

United States Department of the Interior
GEOLOGICAL SURVEY
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JUL 1 4 1978

Amoco Production Company Attention: Mr. E. D. Newman P. O. Box 3092

Houston, Texas 77001

Wo. 4578

Gentlemen:

Your application of June 23, 1978 requesting approval of the addition of the ESE sec. 5, T. 18 S., R. 29 E., Eddy County, New Mexico, to the 5th revision of the Morrow participating area for the Empire South Deep unit agreement, Eddy County, New Mexico, No. 14-08-0001-11591, has been approved on this date by the Oil and Gas Supervisor, SRMA, U. S. Geological Survey, effective as of January 1, 1977, the effective date of the 5th revision. Such addition has been approved by the New Mexico Commissioner of Public Lands and the New Mexico 011 Conservation Division.

The above described 80.00 acre fee land addition to the Morrow participating area enlarges the area to 3,364.05 acres through the 5th revision and is necessitated in order to include the entire spacing unit allocated to unit well No. 12 within the Morrow participating area by the 5th revision thereof.

Copies of such approval are being distributed to the appropriate Federal offices and one approved copy is returned herewith. You are requested to furnish all interested parties with appropriate evidence of this approval action.

Sincerely yours,

(ORIG. SGD.) GENE F. DANIEL

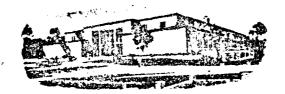
ACTINOIL and Gas Supervisor, SELA

Enclosure

NMOCD, Santa Fe (w/ey appln.) Com. Pub. Lands, Santa Fe (w/ey appln:) letter only

State of New Mexico





Commissioner of Public Lands

PHIL R. LUCERO
COMMISSIONER

June 27, 1978

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

Amoco Production Company 500 Jefferson Building P. O. Box 3092 Houston, Texas 77001

no.4578

Re: Empire South Deep Unit Eddy County, New Mexico AMENDMENT TO THE FIFTH EXPANSION OF THE MORROW PARTICIPATING AREA

ATTENTION: Mr. E. D. Newman

Gentlemen:

Your letter of June 23, 1978 has been received, whereby, you wish to amend the Fifth Expansion of the Morrow Participating Area by including the E/2SE/4 of Section 5, T-18-S, R-29E, Eddy County, New Mexico.

The Commissioner of Public Lands has this date approved the amendment. Our approval is subject to like approval by the United States Geological Survey.

Enclosed is one approved copy for your files.

Very truly yours,

PHIL R. LUCERO
COMMISSIONER OF PUBLIC LANDS

BY: RAY D. GRAHAM, Director Oil and Gas Division

PRL/RDG/s enc1.

cc:

OCC-Santa Fe, New Mexico USGS-Roswell, New Mexico USGS-Albuquerque, New Mexico



RECEIVED

Jun 26 9 01 AM '78

STAFE LAND DEF.

Amoco Production Company

500 Jefferson Building P.O. Box 3092 Houston, Texas 77001

June 23, 1978

File: CGF(10)-964-2896XLF

Re: Empire South Deep Unit

Eddy County, New Mexico No. 14-08-0001-11571

Mr. Jim Gilliam (3) United States Department of Interior Geological Survey P. O. Drawer 1857 Roswell, NM 88201 Mr. Phil R. Lucero (3) Commissioner of Public Lands State of New Mexico P. O. Box 1148 Santa Fe. NM 87501

Mr. James E. Kapteine (3) New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, NM 87501

Gentlemen:

Please reference James W. Sutherland's letter of April 20, 1978, approving Amoco Production Company's Fifth Expansion of the Morrow Participating Area for the Empire South Deep Unit (ESDU), Eddy County, New Mexico. Inasmuch as 80 acres being the E/2 SE/4 Section 5, T-18-S, R-29-E, Eddy County, New Mexico, is a part of the Proration Unit assigned to the ESDU Well No. 12, Amoco Production Company, as Operator of the Empire South Deep Unit, formally requests that the Fifth Expansion of the Morrow Participating Area be amended to include the aforementioned 80 acres.

Your favorable consideration of this request will be appreciated.

Yours very truly,

E. D. Newman Production Coordination Superintendent

RLC/cjb 5/7322

cc: Mr. V. E. Staley Levelland, TX COMMISSIONER OF PUBLIC LANDS

io & h

OIL CONSERVATION DIVISION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

June 29, 1978

Amoco Production Company P. O. Box 3092 Houston, Texas 77001

Attention: E. D. Newman

Re: Case No. 4578

Empire South Deep Unit

Fifth Expansion of the Morrow

Participating Area

Gentlemen:

We hereby approve the amendment to the Fifth Expansion of the Morrow Participating Area for the Empire South Deep Unit, Eddy County, New Mexico, to include the following 80acre tract:

E/2 SE/4 of Section 5, Township 18 South, Range 29 East, Eddy County

Very truly yours,

JOE D. RAMEY Director

JDR/LT/fd

U.S.G.S. - Roswell CC:

Commissioner of Public Lands



500 Jefferson Building P.O. Box 3092 Houston, Texas 77001

June 23, 1978

File: CGF(10)-964-2896XLF

Re: Empire South Deep Unit

Eddy County, New Mexico No. 14-08-0001-11571

Mr. Jim Gilliam (3) United States Department of Interior Geological Survey P. O. Drawer 1857 Roswell, NM 88201

Mr. James E. Kapteine (3)
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, NM 87501

Mr. Phil R. Lucero (3)
Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, NM 87501

Gentlemen:

Please reference James W. Sutherland's letter of April 20, 1978, approving Amoco Production Company's Fifth Expansion of the Morrow Participating Area for the Empire South Deep Unit (ESDU), Eddy County, New Mexico. Inasmuch as 80 acres being the E/2 SE/4 Section 5, T-18-S, R-29-E, Eddy County, New Mexico, is a part of the Proration Unit assigned to the ESDU Well No. 12, Amoco Production Company, as Operator of the Empire South Deep Unit, formally requests that the Fifth Expansion of the Morrow Participating Area be amended to include the aforementioned 80 acres.

Your favorable consideration of this request will be appreciated.

Yours very truly,

E. D. Newman
Production Coordination Superintendent

RLC/cjb 5/7322



500 Jefferson Building P.O. Box 3092 Houston, Texas 77001

June 23, 1978

File: CGF(10)-964-2896XLF

Re: Empire South Deep Unit

Eddy County, New Mexico No. 14-08-0001-11571

Mr. Jim Gilliam (3) United States Department of Interior Geological Survey P. O. Drawer 1857 Roswell, NM 88201 Mr. Phil R. Lucero (3) Commissioner of Public Lands State of New Mexico P. O. Box 1148 Santa Fe, NM 87501

Mr. James E. Kapteine (3) New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, NM 87501

Gentlemen:

Please reference James W. Sutherland's letter of April 20, 1978, approving Amoco Production Company's Fifth Expansion of the Morrow Participating Area for the Empire South Deep Unit (ESDU), Eddy County, New Mexico. Inasmuch as 80 acres being the E/2 SE/4 Section 5, T-18-S, R-29-E, Eddy County, New Mexico, is a part of the Proration Unit assigned to the ESDU Well No. 12, Amoco Production Company, as Operator of the Empire South Deep Unit, formally requests that the Fifth Expansion of the Morrow Participating Area be amended to include the aforementioned 80 acres.

Your favorable consideration of this request will be appreciated.

Yours very truly,

E. D. Newman

Production Coordination Superintendent

RLC/cjb 5/7322



500 Jefferson Building P.O. Box 3092 Houston, Texas 77001

June 23, 1978

File: CGF(10)-964-2896XLF

Re: Empire South Deep Unit

Eddy County, New Mexico No. 14-08-0001-11571

Mr. Jim Gilliam (3) United States Department of Interior Geological Survey P. O. Drawer 1857 Roswell, NM 88201 Mr. Phil R. Lucero (3) Commissioner of Public Lands State of New Mexico P. O. Box 1148 Santa Fe, NM 87501

Mr. James E. Kapteine (3) New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, NM 87501

Gentlemen:

Please reference James W. Sutherland's letter of April 20, 1978, approving Amoco Production Company's Fifth Expansion of the Morrow Participating Area for the Empire South Deep Unit (ESDU), Eddy County, New Mexico. Inasmuch as 80 acres being the E/2 SE/4 Section 5, T-18-S, R-29-E, Eddy County, New Mexico, is a part of the Proration Unit assigned to the ESDU Well No. 12, Amoco Production Company, as Operator of the Empire South Deep Unit, formally requests that the Fifth Expansion of the Morrow Participating Area be amended to include the aforementioned 80 acres.

Your favorable consideration of this request will be appreciated.

Yours very truly,

E. D. Newman

Production Coordination Superintendent

RLC/cjb 5/7322



United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Box 26124 Albuquerque, New Mexico 87125

MAY 0 3 1978

Amoco Production Company Attention: Mr. J. L. Hoyt, Jr. P. 0. Box 3092 Houston, Texas 77011

n. 4578

Gentlemen:

Our records show that the initial Morrow participating area for the Empire South Deep unit agreement, Eddy County, New Mexico, was established effective as of Movember 29, 1971. Such participating area effective date sets the date of November 29, 1976 as the time when the automatic elimination provisions contained in Section 2(e) of the unit agreement became operative. Drilling operations were in progress on unitized lands not entitled to participation on Movember 29, 1976 and thereafter with not more than 90 days time elapsing between completion of one such well and commencement of the next such well until March 29, 1978. Well No. 17 was plugged and abandoned on December 29, 1977 and no well was commenced prior to the 90 day lapse to March 29, 1978. Therefore, all unit lands not entitled to be inaa participating area as of March 29, 1076, shall be eliminated automatically from the unit effective March 30, 1970.

As unit operator, you are required to submit to this office within 90 days after such automatic elimination, a description of the lands so eliminated with appropriate revised Exhibits "A" and "B".

Sincerely yours,

(ORIG. SGD.) GENE F. DANIEL

ACTING Sil and Gas Supervisor, SHMA

NMOCC, Santa Fe This Copy for Com. Pub.

Com. Pub. Lands, Santa Fe



United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Box 26124 Albuquerque, New Mexico 87125

APR 2 0 1978

Amoco Production Company Attention: Mr. J. L. Hoyt, Jr. P. O. Box 3092 Houston, Texas 77001

W. 4578

Gentlemen:

The 1973 plan of development submitted March 20, 1978, for the Empire South Deep unit area, Eddy County, New Mexico, was approved on this date subject to like approval by the appropriate State officials.

Such plan proposes the drilling of one Morrow well and one approved copy is enclosed.

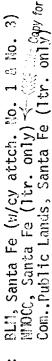
Sincerely yours,

(ORIG. SGD.) JAMES W. SUTHERLAND

Area 0il and Gas Supervisor

Enclosure

CC: NMOCC, Santa Fe (1tr. only)
Com. Pub. Lands, Santa Fe (1tr. only)





United States Department of the Interior

GEOLOGICAL SURVEY

P. G. Pox 20124 Albuquerque, Per Bexico 37125

APR 2 0 1978

Amoco Production Company Attention: Mr. J. L. Hoyt. Jr. P. J. Box 3092 Houston, Texas 77011 no. 4578

Sentlemen:

Your letter of March 20, 1976, requesting approval of the fifth and sixth Norrow participating area revisions for the Empire South Recount agreement, Eddy County, New Mexico, No. 14-08-0801-11881, has been approved on this date by the Area Bil and Gas Supervisor. United States Geological Survey. Such approval is subject to like approval by the Nexico Commissioner of Public Lands and the Nexico Bil Conservation Commission.

The fifth revision adds 400.00 acres, described in Attachment No. 1 enclosed with your letter, to the Morrow participating area enlarging the area to 3,284.05 acres effective as of January 1, 1277. Such revision is based largely upon the completion of unit well No. 12 located in the SWA sec. 5, T. 18 S., R. 29 E., N.M.P.M. Such unit well was completed January 28, 1977, from the Morrow interval 10,642 to 10,900 feet for a calculated absolute open flow potential of 31,100 MOF of mas per Jay and 72 barrels of condensate per day.

The sixth revision adds 443.82 across described in Attachment No. 3 enclosed with your letter, to the Morrow participating area enlarging such area to 3,727.07 acres effective April 1, 1977. Such revision is based largely on the information obtained from the completion of unit well No. 13 located in the SEMSER sec. 30 for an initial flow rate of 3,400 MCF of gas per day from the Corrow interval 10,605 to 10,677 fact.

Copies of such approval are being distributed to the appropriate Federal offices and one approved copy is returned herewith. You are requested to furnish all interested parties with appropriate evidence of such approval.

Sincorely yours,

(ORIG. SGD.) JAMES W. SUTHERLAND

Area Cil and Gas Supervisor

Anclosure

State of New Mexico





Commissioner of Public Lands

PHIL R. LUCERO COMMISSIONER

April 6, 1978

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

Amoco Production Company 500 Jefferson Building P. O. Box 3092 Houston, Texas 77001

no. 4578

Re: Empire South Deep Unit
Development and Operation
Eddy County, New Mexico

ATTENTION: Mr. J. L. Hoyt, Jr.

Gentlemen:

The Commissioner of Public Lands has this date approved your 1978 Plan of Development for the Empire South Deep Unit, Eddy County, New Mexico. Such plan calls for the drilling of one additional Morrow well, which will be drilled in Section 30, Township 17 South, Range 29 East. Also, two Wolfcamp tests may be considered contingent upon Wolfcamp performance from Well No. 8. This approval is subject to like approval by the United States Geological Survey.

The Fifth expansion, as revised, of the Morrow Participating Area for the Empire South Deep Unit has also been approved on this date. This revision covers the SW/4, W/28E/4 of Section 5, and the NW/4 of Section 8 of Township 18 South, Range 29 East. These acreage is described on Attachment No. 1 submitted with your letter of March 20, 1978.

Your Sixth expansion of the Morrow Participating area has also been approved on this date. This participating area covers Lots 1, 2, and 3, E/2NW/4, NE/4SW/4, NE/4 and N/2SE/4 of Section 30, Township 17 South, Range 29 East. These acreage is described on Attachment No. 3 submitted with your letter of March 20, 1978.

Both of these approvals for the Fifth and Sixth Participating Areas are also subject to like approval by the United States Geological Survey.

Amoco Production Company April 6, 1978 Page 2.

Enclosed is one approved copy for your files.

Very truly yours,

PHIL R. LUCERO COMMISSIONER OF PUBLIC LANDS

BY: RAY D. GRAHAM, Director Oil and Gas Division

PRL/RDG/s encls.

cc:

OCC-Santa Fe, New Mexico USGS-Roswell, New Mexico USGS-Albuquerque, New Mexico



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MAR 30 8 59 MM '78

STATE LAND OFFICE SANTAFE.N.M.

March 20, 1978

Amoco Production Company

500 Jefferson Building P.O. Box 3092 Houston, Texas 77001

File: CGF(10)-964-416 X LF

Re: Empire South Deep Unit

Development and Operation Eddy County, New Mexico

Mr. Carl C. Traywick (3) Area Oil & Gas Supervisor United States Department of the Interior Geological Survey P. O. Drawer 1857 Roswell, NM 88201 Mr. Phil R. Lucero (3) Commissioner of Public Lands State of New Mexico P. O. Box 1148 Santa Fe, NM 87501

Mr. James E. Kapteine (3) New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, NM 87501

Gentlemen:

Amoco Production Company, as operator of the Empire South Deep Unit, Eddy County, New Mexico, No. 14-08-0001-11571, respectively requests approval of two expansions of the Morrow participating area and a 1978 plan of development calling for one additional Morrow well.

Amoco filed in February, 1977, a proposal for the fifth expansion of Morrow participating area to include the NW/4 of Section 8, the S/2 of Section 5, and the NW/4 of Section 5 (excluding the 40 acres surrounding Well No. 9), T-18-S, R-29-E. The fifth expansion was recommended on the basis of an excellent producer encountered at Well No. 12. It should be noted that the fifth expansion was proposed prior to the drilling of Wells Nos. 14, 15, and 16 and commercial productivity of the acreage was based on Well No. 12 which was a 4000 MCF/D producer. Well No. 14 showed good clean sands; however, a low initial rate (approximately 400 MCF/D) resulted. Buildup tests are now being conducted to determine if damage or depletion is the cause of low productivity in Well No. 14. Thus, we are formally recommending that the fifth expansion be revised to include the SW/4 and

the W/2 of the SE/4 of Section 5 and the NW/4 of Section 8. Non-inclusion of the E/2 of the SE/4 of Section 5 into a participating area is a result of insufficient data, at this time, to support its inclusion. The E/2 of the SE/4 and the N/2 of Section 5 will be evaluated and a recommendation to propose their inclusion into a participating area will be made at a later date. This proposed fifth revision is also graphically depicted on attached Exhibit "A". Furthermore, the complete allocation schedule for all the affected unit acreage after the fifth revision is tabulated on three typewritten sheets included as Attachment No. 2.

It is to be noted that the five-year automatic elimination date as stated on Page 4 of the Unit Agreement was November 29, 1976. However, this is to advise that this date was extended as outlined on Page 5 of the Unit Agreement by our Well No. 12 which, on that date, was drilling on lands not then entitled to participation. Well No. 14 was then spudded to extend this date and was completed on August 23, 1977. Since completion of Well No. 14 allowed us an additional 90-day period to spud another well, we spudded Well No. 15 in the NW/4 of Section 8. This acreage was not entitled to participation. As you will recall, in our meeting on September 30, 1977, attended by Messrs. Stover, Cherry, and Ms. Buchanan of this office, we became aware that the USGS considered Well No. 15 to be located on acreage entitled to participation by virtue of being in the proposed fifth expansion (even though it was not yet approved). With this in mind, Amoco proposed drilling Well No. 17, which was spudded November 10, 1977, in an effort to continue the prudent and timely development in the unit and fulfill our continuous drilling obligation. This well was plugged and abandoned on December 29, 1977.

We are also recommending a sixth expansion of the Morrow participating area to include Lots 1, 2, and 3, E/2 NW/4, NE/4 SW/4, NE/4 and the N/2 of the SE/4 of Section 30, T-17-S, R-29-E, based on commercial production established by Well No. 13 and the continuity of sands observed on the cross section from Wells Nos. 7 and 13 and from the commercial production established by the Pennzoil well in Section 24. The initial flow rate of Well No. 13 was 3.4 MMCF/D with logs indicating 2.3 BCF of reserves by pore volume calculations. This well has not been placed on line as yet due to right-of-way clearances. Well No. 7 was never tested in the Morrow, but logs have shown it to have about 1 BCF of reserves by pore volume calculations. A 1 BCF reserve level with an initial producing rate of 1 MMCF/D (declining at a rate of 53.84% per year) based on a 70% success probability would result in a payout of the initial investment in 24 months at \$1.50/MMBTU. Reserves would be depleted in this well in six The Pennzoil well in Section 24 has a reserve level of 2.2 BCF from P/Z analysis. We feel that all the acreage in Section 30 is productive and should be placed in the proposed sixth expansion. The acreage is described in detail on Attachment No. 3. This proposed sixth expansion is also graphically depicted on Exhibit "A". The complete allocation schedule for all the affected unit acreage after the sixth revision is tabulated on the typewritten sheets included as Attachment No. 4.

Page 3 March 20, 1978

We respectively request that a 1978 plan of development be approved calling for one additional Morrow well. This well will be located in Section 30 to be drilled by Harvey Yates. Also, two Wolfcamp tests may be considered contingent upon Wolfcamp performance from Well No. 8. Since we have no other development plans for the unit for 1978 and since Yates cannot get a rig to drill the well in Section 30 by March 30, 1977, it is necessary that approval be obtained for our expansions of participating area by the end of this month. These requests have been discussed with the Roswell office and was felt to be acceptable.

Your favorable consideration of the foregoing will be accepted.

Yours very truly,

J. L. Hoyt; Jr. Production Coordination Superintendent

JMC/caw 1/6392

Attachments

cc: Mr. V. E. Staley Levelland, TX Phie Rhum

COMMISSIONER OF PUBLIC LANDS

STATE LAND I	AH IIC II M.	'78 ∉			Unit
44	43	42	12	10	Jnit Tract No.

T-18S, R-29E Sec. 5	T-18S, R-29E Sec. 5.	T-18S, R-29E Sec. 5	T-18S, R-29E Sec. 8.	T-18S, R-29E Sec. 8: NW/4 NW/4	Acreage Description
T-18S, R-29E Sec. 5: NW/4 SE/4, SW/4 SW/4.	T-18S, R-29E Sec. 5: NW/4 SW/4, SE/4 SW/4.	T-18S, R-29E Sec. 5: NE/4 SW/4, SW/4 SE/4.	T-18S, R-29E Sec. 8: E/2 NW/4, SW/4 NW/4.	: NW/4 NW/4.	escription
Fee-HBP	Fee-HBP	Fee-HBP	LC-061702	LC-058603	Lease No.
80.0	80.0	80.0	120.0	40.0	Participating Acres

ATTACHMENT NO. 1

TOTAL

400.00

EFFECTIVE 1-1-77

PROPOSED FIFTH MORROW PARTICIPATING AREA EXPANSION EMPIRE SOUTH DEEP UNIT EDDY COUNTY, NEW MEXICO

ALLOCATION SCHEDULE INITIAL PLUS FIRST, SECOND, THIRD, FOURTH, AND FIFTH REVISIONS OF MORROW PARTICIPATING AREA EMPIRE SOUTH DEEP UNIT

EFFECTIVE 1-1-77

Tr. 14	Tr. 13-A	Tr. 12	Tr. 10	Tr. 9	Tr. 6-B	Tr. 6-A	Tr. 6	Tr. 4	. Tr. 3	Tr. 2-A	Tr. 2	Tract No.
T-18S, R-29E Sec. 6: NW/4 NE/4.	T-17S, R-29E Sec. 30: S/2 SE/4 Sec. 31: Lot 4 (SW/4 SW/4, 29.32 ac)	T-18S, R-29E Sec. 8: E/2 NW/4, SW/4 NW/4.	T-18S, R-29E Sec. 8: NW/4 NW/4.	T-18S, R-29E Sec. 6: E/2 NE/4.	T-18S, R-29E Sec. 6: SE/4 SW/4.	T-18S, R-29E Sec. 6: SE/4.	T-18S, R-29E Sec. 6: Lots 3 & 4, NE/4 SW/4.	T-18S, R-29E Sec. 7: S/2 NE/4.	T-18S, R-29E Sec. 7: N/2 NE/4.	T-18S, R-28E Sec. 12: NE/4.	T-18S, R-29E Sec. 7: Lot 1 (NW/4 NW/4, 30.22 ac) NE/4 NW/4, Lot 2 (SW/4 NW/4, 30.37 ac) SE/4 NW/4.	Description
LC-065374-A	LC-062407 :)	LC-061702	LC-058603	LC-058582	LC-058126	LC-058126	NM-23414	LC-028772(d)	LC-028772(c)	NM-23413	LC-028772(a)	Lease No.
40.00	109.34	120.00	40.00	80.00	40.00	160.00	99.93	80.00	80.00	160.00	140.59	Participating Acres
1.2180008	3.3294053	3.6540025	1,2180908	2.4360017	1.2180008	4.8720033	3.0428706	2.4360017	2.4360017	4.8720033	4.2809684	% of Participating Area
Earl A. Latimer, Jr. Featherstone Farms, Ltd.	Atlantic Richfield Company O. H. Randell Estate Donald Brown	M. W Smith Kathleen Miller	I & L Development Company	James Cleo Thompson, Jr.	Me-Tex Supply Company	Bassett-Birney Oil Corporation	Cities Service Oil Company Yates Petroleum Company	Shinnery Investment Company	of Texas	Husky Oil Company of Delaware	Amoco Production Company Harvey E. Yates Company Continental Oil Company	STATILITY WORKING Interest Owners
.150970 .150965	.402585 .402585 .201295	.402585	.536890	1.073460	1.207760	1.610350 1.610350	2.012940 2.012940 1.964760	3.281250	6.105035	6.314060	32.821910 14.218750 7.895140	હ હર

•			Participating	Participating	
Tract No.	Description	Lease No.	Acres	Area	Working Interest Owners 5
Tr. 15	T-18S, R-29E Sec. 6: SW/4 NE/4.	NM-0926 (KGS)	40.00	1.2180008	Robert E. Boling .100550
	•				C. F. Qualia .100645
Tr. 17	T-17S, R-29E Sec. 31: Lot 1	NM-0555569	417.49	12.7125793	Mark D. Wilson100645
	(NW/4 NW/4, 28.63 acres) NE/4				A. J. Losee .100645
	NW/4, N/2 NE/4, T-17S, R-29E				Roland McLean .050325
•	Sec. 31: Lot 2 (SW/4 NW/4 28.86				
	acres) SE/4 NW/4, NE/4 SW/4,				. Featherstone II
	S/2 NE/4, N/2 SE/4.				
Tr. 17-A	T-17S, R-29E Sec. 31: Lot 3 (NW/4	NM-0555569	29.09	0.8857911	Margaret Holcomb .033550
					on .
Tr. 18.	T-18S, R-29E, Sec. 6: Lots 1, 2	NM-0558119 (KGS)) 59.23	1.8035547	TOTAL 100.
	V. V. = 1 V V				
Tr. 19	T-18S, R-29E Sec. 6: E/2 NW/4.	NM-056040] (KGS)	80.00	2.4360017	
Tr. 20	T-17S, R-28E Sec. 36: SE/4 NE/4,	647-368	240.00	7.3080051	
	NE/4 SE/4, NE/4 NE/4, W/2 NE/4, NW/4 SE/4.				
Tr. 21	T-18S, R-28E Sec. 1: NE/4 SE/4, NW/4 NW/4, SW/4 SW/4, NW/4 SE/4.	2029-6	160.00	4.8720033	
			a		

% of

Tr. 33

T-17S, R-28E Sec. 36: SE/4 SE/4

B-11593-8

40.00

1.2180008

E-7640

40.00

1.2180008

E-7596-0rig.

68.40

2.0827814

B-4918-85

40.00

1.2180008

B-4458-33

40.00

1.2180008

T-17S, R-29E Sec. 32: SW/4 NW/4.

T-17S, R-29E Sec. 30: Lot 4 (SW/4 SW/4, 28.40 acres) SE/4 SW/4.

Tr. 32

Tr. 31

Tr. 25

T-17S, R-29E Sec. 31: SE/4 SW/4.

T-17S, R-29E Sec. 32: NW/4 SW/4.

	Tr. 44	Tr. 43	Tr. 42	Tr. 40	Tr. 38	Tr. 37	Tr. 36	Tr. 35	Tr. 34	Tract No.
SW/ 4 SW/ 4.	T-18S, R-29E Sec. 5: NW/4 SE/4,	T-18S, R-29E Sec. 5: NW/4 SW/4, SE/4 SW/4.	T-18S, R-29E Sec. 5: NE/4 SW/4, SW/4 SE/4.	T-18S, R-28E Sec. 1: SE/4 SE/4.	T-18S, R-28E Sec. 1: E/2 NE/4.	T-17S, R-29E Sec. 31: S/2 SE/4.	T-18S, R-28E Sec. 1: W/2 NE/4, E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4.	T-17S, R-28E Sec. 36: SW/4 SE/4.	T-17S, R-29E Sec. 32: NW/4 NW/4.	Description
TOTAL	Fee-HBP	Fee-HBP	Fee HBP	L-1645-1	E-6946	E-4201-0rig.	E-1284-3	E-949-0rig.	E-537-5	Lease No.
3284.07	80.00	80.00	80.00	40.00	80.00	80.00	360.00	40.00	40.00	Participating Acres
100.0000000	2.4360017	2.4360017	2.4360017	1.2180008	2.4360017	2.4360017	10.9620076	1.2180008	1.2180008	Participating Participating Acres Area

PROPOSED SIXTH MORROW PARTICIPATING AREA EXPANSION EMPIRE SOUTH DEEP UNIT EDDY COUNTY, NEW MEXICO

41	37	13		Unit Tract No.
T-17-S, R-29-E, Sec. 30: NE/4 SW/4	T-17-S, R-29-E, Sec. 30: E/2 NW/4; Lots 1, 2, 3	T-17-S, R-29-E, Sec. 30: N/2 SE/4	T-17-S, R-29-E, Sec. 30: NE/4	Acreage Description
TOTAL	E-4201	LC-062407	LC-028480(a)	Lease No.
40.00 444.56	164,56	80.00	160.00	Participating Acres

ATTACHMENT NO. 3

Sf. Wies & Cfg."

EFFECTIVE 4-1-77

ALLOCATION SCHEDULE INITIAL PLUS FIRST, SECOND, THIRD, FOURTH, FIFTH, AND SIXTH REVISIONS OF MORROW PARTICIPATING AREA EMPIRE SOUTH DEEP UNIT EFFECTIVE 4-1-77

% of

Ir. 14	Tr. 13-A	Tr. 13	Tr. 12	Tr. 10	Tr. 9	Tr. 6-A	Tr. 6-B	, o	1	Tr. 4	Tr. 3	Tr. 2-A		Tr. 2	Tr. 1	Tract No.
T-18S, R-29E Sec. 6: NW	T-17S, R-29E Sec. 30: S/2 SE/4 Sec. 31: Lot 4 (SW/4 SW/4, 29.32	T-17S, R-29E, Sec. 30: N/2 SE/4	T-18S, R-29E Sec. 8: E/ SW/4 NW/4	T-18S, R-29E Sec. 8: NW	T-18S, R-29E Sec. 6: E/	T-18S, R-29E Sec. 6: SE	T-18S, R-29E Sec. 6: SE	(W/2 SW/4) E/2 SW/4.		T-18S, R-29E Sec. 7: S/	T-18S, R-29E, Sec. 7: N/2 NE/4.	T-18S, R-29E, Sec. 12: NE/4	(SW/4 NW/4, 30.37 ac.) SE/4 NW/4.	T-18S, R-29E Sec. 7: Lo	T-17S, R-29E Sec. 30: N	Description
NW/4 NE/4.	/2 SE/4 /4, 29.32 ac	N/2 SE/4	E/2 NW/4,	NW/4 NW/4.	E/2 NE/4.	SE/4.	SE/4 SW/4	Lots 3 & 4,	•	S/2 NE/4.	/2 NE/4.	NE/4	E/4 NW/4.	t 1 (NW/4	NE/4	
LC-065374-A	LC-062407 2 ac.)	LC-062407	LÇ-061702	LC-058603	LC-058582	LC-058126	LC-058126	FC-028126		LC-028772(d)	LC-028772(c)	NM-23413		LC-028772 (a)	LC-028480(a)	Lease No.
40.00	109.34	80.00	120.00	40.00	80.00	160.00	40.00	99.93		80.00	80.00	160.00		140.59	160.00	Participating Acres
1.0727801	2.9324444	2.1455602	3.2183402	1.0727801	2.1455602	4.2911203	1.0727801	2.6800/28		2.1455602	2.1455602	4.2911203		3.7705538	4.2911203	Participating Area
Mark D. ฟิวison Roland McLean	reatherstone rarms, Ltd. Robert E. Boling C. F. Qualia	Earl A. Latimer; Jr.	Atlantic Richfield Company O. H. Randall Estate	Sam Lett M. W. Smith Kathloom Milloom	I & L Development Co.	James Cleo Thompson, Jr.	Me-Tex Supply Company	Harold Kersey Bassett-Birney Oil Corporation Bright Schiff and Konnody	Yates Petroleum Company	Hendo Oil & Gas Company Cities Service Oil Company	Shinnery Investment Company	of Texas	Depco, Inc. Husky Oil Company of Delaware General American Oil Company	Continental Oil Company	Amoco Production Company	Working Interest Owners
.050325	.100650	.150970	.402585	.402585	.536890	1.073460	1.207760	1.744549 1.610350	1.964760	2./20435 2.012940	3.281250	י ר נ נ	6.314060 6.314060 6.105035	7.895140	32.821910	ક દ

Tr. 33	Tr. 32	Tr. 31	Tr. 25	Tr. 24	Tr. 21	Tr. 20	Tr. 19	Tr. 18	Tr. 17-A	Tr. 17	Tr. 15	Tract No.
T-17S, R-28E Sec. 36: SE/4 SE/4.	T-17S, R-29E Sec. 32: SW/4 NW/4.	T-17S, R-29E Sec. 30: Lot 4 (SW/4 SW/4, 28.40 acres) SE/4 SW/4.	T-17S, R-29E Sec. 32: NW/4 SW/4.	T-17S, R-29E Sec. 31: SE/4 SW/4.	T-18S, R-28E Sec. 1: NE/4 SE/4, NW/4 NW/4, SW/4 SW/4, NW/4 SE/4.	T-17S, R-28E Sec. 36: SE/4 NE/4 NE/4 SE/4, NE/4 NE/4, W/2 NE/4, NW/4 SE/4.	T-18S, R-29E, Sec. 6: E/2 NW/4.	T-18S, R-29E, Sec. 6: Lots 1,2 (W/2 NW/4).	T-17S, R-29E Sec. 31: Lot 3 (NW/4 SW/4, 29.09 acres)	T-17S, R-29E Sec. 31: Lot 1 (NW/4 NW/4, 28.63 acres) NE/4 NW/4, N/2 NE/4, T-17S, R-29E Sec. 31: Lot 2 (SW/4 NW/4 28.86 acres) SE/4 NW/4, NE/4 SW/4, S/2 NE/4, N/2 SE/4.	T-18S, R-29E Sec. 6: SW/4 NE/4.	Description
B-11593-8	E-7640	E-7596-0rig.	B-4918-85	B-4458-33	2029-6	647-368	NM-0560401 (KGS)	NM-0558119 (KGS)	NM-0555569	NM-0555569	NM-9026 (KGS)	Lease No.
40.00	40.00	68.40	40.00	40.00	160.00	240.00	KGS) 80.00	KGS) 59.23	29.09	417.49	40.0	Participating [*] Acres
1.0727801	1.0727801	1.8344539	1.0727801	1.0727801	4.2911203	6.4366804	2.1455602	1.5885191	.7801793	11.1968738	1.0727801	% of Participating Area
										, Jr. n TOTAL	Charles W. Hicks .050325	Working Interest Owners %

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Tr. 44	Tr. 43	Tr. 42	Tr. 41	Tr. 40	Tr. 38	Tr. 37	Tr. 37	Tr. 36	Tr. 35	Tr. 34	Tract No.
14	ಒ	72		ō	æ	17	17	õ	ŭ	4	0
T-18S, R-29E Sec. 5: NW/4 SE/4, SW/4 SW/4.	T-18S, R-29E, Sec. 5: NW/4 SW/4, SE/4 SW/4.	T-18S, R-29E Sec. 5: NE/4 SW/4, SW/4 SE/4.	T-17S, R-29E, Sec. 30: NW/4 SW/4	T-18S, R-28E Sec. 1: SE/4 SE/4.	T-18S, R-28E Sec. 1: E/2 NE/4.	T-17S, R-29E Sec. 31: S/2 SE/4.	T-17S, R-29E, Sec. 30: Lots 1, 2, 3, E/2 NW/4.	T-18S, R-28E Sec. 1: S/2 NE/4, E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4.	T-17S, R-28E Sec. 36: SW/4 SE/4.	T-17S, R-29E Sec. 32: NW/4 NW/4.	Description
Fee-HBP	Fee-HBP	Fee-HBP	0G-181-1	L-1645-1	E-6946	E-4201-0rig.	E-4201-0rig.	E-1284-3	E-949-0rig.	E-537-5	Lease No.
80.00 TOTAL 3728.63	80.00	80.00	40.00	40.00	80.00	80.00	164.56	360.00	40.00	40.00	Participating Acres
2.1455602	2.1455602	2.1455602	1.0727801	1.0727801	2.1455602	2.1455602	4.4134173	9.6550206	1.0727801	1.0727801	% of Participating Area



500 Jefferson Building P.O. Box 3092 Houston, Texas 77001

n. 45%

April 4, 1978

File: CGF(15)-416-LF

Re:

Empire South Deep Unit Development and Operation Eddy County, New Mexico

Mr. Carl C. Traywick Area Oil & Gas Supervisor United States Department of The Interior Geological Survey P. O. Drawer 1857 Roswell, NM 88201

Mr. James E. Kapteine New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, NM 87501

Gentlemen:

Reference is made to our letter dated March 20, 1978, File: CGF(10)-964-416xLF. Enclosed are the corrected copies of Attachments 1, 2, 3, and 4.

Yours very truly,

J. L. Hoyt, Jr.

Production Coordination Superintendent

JDP/jb Attachments

cc: Mr. V. E. Staley Levelland, TX

Desregard See Desregard April 1) Lutter of April 1)

Mr. Phil R. Lucero

Commissioner of Public Lands

P. O. Box 1148 Santa Fe, NM 87501

PROPOSED FIFTH MORROW PARTICIPATING AREA EXPANSION EMPIRE SOUTH DEEP UNIT EDDY COUNTY, NEW MEXICO

EFFECTIVE 1-1-77

	44	43	42	12	10	Unit Tract No.
	T-18S, R-29E Sec. 5: NW/4 SE/4, SW/4 SW/4.	T-18S, R-29E Sec. 5: NW/4 SW/4, SE/4 SW/4.	T-18S, R-29E Sec. 5: NE/4 SW/4, SW/4 SE/4.	T-18S, R-29E Sec. 8: E/2 NW/4, SW/4 NW/4.	T-18S, R-29E Sec. 8: NW/4 NW/4.	Acreage Description
	Fee-HBP	Fee-HBP	Fee-HBP	LC-061702	LC-058603	Lease No.
TOTAL 400.00	80.0	80.0	80.0	120.0	40.0	Participating Acres

ATTACHMENT NO. 1

INITIAL PLUS FIRST, SECON ALLOCATION SCHEDULE

	ÖND,
	THIRD,
EMPIRE	FOURTH
HTU08	, AND
EMPIRE SOUTH DEEP UNIT	OND, THIRD, FOURTH, AND FIFTH REVISIONS OF MORROW PARTICIPATING AREA
	G AREA
EFFECTIVE 1-1-77	

Tr. 14	Tr. 13-A	Tr. 12	Tr. 10	Tr. 9	Tr. 6-B	Tr. 6-A	 		ا ا د		Tr. 2	Tract No.
T-18S, R-29E Sec. 6: NW/4 NE/4.	T-17S, R-29E Sec. 30: S/2 SE/4 Sec. 31: Lot 4 (SW/4 SW/4, 29.32 ac)	T-18S, R-29E Sec. 8: SW/4 NW/4.	T-18S, R-29E Sec. 8:	T-18S, R-29E Sec. 6:	T-18S, R-29E Sec. 6:	T-18S, R-29E Sec. 6:	1-185, R-29E Sec. 6: NE/4 SW/4.	T-18S, R-29E Sec. 7:	1-18S, R-29E Sec. 7:	T-18S, R-28E Sec. 12:	T-18S, R-29E Sec. 7: Lot 1 (NW/4 NW/4, 30.22 ac) NE/4 NW/4, Lot 2 (SW/4 NW/4, 30.37 ac) SE/4 NW/4.	Description
NW/4 NE/4.	S/2 SE/4 SW/4, 29.32 ac]	E/2 NW/4,	NW/4 NW/4.	E/2 NE/4.	SE/4 SW/4.	SE/4.	Lots 3 & 4,	S/2 NE/4.	N/2 NE/4.	NE/4.	Lot 1 (NW/4 NW/4, Lot 2 SE/4 NW/4.	ā
LC-065374-A	LC-062407)	LC-061702	LC-058603	LC-058582	LC-058126	LC-058126	NM-23414	LC-028772(d)	LC-028772(c)	NM-23413	LC-028772(a)	Lease No.
40.00	109.32	120.00	40.00	80.00	40.00	160.00	99.93	80.00	80.00	160.00	140.59	Participating Acres
1.2180008	3.3294053	3.6540025	1.2180008	2.4360017	1.2180008	4.8720033	3.0428706	2.4360017	2.4360017	4.8720033	4.2809684	% of Participating Area
Earl A. Latimer, Jr. Featherstone Farms, Ltd.	Atlantic Richfield Company O. H. Randell Estate Donald Brown	Sam Lect M. W. Smith Kathleen Miller	I & L Development Company	J. Cleo Inompson, Sr. James Cleo Thompson, Jr.	Bright, Shiff and Kennedy Me-Tex Supply Company	Bassett-Birney Oil Corporation	Cities Service Oil Company Yates Petroleum Company	Shinnery Investment Company Hondo Oil & Gas Company	of Texas Tenneco Oil Company	Depco, Inc. Husky Oil Company of Delaware General American Oil Company	Amoco Production Company Harvey E. Yates Company Continental Oil Company	Working Interest Owners %
. 150970 . 150965	. 402585 . 402585 . 201295	. 402585	. 536890	1.073460	1.207/60	1.610350	2.012940 1.964760	3.281250 2.720435	6.105035 3.569535	6.314060	32.821910 14.218750 7.895140	86

Tr. 33	Tr. 32	Tr. 31	Tr. 25	Tr. 24	Tr. 21	Tr. 20	Tr. 19	Tr. 18	Tr. 17-A	·	Tr. 17	Tr. 15	Tract No.
T-17S, R-28E Sec. 36: SE/4 SE/4	T-17S, R-29E Sec. 32: SW/4 NW/4.	T-17S, R-29E Sec. 30: Lot 4 (SW/4 SW/4, 28.40 acres) SE/4 SW/4.	T-17S, R-29E Sec. 32: NW/4 SW/4.	T-17S, R-29E Sec. 31: SE/4 SW/4.	T-18S, R-28E Sec. 1: NE/4 SE/4, NW/4 NW/4, SW/4 SW/4, NW/4 SE/4.	T-17S, R-28E Sec. 36: SE/4 NE/4, NE/4 SE/4, NE/4 NE/4, W/2 NE/4, NW/4 SE/4.	T-18S, R-29E Sec. 6: E/2 NW/4.	T-18S, R-29E, Sec. 6: Lots 1, 2 (W/2 NW/4).	T-17S, R-29E Sec. 31: Lot 3 (NW/4 SW/4, 29.09 acres).	(NW/4 NW/4, Z8.b3 acres) NE/4 NW/4, N/2 NE/4, T-17S, R-29E Sec. 31: Lot 2 (SW/4 NW/4 28.86 acres) SE/4 NW/4, NE/4 SW/4, S/2 NE/4, N/2 SE/4.	T-17S, R-29E Sec. 31: Lot 1	T-18S, R-29E Sec. 6: SW/4 NE/4.	Description
B-11593-8	E-7640	E-7596-Orig.	B-4918-85	B-4458-33	2029-6	647-368	NM-0560401 (KGS)	NM-0558119 (KGS)	NM-0555569		NM-0555569	NM-9026 (KGS)	Lease No.
40.00	40.00	68.40	40.00	40.00	160.00	240.00	5) 80.00	s) 59.23	. 29.09		417.49	40.00	Participating Acres
1.2180008	1.2180008	2.0827814	1.2180008	1.2180008	4.8720033	7.3080051	2.4360017	1.8035547	0.8857911		12.7125793	1.2180008	% of Participating Area
								TOTAL 100.000000		A. J. Losee .100045 Roland McLean .050325 Charles W. Hicks .050325 Trust for Olen F. Featherstone II .050325 H. B. McGrady .025160	son	Robert E. Boling .100650	Working Interest Owners %

Tract No.	Description	Lease No.	Participating Acres	% of Participating Area
Tr. 34	T-17S, R-29E Sec. 32: NW/4 NW/4.	E-537-5	40.00	1.2180008
Tr. 35	T-17S, R-28E Sec. 36: SW/4 SE/4.	E-949-Orig.	40.00	1.2180008
Tr. 36	T-18S, R-28E Sec. 1: W/2 NE/4, E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4.	E-1284-3	360.00	10.9620076
Tr. 37	T-17S, R-29E Sec. 31: S/2 SE/4.	E-4201-0rig.	80.00	2.4360017
Tr. 38	T-18S, R-28E Sec. 1: E/2 NE/4.	E-6946	80.00	2.4360017
Tr. 40	T-18S, R-28E Sec. 1: SE/4 SE/4.	L-1645-1	40.00	1.2180008
Tr. 42	T-18S, R-29E Sec. 5: NE/4 SW/4, SW/4 SE/4.	Fee HBP	80.00	2.4360017
Tr. 43	T-18S, R-29E Sec. 5: NW/4 SW/4, SE/4 SW/4.	Fee-HBP	80.00	2.4360017
Tr. 44	T-18S, R-29E Sec. 5: NW/4 SE/4,	Fee-HBP	80.00	2.4360017
	3W/ + 3W/ +.	TOTAL	3284.05	100.0000000

PROPOSED SIXTH MORROW PARTICIPATING AREA EXPANSION EMPIRE SOUTH DEEP UNIT EDDY COUNTY, NEW MEXICO

EFFECTIVE 4-1-77

	41	37	13		Unit Tract No.
	T-17-S, R-29-E, Sec. 30: NE/4 SW/4	T-17-S, R-29-E, Sec. 30: E/2 NW/4; Lots 1, 2, 3	T-17-S, R-29-E, Sec. 30: N/2 SE/4	T-17-S, R-29-E, Sec. 30: NE/4	Acreage Description
ТОТАL	0G-181-1	E-4201	LC-062407	LC-028480(a)	Lease No.
L 443.82	40.00	163.82	80.00	160.00	Participating Acres

ATTACHMENT NO. 3

ALLOCATION SCHEDULE INITIAL PLUS FIRST, SECOND, THIRD, FOURTH, FIFTH, AND SIXTH REVISIONS OF MORROW PARTICIPATING AREA EMPIRE SOUTH DEEP UNIT

EFFECTIVE 4-1-77

Tr. 14	Tr. 13-A	Tr. 13	Tr. 12	Tr. 10	Tr. 9	Tr. 6-A	Tr. 6-B	r. 6	•	Tr. 3	Tr. 2-A		Tr. 2	Tr. 1 1-A	Tract No.
T-18S, R-29E Sec. 6:	T-17S, R-29E Sec. 30: S/2 SE/4 Sec. 31: Lot 4 (SW/4 SW/4, 29.32 ac.)	T-17S, R-29E, Sec. 30: N/2 SE/4	T-18S, R-29E Sec. 8: SW/4 NW/4	T-18S, R-29E Sec. 8:	T-18S, R-29E Sec. 6:	T-18S, R-29E Sec. 6:	T-18S, R-29E Sec. 6:	T-18S, R-29E Sec. 6: (W/2 SW/4) E/2 SW/4.		• •	T-18S, R-29E, Sec. 12:	(SW/4 NW/4, 30.37 ac.) SE/4 NW/4.	T-18S, $R-29E$ Sec. 7:	30: 30:	Description
NW/4 NE/4.	S/2 SE/4 SW/4, 29.32 ac	N/2 SE/4	E/2 NW/4,	NW/4 NW/4.	E/2 NE/4.	SE/4.	SE/4 SW/4	Lots 3 & 4,	S/2 NE/4.	N/2 NE/4.	NE/4	SE/4 NW/4.	Lot 1 (NW/4	S/2, NE/4 N/2, NE/4	
LC-065374-A	LC-062407 .)	LC-062407	LC-061702	LC-058603	LC-058582	LC-058126	LC-058126	NM-23414	LC-028772(d)	LC-028772(c)	NM-23413		LC-028772 (a)	LC-028480(a) NM-29267	Lease No.
40.00	109.32	80.00	120.00	40.00	80.00	160.00	40.00	99.93	80.00	80.00	160.00	٠	140.59	80.00 80.00	ticipating Acres
1.2180008	2.9324444	2.1455602	3.2183402	1.0727801	2.1455602	4.2911203	1.0727801	2.6800728	2.1455602	2.1455602	4.2911203		3.7705538	2.145572 2.145572	% of Participating Area
Mark D. Wilson Roland McLean	Robert E. Boling C. F. Qualia	Earl A. Latimer, Jr.	Atlantic Richfield Company O. H. Randall Estate	M. W. Smith	I & L Development Co.	James Cleo Thompson, Jr.	Me-Tex Supply Company	Harold Kersey Bassett-Birney Oil Corporation Bright Schiff and Kennedy	Cities Service Oil Company Yates Petroleum Company	Shinnery Investment Company Hondo Oil & Gas Company	of Texas Tenneco Oil Company	Husky Oil Company of Delaware General American Oil Company	Continental Oil Company	Amoco Production Company Harvey E. Yates Company	Working Interest Owners
. 050325	. 100650	. 150970	.402585	.402585	.536890	1.073460	1.207760	1.744540 1.610350 1 207760	2.012940 1.964760	3.281250 2.720435	3.569535	6.314060 6.105035	7.895140	32.821910 14.218750	%

Tr. 33	Tr. 32	Tr. 31	Tr. 25	Tr. 24	Tr. 21	Tr. 20	Tr. 19	Tr. 18	Tr. 17-A	Tr. 17	Tr. 15	Tract No.
T-17S, R-28E Sec. 36: SE/4 SE/4.	T-17S, R-29E Sec. 32: SW/4 NW/4.	T-17S, R-29E Sec. 30: Lot 4 (SW/4 SW/4, 28.40 acres) SE/4 SW/4.	T-17S, R-29E Sec. 32: NW/4 SW/4.	T-17S, R-29E Sec. 31: SE/4 SW/4.	T-18S, R-28E Sec. 1: NE/4 SE/4, NW/4 NW/4, SW/4 SW/4, NW/4 SE/4.	T-17S, R-28E Sec. 36: SE/4 NE/4 NE/4 SE/4, NE/4 NE/4, W/2 NE/4, NW/4 SE/4.	T-18S, R-29E, Sec. 6: E/2 NW/4.	T-18S, R-29E, Sec. 6: Lots 1,2 (W/2 NW/4).	T-17S, R-29E Sec. 31: Lot 3 (NW/4 SW/4, 29.09 acres)	T-17S, R-29E Sec. 31: Lot 1 (NW/4 NW/4, 28.63 acres) NE/4 NW/4, N/2 NE/4, T-17S, R-29E Sec. 31: Lot 2 (SW/4 NW/4 28.86 acres) SE/4 NW/4, NE/4 SW/4, S/2 NE/4, N/2 SE/4.	T-18S, R-29E Sec. 6: SW/4 NE/4.	Description
B-11593-8	E-7640	E-7596-0rig.	B-4918-85	B-4458-33	2029-6	647-368	NM-0560401 (KGS)	NM-0558119 (KGS)	NM-0555569	NM-0555569	NM-9026 (KGS)	Lease No.
40.00	40.00	68.40	40.00	40.00	160.00	240.00	GS) 80.00	GS) 59.23	29.09	417.49	40.0	Participating Acres
1.0727801	1.0727801	1.8344539	1.0727801	1.0727801	4.2911203	6.4366804	2.1455602	1.5885191	. 7801793	11.1968738	1.0727801	% of Participating Area
										70TAL 100	Charles W. Hicks Trust for Olen F Featherstone II .050325	Working Interest Owners %

TOTAL 3728.61 100.0000000	T0T	SW/4 SW/4.	
80.00	Fee-HBP	T-18S, R-29E Sec. 5: NW/4 SE/4,	Tr. 44
80.00	Fee-HBP	T-18S, R-29E, Sec. 5: NW/4 SW/4, SE/4 SW/4.	Tr. 43
80.00	Fee-HBP	T-18S, R-29E Sec. 5: NE/4 SW/4, SW/4 SE/4.	Tr. 42
40.00	06-181-1	T-17S, R-29E, Sec. 30: NW/4 SW/4	Tr. 41
40.00	L-1645-1	T-18S, R-28E Sec. 1: SE/4 SE/4.	Tr. 40
80.00	E-6946	T-18S, R-28E Sec. 1: E/2 NE/4.	Tr. 38
80.00	E-4201-0rig.	T-17S, R-29E Sec. 31: S/2 SE/4.	Tr. 37
164.56	E-4201-Orig.	T-17S, R-29E, Sec. 30: Lots 1, 2, 3, E/2 NW/4.	Tr. 37
360.00	E-1284-3	T-18S, R-28E Sec. 1: S/2 NE/4, E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4.	Tr. 36
40.00	E-949-Orig.	T-17S, R-28E Sec. 36: SW/4 SE/4.	Tr. 35
40.00	E-537-5	T-17S, R-29E Sec. 32: NW/4 NW/4.	Tr. 34
Participating Participating Acres Area	Lease No.	Description	act No.



500 Jefferson Building P.O. Box 3092 Houston, Texas 77001

April 11, 1978

File: CGF(15)-1632-416xLF

Re: Empire South Deep Unit

Development and Operation Eddy County, New Mexico

Mr. Carl C. Traywick (3)
Area Oil & Gas Supervisor
United States Department of
The Interior
Geological Survey
P. O. Drawer 1857
Roswell, NM 88201

Mr. James E. Kapteine (3) New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, NM 87501 Mr. Phil R. Lucero (3) Commissioner of Public Lands State of New Mexico P. O. Box 1148 Santa Fe, NM 87501

Can 4578

Gentlemen:

Copies of attachments 1, 2, 3, and 4 to our letter dated April 4, 1978, File: CGF(15)-416-LF needed some additional revisions. Please disregard those copies and replace them with the attached revised copies. Also attached are three updated copies of Exhibit "A" referred to in our letter of March 20, 1978, File: CGF(10)-964-416xLF.

Yours very truly,

J. L. Hoyt, Jr. Pou

Production Coordination Superintendent

JDP:rfw

Attachments

PROPOSED FIFTH MORROW PARTICIPATING AREA EXPANSION EMPIRE SOUTH DEEP UNIT EDDY COUNTY, NEW MEXICO

EFFECTIVE 1-1-77

	44	43	42	12	10	Unit Tract No.
	T-18S, R-29E, Sec. 5: NW/4 SE/4, SW/4 SW/4.	T-18S, R-29E, Sec. 5: NW/4 SW/4, SE/4 SW/4.	T-18S, R-29E, Sec. 5: NE/4 SW/4, SW/4 SE/4.	T-18S, R-29E, Sec. 8: E/2 NW/4, SW/4 NW/4.	T-18S, R-29E, Sec. 8: NW/4 NW/4.	Acreage Description
	Fee-HBP	Fee-HBP	Fee-HBP	LC-061702	LC-058603	Lease No.
TOTAL 400.00	80.0	80.0	80.0	120.0	40.0	Participating Acres

ATTACHMENT NO. 1

INITIAL PLUS FIRS ALLOCATION SCHEDULE

EMPIRE SOUTH DEEP UNIT	RST, SECOND, THIRD, FOURTH, AND FIFTH REVISIONS OF MORROW PARTICIPATING AREA	
	OF MORROW PARTICIPATING AREA	
EFFECTIVE 1-1-77		

Tr. 14	Tr. 13-A	Tr. 12	Tr. 10	Tr. 9	Tr. 6-B	Tr. 6-A	Tr. 6	Tr. 4	Tr. 3	Tr. 2-A	Tr. 2	Tract No.
T-18S, R-29E, Sec. 6: NW/4 NE/4.	T-17S, R-29E, Sec. 30: S/2 SE/4 Sec. 31: Lot 4 (SW/4 SW/4, 29.32 ac).	T-18S, R-29E, Sec. 8: E/2 NW/4, SW/4 NW/4.	T-18S, R-29E, Sec. 8: NW/4 NW/4.	T-18S, R-29E, Sec. 6: E/2 NE/4.	T-18S, R-29E, Sec. 6: SE/4 SW/4.	T-18S, R-29E, Sec. 6: SE/4.	T-18S, R-29E, Sec. 6: Lots 3 & 4, NE/4 SW/4.	T-18S, R-29E, Sec. 7: S/2 NE/4.	T-18S, R-29E, Sec. 7: N/2 NE/4.	T-18S, R-28E, Sec. 12: NE/4.	T-18S, R-29E, Sec. 7: Lot 1 (NW/4 NW/4, 30.22 ac) NE/4 NW/4, Lot 2 (SW/4 NW/4, 30.37 ac) SE/4 NW/4.	Description
LC-065374-A	LC-062407).	LC-061702	LC-058603	LC-058582	LC-058126	LC-058126	NM-23414	LC-028772(d)	LC-028772(c)	NM-23413	LC-028772(a)	Lease No.
40.00	109.32	120.00	40.00	80.00	40.00	160.00	99.93	80.00	80.00	160.00	140.59	Participating Acres
1.2180083	3.3288165	3.6540247	1.2180083	2.4360165	1.2180083	4.8720330	3.0428891	2.4360165	2.4360165	4.8720330	4.2809945	% of Participating Area
Featherstone Farms, Ltd.	Acidntic Richtleid Company O. H. Randell Estate Greta M. Edgington Donald Rrown	M. W. Smith Kathleen Miller	I & L Development Company	James Cleo Thompson, Jr.	Me-Tex Supply Company	<pre>Bassett-Birney Oil Corporation Rright Chiff and Konnedy</pre>	Cities Service Oil Company Yates Petroleum Company	Shinnery Investment Company Hondo Oil & Gas Company	of Texas Tannaca Oil Company		Amoco Production Company Harvey E. Yates Company Continental Oil Company	Working Interest Owners %
.150970	. 402585 . 402585 . 402585 201295	.402585	.536890	1.073460	1.207760	1.610350	2.012940 1.964760	3.281250 2.720435	6.105035	6.314060	32.821910 14.218750 7.895140	% %

Tr. 33	Tr. 32	Tr. 31	Tr. 25	Tr. 24	Tr. 21	Tr. 20	Tr. 19	Tr. 18	Tr. 17-A		Tr. 17	Tr. 15	Tract No.
T-17S, R-28E, Sec. 36: SE/4 SE/4.	T-17S, R-29E, Sec. 32: SW/4 NW/4.	T-17S, R-29E, Sec. 30: Lot 4 (SW/4 SW/4, 28.40 acres) SE/4 SW/4.	T-17S, R-29E, Sec. 32: NW/4 SW/4.	T-17S, R-29E, Sec. 31: SE/4 SW/4.	T-18S, R-28E, Sec. 1: NE/4 SE/4, NW/4 NW/4, SW/4 SW/4, NW/4 SE/4.	T-17S, R-28E, Sec. 36: SE/4 NE/4, NE/4 SE/4, NE/4 NE/4, W/2 NE/4, NW/4 SE/4.	T-18S, R-29E, Sec. 6: E/2 NW/4.	T-18S, R-29E, Sec. 6: Lots 1, 2 (W/2 NW/4).	T-17S, R-29E, Sec. 31: Lot 3 (NW/4 SW/4, 29.09 acres).	(NW/4 NW/4, Z8.03 dCres) NE/4 NW/4, N/2 NE/4, T-17S, R-29E Sec. 31: Lot 2 (SW/4 NW/4 28.86 acres) SE/4 NW/4, NE/4 SW/4, S/2 NE/4, N/2 SE/4.	T-17S, R-29E, Sec. 31: Lot 1	T-18S, R-29E, Sec. 6: SW/4 NE/4.	Description
B-11593-8	E-7640	E-7596-0rig.	B-4918-85	B-4458-33	2029-6	647-368	NM-0560401 (KGS)	NM-0558119 (KGS)	NM-0555569		NM-0555569	NM-9026 (KGS)	Lease No.
40.00	40.00	68.40	40.00	40.00	160.00	240.00	80.00	59.23	29.09		417.49	40.00	Participating Acres
1.2180083	1.2180083	2.0827941	1.2180083	1.2180083	4.8720330	7.3080494	2.4360165	1.8035657	0.8857965		12.7126565	1.2180083	Participating Area
								יסיים מספססס		A. J. Losee . 100645 Roland McLean . 050325 Charles W. Hicks . 050325 Trust for Olen F. Featherstone II . 050325 Margaret Holcomb . 033550	son	ng .]	Working Interest Owners %

% of

100.0000000	3284.05	TOTAL				W/4 SW/4.	v		
2.4360165	80.00	Fee-HBP	T-18S, R-29E, Sec. 5: NW/4 SE/4,	c. 5:	:, S∈	-18S, R-29E	2 ⊣	Tr. 44	Tr.
2.4360165	80.00	Fee-HBP	NW/4 SW/4,	c. 5:	.; Se	T-18S, R-29E, Sec. 5: SE/4 SW/4.	ST	43	Tr.
2.4360165	80.00	Fee HBP	NE/4 SW/4,	c. 5:	., Se	T-18S, R-29E, Sec. 5: SW/4 SE/4.	S	42	₹.
2.4360165 1.2180083	80.00 40.00	E-6946 L-1645-1	E/2 NE/4. SE/4 SE/4.		Se Se	T-18S, R-28E, Sec. 1: T-18S, R-28E, Sec. 1:	- -	38 40	Tr.
2.4360165	80.00	E-4201-Orig.	S/2 SE/4.	c. 31:	:, Se	T-17S, R-29E, Sec. 31:	,	37	Ťr.
10.9620742	360.00	E-1284-3	T-18S, R-28E, Sec. 1: W/2 NE/4, E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4.	c. 1: W/4, 1 SE/4.	, Se 1/4 N W/4	-18S, R-28E /2 NW/4, SW E/4 SW/4, S	SET	Tr. 36	Tr.
1.2180083	40.00	E-949-Orig.	T-17S, R-28E, Sec. 36: SW/4 SE/4.	c. 36:	, Se	-17S, R-28E	÷	Tr. 35	Tr.
1.2180083	40.00	E-537-5	NW/4 NW/4.	c. 32:	Se	T-17S, R-29E, Sec. 32:	4	Tr. 34	Tr.
% of Participating Area	Participating Acres	Lease No.		Description)escr	D	1	No.	Tract No.

PROPOSED SIXTH MORROW PARTICIPATING AREA EXPANSION EMPIRE SOUTH DEEP UNIT EDDY COUNTY, NEW MEXICO

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	41	37	13	7A	_	Unit Tract No.
	T-17-S, R-29-E, Sec. 30: NE/4 SW/4.	T-17-S, R-29-E, Sec. 30: E/2 NW/4; Lots 1, 2, 3.	T-17-S, R-29-E, Sec. 30: N/2 SE/4.	T-17-S, R-29-E, Sec. 30: N/2, NE/4.	T-17-S, R-29-E, Sec. 30: S/2, NE/4.	Acreage Description
TOTAL	0G-181-1	E-4201	LC-062407	NM-29267	LC-028480(a)	Lease No.
443.82	40.00	163.82	80.00	80.00	80.00	Participating Acres

ALLOCATION SCHEDULE INITIAL PLUS FIRST, SECOND, THIRD, FOURTH, FIFTH, AND SIXTH REVISIONS OF MORROW PARTICIPATING AREA EMPIRE SOUTH DEEP UNIT

EFFECTIVE 4-1-77

Tr. 14	Tr. 13-A	Tr. 13	Tr. 12	Tr. 10	Tr. 9	Tr. 6-A	Tr. 6-B	Tr. 6	Tr. 4	Tr. 3	Tr. 2-A	Tr. 2	Tr. 1-A	Tr. 1	Tract No.
T-18S, R-29E, Sec. 6: NW/4 NE/4.	T-17S, R-29E, Sec. 30: S/2 SE/4 Sec. 31: Lot 4 (SW/4 SW/4, 29.32 ac	T-17S, R-29E, Sec. 30: N/2 SE/4.	T-18S, R-29E, Sec. 8: E/2 NW/4, SW/4 NW/4.	T-18S, R-29E, Sec. 8: NW/4 NW/4.	T-18S, R-29E, Sec. 6: E/2 NE/4.	T-18S, R-29E, Sec. 6: SE/4.	T-18S, R-29E, Sec. 6: SE/4 SW/4	T-18S, R-29E, Sec. 6: Lots 3 & 4, (W/2 SW/4) E/2 SW/4.	T-18S, R-29E, Sec. 7: S/2 NE/4.	T-18S, R-29E, Sec. 7: N/2 NE/4.	T-18S, R-29E, Sec. 12: NE/4.	T-18S, R-29E, Sec. 7: Lot 1 (NW/4 NW/4, 30.22 ac.) NE/4 NW/4, Lot 2 (SW/4 NW/4, 30.37 ac.) SE/4 NW/4.	T-17S, R-29E, Sec. 30: N/2, NE/4.	T-17S, R-29E, Sec. 30: S/2, NE/4.	Description
LC-065374-A	LC-062407 2 ac.).	LC-062407	LC-061702	LC-058603	LC-058582	LC-058126	LC-058126	NM-23414	LC-028772(d)	LC-028772(c)	NM-23413	LC-028772 (a)	NM-29267	LC-028480(a)	Lease No.
40.00	109.32	80.00	120.00	40.00	80.00	160.00	40.00	99.93	80.00	80.00	160.00) 140.59	80.00	80.00	Participating Acres
1.0729988	2.9325057	2.1459976	3.2189963	1.0729988	2.1459976	4.2919951	1.0729988	2.6806192	2.1459976	2.1459976	4.2919951	3.7713225	2.1459976	2.1459976	% of Participating Area
Mark D. Wilson	Featherstone Farms, Ltd. Robert E. Boling	Donald Brown Farl A Latimer Ir	Atlantic Richfield Company O. H. Randall Estate Greta M. Edgington	M. W. Smith Kathleen Miller	I & L Development Co.	James Cleo Thompson, Jr.		Harold Kersey Bassett-Birney Oil Corporation Bright Schiff and Kennedy	Cities Service Oil Company Yates Petroleum Company	Shinnery Investment Company Hondo Oil & Gas Company		Continental Oil Company Depco, Inc. Husky Oil Company of Delaware General American Oil Company	Harvey E. Yates Company	Amoco Production Company	Working Interest Owners
.100645	.150965	.201295	.402585	.402585	.536890 .536890	1.073460	1.207760	1.744540 1.610350	2.012940 1.964760	3.281250	3 550535	7.895140 6.314060 6.314060	14.218750	32.821910	8

Tr. 33	Tr. 32	Tr. 31	Tr. 25	Tr. 24	Tr. 21	Tr. 20	Tr. 19	Tr. 18	Tr. 17-A	Tr. 17	Tr. 15	Tract No.
T-17S, R-28E, Sec. 36: SE/4 SE/4.	T-17S, R-29E, Sec. 32: SW/4 NW/4.	T-17S, R-29E, Sec. 30: Lot 4 (SW/4 SW/4, 28.40 acres) SE/4 SW/4.	T-17S, R-29E, Sec. 32: NW/4 SW/4.	T-17S, R-29E, Sec. 31: SE/4 SW/4.	T-18S, R-28E, Sec. 1: NE/4 SE/4, NW/4 NW/4, SW/4 SW/4, NW/4 SE/4.	T-17S, R-28E, Sec. 36: SE/4 NE/4 NE/4 SE/4, NE/4 NE/4, W/2 NE/4, NW/4 SE/4.	T-18S, R-29E, Sec. 6: E/2 NW/4.	T-18S, R-29E, Sec. 6: Lots 1,2 (W/2 NW/4).	T-17S, R-29E, Sec. 31: Lot 3 (NW/4 SW/4, 29.09 acres).	T-17S, R-29E, Sec. 31: Lot 1 (NW/4 NW/4, 28.63 acres) NE/4 NW/4, N/2 NE/4, T-17S, R-29E Sec. 31: Lot 2 (SW/4 NW/4 28.86 acres) SE/4 NW/4, NE/4 SW/4, S/2 NE/4, N/2 SE/4.	T-18S, R-29E, Sec. 6: SW/4 NE/4.	Description
B-11593-8	E-7640	E-7596-0rig.	B-4918-85	B-4458-33	2029-6	647-368	NM-0560401 (KGS)	NM-0558119 (KGS)	NM-0555569	NM-0555569	NM-9026 (KGS)	Lease No.
40.00	40.00	68.40	40.00	40.00	160.00	240.00	3) 80.00	5) 59.23	29.09	417.49	40.00	Acres
1.0729988	1.0729988	1.8348279	1.0729988	1.0729988	4.2919951	6.4379927	2.1459976	1.5888430	.7803384	11.1991566	1.0729988	% of Participating Area
										cks n F. Featherstone III omb n rlan, Jr.	A. J. Losee .100645	Working Interest Owners %

Tract No.	Description	Lease No.	Participating Acres	% of Participating Area
Tr. 34	T-17S, R-29E, Sec. 32: NW/4 NW/4.	E-537-5	40.00	1.0729988
Tr. 35	T-17S, R-28E, Sec. 36: SW/4 SE/4.	E-949-0rig.	40.00	1.0729988
Tr. 36	T-18S, R-28E, Sec. 1: S/2 NE/4, E/2 NW/4, SW/4 NW/4, N/2 SW/4, SE/4 SW/4, SW/4 SE/4.	E-1284-3	360.00	9.6569891
Tr. 37	T-17S, R-29E, Sec. 30: Lots 1, 2, 3, E/2 NW/4.	E-4201-0rig.	163.82	4.3944665
Tr. 37	T-17S, R-29E, Sec. 31: S/2 SE/4.	E-4201-0rig.	80.00	2.1459976
Tr. 38	T-18S, R-28E, Sec. 1: E/2 NE/4.	E-6946	80.00	2.1459976
Tr. 40	T-18S, R-28E, Sec. 1: SE/4 SE/4.	L-1645-1	40.00	1.0729988
Tr. 41	T-17S, R-29E, Sec. 30: NE/4 SW/4.	06-181-1	40.00	1.0729988
Tr. 42	T-18S, R-29E, Sec. 5: NE/4 SW/4, SW/4 SE/4.	Fee-HBP	80.00	2.1459976
Tr. 43	T-18S, R-29E, Sec. 5: NW/4 SW/4, SE/4 SW/4.	Fee-HBP	80.00	2.1459976
Tr. 44	T-18S, R-29E, Sec. 5: NW/4 SE/4,	Fee-HBP	80.00	2.1459976
	SW/ + SW/ +.	10	TOTAL 3727.87	100.0000000