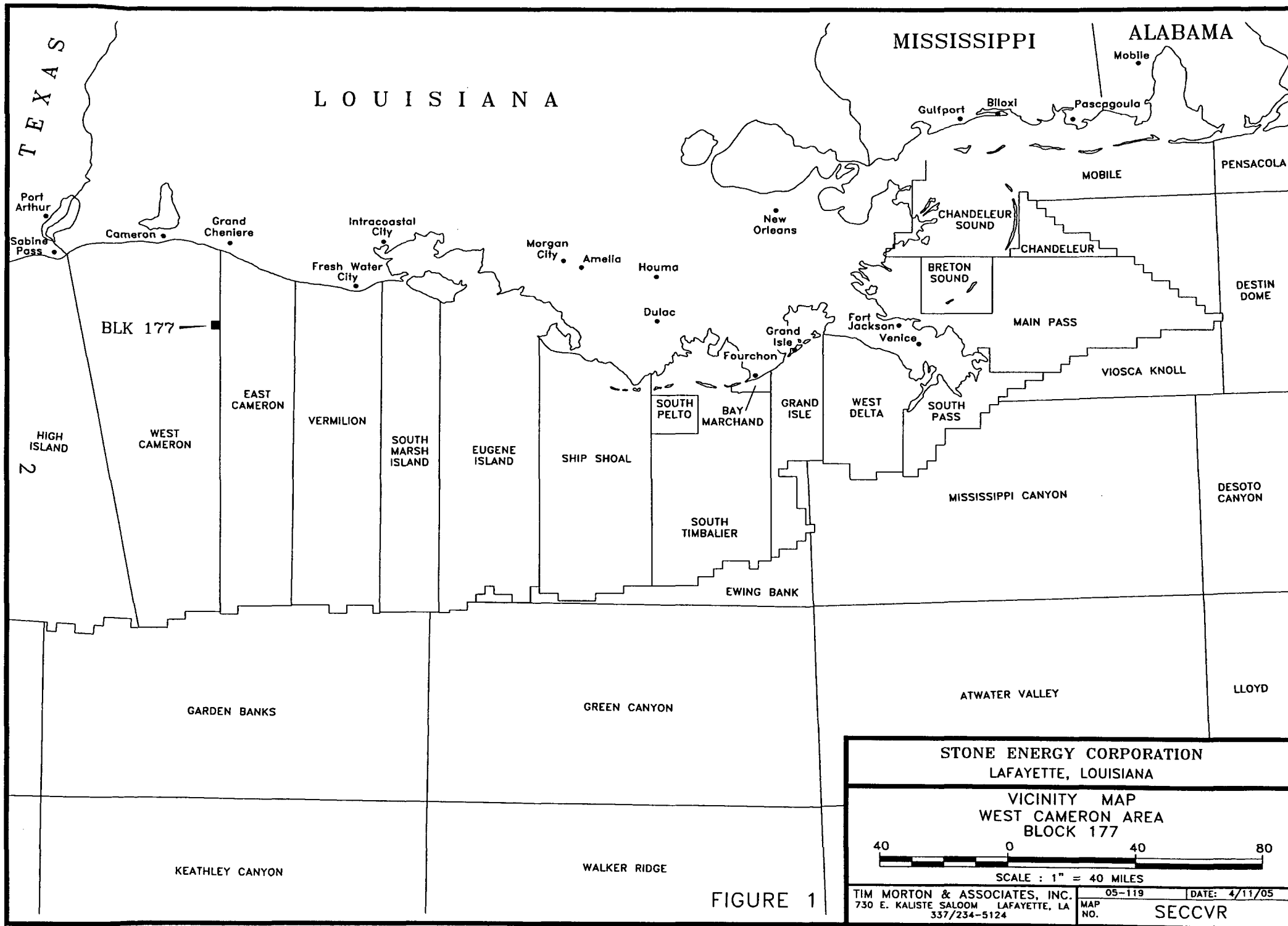


FIGURE 1

## II. Impact-Producing Factors

Environmental Resources	Impact Producing Factors (IPF's) Categories and Examples Refer to a recent GOM OCS Lease Sale EIS for a more complete list of IPF's					
	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, H2S releases)	Other IPF's you identify
<b>Site-specific at Offshore Location</b>						
Designated topographic features						
Pinnacle Trend area live-bottoms						
Eastern Gulf live bottoms						
Chemosynthetic communities						
Water quality		X			X	
Fisheries					X	
Marine mammals	X				X	
Sea turtles	X				X	
Air quality	X					
Shipwreck sites (known or potential)						
Prehistoric archaeological sites			X			
<b>Vicinity of Offshore Location</b>						
Essential fish habitat					X	
Marine and pelagic birds					X	
Public health and safety						
<b>Coastal and Onshore</b>						
Beaches					X	
Wetlands					X	
Shore birds and coastal nesting birds	X				X	
Coastal wildlife refuges					X	
Wilderness areas					X	
<b>Other Resources You Identify</b>						

### **III. Analysis of Impact-Producing Factors**

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

##### **1. Designated Topographic Features**

After a review of impact-producing factors (including effluents, physical disturbances to the seafloor, and accidents) resulting from activities proposed in the Exploration Plan, there will be no adverse impacts to topographic features. West Cameron Area Block 177 is located approximately 75 miles northwest of Sonnier Bank, the nearest known topographic feature.

The following discussion of topographic features is summarized from the Final Environmental Impact Statement (USDOI, OCS EIS/EA MMS 2002-052). The Topographic Lease Stipulation has been used on leases since 1973, and this experience shows conclusively that the stipulation effectively prevents damage to the biota of these banks from routine oil and gas activities. In the unlikely event of an accidental surface or subsurface oil spill, concentrated oil is not expected to impact sessile biota on topographic features. Crests of designated topographic features in the northern Gulf of Mexico are found below 10 meters; therefore, concentrated oil from a surface spill is not likely to reach sessile biota. Subsurface spills could result in the formation and settling of oil-saturated material, and oil-sediment particles could come into contact with living coral tissue; however, a subsurface spill should rise to the surface, and any oil remaining at depth would probably be swept clear of the banks by currents moving around the banks (Rezak et al., 1983). Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

##### **2. Pinnacle Trend Area Live Bottoms**

After a review of impact-producing factors (including effluents, physical disturbances to the seafloor, and accidents) resulting from activities proposed in the Exploration Plan, there will be no adverse impacts to pinnacle trend live bottoms. West Cameron Area Block 177 is located approximately 274 miles west of Main Pass Area Block 290, the nearest block protected by the pinnacle trend live bottom stipulation.

The following discussion of pinnacle trend area live bottoms is summarized from the Final Environmental Impact Statement (USDOI, OCS EIS/EA MMS 2002-052). By identifying the individual pinnacles present at the activity site, the lessee would be directed to avoid placement of the drilling rig and anchors on the sensitive areas. Thus, mechanical damage to the pinnacles is eliminated when measures required by the stipulation are imposed. The stipulation does not address the discharge of effluents near the pinnacles because the pinnacle trend is subjected to heavy natural sedimentation and is at considerable depths. The rapid dilution of drill cuttings and muds will minimize the potential of significant concentration of effluents on the pinnacles.

In the unlikely event of an accidental surface or subsurface oil spill, concentrated oil is not expected to impact biota of the pinnacle trend. Any surface oil spill resulting from a proposed action would likely have no impact on the biota of the pinnacle trend because the crests of these features are much deeper than 20 meters. All evidence to date indicates that accidental oil discharges that occur at the seafloor from a pipeline or blowout would rise in the water column, surfacing almost directly over the source

location, and thus not impact pinnacles. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

### **3. Eastern Gulf Live Bottoms**

After a review of impact-producing factors (including effluents, physical disturbances to the seafloor, and accidents) resulting from activities proposed in the Exploration Plan, there will be no adverse impacts to eastern gulf live bottoms. West Cameron Area Block 177 is located approximately 316 miles west of the nearest block protected by the eastern gulf live bottom stipulation.

The following discussion of eastern gulf live bottoms is summarized from the Final Environmental Impact Statement (USDOl, OCS EIS/EA MMS 2000-077). Through detection and avoidance, the eastern gulf live bottom lease stipulation minimizes the likelihood of mechanical damage from OCS activities associated with rig and anchor emplacement to the sessile and pelagic communities associated with the crest and flanks of such features. Since this area is subject to heavy natural sedimentation, this stipulation does not include and specific measures to protect the pinnacles from the discharge of effluents.

In the unlikely event of an accidental surface or subsurface oil spill, concentrated oil is not expected to impact eastern gulf live bottoms because of the depth of the features and dilution of spills by currents and/or quickly rising oil. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

### **4. Chemosynthetic Communities**

After a review of impact-producing factors (including effluents, physical disturbances to the seafloor, and accidents) resulting from activities proposed in the Exploration Plan, there will be no adverse impacts to chemosynthetic communities. Bottom-disturbing activities proposed in this Exploration Plan will not impact any deepwater chemosynthetic communities as the water depth at the surface locations of the proposed wells is approximately 50 feet.

The following discussion of chemosynthetic communities is summarized from the Final Environmental Impact Statement (USDOl, OCS EIS/EA MMS 2002-052). Impacts to chemosynthetic communities from any oil released would be a remote possibility. Release of hydrocarbons associated with a blowout should not present a possibility for impact to chemosynthetic communities located a minimum of 457 meters (1,500 feet) from well sites. West Cameron Area Block 177 is located approximately 119 miles north-northwest of Garden Banks Area Block 297, the nearest block with a known chemosynthetic community. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

### **5. Water Quality**

After a review of impact-producing factors (including effluents and accidents) resulting from activities proposed in the Exploration Plan, there are potential impacts to water quality. The discharges generated as a result of drilling and production activities associated with this Exploration Plan will be discharged upon successful bioassay test as per NPDES discharge guidelines. Solids wastes; typically paper, plastic, cloth, and metal, will be collected and transported to shore for disposal at an approved disposal facility. Solid wastes generated from the transportation vessels, normally just garbage,

will be collected and returned to shore for disposal with the drilling rig refuse. Scrap metal and other metal wastes will be recycled or sold as scrap and will not be shipped to a disposal facility with the other refuse. Sanitary wastes will be treated in approved marine sanitation devices as required by the Clean Water Act. All biodegradable wastes, such as kitchen food scraps, will be comminuted or ground and discharged in accordance with Annex V of MARPOL 73/78. Hazardous wastes from the drilling rig, such as paint, or paint thinner, will be collected in sealed metal containers and transported to an approved disposal site in accordance with RCRA guidelines. All applicable Federal, State, and local requirements regarding water quality and discharge for the proposed activities, as well as any other permit conditions, will be complied with.

The following discussion of potential impacts to water quality is summarized from the Final Environmental Impact Statement (USDOJ, OCS EIS/EA MMS 2002-052). In the unlikely event of an accidental surface or subsurface oil spill, a variety of physical, chemical, and biological processes act to disperse the oil slick, such as spreading, evaporation of the more volatile constituents, dissolution into the water column, emulsification of small droplets, agglomeration sinking, microbial modification, photochemical modification, and biological ingestion and excretion. The water quality would be temporarily affected by the dissolved components and small oil droplets that do not rise to the surface or are mixed down by surface turbulence. Dispersion by currents and microbial degradation would remove the oil from the water column or dilute the constituents to background levels. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

## **6. Fisheries**

After a review of impact-producing factors (including accidental oil spills) resulting from activities proposed in the Exploration Plan, there are potential impacts to fisheries. In the unlikely event of an accidental surface or subsurface oil spill, there is the potential for some detrimental effects to fisheries.

The following discussion of potential impacts to fisheries is summarized from the Final Environmental Impact Statement (USDOJ, OCS EIS/EA MMS 2002-052). The Gulf sturgeon (Ancipenser oxyrinchus desotoi) is the only listed threatened fish species in the Gulf of Mexico. The Gulf sturgeon could be impacted by oil spills. Contact with spilled oil could cause irritation of gill epithelium and disturbance of liver function in Gulf sturgeon. The likelihood of spill occurrence and contact to the Gulf sturgeon is very low.

Should a spill occur in the area of mobile adult finfish or shellfish, the effects would likely be sublethal and the extent of the damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

## **7. Marine Mammals**

After a review of impact-producing factors (including vessel traffic, noise, accidental oil spills, and loss of trash and debris) resulting from activities proposed in the Exploration Plan, there are potential impacts to marine mammals. Endangered or threatened marine mammal species which might occur in the Gulf of Mexico are West Indian manatee (Trichechus manatus), northern right whale (Eubalaena glacialis), fin whale

(Balaenoptera physalus), humpback whale (Megaptera novaeangliae), sei whale (B. borealis), sperm whale (Physeter macrocephalus), and blue whale (B. musculus)(USDOI, OCS EIS/EA MMS 2002-052). Several non-endangered and non-threatened mammal species of whales and dolphins also occur in the Gulf of Mexico.

The following discussion of potential impacts to marine mammals is summarized from the Final Environmental Impact Statement (USDOI, OCS EIS/EA MMS 2002-052). Small numbers of marine mammals could be killed or injured by chance collision with service vessels and by eating indigestible debris, particularly plastic items, lost from service vessels, drilling rigs, and fixed and floating platforms. Sperm whales are one of the 11 whale species that are hit commonly by ships (Laist et al., 2001). Collisions between OCS vessels and cetaceans within the project area are expected to be unusual events.

Deaths due to structure removals are not expected due to existing mitigation measures or those being developed for structures placed in oceanic waters. There is no conclusive evidence whether anthropogenic noise has or has not caused long-term displacements of, or reductions in, marine mammal populations. Contaminants in waste discharges and drilling muds might indirectly affect marine mammals through food-chain biomagnification, although the scope of effects and their magnitude are not known.

Chronic and sporadic sublethal effects could occur that may stress and/or weaken individuals of a local group or population and make them more susceptible to infection from natural or anthropogenic sources. Few lethal effects are expected from oil spills, chance collisions with service vessels and ingestion of plastic material. Oil spills of any size are estimated to be aperiodic events that may contact cetaceans. Disturbance (e.g. noise) may stress animals, weaken their immune systems, and make them more vulnerable to parasites and diseases that normally would not be fatal.

The net result of any disturbance would depend on the size and percentage of the population affected, ecological importance of the disturbed area, environmental and biological parameters that influence an animal's sensitivity to disturbance and stress, and the accommodation time in response to prolonged disturbance (Geraci and St. Aubin, 1980). Routine oil and gas activities are not expected to have long-term adverse effects on the size and productivity of any marine mammal species or population stock endemic to the northern Gulf of Mexico.

## **8. Sea Turtles**

After a review of impact-producing factors (including vessel traffic, noise, accidental oil spills, and loss of trash and debris) resulting from activities proposed in the Exploration Plan, there are potential impacts to sea turtles. Endangered or threatened sea turtle species which might occur in the Gulf of Mexico are Kemp's ridley turtle (Lepidochelys 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 following discussion of potential impacts to sea turtles is summarized from the Final Environmental Impact Statement (USDOI, OCS EIS/EA MMS 2002-052). Routine activities resulting from a proposed action have the potential to harm individual sea turtles. These animals could be impacted by the degradation of water quality resulting

from operational discharges; noise generated by helicopter and vessel traffic, platforms, and drillships; brightly-lit platforms; explosive removals of offshore structures; vessel collisions; and jetsam and flotsam generated by service vessels and OCS facilities. Lethal effects are most likely to be from chance collisions with OCS service vessels and ingestion of plastic materials. "Takes" due to explosive removals are expected to be rare due to mitigation measures already established (e.g. National Marine Fisheries Service (NMFS) Observer Program) and in development. Most OCS activities are expected to have sublethal effects. Contaminants in waste discharges and drilling muds might indirectly affect sea turtles through food-chain biomagnification; there is uncertainty concerning the possible effects. Chronic sublethal effects (e.g. stress) resulting in persistent physiological or behavioral changes and/or avoidance of impacted areas could cause declines in survival or fecundity, and result in either population declines, however, such declines are not expected. The routine activities of a proposed action are unlikely to have significant adverse effects on the size and recovery of any sea turtle species or population in the Gulf of Mexico.

In the unlikely event of an accidental surface or subsurface oil spill, sea turtles could be adversely impacted. Oil spills and oil-spill-response activities are potential threats that could have lethal effects on turtles. Contact with oil, consumption of oil particles, and oil-contaminated prey could seriously affect individual sea turtles. Oil-spill-response planning and the habitat protection requirements of the Oil Pollution Act of 1990 should mitigate these threats.

#### **9. Air Quality**

Estimated air emissions associated with the proposed activities have been calculated and were determined to be below the MMS exemption levels for particulates, sulfur oxides, nitrogen oxides, volatile organic compounds and carbon monoxide. There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities; however, the emissions associated with the proposed activities are not projected to have significant effects on onshore air quality.

#### **10. Shipwreck Sites (known or potential)**

After a review of impact-producing factors (including physical disturbances to the seafloor) resulting from activities proposed in the Exploration Plan, there will be no adverse impacts to known or potential shipwreck sites. The area of proposed activities falls outside the zone designated as an area with a high probability of historic shipwrecks.

#### **11. Prehistoric Archaeological Sites**

After a review of impact-producing factors (including physical disturbances to the seafloor) resulting from activities proposed in the Exploration Plan, there are potential impacts to prehistoric archaeological sites. The area of proposed activities falls within the zone designated as an area with a high probability of pre-historic archeological resources. A Geophysical and Archaeological Survey Report was prepared for West Cameron Area Block 177 by Fugro Geophysical Services in April 2003. Stone prepared a Shallow Drilling Hazards - Archaeological Statement for the proposed surface locations based on data collected in that survey and information in that report. As stated in the Shallow Drilling Hazards - Archaeological Statement, no areas having high probability for archaeological sites were identified in the survey.

## **B. Vicinity of Offshore Location**

### **1. Essential Fish Habitat**

After a review of impact-producing factors (including accidental oil spills) resulting from activities proposed in the Exploration Plan, there are potential impacts to essential fish habitat. In the unlikely event of an accidental surface or subsurface oil spill, there is the potential for some detrimental effects to essential fish habitat.

The following discussion of potential impacts to essential fish habitat is summarized from the Final Environmental Impact Statement (USDOJ, OCS EIS/EA MMS 2002-052). Should a spill occur in the area of a mobile adult finfish or shellfish, the effects would likely be sublethal and the extent of the damage would be reduced to the capability of adult fish and shellfish to avoid a spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

### **2. Marine and Pelagic Birds**

After a review of impact-producing factors (including vessel traffic, noise, accidental oil spills, and loss of trash and debris) resulting from activities proposed in the Exploration Plan, there are potential impacts to marine and pelagic birds.

The following discussion of potential impacts to marine and pelagic birds is summarized from the Final Environmental Impact Statement (USDOJ, OCS EIS/EA MMS 2002-052). The majority of effects on endangered/threatened and non-endangered/non-threatened marine birds are expected to be sublethal: behavioral effects, sublethal exposure to or intake of OCS-related contaminants or discarded debris, temporary disturbances, and displacement of localized groups from impacted habitats. Chronic sublethal stress, however, is often undetectable in birds. As a result of stress, individuals may weaken, facilitating infection and disease; then migratory species may not have the strength to reach their destination. No significant habitat impacts are expected to occur directly from routine activities resulting from a proposed action.

Oil spills pose the greatest potential direct and indirect impacts to marine birds. Birds that are heavily oiled are usually killed. If physical oiling of individuals or local groups of birds occurs, some degree of both acute and chronic physiological stress associated with direct and secondary uptake of oil would be expected. Lightly oiled birds can sustain tissue and organ damage from oil ingested during feeding and grooming or from oil that is inhaled. Stress and shock enhance the effects of exposure and poisoning. Low levels of oil could stress birds by interfering with food detection, feeding impulses, predator avoidance, territory definition, homing of migratory species, susceptibility to physiological disorders, disease resistance, growth rates, reproduction, and respiration. Reproductive success can be affected by the toxins in oil. Indirect effects occur by fouling of nesting habitat, and displacement of individuals, breeding pairs, or populations to less favorable habitats. Dispersants used in spill cleanup activity can have toxic effects similar to oil on the reproductive success of marine birds. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).



### **3. Public Health and Safety**

After a review of impact-producing factors (including an accidental H<sub>2</sub>S release) resulting from activities proposed in the Exploration Plan, there will be no adverse impacts to public health and safety. Stone requests that West Cameron Area Block 177 be classified as an area where the absence of H<sub>2</sub>S has been confirmed.

## **C. Coastal and Onshore**

### **1. Beaches**

After a review of impact-producing factors (including accidental oil spills) resulting from activities proposed in the Exploration Plan, there are potential impacts to beaches. West Cameron Area Block 177 is located approximately 22 miles from the coast of Cameron Parish, Louisiana. Due to the distance from shore and the available oil spill response capabilities, no adverse impacts to beaches are anticipated as a result of the proposed activities. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

### **2. Wetlands**

After a review of impact-producing factors (including accidental oil spills) resulting from activities proposed in the Exploration Plan, there are potential impacts to wetlands. West Cameron Area Block 177 is located approximately 22 miles from the coast of Cameron Parish, Louisiana. Due to the distance from shore and the available oil spill response capabilities, no adverse impacts to wetlands are anticipated as a result of the proposed activities. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

### **3. Shore Birds and Coastal Nesting Birds**

After a review of impact-producing factors (including vessel traffic, noise, accidental oil spills, and loss of trash and debris) resulting from activities proposed in the Exploration Plan, there are potential impacts to shore birds and coastal nesting birds. West Cameron Area Block 177 is located approximately 22 miles from the coast of Cameron Parish, Louisiana. Due to the distance from shore and the available oil spill response capabilities, no adverse impacts to shore birds and coastal nesting birds are anticipated as a result of the proposed activities.

The following discussion of potential impacts to shore birds and coastal nesting birds is summarized from the Final Environmental Impact Statement (USDO, OCS EIS/EA MMS 2002-052). The majority of effects on endangered/threatened and non-endangered/non-threatened shore birds and coastal nesting birds are expected to be sublethal: behavioral effects, sublethal exposure to or intake of OCS-related contaminants or discarded debris, temporary disturbances, and displacement of localized groups from impacted habitats. Chronic sublethal stress, however, is often undetectable in birds. As a result of stress, individuals may weaken, facilitating infection and disease; then migratory species may not have the strength to reach their destination. No significant habitat impacts are expected to occur directly from routine activities resulting from a proposed action. Secondary impacts to coastal habitats will occur over the long-term and may ultimately displace species from traditional sites to alternative sites.

Oil spills pose the greatest potential direct and indirect impacts to shore birds and coastal nesting birds. Birds that are heavily oiled are usually killed. If physical oiling of

individuals or local groups of birds occurs, some degree of both acute and chronic physiological stress associated with direct and secondary uptake of oil would be expected. Small coastal spills, pipeline spills, and spills from accidents in navigated waterways can contact and affect the different groups of coastal birds, most commonly marsh birds, waders, waterfowl, and certain shorebirds. Lightly oiled birds can sustain tissue and organ damage from oil ingested during feeding and grooming or from oil that is inhaled. Stress and shock enhance the effects of exposure and poisoning. Low levels of oil could stress birds by interfering with food detection, feeding impulses, predator avoidance, territory definition, homing of migratory species, susceptibility to physiological disorders, disease resistance, growth rates, reproduction, and respiration. Reproductive success can be affected by the toxins in oil. Indirect effects occur by fouling of nesting habitat, and displacement of individuals, breeding pairs, or populations to less favorable habitats. Dispersants used in spill cleanup activity can have toxic effects similar to oil on the reproductive success of marine birds. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

#### **4. Coastal Wildlife Refuges**

After a review of impact-producing factors (including accidental oil spills) resulting from activities proposed in the Exploration Plan, there are potential impacts to coastal wildlife refuges. West Cameron Area Block 177 is located approximately 22 miles southwest of Rockefeller Refuge, the nearest coastal wildlife refuge. Due to the distance from this refuge and the available oil spill response capabilities, no adverse impacts to coastal wildlife refuges are anticipated as a result of the proposed activities. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

#### **5. Wilderness Areas**

After a review of impact-producing factors (including accidental oil spills) resulting from activities proposed in the Exploration Plan, there are potential impacts to wilderness areas. West Cameron Area Block 177 is located approximately 22 miles from Cameron Parish, Louisiana. Due to the distance from shore and the available oil spill response capabilities, no adverse impacts to wilderness areas are anticipated as a result of the proposed activities. Activities proposed in the Exploration Plan will be covered by Stone's Oil Spill Response Plan (OSRP).

### **D. Other Environmental Resources Identified**

None

## **IV. Impacts on Proposed Activities**

A Shallow Drilling Hazards - Archaeological Statement was prepared for the proposed surface locations. The surface locations were evaluated for any seafloor and subsurface geological and manmade features and conditions that may adversely affect operations. No impacts are expected on the proposed activities from site-specific environmental conditions.

## V. Alternatives

No alternatives to the proposed activities were considered to reduce environmental impacts.

## VI. Mitigation Measures

No mitigation measures other than those required by regulation will be employed to avoid, diminish, or eliminate potential impacts on environmental resources.

## VII. Consultation

No agencies or persons were consulted regarding potential impacts associated with the proposed activities. Therefore, a list of such entities has not been provided.

## VIII. References

*Geracie, J. R. and D. J. St. Aubin*

- 1980 Offshore petroleum resource development and marine mammals: a review and research recommendations. *Marine Fisheries Review*. 42:1-12.

*Laist, D. W., A. R. Knowlton, J. G. Mead, A. S. Collet, and M. Podesta*

- 2001 Collisions between ships and whales. *Marine Mammal Science*. 17:35-75.

*U. S. Department of the Interior, Fish and Wildlife Service*

- 1976 Endangered and threatened species of the southeastern United States. Region IV, Atlanta, Georgia (periodically updated).

*U. S. Department of the Interior, Minerals Management Service*

- 2002 Final Environmental Impact Statement, Gulf of Mexico OCS Oil and Gas Lease Sales: 2003-2007, Central Planning Area Sales 185, 190, 194, 198, and 2001: Western Planning Area Sales 187, 192, 196, and 200, Volume I. Prepared by Minerals Management Service, Gulf of Mexico, OCS Region, New Orleans, Louisiana.

# **COSTAL ZONE CONSISTENCY CERTIFICATION**

**ATTACHMENT "M"**

COASTAL ZONE MANAGEMENT CONSISTENCY CERTIFICATE

EXPLORATION PLAN

GULF OF MEXICO

FOR

WEST CAMERON AREA BLOCK 177

OCS-G-21539

SUBMITTED TO:

MS. AMY FELL

STONE ENERGY CORPORATION

P. O. BOX 52807

LAFAYETTE, LOUISIANA 70505

(337/237-0410)

APRIL 12, 2005

PREPARED BY:

TIM MORTON & ASSOCIATES, INC.

REGULATORY & ENVIRONMENTAL CONSULTANTS

PROJECT NO. 05-119

COASTAL ZONE MANAGEMENT

CONSISTENCY CERTIFICATION

EXPLORATION

.....

Type of Plan

WEST CAMERON AREA BLOCK 177

.....

Area and Block

OCS-G-21539

.....

Lease Number

The proposed activities described in detail in the attached Plan comply with Louisiana's approved Coastal Management Program and all relevant enforceable policies and will be conducted in a manner consistent with such Program.

STONE ENERGY CORPORATION

.....

Lessee or Operator

*Amy Zell*

.....

Certifying Official

*4-12-05*

.....

Date

## **WASTES AND DISPOSAL TABLES**

**ATTACHMENT "N"**

**Wastes and Discharges Information**
**Table 1. Discharges Table (Wastes to be discharged overboard)**

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	820 bbl/well	220 bbl/hr	WC 177 'F' & 'G' Loc Discharge at Surface
Drill cuttings associated with water-based fluids	4700 bbl/well	2200 bbl/hr	WC 177 'F' & 'G' Loc Discharge at Surface
Drill cuttings associated with synthetic drilling fluids	1200 bbl/well	320 bb/hr	WC 177 'F' & 'G' Loc Recycle & Discharge at Surface
Muds, cuttings and cement at the seafloor -- Subsea Wells only	Not Applicable	Not Applicable	Not Applicable
Well Completion, Treatment, or Workover Fluids	Compl- 2800 bbl/well Workover-300 bbl/well Treatment-250 bbl/well	300 bbl/well every 3 years after initial completion	WC 177 'F' & 'G' Loc Discharge used fluids overboard, return excess to shore for credit.
Miscellaneous discharges (permitted under NPDES) (Excess cement with cementing chemicals)	500 bbl/well	900 bbl/hr	WC 177 'F' & 'G' Loc Discharge at Surface
Uncontaminated fresh or seawater (cooling water)	216,000 bbl/well (drilling/rig operations) avg. daily - 2500 bbl/day	150 bbl/hr	WC 177 'F' & 'G' Loc Discharge at Surface
Uncontaminated ballast seawater	32,000 bbl per well	15,000 bbl/hr	WC 177 'F' & 'G' Loc Discharge at Surface
Uncontaminated bilge water	Not Applicable	Not Applicable	WC 177 'F' & 'G' Loc Discharge at Surface
Desalinization Unit	402,000 bbl/well 6700 bbl/day	Not Applicable	WC177 'F' & 'G' Loc Discharge at Surface
Sanitary wastes	20 gal/person/day	Not Applicable	WC 177 'F' & 'G' Loc Chlorinate & Discharge at Surface
Domestic waste-food	1800/well 30 gal/day	Not Applicable	WC 177 'F' & 'G' Loc & Discharge at Surface
Deck Drainage	1)Dependant upon rainfall 2)Wash/Rinse water -1500 bbl (25bbl/day)	1) 0-4,000 bbl/day 2) 100 bbl/day	WC 177 'F' & 'G' Loc Discharge at Surface with no oil & grease

- Area, block, MMS facility ID (if available)



**Wastes and Discharges Information****Table 2. Disposal Table (Wastes to be disposed of, not discharged overboard)**

<b>Type of Waste Approximate Composition</b>	<b>Amount</b>	<b>Rate per Day</b>	<b>Name/Location of Disposal Facility</b>	<b>Treatment and/or Storage, Transport and Disposal Method</b>
Spent oil-based drilling fluids and cuttings	1200 bbl/well	320 bbl/hr	Newpark Cameron, LA	Transport in USCG approved temporary storage tank on offshore service vessels to shorebase.
Spent synthetic-based drilling fluids and cuttings	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Workover fluids	150 bbl	5 bbl/day	Energy Logistics, Inc. Cameron, LA.	Transport in USCG approved temporary storage tank on offshore service vessels to shorebase.
Trash and debris	60,000 ft <sup>2</sup> /well	12 ft <sup>2</sup> /day	Energy Logistics, Inc. Cameron, LA.	Transport in storage bins on offshore service vessels to shorebase