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November 15, 2000

HAND-DELIVERED

Mr. David Catanach
New Mexico Department of Energy, Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: **Case No. 12506:** Application of Sapient Energy Corporation for Modification of Division Order R-10432-A to Expand the Area Exempt from the Salt Protection String Requirements of Division Order R-111-P to Include the Entire West Teas (Yates-Seven Rivers) Unit, Lea County, New Mexico

Hearing Held: October 19, 2000

Dear Mr. Catanach:

Our office is in receipt of IMC Kalium's November 10, 2000, letter to you. Sapient Energy objects to IMC Kalium's belated effort to "present [its] position in this matter" and its attempt to offer evidence and opinion testimony by letter, without employing counsel, and without providing Sapient Energy the opportunity for cross examination.

IMC Kalium's letter and attachment are directed only at the "areas contested," which IMC Kalium depicts as the SW/4 SW/4 of Section 9 and the NE/4 SE/4 and the E/2 NE/4 of Section 17. IMC Kalium offers no objection to a salt protection string exemption for the remaining properties comprising the West Teas Unit Area. *See* Sapient Energy Exhibit No. 2.

IMC Kalium's objection is based on nothing more than an unsubstantiated representation that it has a "Mine Plan" and LMR on file with the State Land Office. IMC Kalium offers no testimony or evidence to indicate whether its filings are still accurate, the location of IMC Kalium's present mining operations as they relate to Section 8, whether Section 8 indeed contains commercial deposits of potash, or when - if ever - IMC Kalium plans to mine potash in Section 8. IMC Kalium does not dispute that the drilling plan adopted by OCD Order R-10432-A is sufficient to protect IMC Kalium's unsubstantiated mining interests. Indeed, by waiting until now to apprize the OCD of the

basis for its objection - and choosing to do so by letter offered three weeks after your hearing - IMC Kalium has effectively denied Sapient Energy an opportunity to examine IMC Kalium on these and other matters.

IMC Kalium received proper notice of Sapient Energy's application and chose not to employ counsel or present evidence in opposition to Sapient's Energy's request. IMC Kalium offered no objection to the prior applications resulting in OCD Orders R-10122 and R-10432-A, both of which provide salt protection string exemptions for wells drilled on properties which IMC Kalium contend are within a portion of their unsubstantiated buffer zone. It is only now that IMC Kalium comes forward with an objection and does so in a fashion which is contrary to OCD procedures, due process, and devoid of any evidentiary support. The only evidence properly before the OCD is the record from the October 19, 2000 hearing, which included the evidence and expert testimony from the hearing resulting in Order R-10432-A. Under these circumstances, the OCD certainly has discretion to grant Sapient Energy's application.

Thank you for your attention to this matter.

Sincerely,

Michael H. Feldewert

MHF/ras

cc: Sapient Energy Corporation
IMC Kalium

Sapient Energy Corp.

Western Operations
621 17th Street, Suite 1800
Denver, Colorado 80293-0621

Telephone 303 675-0007
Facsimile 303 675-0008
Joe H. Cox, Jr. – Sr. Engineer

October 23, 2000

Mr. David Catancach
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Sapient Energy Corp. Case #12506, Application for Modification of Order R-10432, West Teas (Yates Seven Rivers) Unit, Lea County, New Mexico, Additional Informationfp

Dear Mr. Catanach:

Since the record has remained open to allow IMC Kalium to provide information to your office, and since we did not receive notice of any protest until the day before the hearing, I would like to offer some additional information to supplement the testimony taken at the October 29, 2000 hearing on the above referenced matter.

In Mr. Becker's testimony and again during my testimony the point was made that nine wells within the field area had salt protection strings. This information was taken from the Stevens and Tull case (Order R-10432), specifically from a map under the "Land" tab in the notebook that identifies with green symbols wells with salt protection casing strings, and red symbols for wells without the salt strings in the area covered by that order. The actual count of green symbols is eight. Of those eight wells identified as having salt protection casing only one truly does. All of the other identified wells were drilled prior to Order R-111-P and were completed open-hole, with liners or "tacked-in" intermediate strings. The one well with a salt protection string was Stevens & Tull's State "BF" #3, renamed for Unit operations WTU #613, (Unit L, Sec. 16, T20S R33E), this was the first of the Stevens & Tull wells drilled. The attached table lists casing details for the wells in and within one-half mile of the unit boundary.

There have been 17 wells drilled in the West Teas Unit area since Order R-111-P was entered on April 21, 1988. Of those wells, four have separate casing strings across the salt section. Of those four wells, three are Morrow depth wells in which the casing program was run as the normal course of drilling to the Morrow depth range. The WTU #613 well, mentioned above, is the only post R-111-P, Yates/Seven Rivers depth well drilled with the prescribed casing design. Prior to R-111-P, 23 wells were drilled in the area, all to the Yates/Seven Rivers interval. Of that group none had separate, cemented casing strings across the salt.

Another point, not raised in the hearing, is the relative potential for flow into the potash section in the event of a casing leak. The most recent pressure data available is from Yates sand cased-hole drill stem tests on the WTU #943 well, (Unit I, Sec. 9, T20S R33E). This data, from June 2000, was intentionally gathered in an area of the field that is felt to be less pressure depleted than the average. From the two analyzable tests, the average projected reservoir pressure in the area of that well is 991 psia at 3,173'. This indicates a pressure gradient of 0.3123 psi/ft in that area, 28% below the fresh water gradient (and probable minimum pressure gradient of the potash section) of 0.4331 psi/ft. The gas-oil ratio from the Yates section is low, about 214 SCF/BO, and is anticipated to drop sharply during the waterflood. During normal production operations fluid levels in the producing wells will be closely monitored and maintained as low as possible so that flood responses can be detected. At the same time injection well casing pressures will be closely watched to insure that water injection is contained below packers. These factors, combined with the relative impermeability of the salt section and the lack of casing problems over the field's history point to a very minimal probability of fluids, (gas, water or oil) flowing into the potash layers.

Having said all of the above, I recognize that during the course of the waterflood reservoir pressures will, hopefully, increase. The greatest likelihood of positive pressure relative to the potash would occur in a shut-in well in an area pressure-influenced by water injection. A solution is to require a bridge plug over the perforations in any inactive well with a fluid level above the top of the salt section, about 2,100'. This solution would be substantially less costly to Sapient than the additional casing strings and would offer additional protection to the potash interests, even on previously drilled wells.

We will be happy to provide whatever additional information you feel may be helpful.

Sincerely,
Sapient Energy Corp.

Joe H. Cox, Jr., Senior Engineer

CC: Michael H. Feldewert, Campbell, Carr, Berge & Sheridan
Daniel Morehouse, IMC Kalium Potash

Sapient Energy Corp.

Tabulation of Casing Data on Wells Within One-Half Mile of Unit Area

						Surface Casing			Intermediate/Production/Liner Casing			
Operator	**Lease/Well**	**Status**	**Location**	**Spud Date**	**Drilled TD PBTD**	**Size**	**Depth**	**Cement**	**Size**	**Depth**	**Cement**	**Producing Perforations**
McGrath & Smith	Trigg Federal #1	D&A	M, 3,T20S-R33E	1/29/57	3,435'	All casing has been pulled from well						
Sapient Energy Corp.	WTU #433	Prod.	J, 4-T20S-R33E	11/8/94	3,550'	8-5/8"	1368'	710 sx "C"	5-1/2"	3550'	780 sx "C"	3230'-3292'
	(Anasazi 4 State #3)	Oil			3,265'							(Yates)
L.S. & R. Petroleum Co.	Bass-State #1	D&A	M, 4-T20S-R33E	5/30/63	3,410'	12-1/2"	219'	125 sx "C"	8-5/8" & 10" Pulled at Abandonment			
Sapient Energy Corp.	WTU #434	Prod.	O, 4-T20S-R33E	Apr-93	13,720'	13-3/8"	2,950'	2,207 sx	8-5/8"	5,382'	885 sx	3,156-3,273'
	(Scharbauer "4" #1)	Oil			3,338'							(Yates)
Sapient Energy Corp.	WTU #444	Prod.	P, 4-T20S,R33E	9/7/95	3,230'	8-5/8"	1354'	700 sx "C"	4-1/2"	3373'	815 sx "C"	3104'-3188'
	(Scharbauer 4 #3)	Oil			3,230'							(Yates)
Sapient Energy Corp.	WTU #941	Prod.	A, 9-T20S-R33E	4/2/94	3,384'	8-5/8"	1320'	680 sx "C"	5-1/2"	3384'	685 sx "C"	3076'-3158'
	(Federal "9" #5)	Oil			3,200'							(Yates)
Sapient Energy Corp.	WTU #931	Prod.	B, 9-T20S-R33E	10/7/92	3,311'	8-5/8"	1300'	640 sx "C"	5-1/2"	3311'	475 sx "C"	3062'-3308'
	(Federal "9" #2)	Oil										(Yates/7R)
Sapient Energy Corp.	WTU #921	Prod.	C, 9-T20S-R33E	5/28/93	3,320'	8-5/8"	1300'	540 sx "C"	5-1/2"	3320'	580 sx "C"	3161'-3252'
	(Federal "9" #3)	Oil										(Yates)
Sapient Energy Corp.	WTU #912	Prod.	E, 9-T20S-R33E	8/24/87	3,400'	8-5/8"	1256'	600 sx "C"	4-1/2"	3400'	750 sx "C"	3138'-3278'
	(Barber Federal #2)	Oil			3,250'							(Yates)
Sapient Energy Corp.	WTU #922	Prod.	F, 9-T20S-R33E	4/29/87	3,404'	8-5/8"	1261'	650 sx "C"	4-1/2"	3400'	950 sx "C"	3092'-3147'
	(Barber Federal #1)	Oil			3,348'							(Yates)
Sapient Energy Corp.	WTU #932	Prod.	G, 9-T20S-R33E	11/10/90	3,445'	8-5/8"	1243'	450 sx "C"	5-1/2"	3445'	775 sx "C"	3042'-3257'
	(Federal "9" #1)	Oil			3,325'							(Yates/7R)
Mitchell Energy	Anasazi 9 Fed #1	Prod.	G, 9-T20S-R33E	5/12/92	13,779'	13-3/8"	2947'	2350 sx "C"	8-5/8"	5272'	1250 sx "C"	13289'-13428'
	(Non-Unit - Morrow)	Gas							5-1/2"	13779'	1950 sx "C"	(Morrow)
Sapient Energy Corp.	WTU #942	Prod.	H, 9-T20S-R33E	5/16/94	3,378'	8-5/8"	1,320'	540 sx "C"	5-1/2"	3,358'	785 sx "C"	3,060-3,300'
	(Federal "9" #6)	Oil			3,310'							(Yates/7R)
Sapient Energy Corp.	WTU #943	Prod.	I, 9-T20S-R33E	8/28/95	3,358'	8-5/8"	1310'	800 sx "C"	5-1/2"	3358'	635 sx "C"	3270'-3227'
	(Federal "9" #7)	Oil			3,284'							(Seven Rivers)

						Surface Casing			Intermediate/Production/Liner Casing			
Operator	**Lease/Well**	**Status**	**Location**	**Spud Date**	**Drilled TD PBTD**	**Size**	**Depth**	**Cement**	**Size**	**Depth**	**Cement**	**Producing Perforations**
Sapient Energy Corp.	WTU #933 (Grover Federal #3)	Prod. Oil	J, 9-T20S-R33E	2/26/88	3,425' 3,250'	8-5/8"	1,218'	750 sx	4-1/2"	3,420'	650 sx	3,022-3,100' (Yates)
Sapient Energy Corp.	WTU #923 (Grover Federal #1)	Prod. Oil	K, 9-T20S-R33E	2/16/87	3,400' 3,250'	8-5/8"	1265'	750 sx "C"	4-1/2"	3398'	90 sx "C"	3154'-3180' (Yates)
Sapient Energy Corp.	WTU #913 (Grover Federal #2)	Prod. Oil	L, 9- T20S-R33E	11/12/87	3,400' 3,355'	8-5/8"	1256'	750 sx "C"	4-1/2"	3400'	1100 sx "C"	3217'-3239' (Yates)
Grover- McKinney Oil Co.	Grover Federal #4	D&A	M, 9- T20S-R33E	3/2/88	3400'	8-5/8"	1252'	700 sx "C"	Well has been plugged			
Sinclair Oil & Gas	Lea "6015" Fed. #2	P&A	N, 9- T20S-R33E	7/30/63	3350' P&A	9-5/8"	1285'	450 sx	7" 5-1/2"	2950' (Liner)	600 sx 90 sx	Liner 2875-3350'
Atlantic Richfield Co.	Lea "6015" Fed #1	D&A	O, 9- T20S-R33E	4/3/60	3300' P&A	9-5/8"	1357'	450 sx "C"	7" 5"	3022' (Liner)	450 sx "C" 50 sx "C"	Liner 2974-3300'
Sapient Energy Corp.	WTU #944 (Federal "9" #8)	Prod. Oil	P, 9-T20S-R33E	7/12/96	3,462' 3,275'	8-5/8"	1313'	800 sx "C"	5-1/2"	3462'	610 sx "C"	3116'-3144' (Yates)
Deane H. Stoltz	Union Texas #1	D&A	F, 10-T20S-R33E	5/20/63	3,554'	13-3/8"	208'	125 sx	8-5/8"	1329'	Mud	Pulled @ Aban.
Knox, Gordon & Assoc.	Tenneco Federal #1	D&A	F, 15-T20S-R33E	12/31/63	3,418'	9-5/8"?	1,350'	7" & 4-1/2" Casing Pulled at Abandonment				
Sapient Energy Corp.	WTU #641 (State "BF" #4)	SI Oil	A, 16,T20S-R33E	11/17/95	3,470' 3,365'	9-5/8"	1115'	440 sx "C"	5-1/2"	3465'	635 sx "C"	3160'-3294'
Sinclair Oil & Gas	Lea 886 State #2	P&A	B, 16-T20S,R33E	2/26/60	3,360'	9-5/8"	1308'	914 sx "C"	Well has been plugged			
Sapient Energy Corp.	WTU #621 (Conoco St. #1)	Prod. Oil	C, 16-T20S-R33E	7/23/96	3,311' 3269'	8-5/8"	1313'	800 sx "C"	5-1/2"	3,311'	610 sx "C"	3205'-3215' (Seven Rivers)
Ernest A. Hanson	Atlantic State #1	P&A	C, 16-T20S-R33E	12/21/61	3,260' P&A	8-5/8"	1220'	600 sx	7" 4"	2,955' 3,260'	25 sx 450 sx	Tacked Intermed.
Sinclair Oil & Gas	State Lea #2	P&A	D, 16-T20S-R33E	4/20/60	3,297' P&A	9-5/8"	1350'	608 sx	7" 2-7/8"	2,975' 3,297'	15 sx 1028 sx	Tacked Intermed.
Sapient Energy Corp.	WTU #611 (Conoco St. #2)	Prod. Oil	D, 16-T20S-R33E	12/30/96	3,230' 3,210'	8-5/8"	1312'	800 sx "C"	5-1/2"	3,250'	650 sx "C"	3176-3196' (Yates)
Sinclair Oil & Gas	State Lea "886" #3	P&A	E, 16-T20S-R33E	3/21/60	3,760' P&A	9-5/8"	1303'	710 sx	7" 5"	2,955' (Liner)	458 sx 35 sx	Liner 2901-3260'
Sapient Energy Corp.	WTU #622 (Arco "886" State #1)	Prod. Oil	F, 16-T20S-R33E	11/13/59	3,325' 3,191'	13-3/8"	1196'	1250 sx	5-1/2"	3,325'	850 sx	3182-3188' (Seven Rivers)

Operator	Lease/Well	Status	Location	Spud Date	Drilled TD PBTD	Surface Casing			Intermediate/Production/Liner Casing			
						Size	Depth	Cement	Size	Depth	Cement	Producing Perforations
Sapient Energy Corp.	WTU #600	SWD	G, 16-T20S-R33E	5/28/93	13,858'	20"	497'	600 sx "C"	8-5/8"	5299'	700 sx "C"	5554'-5684'
	(Anasazi "16" State Com. #1)	(Unit)			8,500'	13-3/8"	2964'	1850 sx "C"	5-1/2"	13858'	1200 sx "C"	(Delaware-SWD)
Sapient Energy Corp.	WTU #632	SI	G, 16-T20S-R33E	5/3/60	3,275'	9-5/8"	1245'		5-1/2"	(Liner)	50 sx "C"	Liner 2925-3275'
	(State "BF" #1)	Oil				7"	2970'	800 sx "C"				
Olsen Energy	Snyder State 1 (Olsen)	D&A	H, 16-T20S-R33E	2/22/89	3,429'	8-5/8"	1259'	640 sx "C"	Well has been plugged			
Read & Stevens	Snyder #1	P&A	J, 16-T20S-R33E	10/9/64	3,230'	8-5/8"	1262'	375 sx	7"	2886'	250 sx	
					P&A				4-1/2"	(Liner)	65 sx	Liner 2636-3222'
Cities Service Oil Co.	State "BF" #2	P&A	K, 16-T20S-R33E	12/17/60	3,225'	9-5/8"	1245'	600 sx	7"	2898'	750 sx	
					P&A				5"	(Liner)	50 sx	Liner 2898-3225'
Sapient Energy Corp.	WTU #613	Prod.	L, 16-T20S-R33E	12/20/94	3,300'	9-5/8"	909'	360 sx	7"	2830'	550 sx	2958-3182'
	(State "BF" #3)	Oil			3,190'				4-1/2"	3300'	100 sx	(Yates)
Shoreline Exploration Co.	Snyder #2	D&A	O, 16-T20S-R33E	4/29/65	3,295'	10-3/4"	365'	250 sx	Dry and Abandoned			
W.K. Byrom	Federal "17" #1	D&A	H, 17-T20S-R33E	6/13/62	3,286'	8-5/8"	1245'	430 sx	7"	2,944'	15 sx	Tacked Intermed.
Knox, Gordon & Assoc.	Tenneco Federal #1	D&A	F, 20-T20S-R33E	12/31/63	3,418'	9-5/8"?	1,350'	7" & 4-1/2" Casing Pulled at Abandonment				

IMC Kalium

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PO Box 71
Carlsbad, NM 88220

Phone 505.887.2871
Fax 505.887.0589

November 10, 2000

Mr. David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Sapient Energy Corp. Case #12506, Application for Modification of Order R-10432, West Teas (Yates Seven Rivers) Unit, Lea County, New Mexico, Additional Information

Dear Mr. Catanach:

In response to your requests during the hearing of October 19, we are submitting the enclosed drawing of the Mine Plan and LMR in the vicinity of this application. We appreciate the opportunity to present our position in this matter.

As I stated at the hearing, the Mine Plan and the LMR have been submitted to the State Land Office (SLO) in their entirety, accepted, and on file with Mr. Mraz. The mine plan represents a conservative estimate of the extent of excavations and the LMR locates the mathematically accurate delineation of mineable reserves.

The OCD Order R-111-P was promulgated to reduce the hazards of having oil and gas operations in close proximity to mining operations. The hazard being that hydrocarbons may be introduced into the strata where mining is or will be occurring. The confined atmosphere of underground mining magnifies many fold the hazards posed by the presence of flammable or poisonous gases and fluids. The presence of such gases may cause death or injury by their poisonous properties or by simply displacing the oxygen from the mine atmosphere. Ignition of such gases in a mine can cause a tremendous loss of life, limb, and/or property.

Mr. Cox, in his letter dated October 23, 2000, suggests fluid pressures in the wells are low enough to alleviate concerns of hydrocarbons migrating from the well bore to adjacent lands. Partings in the salt strata are permeable. Mining provides an extensive underground volume at atmospheric pressure that allows the salt strata to deform, widening the already existing partings, as well as siphoning gases and fluids from the adjacent lands. The one-sided benefit to Sapient Energy of drilling these wells is relatively small compared with the potential one-sided loss to IMC and the potash industry.

R-111-P uses the distance (of a proposed well location) to an LMR and its buffer zone as the criteria for approving or not approving any given well. This buffer zone provides a safe distance between expected mining areas and a well utilizing a salt protection string. No safe distance has ever been determined for separating mining activity from a well that does not have a salt protection string.

R-111-P does allow drilling in the Potash Area without the use of the salt protection string in certain areas. The R-111 area was expanded in 1988 to coincide with the KPLA. Much of this newly encompassed area did not have commercial potash deposits and therefore provisions made for the possibility of less stringent casing requirements. However some of this newly encompassed area does contain potash reserves or is adjacent to potash reserves. The area under consideration in this case does have commercially viable potash reserves present and a proper LMR filed with the SLO. Although it is true that the R-111-P states (in Finding 23) that the OCD is allowed discretion to grant less stringent casing requirements when potash reserves do not exist, the Order itself (in paragraph C(4)) allows such decisions only outside the LMR and surrounding buffer zone, and where "no commercial potash resources will be unduly diminished."

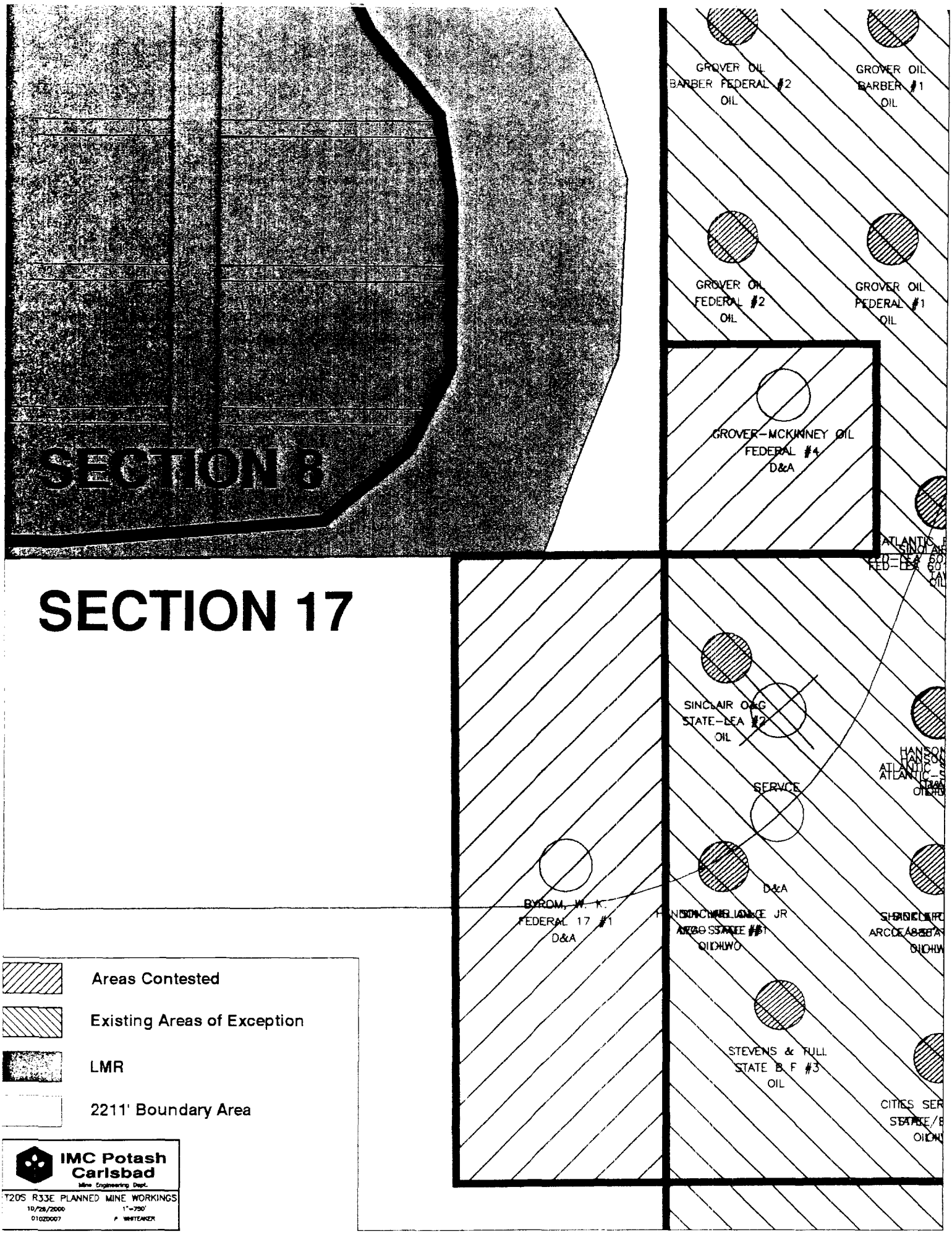
Any additional drilling within the 2211 foot buffer zone is clearly not allow by R-111-P. Further, the intention of the rule is to provide protection to potash reserves by requiring salt protection strings where drilling is allowed for some distance beyond the buffer zone.

It is IMC's assertion that further drilling does pose an increase in hazard (beyond that already caused by previous drilling) to potash mining in this area and should therefore be restricted. No drilling can be allowed within the LMR or its buffer zone and salt protection strings must be required on any current and future drilling in this area.

Sincerely,

Dan Morehouse
Superintendent, Engineering and Construction
Mine Department

CC: Michael H. Feldwert, Campbell, Carr, Berge & Sheridan
Joe H. Cox, Jr., Sapient Energy Corp.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GROVER-MCKINNEY OIL
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D&A
SECTION 8
SECTION 17
SINCLAIR O&G
STATE-LEA #2
OIL
SERVICE
D&A
BYROM, W. K.
FEDERAL 17 #1
D&A
STEVENS & TULL
STATE B F #3
OIL
Areas Contested
Existing Areas of Exception
LMR
2211' Boundary Area
IMC Potash
Carlsbad
Mine Engineering Dept.
T20S R33E PLANNED MINE WORKINGS
10/28/2000
1"=750'
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P. WHITEAKER