UNITED STATES

Form 3160-3 (December 1990)

SUBMIT IN ...PLICATE\* AFTESIA, No. 1882 (Other instructions on

Form approved. Budget Bureau No.

1004-0136

	dican Mo.
Expires:	December

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LEASE	DESIG	NATION	AND	SERIAL	No

BUREAU OF LAND MANAGEMENT  APPLICATION FOR PERMIT TO DRILL OR DEEPEN  1a. TIPE OF WORK  DRILL DEEPEN NAME of FEBRATOR  LOUIS Dreyfus Natural Gas Corporation 25 7 7 3  3. ACCOUNTS Dreyfus Natural Gas Corporation 25 7 7 3  3. ACCOUNTS Dreyfus Natural Gas Corporation 25 7 7 3  3. ACCOUNTS DREYFUS NATURAL DEEPEN		DEPARTMEN	T OF THE	INTERIOR				ember 31, 1991
APPLICATION FOR PERMIT TO DRILL OR DEEPEN  18. THE OF WORK  DRILL OF CORR  DEEPEN  DEEPEN  TOTHER  DEEPEN  TOTHER  DEEPEN  TOTHER  DEEPEN  TOTHER  TOT							1	
DEPEN DELLE DEPEND THE STATE OF WELL OF WHILE DEPEND DEPEN								
DRILL OR DEEPEN DISTRICT  OTHER SINGLE NOTHER SINGLE NOTHER SOME  SOME NAME OF PERSON  Louis Dreyfus Natural Gas Corporation 25773  Louis Dreyfus Natural Ga	APPI	LICATION FOR P	PERMIT TO	<b>DRILL OR DEI</b>	EPEN		6. IF INDIAN, ALLOTT	EE OR TRIBE NAME
DILL OAR WELL OTHER SINGLE SOME SOME SOME SOME SOME SOME SOME SOM	1a. TYPE OF WORK				· · · · · · · · · · · · · · · · · · ·			
ONL WALL OTHER SINGLE MILTIPLE OR PARTOR  Louis Dyrings Natural Gas Corporation 25773  Local Hills 4 Federal #  Louis Hills 4 Federal #  Local Hil		RILL A	DEEPEN				7. UNIT AGREEMENT	NAMB
Loco Hills 4 Federal #  Loco Hills 4 Federal #  Loco Hills 4 Federal #  25 773  3. Advances  14000 Quail Springs Parkway, Suite 600, Oklahoma City, OK 73134  4. Location of Well (Report location clearly and in accordance with any State requirements.)  At proposed prod. 2009  At proposed prod. 2009  At DIRTANCE IN MILES Southeast of Artesia, NM  18 Miles Southeast of Artesia, NM  19 DIREACTOR ON ARREST TOWN OR FOST OFFICE*  19 PROPOSED CASING AND DEPTH TO ARREST TOWN OR FOST OFFICE*  10 OFFICE AND ARREST TOWN OR FOST OFFICE*  10 OFFICE AND ARREST TOWN OR FOST OFFICE*  11. BEC. T. B., M. OR RES.  Sec. 4-T18S-R29E  12. COUNTY OR ARREST 18. BEC. T. B., M. OR RES.  12. COUNTY OR ARREST 18. BEC. T. B., M. OR RES.  10 OFFICE AND ARREST TOWN OR FOST OFFICE*  11. BEC. T. B., M. OR RES.  Sec. 4-T18S-R29E  12. COUNTY OR ARREST 18. BEC. T. B., M. OR ARREST 18. BEC. T. B., M. OR RES.  Sec. 4-T18S-R29E  12. COUNTY OR ARREST 18. BEC. T. B., M. OR RES.  12. COUNTY OR ARREST 18. BEC. T. B., M. OR RES.  14. DIRTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR FOST OFFICE*  15 BELL T. B., M. OR RES.  Sec. 4-T18S-R29E  16. NO. OF ACRES IN LEASE  17. NO. OF ACRES ASSIONED  18 MILES SOUTHER FOOT ARREST 18. LEASE  19 PROPOSED DEPTH PROPOSED DEPTH PROPOSED DEPTH PROPOSED DEPTH PROPOSED CASING AND CEMENTING PROGRAM  10 PROPOSED CASING AND CEMENTING PROGRAM  20 ROTARI OR CABLE WOLL START*  4/1/2000  3525  3525  3525  3100  PROPOSED CASING AND CEMENTING PROGRAM  21 ELEVATIONS (Show whether DF, RT, GR, etc.)  3525  376 ANDELLON.  377 Sec. 4-T18S-R29E  12. COUNTY OR PARISH 18. BEC. T. B., M. OR RES.  17 No. OF ACRES ASSIONED  18 DIRTANCE IN MILES ASSIONED  19 PROPOSED DEPTH PROPOSED DEP	oir 📉			SINGLE T	MULTIPLE			
3. ADORRES JOHN D'ESPINS NATURAL GAS COPPOPATION 23 7 33  3. ADORRES JOHN D'ESPINS NATURAL GAS COPPOPATION 23 7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2. NAME OF PERATOR	WELL OTHER		ZONE	ZONE	Ш_		
3. ADDRESS AND REPRECISION. (405) 749-1300 14000 Quait Springs Parkway, Suite 600, Oklahoma City, OK 73134 14. Decarbos of well (Report location clearly and in accordance with any State requirements.)  4. Decarbos of well (Report location clearly and in accordance with any State requirements.)  990' FNL & 990' FEL (NE/4 NE/4)  At proposed prod. sone  4. Distrance in Miles and direction from Nearest Town or Post Office.  18. Miles Southeast of Artesia, NM  18. Miles Southeast of Artesia, NM  19. Distrance from Footward.  11. No. of Acres assigned to Table (Inc., pr. 160 No. of Acres in Leare (Inc., pr. 170 Nearest vell., prilling, complete).  19. Proposed Depth 99,800'  10. Elevations (Show whether DF. RT. GR. etc.)  3525'  10. Proposed Casing and Cementing Program  11. No. of Acres assigned (Inc., pr. 170 Nearest vell., prilling).  12. Approx. Date work will start (Inc., pr. 170 Nearest vell., prilling).  13. Proposed Casing and Cementing Program  14. Elevations (Show whether DF. RT. GR. etc.)  3525'  30. Proposed Casing and Cementing Program  17. No. of Acres assigned (Inc., pr. 170 Nearest vell., prilling).  18. Elevations (Show whether DF. RT. GR. etc.)  3525'  36. Proposed Casing and Cementing Program  17. No. of Acres assigned (Inc., pr. 170 Nearest vell., prilling).  18. Elevations (Show whether DF. RT. GR. etc.)  3525'  3100'  360 sxs - Surface  7 7/8"  5 1/2" N80 11.6#  9800'  375 sxs - Est TOC 7000'  3. Drill 17 1/2" hole to 400'. Set 13 3/8" surface casing at 400' with 360 sxs cement.  3. Drill 17 Nole tail in with 200 sxs Class C.	Louis Drey	fus Natural Gas	Corporatio	n 2577	12		Loco Hills	4 Federal #
4. DOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)   At proposed prod. zone				40//	<u> </u>		20	
Activation of Well (Report location clearly and in accordance with any State requirements.*)   Activation   990' FRL & 990' FEL (NE/4 NE/4)   11. BEC. T. R. M., OR BUX AND BURYTOR AREA   At proposed prod. zone	14000 Quail Sp			Oklahoma City.	OK 7313	34	10. FIRLD AND POOL	1024
990' FNL & 990' FEL (NE/4 NE/4)  At proposed prod. sone  4. DIRTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR FOST OFFICE*  18. Miles Southeast of Artesia, NM  10. DISTANCE FROM PROPOSED' LOCATION TO NEAREST TOWN OR FOST OFFICE*  18. Miles Southeast of Artesia, NM  16. NO. OF ACRES IN LEASE PROPERTY OR LEASE LINE, FT. 990' FEL 160  17. NO. OF ACRES ASSIGNED TO TRIS WELL (Also to nearest drig, unit line, if any)  3. DISTANCE FROM PROPOSED LOCATION* TO NAMEST WELL, DRILLING, COMPLETED. N/A  3. DISTANCE FROM PROPOSED LOCATION* TO NAMEST WELL, DRILLING, COMPLETED. N/A  3. DISTANCE FROM PROPOSED LOCATION* TO NAMEST WELL, DRILLING, COMPLETED. N/A  3. DISTANCE FROM PROPOSED LOCATION* TO NAMEST WELL, DRILLING, COMPLETED. N/A  3. DEPART OR CABLE TOOLS  PROPOSED CASING AND CEMENTING PROGRAM  20. ROTARY OR CABLE TOOLS  A/1/2000  3. DEPART OR CABLE TOOLS  PROPOSED CASING AND CEMENTING PROGRAM  22. APPROX. DATE WORK WILL START*  4/1/2000  3. DEPART OR CABLE TOOLS  4/1/2000  3. DEPART OR CABLE TOOLS  SETTING DEPTH QUANTITY OF CEMENT  4/1/2000  3. DEPART OR CABLE TOOLS  4/1/2000  3. DEPART OR CABLE TOOLS  SETTING DEPTH QUANTITY OF CEMENT  4/1/2000  3. DEPART OR CABLE TOOLS  4/1/2000  3. DEPART OR CABLE TOOLS  4/1/2000  3. DEPART OR CABLE TOOLS  SETTING DEPTH QUANTITY OF CEMENT  4/1/2000  3. DEPART OR CABLE TOOLS  4/1	4. LOCATION OF WELL (	Report location clearly and	in accordance wi	th any State requireme	nts.*)		UNDESGI	
At proposed prod. sone    Country A   Sec. 4-T18S-R29E	At Surface							
Sec. 4-T18S-R29E	At proposed prod wa		990 FEL (	NE/4 NE/4)			AND SURVEY OR A	REA
18 Miles Southeast of Artesia, NM   Eddy   NM	ne proposed prod. 20	()	A				C / m100	DOOR
18 Miles Southeast of Artesia, NM	14. DISTANCE IN MILES	AND DIRECTION FROM NEA	REST TOWN OR POS	T OFFICE*	***	j		
16. No. of acres in lease   17. No. of acres assigned   17. No. of acres assigned   17. No. of acres assigned   18. No. of acres in lease   17. No. of acres assigned   18. No. of acres   18. No. of acres assigned   18. No. of acres   18. No								t .
### PROPERTY ON LEASES LINE, FT. 990 FEL 160 #### 160 ##### 160 ################	15. DISTANCE FROM PROI	USED*		16. NO. OF ACRES IN	LEASE   17	NO 0	,	I NM
8. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLED POR, ON THIS LEASE, PT.  10. ELEVATIONS (Show whether DF, RT, GR, etc.)  3525'  3525'  PROPOSED CASING AND CEMENTING PROGRAM  SIZE OF HOLE  13 3/8" J5S  14/1/2000  PROPOSED CASING AND CEMENTING PROGRAM  SIZE OF HOLE  17 1/2"  18 5/8" K55  32#  3100'  7 7/8"  SETTING DEPTH  QUANTITY OF CEMENT  360 sxs - Surface  3100'  995 sxs - Surface  375 sxs - Est TOC 7000'  A. Drill 17 1/2" hole to 400'. Set 13 3/8" surface casing at 400' with 360 sxs cement.  3. Drill 11" hole to 3100', set 8 5/8" intermediate casing at 3100'. Cement with 795 sxs 35:65 POZ/C tail in with 200 sxs Class C.	PROPERTY OR LEASE	LINE, FT. 990	FEL	_	1.		IS WELL	
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. N/A  3525'    1. ELEVATIONS (Show whether DF, RT, GR, etc.) 3525'   3.								
22. APPROX. DATE WORK WILL START*   3525   4/1/2000	TO NEAREST WELL,	ORILLING, COMPLETED,	N/A		20	). ROTAR		<u>-</u>
3525'    PROPOSED CASING AND CEMENTING PROGRAM   PROPOSED CASING AND CEMENTING PROGRAM   PROPOSED CASING AND CEMENTING PROGRAM   PROPOSED CASING AND CEMENTING DEPTH   QUANTITY OF CEMENT   17 1/2 "	21. ELEVATIONS (Show wh	ether DF, RT, GR, etc.)			i			RK WILL STARTS
Size of Hole   GRADE SIZE OF CASING   WEIGHT PER FOOT   SETTING DEPTH   QUANTITY OF CEMENT   17 1/2 "   13 3/8" J5S   54.5#   SETTING DEPTH   GUANTITY OF CEMENT   17 1/2 "   8 5/8" K55   32#   3100'   995 sxs - Surface   37 7/8"   5 1/2" N80   11.6#   9800'   375 sxs - Est TOC 7000'   375 sxs - Est TO	3525'						1	
SIZE OF HOLE   GRADE SIZE OF CASING   WEIGHT PER FOOT   SETTING DEPTH   QUANTITY OF CEMENT   17 1/2 "   13 3/8" J5S   54.5# WITNES 300'   360 sxs - Surface   3100'   995 sxs - Surface   7 7/8"   5 1/2" N80   11.6#   9800'   375 sxs - Est TOC 7000'	23.		DROBOSED CASE	NC AND CENENAMO			1 .7 -7 -	
17 1/2 "								1573-24-00
11"   8 5/8" K55   32#   3100'   995 sxs - Surface   7 7/8"   5 1/2" N80   11.6#   9800'   375 sxs - Est TOC 7000'     A. Drill 17 1/2" hole to 400'. Set 13 3/8" surface casing at 400' with 360 sxs cement.     B. Drill 11" hole to 3100', set 8 5/8" intermediate casing at 3100'. Cement with 795 sxs   35:65 POZ/C tail in with 200 sxs Class C.		I			PTH			· <del>-</del>
7 7/8"  5 1/2" N80  11.6#  9800'  375 sxs - Est TOC 7000'  A. Drill 17 1/2" hole to 400'. Set 13 3/8" surface casing at 400' with 360 sxs cement.  B. Drill 11" hole to 3100', set 8 5/8" intermediate casing at 3100'. Cement with 795 sxs 35:65 POZ/C tail in with 200 sxs Class C.				***		360	sxs - Surface	<u></u>
A. Drill 17 1/2" hole to 400'. Set 13 3/8" surface casing at 400' with 360 sxs cement.  3. Drill 11" hole to 3100', set 8 5/8" intermediate casing at 3100'. Cement with 795 sxs 35:65 POZ/C tail in with 200 sxs Class C.						995	sxs - Surface	<u> </u>
3. Drill ll" hole to 3100', set 8 $5/8$ " intermediate casing at 3100'. Cement with 795 sxs 35:65 POZ/C tail in with 200 sxs Class C.	7 7/8''	5 1/2" N80	11.6#	9800'		375	sxs - Est TOO	7000'
3. Drill ll" hole to 3100', set 8 $5/8$ " intermediate casing at 3100'. Cement with 795 sxs 35:65 POZ/C tail in with 200 sxs Class C.		1		1	I			
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3. Drill ll" hole to 3100', set 8 $5/8$ " intermediate casing at 3100'. Cement with 795 sxs 35:65 POZ/C tail in with 200 sxs Class C.	A. Drill 17 1	/2" hole to 400	'. Set 13 3	3/8" surface c	asing at	400	' with 360 sxs	cement.
35:65 POZ/C tail in with 200 sxs Class C.								
	B. Drill 11"	hole to 3100 <b>',</b> s	set 8 5/8" :	intermediate c	asing at	3100	O'. Cement wi	th 795 sxs
	35:65 POZ/	C tail in with 2	200 sxs Cla	ss C.				
	a	011 4 4 9 9 9 9 9 9 9		/ - <b>*</b>				

Drill 7 7/8" hole to 9800'. Set 5 1/2" production casing at 9800'. Cement with

375 sxs modified H .3% D 156.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ETTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM. It proposal is to deepen give data or proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED Carlo Christian	Regulatory Technician	DATE 2-17-00
(This space for Federal or State office use)		——————————————————————————————————————
PERMIT NO.	APPROVAL DATE	
Application approval does not warrant or certify that the applicant holds leg- CONDITIONS OF APPROVAL, IF ANY:	al or equitable title to those rights in the subject lease which would en	ntitle the applicant to conduct operations thereon.
/S/LAHAY D. DAYY	Assistant Field Manager,	

Lands And Minerals APPROVED BY

\*See Instructions On Reverse Side

DISTRICT I P.O. Box 1980, Hobbs, NM 85240

## State of New Mexico

Energy, Minerals and Natural Res

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

DISTRICT III 1000 Rio Brazos Rd., Artec, NM 87410 OIL CONSERVATION DIVISION ARIES Santa Fe, New Mexico 87504-2088

Form C-102 February 10, 1994 Instruction on back

Submit to Appropriate District Office
State Lease - 4 Copies Est Lease - 3 Copies

AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code Pool	Name
	Upper Penn	
Property Code	Property Name	Well Number
24932	LOCO HILLS "4" FEDERAL	4
OGRID No.	Operator Name	Elevation
025773	LOUIS DREYFUS NATURAL GAS CORPORATION	3525'

#### Surface Location

UL or lot No.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	County
Α	4	18 S	29 E		990	NORTH	990	EAST	EDDY

#### Bottom Hole Location If Different From Surface

					buttom in Dille	Tene from but	lace		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or	r Infill C	onsolidation (	Code Or	der No.	<u>L</u>			
40	N								

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

 OR A NON-STANDARD UNIT HAS BE		ID DIVIDION
	27.0' 3524.9'	OPERATOR CERTIFICATION  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature
	Lat.: N32°46'51.8"  Long.: W104°04'27.9" 	Carla Christian Printed Name  Regulatory Technician Title 3-14-00 Date  SURVEYOR CERTIFICATION
		I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison and that the same is true and correct to the best of my belief.  January 10, 2000
		Date Surveyed L. JONES Signeture Seal of Professional Burveyer  W.O. No. 00 84  Certificate App Con Management of the Control

DISTRICT I P.O. Box 1980, Hobbs, NM 88240 State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised February 10, 1994 Instruction on back Submit to Appropriate District Office

Pool Name

State Lease - 4 Copies Fee Lease - 3 Copies

□ AMENDED REPORT

#### DISTRICT II P.O. Drawer DD, Artesia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

API Number

DISTRICT III

### OIL CONSERVATION DIVISION P.O. Box 2088

Pool Code

Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

						Loco Hil	lls (Cisco/C	anyon)	
Property Code  24932  LOCO HILLS "4" FEDERAL						Well N	umber		
24932		<u> </u>		LUCU				4	
OGRID N	025773 LOUIS DREYFUS NATURAL GAS CORPORATION					Eleva			
02	3113	<u> </u>	LOUIS	DRETFU	·	<del></del>	ALIGN	352	.5
					Surface Loc	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Α	4	18 3	29 E		990	NORTH	990	EAST	EDDY
			Pottom	Hole Lo	cation If Diffe	erent From Sur	face		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acre	B Joint o	7-531 (	Consolidation (			<u> </u>	<u> </u>		
		- 1	CONSOLIGERION (	UF	der No.				
160	N						•		
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	1						OPERATO	OR CERTIFICAT	ION
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	İ				3527.0	3524.9'			
						990'	1 00	(1. +	
1					3526.6	<b>352</b> 6'	Signature	MUSHO	$\Delta $
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İ						.: N32°46'5 8"	Carla Ch	ristian •	<del></del>
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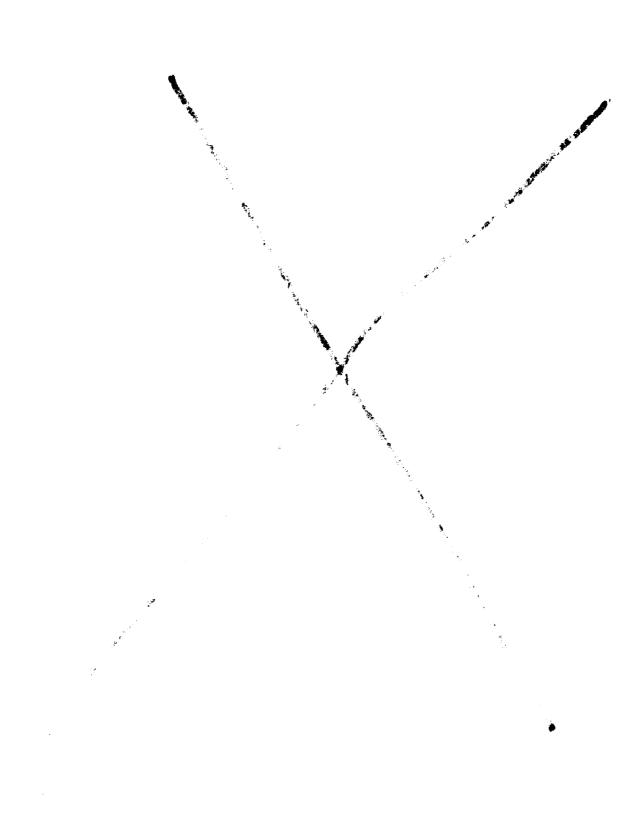
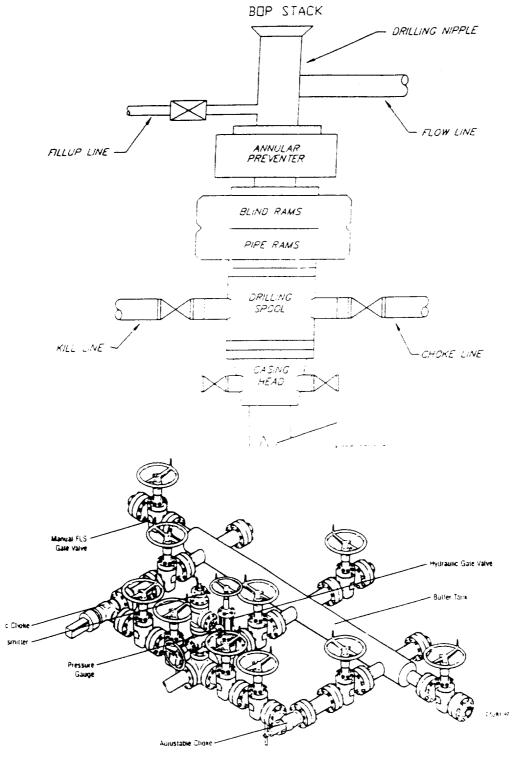


Exhibit 5

# TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER & CHOKE MANIFOLD SCHEMATIC



Typical Choke Manifold Designed for Land Oritling Applications

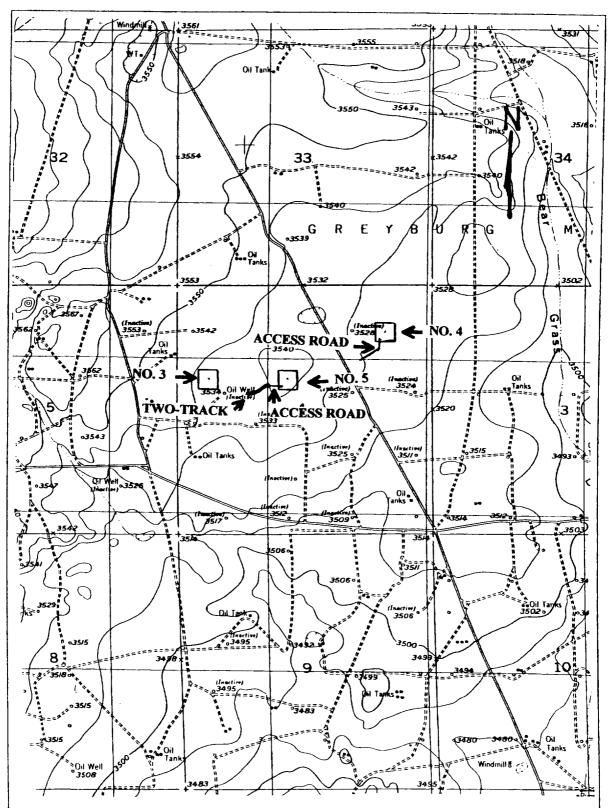


Figure 1. Showing the location of LOUIS DREYFUS NATURAL GAS CORPORATION's proposed Loco Hills "4" Federal Wells Nos. 3 (1980 FNL, 660 FWL), 4 (990 FNL. 990 FEL), and 5 (1980 FNL, 2310 FWL) and associated access roads in Section 4, T18S, R29E NMPM, Eddy County, NM. Map Reference: 7.5' series Red Lake SE, NM (1955), 32104-G1.