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**US Department of the Interior
Minerals Management Service
Mail Stop 4024
381 Elden Street
Herndon, VA 20770-4817
ATTN: Rules Processing Team**

Dear Sirs:

Attached are comments (three copies) submitted by EEX Corporation in response to the department's proposed rule affecting Oil and Gas and Sulphur Operations on the Outer Continental Shelf; Suspension of Operations for Explorations under Salt Sheets. EEX is pleased to provide additional detail and/or clarification to any/all of the issues and points addressed herein. For additional information, please contact me at the above number.

Sincerely,

A handwritten signature in cursive script that reads "Richard L. Edmonson".

**Richard L. Edmonson
Senior Vice President and General Counsel**

Comments Submitted on Behalf of EEX Corporation

In Response to the Minerals Management Service (MMS) Proposed Rule Affecting Oil and Gas and Sulphur Operations on the Outer Continental Shelf; Suspension of Operations for Exploration Under Salt Sheets

EEX Corporation is pleased to comment on the MMS' Proposed rulemaking allowing for Suspension of Operations Determinations for Subsalt leases in the Gulf of Mexico. EEX is an independent oil and gas exploration company headquartered in Houston, Texas. The company is engaged in exploration and production activities in Texas, Louisiana, the Gulf of Mexico and Indonesia. The management and technical staff of EEX have extensive experience in many of the premier frontier and producing areas of hydrocarbons throughout the world and are actively engaged in offshore exploration in the Gulf of Mexico. The company, though small in size, currently controls just under 100 blocks in the OCS, including 67 in deep water and 29 blocks on the shelf. Within the past five years, the company has invested over \$250 million in the OCS and up until recently, held the record for the deepest productive well (Llano prospect) in the Gulf. The company was recently nominated by the MMS as a Safety Award for Excellence (SAFE) finalist for 2000 and continues to be both a creative, resourceful and environmentally responsible steward for OCS resources.

EEX applauds the Department and MMS for proposing to provide additional conditions for lease extensions for operators drilling to subsalt targets. EEX has long maintained that the technical challenges, necessary equipment and cost considerations associated with subsalt exploration are comparable to those involved with deep water drilling activities, yet the lease terms for shallow water subsalt efforts are generally five year terms, while the term periods for blocks in deep water are 10 years in length. While we support the intent of the proposed rulemaking, EEX respectfully suggests that the department's rules and guidelines governing OCS operations should generally be amended to allow for comparability of lease terms based on technical challenges, cost and subsea target depth (of wells) considerations rather than mere water depth.

In addition, in the interest of promoting enhanced activity with respect to exploration and production activity in the Gulf of Mexico and the OCS generally in order for the US to develop more domestic hydrocarbon resources, EEX recommends that the MMS undertake an analysis to identify impediments that are limiting OCS activity. Typically, when energy companies are evaluating where to put their capital exploration dollars – either in the US or abroad – two of the major advantages/incentives for investing in foreign countries are the large size of the concession blocks (sizes of 1 million acres or more are not uncommon, allowing concession acreage to encompass multiple prospects) and the flexibility afforded by negotiated work and lease term commitments. EEX believes that for the department to best exploit, both in terms of timing and efficiency, the vast resource potential of deep, subsalt targets on the shelf, additional new regulations will be required that more completely address with certainty, the issues of lease term extension and provide additional flexibility with respect to leasehold management,

including the consideration of plans for forming non-contiguous block exploration units where the target horizon is below salt sheets and in excess of specified subsea depths. EEX, would, of course, be pleased to work with MMS in an effort to explore and establish suggestions for new regulation in this area.

With respect to the specific issues raised in Proposed Rulemaking on Suspension of Operations for Exploration Under Salt Sheets, as published in the Federal Register on January 9, 2001, EEX would like to convey the following points:

1. With respect to S.250.175 (b), EEX strongly recommends that the maximum lease term extension period allowed under a Suspension of Operations determination be increased from 3 to 5 years. Such an extension would provide lessees with adequate time to analyze appropriate data, negotiate with prospective unit partners, secure appropriate drilling equipment, including the special gorilla-size rigs necessary to drill to target depth, identify well sites and complete well planning activities. Allowing for the lease term to be extended would place the term lengths for difficult shallow water, subsalt blocks on an even par with lease term lengths for deep water blocks, where the well costs, risks, technical challenges and equipment needs are comparable.

EEX recognizes that the January 8 proposal provides for extensions/suspensions of up to 3 years in length, and suggests that longer (up to a maximum of five years) or shorter terms could be approved on a case by case basis, depending on lessees' meeting additional criteria with regard to well depths and meeting certain milestones within prescribed timeframes within that period. In this regard, EEX would note that both the United States Senate (S. 1766, section 607) and the House of Representatives (HR 4, section 6231 (k)) have included provisions in pending legislation that address the intent and need for regulatory flexibility regarding lease term extensions/suspensions in the case of subsalt exploration in order to prevent waste or facilitate the discovery of additional hydrocarbon resources; and that in this regard neither bill imposes or otherwise specifies any maximum time period, instead leaving to the department and the Secretary broad discretion to make such adjustments.

2. The Proposed Rule identifies five conditions that need to be met in order for the Regional Supervisor to grant a suspension of operations (SOO). The first condition is that the lease in question be issued with an initial term of 5 years or with an initial term of 8 years and a requirement to drill within 5 years. The inclusion of leases with 8-year terms and 5 year drilling requirements would extend this suspension provision to blocks in deep water. EEX supports this condition and the concept of providing lease term extensions/relief on subsalt or salt-related prospects irrespective of water depth.

3. The second condition to be met in order to qualify for suspension relief requires that the lessee has collected and analyzed "appropriate" geophysical information prior to the end of the third lease year. The proposal defines appropriate geophysical information as full 3-D seismic depth migration beneath the salt sheet and over the entire lease area. While 3D seismic pre-stack depth migration is the technically preferred method of

imaging beneath and around salt, the requirement that this method be done prior to the end of the third year is unnecessarily burdensome and may be prohibitively expensive for smaller companies. Given the size of the structures we are now mapping below salt on the OCS shelf, it may be necessary to reprocess 60 or more blocks in order to properly image proposed drillsites. Processing projects of this magnitude often take more than a year from initial input to output, not including interpretation, offset lease negotiation and well planning time.

Large aperture processing projects can cost upwards of \$6-8 million dollars; thereby placing smaller companies at a commercial disadvantage. The imaging of seismic data (migration processing) in areas of complicated geology, like the sub-salt of the Gulf of Mexico, requires a detailed model of subsurface imaging velocities. Given the costs and uncertainties of the process, companies routinely select initial exploratory well drillsites from pre-stack time migrated data (a quicker, less costly technique) and pre-stack depth migrate after obtaining initial well control. Without adequate well control near and below the salt to properly constrain velocities, however, it is very likely that an entire 60 block volume will require multiple rounds of processing; multiplying the costs mentioned above. By way of personal experience, EEX notes that we have 7 versions of migrations of data over the Llano area. The final 3D pre-stack depth migration with 45 blocks in-19 out benefited greatly from new points of control gathered via drilling. Given the advantages of proper well control prior to depth migration, and the dearth of wells below salt in most of the Gulf of Mexico, EEX proposes that the definition of "appropriate geophysical information" be amended to include 3-D pre-stack time migrated data over the prospect area to give companies the flexibility to meet the requirement for the SOO but not utilize their scarce resources on a data set which does not yet have the information necessary to justify the expense and time required for pre-stack depth migration.

4. The proposal sets out a third condition, requiring that the geophysical information must confirm the presence of a salt sheet as well as evidence that a drillable objective may exist beneath the salt sheet.

While the term "salt sheet" may be a generic category or description for MMS purposes, EEX would recommend substituting the following: "salt sheet, salt mass, diapir, salt weld and/or salt-sediment sheath," or ensuring that these terms are encompassed under the generic description of "salt sheet" in order to adequately cover a variety of subsalt-type structures, each of which presents its own imaging and drilling challenges.

Further, EEX would note that in some instances the salt may only cover a portion of the target hydrocarbon accumulation. Consequently, there could be instances where there may be no drillable objectives actually beneath salt, but the salt may, nonetheless, pose a very significant impediment to either imaging or drilling or both. In all of its varied forms, salt acts as a lens to seismic energy; varyingly focusing and de-focusing the seismic data image. In drilling the objective, the operator may desire or be required to drill around the salt. In this case, advanced imaging is critical to avoiding drilling into salt unexpectedly.

Llano 3 unexpectedly drilled into a salt overhang – greatly complicating the drilling process and contributing to excessive well costs. The well was spud to meet the continuous drilling obligation of a Unit and the five-year clock on GB 385 and while depth migration was underway, but before results were known. Having the results of the depth migration prior to spud could have enabled the Llano partnership to avoid significant cost overruns.

In drilling the objective, salt may be found in some wells and not in others if salt welds are encountered. For example, in the “Conger” discovery in Garden Banks, the GB 215 #4 and #5 wells encountered more than 750 feet of salt, true vertical depth. The GB 215 #6 well drilled through a salt weld, which is part of the same salt system, and encountered effectively no salt. (See example 1 below.)

5. The fourth condition proposed for granting an SOO request requires the applicant to have completed additional reprocessing prior to submitting the application for suspension. In lieu of the “completed” requirement, EEX respectfully suggests that MS amend the condition to allow the SOO when applicants have initiated/begun (but not necessarily have completed) the reprocessing.

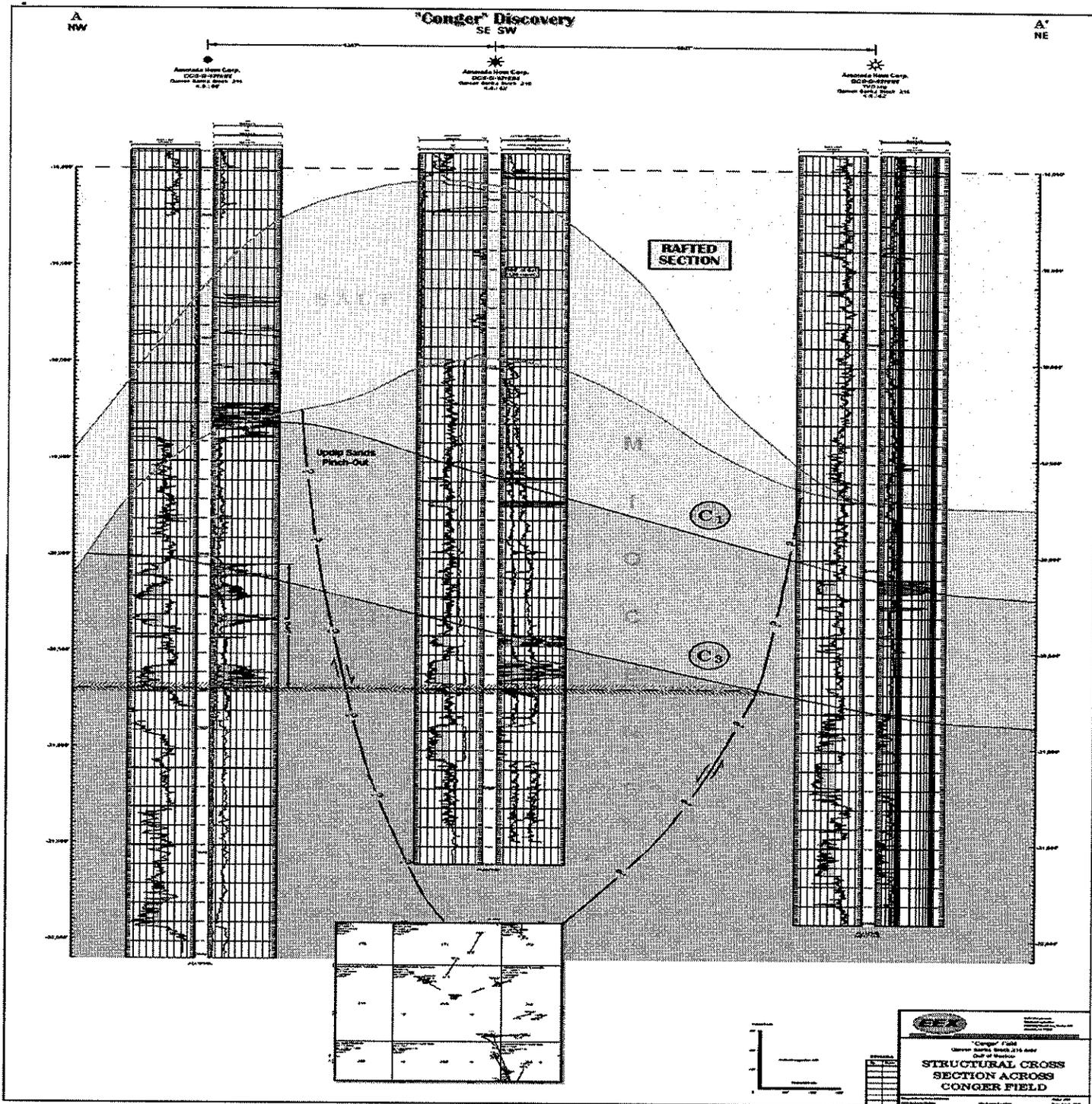
As industry continually updates processing algorithms and expands data aperture, the definition of “completed” becomes problematic. The work will remain in progress until after the well is drilled. It is not uncommon for special processing to require six months to a year for 3-D pre-stack depth migrations (PSDM) with normal Gulf of Mexico salt complexity.

As noted above, the additional resolution obtained from improved algorithms can result in a significant net cost savings. In the case of Example 1 (GB 386 #3, aka Llano #3), the cost of the 19 block PSDM was approximately \$3.8 million (US). The cost of the unexpected salt encounter was approximately \$25 million. The proposed rules allowing lease extension through an SOO will encourage appropriate advanced processing prior to spud and, we believe, result in considerable cost savings. (See example 2 below.)

In all cases, we would propose that the initiation of data reprocessing be accompanied by defined milestone and completion date details.

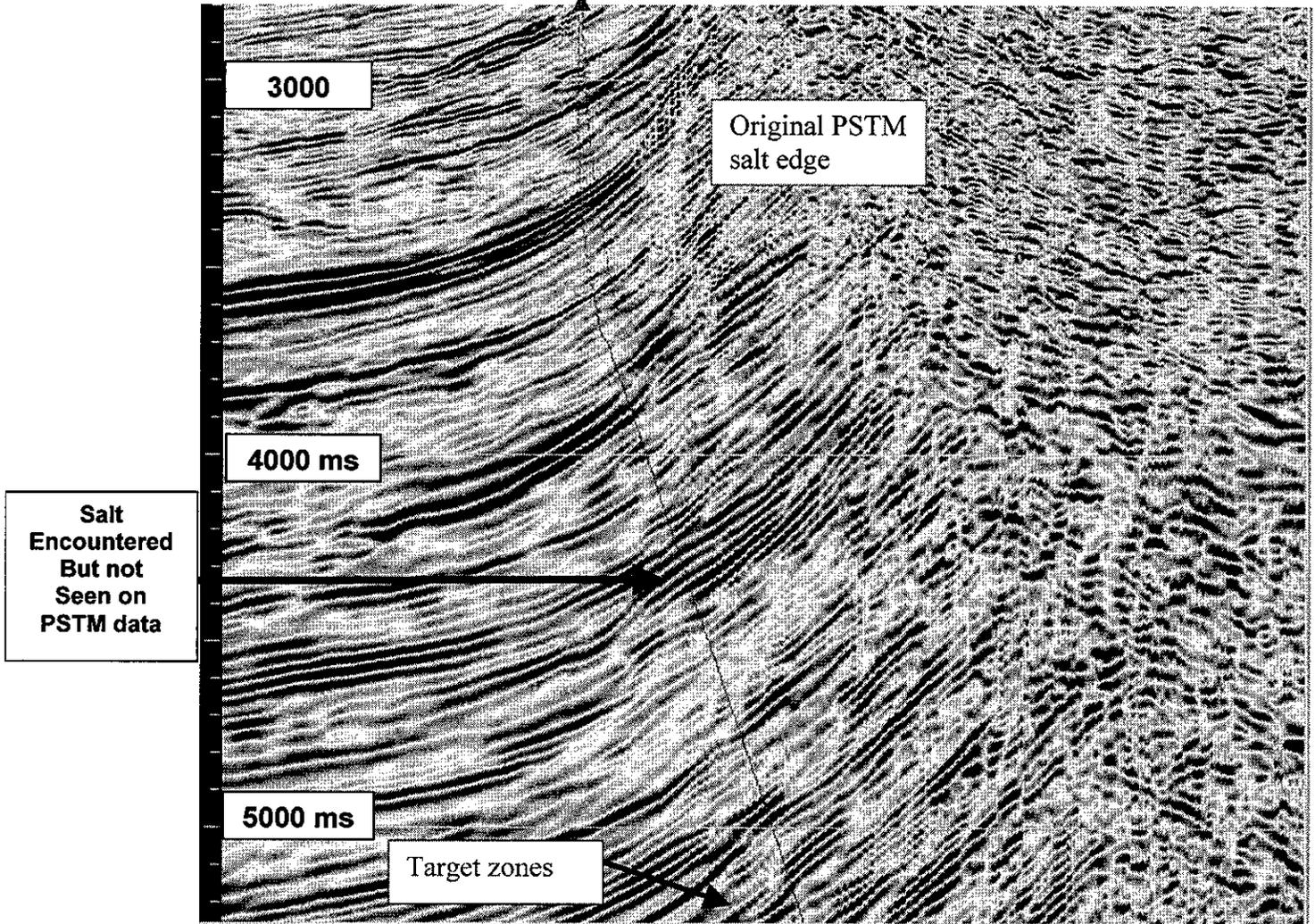
6. The final proposed condition for granting an SOO is that the applicant demonstrates that additional time is necessary to gather new geophysical data or to reprocess or reinterpret existing data to further define drilling objectives beneath a salt sheet.

EEX recommends two modifications to this requirement. First, instead of limiting the definition / applicability to drilling objectives “beneath” the salt sheet, MMS should consider expanding this narrow target by substituting and replacing the beneath designation with the following descriptive phrase of “beneath or adjacent to a salt mass, diapir, sheet, salt weld and/or a salt-sediment sheath.” (See examples 1 and 2 and explanation provided in item 4 above .)



Example 1: The Conger discovery in GB 215 documents a case where 2 wells encountered thick salt (>700 ft, shown in blue above) while a third encountered effectively none. In this case, EEX would argue that the entire accumulation should be considered "sub-salt."

GB Well



Example 2: The above example illustrates 3D PSTM data near a salt mass in the Gulf of Mexico. In this case, the well was drilled before the final 3D Pre-Stack Depth migration was available, in order to maintain leases on a 180 day clock. The unexpected encountering of salt added approximately \$25 MM to the cost of this well.

These data are shown courtesy of WesternGeco LLC. PSTM processing was not performed by WesternGeco LLC.

6 (cont.). Secondly, we would propose that in addition to gathering new geophysical data or reprocessing/reinterpreting existing data, the proposal reflect that the suspension request/relief also specifically cover the time it takes to determine the best location for and plan the drilling of the well. This definition would mirror the MMS description and intent of the proposed rule issued as part of the department's press release of November 20, 2001, on the Proposed Notice of Central Lease Sale 182, which states in part that "...An Information to Lessees provision concerning Subsalt Exploration; this provision alerts bidders that MMS may propose regulations that would amend requirements for the granting of a Suspension of Operations under limited circumstances. MMS recognizes the complexities of subsalt analysis and is considering proposing more time to a lessee to conduct the needed analysis to determine the best location for drilling a well."

In 1999 and 2000 EEX acquired, via lease sales, substantial acreage in the shallower portions of the Gulf. Our initial leasing concept was aimed at relatively shallow targets of 20,000 feet to 22,000 feet. In analyzing additional data, a revised interpretation of the evolution of the Gulf of Mexico basin has emerged; one which is being actively pursued by many companies and institutions. The revised interpretation of the GoM will be the subject of several papers at the upcoming American Association of Petroleum Geologists convention; arguably the premier geological congress aimed at petroleum exploration. This new view has resulted in the identification of larger, deeper targets analogous to the recent Crazy Horse discovery by BP and ExxonMobil, as well as an even deeper play analogous to the Golden lane trend in Mexico. EEX has performed a peer review process with several noted geologic experts who have personal knowledge of both analog plays. Better imaging and additional mapping indicate structures with closure on the order of 100,000 acres and encompassing multiple blocks. The potential of this exploration play is significant; possibly exceeding ANWR. To fully and prudently evaluate and develop potential reserves in this play, lease term extension for proper imaging, offset lease negotiation and well planning becomes critical. Any company contemplating investing in wells approaching 30,000 feet will not only insist upon adequate time to plan, but will also insist upon adequate opportunity to benefit from the risk dollars exposed. By granting lease term extension for these challenging prospects, MMS would insure that production is realized much sooner than if the leases were relinquished and re-offered to industry in subsequent lease sales.