GUIDELINES FOR PROCESSI APD FOR WELL IN POTASH AREA -- -111-P

BLM approves federal wells in potash area so we do not have to worry about this.

STATE & FEE LEASES

Post to map and if within the potash area outlined on map or within I mile of that area do the following:

- Make certain operator has filed a plat of the area showing the potash lessees for the area where the well is located as well as the l-mile radius referred to.
- 2) Make certain operator has notified all of the potash lessees by certified mail of the APD. They must send copy of delivery notice to us since 20-day wailing period starts from delivery date.
- 3) Send letter to BLM and SLO advising them of this APD and request they advise if this location is within LMR or buffer zone.

BUFFER ZONE -- shallow well is 1/4 mile of LMR -- deep well is 1/2 mile of LMR

- 4) If application is within LMR or buffer zone you must <u>DENY</u> it under R-111-P unless, there is a mutual agreement of lessor and lessees of oil & gas and potash interests. Copy of this agreement must be submitted with APD.
- 5) If application is outside LMR or buffer zone and no objection is received within 20 days from date of receipt by potash lessees of certified notice, the APD may be approved.

CHECK	LIST	FOR	PROCESSING	APD	IN	POTASH	AREA

OPERATOR:Stevens & Tull Inc	
LEASE & WELL Conoco State #1-D	
990/N & 990/W LOCATION Sec. 16, T-20s, R-33	e PROPOSED DEPTH 3600'
DATE APD RECEIVED1/02/95	WAS PLAT OF AREA ATTACHED
WERE ALL POTASH LESSEES NOTIFIED BY	CERTIFIED MAIL?
20-DAY WAITING PERIOD BEGINS	ENDS
WERE WAIVERS RECEIVED?	
DATE SLO NOTIFIED1/03/95	DATE REPLY RECEIVED 115 45
DATE BLM NOTIFIED11/03/95	DATE REPLY RECEIVED
IS LOCATION INSIDE LMR OR BUFFER ZONE	? YES NO
IF LOCATION INSIDE LMR OR BUFFER ZONE	WAS LESSEE/LESSOR AGREEMENT FURNISHED
DATE APD APPROVED	DATE APD DENIED
SPECIAL CASING ORDER R-10432	

THE STATE	enefigy, minef	STATE OF NEW MEXICO RALS AND NATURAL RESOURCES DEPARTMENT OF IVED OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE IOY3 Z
GOVERNOR		POST.OFFIC = BOX 1980 HOBB5, NEW MEX(ICO 88241-1980 1505) 38/3-6161
P.O.	AU OF LAND MANAGEME Box 1778 sbad, NM 88221	NT STATE LAND OFFICE Attn: Joe Mraz P.O. Box 1148 Santa Fe, NM 87504
RE:	APPLICATION FOR PER	RMIT TO DRILL IN POTASH AREA
	OPERATOR	Stevens & Tull Inc
	LEASE NAME	Conoco State #1-D
	PROPOSED LOCATION	990/N & 990/W, Sec. 16, T-20s, R-32e 33
	PROPOSED DEPTH	3600'

Gentlemen:

The application for permit to drill identified above has been filled with this office of the New Mexico Oil Conservation Division. Pursuant to the provisions of Oil Conservation Division Order R-111-P, please advise this office whether the location is within an established Life-of-Mine-Reserve area filed with and approved by your office. If not, please advise whether it is within the buffer zone established by the order.

Thank you for your assistance. Please return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

Herry Serton by de

ATTENTION: SPECIAL CASING ORDER R-10432

Jerry	Sextor	า	
Superv	isor,	District	F

RESPONSE:

The above-referenced location is in LMR	Yes No ¥
The above referenced location is within the buf	fer zone Yes 🛣 No
Signed Anten	Date 11-7-95
Representing RLM Not	
	IN MISSISSIPPI'S 1/4 BUPEER
New Mexico III	IN IMC GLEBALS /2 MILLE BURFIR
EDRUG FREE	IN THE POTASH BACLAUE
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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

GOVERNOR

POST OFFICE BC X 1980 HOBBS, NEW MEXICO 88241-1980 (505) 393-6 61

Ρ.Ο.	AU OF LAND MANAGEMEI Box 1778 sbad, NM 88221	NT STATE LAND OFFICE Attn: Joe Mraz P.O. Box 1148 Santa Fe, NM 87504						
RE:	APPLICATION FOR PERMIT TO DRILL IN POTASH AREA							
	OPERATOR	<u>Stevens & Tull Inc</u>						
	LEASE NAME	Conoco State #1-D						
	PROPOSED LOCATION	990/N & 990/W, Sec. 16, T-20s, R-32e-33						
	PROPOSED DEPTH	3600'						

Gentlemen:

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Thank you for your assistance. Please return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

e Sexton by dp

Jerry Sexton Supervisor, District I

RESPONSE:

The	above-referenced	location	is	in	LMR				Yes	 No	_
The	above-referenced	location	is	wit	thin	the	buffer	zone	Yes	 No	_
Signed						Date					
Repr	esenting										-



ATTENTION: SPECIAL CASING ORDER R-10432





Job separation sheet

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STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11323 CASE NO. 11338 Order No. R-10432

APPLICATION OF STEVENS & TULL INC. FOR AN EXCEPTION TO THE CASING REQUIREMENTS OF DIVISION ORDER NO. R-111-P, LEA COUNTY, NEW MEXICO.

APPLICATION OF STEVENS & TULL INC. FOR AN EXCEPTION TO THE SALT PROTECTION CASING STRING REQUIREMENT OF DIVISION ORDER NO. R-111-P FOR CERTAIN WELLS LOCATED IN PORTIONS OF TOWNSHIP 20 SOUTH, RANGE 33 EAST, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 27, 1995, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 2nd day of August, 1995, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) Division Case Nos. 11323 and 11338 were consolidated at the time of the hearing for the purpose of testimony and inasmuch as applicant's request in Case No. 11323 is duplicated in Case No. 11338, one order should be entered for both cases.

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CASE NO. 11323 CASE NO. 11338 ORDBR NO. R-10432 Page -4-

> "Decretory Paragraph C. (4) provides that "the Division's District Supervisor may waive the requirements of Section D and F (dealing with drilling, casing and plugging) which are more rigorous than the general rules upon satisfactory showing that a location is outside the Life of the Mine Reserves (LMR) and surrounding buffer zone as defined hereinbelow and that no commercial potash reserves will be unduly diminished."

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(12) According to applicant's testimony, exceptions to the requirement for salt protection casing strings were routinely approved by the United States Bureau of Land Management (BLM) on Federal lands until recently at which time BLM advised the applicant that concurrent OCD approval would be required.

(13) Exceptions to the requirement for salt protection casing strings have been approved by the BLM for approximately ten wells within Section 9, and exceptions have previously been granted by the OCD (Division Order No. R-10122 issued in Case No. 10858 on May 31, 1994) for nine wells located in Section 4, Township 20 South, Range 33 East, NMPM.

(14) According to applicant's evidence, eight wells have been drilled within Sections 9 and 16 with salt protection casing strings, however, according to applicant's testimony, exceptions for these wells were not requested.

(15) The applicant's geologic and reservoir engineering evidence demonstrated that:

- (a) it is likely that wells drilled within the proposed "excepted area" will encounter oil and gas production within the Upper Yates portion of the West Teas Yates-Seven Rivers Pool;
- (b) the expected average ultimate recovery for wells drilled and completed in the Upper Yates portion of the West Teas Yates-Seven Rivers Pool ranges from approximately 20,000-70,000 barrels of oil per well;
- (c) the total cost of a well drilled with the salt protection casing string would be approximately \$226,000. The total cost of a well drilled without the salt protection casing string would be approximately \$162,000.

CASE NO. 11323 CASE NO. 11338 ORDER NO. R-10432 Page -5-

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(d) based upon recoveries of 52,000 barrels of oil per well, the deletion of the salt protection casing string increases applicant's rate of return by approximately 15 percent to acceptable levels; and directly affects the economic viability of drilling these wells;

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- (c) the deletion of the salt protection casing string significantly improves the economic viability of drilling these wells which will result in the recovery of oil that might otherwise be lost or subject to drainage;
- (f) deletion of the salt protection casing string will provide the applicant with the same opportunity as the offsetting operators who have not been required to pay the costs of salt protection casing strings in their wells thereby protecting applicant's correlative rights.

(16) Applicant's potash expert, who utilized publicly available potash core data, ore grade information, BLM Potash Data, and potash economic information, presented evidence which indicates that:

- (a) the vast majority of Section 9 is within an area defined by BLM as being "barren" of commercial potash;
- (b) the proposed "excepted area" within Sections 10 and 16 is within an area defined by BLM to contain commercial potash reserves within the 10th Potash Zone;
- (c) the proposed "excepted area" is not located within an LMR or within 1/4 mile of any LMR;
- (d) the proposed "excepted area" is located approximately 4.5 miles from an area which has been mined in the past and approximately 9 miles from active potash mine workings;

CASE NO. 11323 CASE NO. 11338 ORDER NO. R-10432 Page 6-

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(e) Sections 10 and 16 may be economically minable if there were active mine workings located adjacent to or in close proximity to these sections, however, due to the location of this area relative to active mine workings, it is highly unlikely that either active operations will be extended into this area or new mine workings initiated in this area;

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- (f) since 1966, mining in the "Potash Area" has been on a significant decline and it is highly improbable that mining activity will occur towards the proposed "excepted area" from any existing mining operation;
- (g) there are factors which suggest that the potash industry in New Mexico is likely to remain depressed for an extended period of time and which may indefinitely preclude any mining activity within the proposed "excepted area".

(17) Applicant's expert on drilling, completing and producing the proposed wells presented evidence which demonstrated that:

- (a) the wells within the proposed "excepted area" can be drilled, cased, cemented, completed and produced by deleting the salt protection casing string without risk to miner's safety or causing the undue waste of commercial deposits of potash;
- (b) the proposed procedures for drilling and completing the wells within the "excepted area" have been previously utilized in Section 9 and have been approved by the BLM.
- (c) the wellbore integrity of these wells is expected to continue for a longer time than the time required to produce the wells to abandonment.

(18) The evidence and testimony presented in this case indicates that approval of the subject applications will not unduly reduce the total quantity of commercial deposits of potash which may reasonably be recovered in commercial quantities, nor will it interfere unduly with the orderly commercial development of potash deposits, nor will it constitute a risk to miner's health or safety.

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(1.9) Approval of the subject applications will afford the applicant the opportunity to produce its just and equitable share of the hydrocarbons in the Yates formation of the West Teas Yates-Seven Rivers Pool, will prevent the economic loss caused by drilling of wells with unnecessary salt protection casing strings and will otherwise prevent waste and protect correlative rights.

(20) The applicant should take all steps necessary to ensure that the surface and production casing strings within the wells in the "excepted area" are cemented to surface in conformance with its drilling and completing procedure presented as evidence in this case.

(21) Except as modified by this order, all of the provisions of Order No. R-111-P applicable to the casing, actual drilling, cementing and plugging of a shallow well within the "Potash Area" shall be strictly adhered to.

IT' IS THEREFORE ORDERED THAT:

(1) The application of Stevens & Tull, Inc., for approval to delete the salt protection casing string requirement of Order No. R-111-P is hereby granted for its proposed Federal "9" Well No. 7 to be drilled 2310 feet from the South line and 990 feet from the East line (Unit I) of Section 9, Township 20 South, Range 33 East, NMPM, and for certain additional wells to be drilled anywhere within the following described area in Lea County, New Mexico:

> TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM Section 9: NE/4 NW/4, NE/4, E/2 SE/4 Section 10: SW/4 Section 16: N/2 NW/4, NE/4 NE/4, S/2 NE/4, S/2

<u>PROVIDED HOWEVER THAT</u>: each well drilled within the area described above shall be drilled, cased, cemented, produced and plugged and abandoned in conformance with applicant's procedures presented as evidence in this case. CASE NO. 11323 CASE NO. 11338 ORDER NO. R-10432 Page -8-

(2) The applicant shall notify the OCD District Supervisor of the Hobbs Office of the times when casing is to be run and cemented, when bond or temperature logs are to be run, and when remedial cementing operations are to occur on any wells within the area described above.

(3) Except as modified by Decretory Paragraph No. (1) of this order, all of the provisions of Order No. R-111-P applicable to the casing, actual drilling, cementing and plugging of a shallow well within the "Potash Area" shall be strictly adhered to.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION 00 WILLIAM J. LEMAY Director

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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Case No. 11323 Case No. 11338 Order No. R-10432-A

APPLICATION OF STEVENS & TULL INC. FOR AN EXCEPTION TO THE CASING REQUIREMENTS OF DIVISION ORDER NO. R-111-P, LEA COUNTY, NEW MEXICO.

APPLICATION OF STEVENS & TULL INC. FOR AN EXCEPTION TO THE SALT PROTECTION CASING STRING REQUIREMENT OF DIVISION ORDER NO. R-111-P FOR CERTAIN WELLS LOCATED IN PORTIONS OF TOWNSHIP 20 SOUTH, RANGE 33 EAST, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. R-10432 dated August 2, 1995, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED THAT:

(1) Decretory Paragraph No. (3) on page 2 of said Order No. R-10432, be and the same, is hereby amended to read in its entirety as follows:

"(3) The applicant, Stevens & Tull, Inc., seeks an exception to the sait protection casing string requirement contained within Division Order No. R-111-P in the "Known Potash Leasing Area" ("Potash Area") for its proposed Federal "9" Well No. 7 to be drilled 2310 feet from the South line and 990 feet from the East line (Unit I) of Section 9, Township 20 South, Range 33 East, NMPM, and for certain additional wells to be drilled anywhere within the following described area in Lea County, New Mexico:

TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM

Section 9: E/2 SE/4 Section 10: SW/4 Section 16: N/2 NW/4, NE/4 NE/4, S/2 NE/4, S/2 "

(2) Decretory Paragraph No. (1) on page 7 of said Order No. R-10432, be and the same, is hereby amended to read in its entirety as follows: