VOLUME I
DISCUSSION

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY COUNTY, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

PREPARED FOR SANDIA LABORATORIES

John Jay Keesey, P. E.

December 1, 1976

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Larry C. Williams
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Sandia Laboratories
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Attention Mr. George Griswold

Gentlemen:

Subject: Hydrocarbon Evaluation,
Southeastern New Mexico
Radioactive Waste Material
Storage Site,
Eddy County, New Mexico

In accordance with your request we have evaluated the potential hydrocarbon reserves underlying the proposed Southeastern New Mexico radioactive waste material storage site, commonly referred to as the Los Medanos Site, in Eddy County, New Mexico. The results of our evaluation can be summarized as follows:

Effective Date: September 1, 1976

	PROVED PRODUCING	PROVED NONPRODUCING	PROVED UNDEVELOPED	PROBABLE	POSSIBLE	TOTAL
Gross Remaining Reserves,						
Oil, BBL	88,181	88,800	130,935	79,261	22,451	409,628
Gas, MCF	8,539,516	191,728	13,142,000	26,036,000	14,344,000	62,253,244
Net Remaining Reserves to Evaluated Interest,						
Oil, BBL	77,161	77,701	114,569	69,359	19,651	358,441
Gas, MCF	7,472,081	167,764	11,499,255	22,781,502	12,551,003	54,471,605
Future Net Revenue to Evaluated Interest, $						
Undiscounted	5,187,285	1,243,236	16,141,055	20,083,794	5,755,451	48,410,821
Discounted @ 10% per annum	3,082,875	351,144	7,366,837	9,043,487	1,372,556	21,216,899
Fair Market Value, @ 10% Discounted value x FMV factor of 0.6, $						12,730,139

As discussed in the report, several economic and reserve cases were evaluated and the above figures depict what we feel is the most reasonable present worth analysis. This is referred to as Case I-A in the report. In essence we have assigned proved producing and proved nonproducing reserves to two active wells, the James Ranch Unit Wells Nos. 1 and 7. In addition, proved undeveloped reserves were assigned to two wells to be drilled in the Los Medanos Field and five wells were assigned probable and possible reserves. In the northwest and south-central portions of the site area, probable or possible reserves were assigned to 15 additional locations. All of the assigned reserves were for potential zones in the Morrow, Atoka and Strawn zones. The net reserves and future income are to the operators' interest after deduction of 12.5 percent royalties. The fair market value of $12,730,139 is based on an average fair market value factor of 0.60. The attached Table No. A-1 gives a breakdown of the determination of this average value.

As discussed in the report, Case I-A assumed a base gas price for the new wells of $1.42 per MCF plus $0.04 per year, to a maximum limit of $3.00 per MCF. This is based on the new FPC interstate area gas price. At present the intrastate market in New Mexico is soft; however, if this market becomes more aggressive then gas sales from this area could start at $1.50 to $2.00 per MCF with a yearly escalation of upwards of 7 percent to a maximum of $3.00 per MCF. If this becomes a reality then the future net revenue and fair market value projected for the new wells would be significantly improved. In this regard we plan to investigate the intrastate market situation and will prepare revised runs for Case I-A. These will be forwarded as an addendum to this report.

Another aspect that needs to be mentioned, and one that could have a profound effect on the present day value, is the delay that could be imposed on operators for drilling for oil and gas. Several of the proposed wells are in the present potash enclave where a moratorium on drilling for oil and gas has been in force for several years. Further, the current study to determine the potash potential in the site area could result in additional acreage within the site area being included in the potash enclave. If these moratoriums continue then drilling for oil and gas could be delayed to the point that the future net discounted revenue and associated fair market values would be drastically reduced. We have assumed in our forecasting that drilling would not be affected by the potash moratorium and that it would progress in an orderly manner from 1977 through January 1, 1981.

The maximum reserves assigned consisted of 5,534,000 MCF of gas for the Atoka zone and 2,074,000 MCF of gas for the Morrow zone in the proposed James Ranch Unit No. 8. These total reserves only represent about a fifth of the expected ultimate recovery from the Atoka zone in the James Ranch Unit No. 1 under current conditions. We believe that the chances of encountering another well like the James Ranch Unit No. 1 are remote; however, for your information another such well drilled today would potentially have an undiscounted future net revenue of $57,666,913. Discounted to present day values at a discount factor of 10 percent per annum, such a well could generate $19,608,603.

We appreciate this opportunity to be of professional service to you. All data used in this evaluation will be retained in our files and are available for your review if you so desire.

Yours very truly,

SIPES, WILLIAMSON & AYCOCK, INC.

John Jay Keesey, P. E.

/cd

Attachments

TABLE NO. A-1

DETERMINATION OF FAIR MARKET VALUE

SANDIA LABORATORIES

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY COUNTY, NEW MEXICO

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	FUTURE NET DISCOUNTED VALUE @ 10% PER ANNUM, $	FAIR MARKET FACTOR	CALCULATED FAIR MARKET VALUE, $	REMARKS
GROUP I				
Proved Producing Reserves	3,082,875	0.700	2,158,013	From two existing wells- James Ranch Unit Nos. 1 and 7
Proved Nonproducing Reserves	351,144	0.650	228,244	From two existing wells- James Ranch Unit Nos. 1 and 7
Proved Undeveloped Reserves	7,366,837	0.650	4,788,444	From two proposed wells- James Ranch Unit Nos. 8 and 36-1
Probable Reserves	2,037,021	0.600	1,222,213	From one existing well- James Ranch Unit No. 7
	2,460,253	0.600	1,476,152	From three proposed wells- James Ranch Unit Nos. 31-2, 36-1 and 36-2
Possible Reserves	158,906	0.500	79,453	From two proposed wells- James Ranch Unit Nos. 25-1 and 30-1
TOTAL GROUP I	15,457,036	0.644*	9,952,519	
GROUP II				
Probable Reserves	4,546,213	0.500	2,273,107	From eight proposed wells
Possible Reserves	1,213,650	0.416	504,513	From seven proposed wells
TOTAL GROUP II	5,759,863	0.482*	2,777,720	
GRAND TOTAL GROUP I AND GROUP II	21,216,899	0.600*	12,730,139	

* Average Fair Market Value Factors

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND, TEXAS 79701
JOHN JAY KEESEY, P. E./cd 12-1-76

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DISCUSSION

AUTHORITY

This evaluation was prepared for Sandia Laboratories under the authority of Mr. George Griswold.

INTRODUCTION

The purpose of this evaluation was to determine the future remaining economically recoverable oil and gas reserves underlying the proposed radioactive waste material storage site, commonly known as the Los Medanos Site. This evaluation is to serve as a guideline to Sandia Laboratories in determining the acceptability of the "site area" and the potential value to the owners of the hydrocarbon rights. It is not, however, intended to be the basis for condemnation proceedings.

SUMMARY

The proposed radioactive waste material storage site is located in the northern portion of the Delaware Basin. No hydrocarbon production exists within the current boundaries of the "site area", but oil and gas are being produced from 60 wells in a 368 square-mile area around the site. These wells produce from the Delaware, Bone Springs, Wolfcamp, Strawn, Atoka and Morrow zones at a total rate of about 22,682 MCF of gas and 429 barrels of oil per day. This area is considered to be potentially rich in hydrocarbon reserves and the lack of fuller development and exploration drilling is due primarily to low gas prices, lack of sales outlets and/or pipelines and moratoriums on drilling in the potash areas. Proved producing and proved nonproducing reserves are present in two wells in the Los Medanos Field area immediately adjacent to the southwest corner of the "site area". In addition, proved undeveloped,

probable and possible reserves exist at six potential drilling locations in the Los Medanos Field. Further, probable and possible reserves were assigned to fifteen other potential drilling locations in the northwest and south-central portions of the "site area". Total future economically recoverable reserves projected for these wells are 62,253,244 MCF of gas and 409,628 barrels of oil. The future net undiscounted revenue to the oil operators was determined to be $48,410,821. The discounted future net revenue is $21,216,899, discounted at 10 percent per annum. The fair market value for these projected reserves is $12,730,139, assuming a fair market factor of 0.60.

DISCUSSION

GENERAL

The regional location of the proposed Southeastern New Mexico radioactive waste material storage site is shown on Exhibit No. 1. A more detailed description of the "site area" is shown on Exhibits Nos. 3 and 26. The exact boundaries of the "site area" may ultimately vary slightly from those shown but are, for all practical purposes, accurate. The "site area" includes the four square-mile facility site in Sections 20, 21, 28 and 29, Township 22 S, Range 31E, Eddy County, New Mexico. Also included is the two-mile buffer zone surrounding the facility site. The total area encompasses approximately 32 square miles and is the area for which this hydrocarbon evaluation was performed. Hereafter, this area is referred to as the "site area".

The "site area" is located about 25 miles east of Carlsbad, New Mexico, and about four miles west of the Eddy and Lea County line. Geologically the "site area" is located in the northern extremity of the Delaware Basin and just west of the Central Basin Platform. This area has a complex geologic history. The earliest geologic time, when conditions directly influenced the hydrocarbon zones of interest, occurred in late Mississippian or early Pennsylvanian time, with the emergence of the ancestral Rockies to the north of the area and the Central Basin Platform to the immediate east. Most of the source material for the Atoka and Morrow zones, which are the major hydrocarbon producing zones around the "site area", appear to have originated from the ancestral Rockies to the north with minor amounts originating from erosion of the Central Basin Platform.

Exhibit No. 2 is a geologic correlation time chart for this portion of the Delaware Basin. Hydrocarbon producing formations are first encountered in the Delaware formation at approximately 4,200 feet. Moving downward, hydrocarbon accumulations have been found in the Cherry Canyon, Brushy Canyon, Bone Springs, Wolfcamp, Strawn, Atoka, Morrow, Devonian and Ellenburger zones. This multi-zone pay development is typical of the Southeastern New Mexico - West Texas area. The shallower Delaware sand formations were developed during the late 1930's with deeper tests to the Morrow and Ellenburger zones generally beginning in the early to mid-1950's.

Extensive deep drilling has not been undertaken in the New Mexico portion of the Delaware Basin, and only 10 to 15 percent of the available acreage has been tested. This low development percentage does not mean that the Delaware Basin has no potential. On the contrary, the Delaware Basin has been, and still is, an area that is considered to have major oil and gas potential, particularly in the Delaware and Pennsylvanian series. The lack of extensive drilling in the northern portion of the Delaware Basin is believed to be related to: (1) a historically low controlled price for gas, (2) a somewhat higher risk of finding sufficient quantities of reserves as a result of the varying depositional environment, and (3) lack of readily available pipelines for the transportation of reserves to market during earlier periods. In the immediate vicinity of the "site area", the existence of potash mines has also deterred or prevented drilling for hydrocarbon reserves.

As discussed later in the report, the Federal Power Commission (FPC) recently increased the area price for new gas to a base of $1.42 per MCF. This should do much to stimulate further development of the Delaware Basin in the deeper Pennsylvanian series (Morrow, Atoka and Strawn). To date, a completion to drilling ratio of from 0.7 to 0.8 has been achieved. Whether this high success ratio can be retained remains to be seen. In general, most feel that the oil companies have retained this high success ratio by drilling the optimum locations as reflected by available subsurface control and seismic data. In essence then, accelerated drilling in poorer structural locations may result in a higher percentage of drilled and abandoned wells and, therefore, a lower success ratio.

The "site area" presently contains no active or formerly active producing wells. There are three plugged and abandoned Delaware tests and one Morrow test, which also was drilled and abandoned. However, as discussed below, these four tests do not condemn the "site area" for future hydrocarbon potential. In reality, the "site area" is surrounded by wells which are, or have, produced from the Delaware, Bone Springs, Strawn, Atoka and Morrow zones. The major production is currently from the Atoka and Morrow zones in the Los Medanos Field, adjacent to the southwest boundary of the "site area", and the Morrow and Strawn zones in the Cabin Lake Field just outside the northwest boundary of the "site area".

Due to the lack of hydrocarbon tests in the "site area" it was necessary to expand the area of investigation to a 20 by 20 mile square area to establish data for potentially productive horizons.

To this end, an area denoted hereafter as the "investigation area" was studied. This 400 square-mile area contains 60 active wells and 85 formerly active or drilled and abandoned wells. Exhibit No. 3 is a map of this area and denotes the confirmed hydrocarbon fields and the current completion zone for each active well. Production from each field or well was plotted for review purposes and copies of each are contained in Figures Nos. 1 through 37. Remaining reserves and ultimate recovery for each field or well was determined from an analysis of these data: BHP/Z versus cumulative production trends, deliverability projections and pore volume estimates. The ultimate recoveries determined for completions in the Delaware, Bone Springs, Wolfcamp and Strawn zones are shown on Exhibit No. 4. The ultimate recoveries from the Atoka and Morrow zones are shown on Exhibits Nos. 5 and 6, respectively.

A detailed investigation of wells within and immediately surrounding the "site area" was made with respect to tests taken during drilling, completion tests and investigation of logs. Table No. 1 lists completion tests and recovery data for this group of wells. The Sipes, Williamson & Aycock, Inc., (SW&A), Tract Number included in Table No. 1 is a reference number that appears on Exhibits Nos. 7, 8, 9 and 26, and on the cross sections included as Exhibits Nos. 18 through 25. For easy reference, those wells that have tract numbers will be referred to by name with the tract number following in parentheses.

In our opinion, the Morrow, Atoka and Strawn gas-condensate zones, (in that order), offer the most attractive prospects for development.

These and other zones are discussed individually below. Reserves assigned to these zones are classified as proved producing, proved nonproducing, proved undeveloped, probable and possible. A definition of these reserve categories is given in Table No. 2.

ELLENBURGER ZONE

The Ellenburger is the deepest known oil and gas producing interval in the Delaware Basin and larger Permian Basin Area of Southeastern New Mexico and West Texas. Ellenburger production has been established in the deeper sections of the delaware Basin to the south in Loving, Ward, Winkler and Pecos Counties, Texas, and on the Central Basin Platform to the east and on the Shelf to the north. Ellenburger testing has been limited with most deep wells going only to the Morrow or Devonian-Silurian series. However, what testing is available is not encouraging and the nearest established Ellenburger production was in the Custer Field in 24S-32E, which is about 35 miles southeast of the "site area" and is along the Basin's flank, trending into the Central Basin Platform. A test in Shell's Harris-Federal No. 1, 27-23S-34E, reported a minor amount of gas (185,000 CFGPD) on a drill stem test. A deeper test in Pure Oil Company's Red Hills Unit No. 1, 32-25S-33E, recovered salt water. This latter well is one of the deepest, if not the deepest, tests in this portion of the Delaware Basin at a total depth of 21,321 feet (top Ellenburger 20,189 feet).

In the vicinity of the "site area", Shell drilled their James Ranch Unit No. 1 (Tract No. 10) to a total depth of 17,555 feet and recovered formation water cut with gas and mud from a drill stem test in the Ellenburger.

These test results appear to agree with most interpretations that Ellenburger production in the New Mexico portion of the Delaware Basin will come from areas close to the Texas border.

DEVONIAN ZONE

Like the Ellenburger, the Devonian (Devonian-Silurian Series) is productive in the deeper portions of the Basin in Texas and on the Central Basin Platform and the Northern Shelf. However, in contrast to the Ellenburger, significant gas production has been encountered from the Devonian in the northern portion of the Delaware Basin with the major fields being the Bell Lake and Antelope Ridge. Both of these fields are in 23S-34E which is about 18 miles east and south of the "site area" and outside the "investigation area". Recoveries from these three-well fields were 38.5 and 26.7 billion cubic feet, respectively, as of January 1, 1976.

Generally, however, the Devonian has been found to be noncommercial. Gas shows have been encountered during drill stem testing but in small amounts and usually in the presence of salt water. A test in P & M Drilling Company's James Federal No. 1, 35-23S-32E, showed no recovery. Around the "site area" the Devonian was tested in the Legg Federal No. 1 (Tract No. 7) and recovered salt water. Two other significant Devonian tests were in the James Ranch Unit No. 1 (Tract No. 10) and James Ranch Unit No. 3 (Tract No. 12). The initial drill stem test in the James Ranch Unit No. 1 recovered water-free gas; however, numerous subsequent tests all recovered gas and large volumes of water (Table No. 1). Communication to a lower zone was suspected but never proven. Subsequently, the James Ranch Unit No. 3 was drilled and came in

up-structure to the No. 1 well. However, this well tested tight and reportedly was of a different lithology. Therefore, it is concluded that the gas zone tested in the No. 1 well is limited in size and possibly high in water content.

The Todd Federal 14 No. 1 well (Tract No. 17) was the fourth well near the "site area" that tested the Devonian. This well recovered 3,820 feet of slightly gas-cut sulfur water. On the northwest edge of the "site area" Phillips tested their James "A" No. 1 well (Tract No. 4) in the Devonian and recovered 4,800 feet of gas and mud-cut water blanket and 6,100 feet of gas and mud-cut sulfur water.

Exhibits Nos. 11 and 12 are seismic derived structure maps on the top of the Devonian zone. Both interpretations were prepared for Sandia Laboratories in conjunction with the site evaluation study. The first (Exhibit No. 11) was prepared by G. J. Long & Associates, Inc. while the second (Exhibit No. 12) was prepared by Colin McMillian, Consulting Geophysicist. Although both interpretations show similar trending, Exhibit No. 11 is considered to be more definitive, due primarily to additional sources of data that Long & Associates had available to them. The Devonian test wells discussed above are denoted on Exhibits Nos. 11 and 12 and correlate with the seismic interpretations rather well, with the possible exception of Todd Federal 14 No. 1 (Tract No. 17).

As shown, Tract Nos. 4, 10 and 12 tested two of the major Devonian structures with no success. Tract No. 17 tested the flank of the large anticlinal structure to the south. Other structures and fault blocks are indicated to exist around Sections 17, 18, 19 and 20,

22S-31E, which is in the northwest quadrant of the "site area". However, in view of the local testing discussed above and the overall limited Devonian productivity in the northern portion of the Basin, no potential Devonian reserves can be assigned to formations underlying the "site area".

PENNSYLVANIAN SERIES

The Pennsylvanian series consists of the Morrow, Atoka and Strawn formations and is considered to be the primary hydrocarbon producing interval in the "site area". The Lower Pennsylvanian formations (Morrow and Atoka) are composed mainly of clastics; sand, silts and black shales predominate, interbedded with thin, sandy limes. The Upper Pennsylvanian formation (Strawn) is considered to be predominantly carbonates composed of limestones, cherty dolomites and calcareous shales. Due to a very complex depositional environment, hydrocarbon accumulation in all three zones is erratic and controlled by local pay quality. Generally, productive intervals are found on the flanks of the structure rather than on the crest. The ideal position seems to be along a gentle nose or terrace, and major structural features are not necessarily a prerequisite. Production, therefore, may often be encountered on anomalies in the regional structural trend.

Exhibits Nos. 23 through 25 are cross sections showing the Morrow, Atoka and Strawn formations in the vicinity of the "site area". The lensed nature of these formations is believed to be readily apparent and a correlation of individual zones, or stringers, is shown on Exhibit No. 25. A review of these cross sections and Table No. 1

will reveal the differences in pay quality and limited areal extent of individual zones. A fairly continuous blanket sand zone appears toward the lower portion of the Morrow zone. Production and test data do not presently confirm this interval to be a major production trend. It is interesting to note the correlative zones may produce water at structural positions above and below a productive zone. This fact plus the obvious differences in log quality and productive capacity, defines this area as typical of the Pennsylvanian series in the Delaware Basin. Each of the Pennsylvanian zones is discussed below.

MORROW ZONE

The Morrow zone is the major deep gas producing horizon in the New Mexico portion of the Delaware Basin and in the vicinity of the "site area", at least in number of completions and zonal continuity. Exhibit No. 3 is a map of the "investigation area" showing the zones of completion in active or formerly active wells. The Morrow is by far the major completion zone with 29 wells. Exhibit No. 9 is a regional structure map based on the top of the Strawn, which is also reflective of the lower Morrow structure. Exhibit No. 10 is a seismic derived structure map on top of the Morrow, interpreted by G. J. Long & Associates, Inc. The Strawn map is based on subsurface control and therefore reflects a smoother regional trending that is dipping northwest to southeast at about 600 feet per mile. Note that the Cabin Lake and Los Medanos Fields are located on subtle changes in the contouring. This same trend is evident throughout the area shown on the map. Exhibit No. 10 reflects generally the same trending on the Morrow structure with the distinctive difference that several of the noses, or terraces,

seen on the Strawn regional structure map are interpreted as anticlinal or domal structures cut by faults. Faulting has not been discussed previously but generally is believed to have started in the early Pennsylvanian time and continued at a slow rate into the lower Permian time. The structure reflected under the Los Medanos Field is one of the major hydrocarbon producing formations in the "investigation area".

The Morrow zone completions are detailed in Table No. 1 and Exhibits Nos. 23 through 25. Ultimate recoveries for the Morrow completions in the "investigation area" are shown on Exhibit No. 6. Ultimate recoveries from the Cabin Lake and Los Medanos Fields are projected to average 1,378,000 and 2,093,000 MCF per well, which is typical of recoveries in the northern portion of the Delaware Basin. The James Ranch Unit No. 4 is one of the highest recovery wells in the "investigation area" but testing and performance of other Los Medanos Field wells indicate that this high recovery trend is not continuous. Data on the Los Medanos wells indicate that various zones were tested for gas and subsequently temporarily abandoned. The operators feel that these zones were damaged by stimulation fluids and could produce after restimulating to repair the damage. This is a possibility as the Morrow pay is extremely sensitive to extraneous fluids. Repair of this damage, however, is difficult and has met with only limited success. Research is still being performed by several major oil companies and service companies to devise better ways to stimulate these tight, fluid sensitive reservoirs. For the basis of this study,

recoverable reserves from active wells were based on zones open and producing to the wellbore.

In contrast to the Cabin Lake and Los Medanos development, Clayton Williams drilled the Badger Unit Federal No. 1 well (Tract No. 32) in section 15-22S-31E in 1973. This well is in the buffer zone and just outside the northeast corner of the facility site. This well was taken to a total depth of 15,225 feet and penetrated the Mississippian limestone. The well was drill stem tested in the Brushy Canyon and the Morrow zone with no hydrocarbon recovery. After reaching total depth and logging, the operator abandoned the well.

Further to the east, Cleary Petroleum Corporation completed two wells (Tract Nos. 29 and 30) in the Red Tank (Morrow) Field. As shown on Exhibit No. 6 and the individual performance curves, these wells are not economical producers with ultimate recoveries of about 600,000 MCF per well.

To the west, one of the earliest deep wells was drilled in section 27-22S-30E (Tract No. 7). This well went to the Devonian but no Morrow tests were reported. The well was plugged back and completed in the Delaware as a marginal producer. A review of the logs on this well does not indicate an attractive zone of completion in the Morrow.

The above discussion reflects an area or trend of low productivity running west to east through the center of the "site area" from the Federal Legg No. 1, to the Badger Unit Federal No. 1, to the Red Tank (Morrow) Field. This same trending is evident on Exhibits Nos. 13 and

14, which are Morrow net pay and porosity-feet maps, respectively. These maps were based on a review of available logs. In addition to the above trend, the variance in pay thickness and zonal development throughout the "investigation area" is evident.

ATOKA ZONE

The Atoka zone lies just above the Morrow Lime and is about 700 feet in gross thickness. The Atoka is similar to the Morrow in lithology and has the same characteristics of variance in pay development, lensing and sensitivity to extraneous fluids. The Atoka pay zones appear to be even more lenticular than the Morrow and hydrocarbon production is not as prevalent. Atoka completions are shown on Exhibit No. 3 and projected ultimate recoveries are shown on Exhibit No. 5. The Atoka structure is similar to the Strawn or Morrow discussed earlier.

From Exhibit No. 5 it is readily apparent that the major Atoka wells are the James Ranch Unit No. 1 in the Los Medanos Field (Tract No. 10), and the Todd Federal 26 No. 1 in the Sand Dunes Field, 26-23S-31E. These wells are projected to recover 35,900,000 and 26,650,000 MCF, respectively. In contrast the median recovery for the Atoka completions in the "investigation area" is 600,000 MCF and the number of completions in the wells that have penetrated the Atoka is 8 out of 43, or 18.6 percent.

A review of the completions of these two wells reflects that the zones are limited in nature and vary areally in quality. The zone being produced in the Todd Federal 26 No. 1 appears to be a thick carbonate section. This well produces water with the gas and the productive

interval may be a localized reef structure. The correlative interval was tested in the well to the east and was abandoned for the Morrow. The same zone was tested in the Todd Federal 14-1 (Tract No. 17) to the north and achieved only minor recovery. The Atoka zone that produces in this latter well is from another interval in the lower portion of the section and as shown on Exhibit No. 5, is projected to recover only 154,000 MCF of gas.

The productive interval in the James Ranch Unit No. 1 is shown on Exhibit No. 24. This appears to be a thin sand member with only moderate porosity. The well, to date, has been an excellent producer and has recovered over 17,000,000 MCF of gas and 201,370 barrels of oil as of mid-1976. An additional 18,900,000 MCF of gas and 223,500 barrels of oil were projected as remaining reserves. This well is of particular interest as it lies just outside the "site area". A review of logs in the immediate area revealed that the correlative zone was only opened in one other well, which is Belco's James Ranch Unit No. 4 (Tract No. 13). This zone flowed 3,400 MCFPD on a drill stem test but only produced 750 MCFPD on a production test. The well was recompleted to the Morrow and never produced from the Atoka. The pay in this well appears to be only four feet in thickness as compared to seven feet in the James Ranch Unit No. 1.

The productive zone in the James Ranch Unit No. 1 is observed in two other wells, which are the Hudson Federal No. 1 (Tract No. 11), with one foot of pay, and the James Ranch Unit No. 3 (Tract No. 12). This latter well is the crest well and has zero feet of net pay. From the above and a review of Exhibit Nos. 15 and 16, it appears

that pay development is analogous to structure. On the crest the pay is gone while just off the crest the zone is present and producing. Further down the structure the zone appears in the James Ranch Unit No. 7 but was never tested and appears to have a moderate water saturation based on log calculations. This lower well has eight feet of net pay with excellent porosity and has to be considered as a probable producing zone.

Exhibit No. 16 is an isopach map of the productive zone open in the James Ranch Unit No. 1. To yield the recovery projected for this well a drainage area of over five sections would be required. The isopach interpretation supports this areal extent in part and it would be reasonable to assume that the reservoir would extend north and northeast around the flank of the structure, as depicted on Exhibits Nos. 10, 15 and 17. Therefore, it is concluded that the Los Medanos (Atoka) reservoir extends north and northeast underneath the "site area" in section 31-22S-31E and 36-22S-30E. Further, it is probable that the James Ranch Unit is essentially draining the reservoir. This is based on pressure data which indicate that the James Ranch Unit No. 1 had an original bottom-hole pressure of about 7,500 psig in 1957 and 4,650 psig in 1973. A drill stem test in James Ranch Unit No. 4 in 1973 indicated a pressure of 5,126 psig and, therefore, partial depletion.

The zone producing in the James Ranch Unit No. 1 has no net porosity in the Federal Legg well nor does it appear in the Cabin Lake Field, Badger Unit well, or the Red Tank (Morrow) Field.

STRAWN ZONE

The Strawn zone is the least productive zone of the Pennsylvanian Series. The only two areas in the "investigation area" that have established Strawn production are the Cabin Lake and Los Medanos Fields. The Strawn zone appears to be a rich condensate-gas reservoir or a volatile oil reservoir, as opposed to the predominantly dry gas production in the Atoka and Morrow. Two Strawn completions exist in the Cabin Lake Field and a third well in Section 1-22S-30E appears that it should produce, based on drill stem test data. The dry hole in Section 6-22S-31E is lower on the structure and tested water on a drill stem test. Recoveries in the Los Medanos area are essentially from one well.

BONE SPRINGS ZONE

Only two wells have produced from the Bone Springs. These are the Skelly Federal Sand No. 18-1 (Tract No. 19) and Conoco's James Ranch Unit No. 7 (Tract No. 14). Ultimate recovery from the former is projected at 59,394 barrels of oil and 153,000 MCF of gas. This is a new well with limited production history and this oil recovery could be optimistic. The James Ranch Unit No. 7 tested the Bone Springs for about two and one-half months. During this time it produced 4,900 barrels of oil and it was reported to be capable of producing 50 barrels of oil per day when temporarily abandoned to complete in the Morrow zone. Future reserves from this well were estimated to be 47,100 barrels of oil.

The thick Bone Springs section is one that many geologists have felt was potentially productive. However, strong shows have not been prevalent and testing has been limited. Exhibits Nos. 21 and 22 are cross sections

showing that portion of the Bone Springs section which has been tested in the area wells. As is evident, the Bone Springs is a highly heterogeneous formation consisting of finely crystalline to dense limestone with some zones of porous limestone interbedded with shaley limestone or limey shale. With the exception of the James Ranch Unit No. 7, no other areas, or wells, were assigned any Bone Springs reserves.

DELAWARE MOUNTAIN GROUP

The Delaware Mountain Group is the uppermost hydrocarbon bearing zone. Oil production and solution gas are produced from the Bell Canyon, Cherry Canyon and Brushy Canyon members, which encompass a gross interval of about 4,000 feet. This group was deposited during the Guadalupe time period and is composed mostly of sandstones interbedded with black shales and a few thin-bedded limestone members. Grain texture, size and mineralogy across the North Delaware Basin is believed to suggest a blanket type, quiet water depositional environment. The final resting place of the sands seems to have been determined by local subsidence or compaction of pre-Ford Guadalupian sediments.

Exhibit No. 8 is a regional structure map on top of the Delaware Lime. This lime zone is about 30 to 60 feet thick and forms a cap over the first pay sand, commonly referred to as the Ramsey Sand. Like the Strawn zone, the Delaware structure is generally dipping northwest to southeast at a rate of 400 to 800 feet per mile. The dip across the site is the steepest in this immediate area and would not be conducive to forming hydrocarbon traps. These facts plus the negative

results of wells drilled in the area, depict the Delaware as a low potential zone in the "site area".

Details of Delaware tests in the area are given on Table No. 1 and on Exhibits Nos. 18 through 20. The only Delaware production near the "site area" was from the Legg No. 1 (Tract No. 7). This was a Devonian test which was plugged back and completed in the lower Cherry Canyon zone. This zone produced only 24,939 barrels of oil prior to being abandoned in 1968. Several other wells were drilled to the Delaware in the "site area" (Tract Nos. 15, 21 and 26) and were unsuccessful. Further, the Badger Unit No. 1 (Tract No. 32) tested the Brushy Canyon zone while drilling to the Morrow and recovered a minor show of oil and drilling fluids.

The only potential Delaware reserves are associated with the drill stem test in the James Ranch Unit No. 1 from 6,719 to 6,768 feet. This test recovered 450 feet free oil and 530 feet slightly mud-cut oil (estimated 90 percent oil).

ASSIGNMENT OF RESERVES

Table No. 2 defines the various categories to which oil and gas reserves are assigned. The reserves assigned to the "site area" herein are in accordance with these definitions. Table No. 3 summarizes these reserves and the location of each forecasted well.

Proved producing reserves were included for the active zones of production in the James Ranch Unit No. 1 and James Ranch Unit No. 7. These two wells are depicted as being outside the edge of the buffer

zone, but would lie within the "site area" if a smooth arc of the buffer zone boundary were drawn. The remaining reserves from the Atoka zone in the James Ranch Unit No. 1 were based on an analysis of the production decline trend and an extrapolation of the BHP/Z versus cumulative production curve. The ultimate recovery for this well is projected to be 35,900,000 MCF of gas and 420,830 barrels of condensate. The remaining reserves as of September 1, 1976, are 18,446,131 MCF of gas and 218,218 barrels of condensate. The current performance and production history of this well are shown on Figure No. 15. As discussed earlier, this well is the highest Atoka recovery well in this area of the basin and has an estimated life of over 60 years.

Proved producing reserves for the James Ranch Unit No. 7 are associated with the existing Morrow zone. Remaining reserves were set at 1,085,647 MCF of gas and no condensate.

Proved nonproducing reserves were assigned to the Delaware zone in the James Ranch Unit No. 1 and the Bone Springs zone in James Ranch Unit No. 7. The Delaware reserves were based on the favorable oil recovery during the drill stem test discussed above. The 41,700 barrels of oil and 83,400 MCF of gas assigned are in accordance with the average recovery from other Delaware production in the area of investigation. Similarly, the reserves assigned to the Bone Springs zone, in the James Ranch Unit No. 7, were based on the production test discussed earlier. Details of this test are included in Table No. 1. Since these zones are behind pipe, it was assumed that production

would not start until depletion of the active zones in each well. This would occur some 54 years in the future for the No. 1 well and in 1982 for the No. 7 well.

Proved undeveloped reserves were assigned to two locations to be drilled along the northern edge of the Los Medanos Field. The locations for these and other potential wells to be drilled, which will be discussed below, are shown on Exhibit No. 7. Well numbers have been assigned to these locations in accordance with the section in which they are located. In addition, an SW&A Tract Number has been assigned for reference and these appear on Exhibit No. 7 and Table No. 3.

The James Ranch Unit No. 8 was assigned proved undeveloped Morrow reserves of 2,074,000 MCF and no oil. The Atoka zone was assigned 5,534,000 MCF and 65,467 barrels of oil. The Morrow reserves were based on the average ultimate recovery experienced from the Morrow completions in the Los Medanos Field. The Atoka zone reserves were determined by assigning this location 30 percent of the remaining recoverable reserves for the James Ranch Unit No. 1. The basis for this reserve assignment is that the James Ranch Unit No. 1 is considered to be draining a large interconnected reservoir, and any additional Atoka wells that encounter the pay will only accelerate depletion of reserves originally assigned to the No. 1 well. At this writing, Conoco has filed with the New Mexico Commission for a permit to drill Well No. 8 at the location shown on Exhibit No. 7.

Proved undeveloped reserves in the Atoka were also assigned to the James Ranch Unit No. 36-1. These reserves were likewise set

at 5,534,000 MCF of gas and 65,467 barrels of oil, as discussed above for the James Ranch Unit No. 8.

Probable and possible reserves for the Morrow and Atoka zones were assigned to six other wells in the Los Medanos Field area. The most significant one is the 3,990,000 MCF of gas and 47,200 barrels of oil assigned to the probable category for the Atoka zone in the James Ranch Unit No. 7. This well was discussed in detail earlier. Probable reserves were assigned to the Morrow zone in James Ranch Unit Nos. 36-1, 36-2 and 31-2 ranging from 2,074,000 MCF to 1,638,000 MCF of gas. The difference in reserves is due to the higher risk assigned to the lower reserve case. Possible reserves of 1,327,000 MCF of gas were assigned to two locations, the 25-1 and 30-1, which are second or third step-outs to established production.

The Los Medanos Field area holds the greatest potential for moderate to low risk development due to the numerous zones of established productivity. However, other portions of the "site area" have potential. Strictly from a review of production and regional trending, one might expect the most probable development of hydrocarbon reserves to be southeast from the Cabin Lake Field and northeast from the Los Medanos Field, with the two extensions meeting along the western edge of the facility site. This area also appears attractive when viewing G. J. Long & Associates' interpretation of the Morrow Seismic (Exhibit No. 10). The structural features around sections 16, 17 and 18 are of interest and could, with the indicated closure and faulting, form favorable hydrocarbon traps. Based on this interpretation and the good success ratio of encountering Pennsylvanian reserves in the

northern portion of the Basin (70 to 80 percent), reserves were assigned to eight probable locations and three possible locations. These locations are shown on Exhibit No. 7 and reserve details are included in Table No. 3.

Four other locations were assigned possible reserves in the vicinity of Section 33. These were based essentially on the nosing or terracing seen on Exhibit No. 10.

The reserves assigned to these undeveloped areas were based on values derived from the Morrow, Atoka and Strawn wells in the investigation area. These average recoveries for completed wells were then adjusted by a factor which represented the statistical chances of obtaining a completed well. The resultant values for the Morrow, Atoka and Strawn zones are shown on Table No. 3. For forecasting purposes, these reserves were grouped together. As shown, the Atoka and Strawn represent the lower reserve contributions. This is primarily due to the relatively low number of Strawn and Atoka completions in comparison to the Morrow.

In view of the James Ranch Unit No. 1, the possibility of hitting another high capacity Atoka zone exists; however, statistically this is considered to be highly improbable.

The reserves discussed above are considered to be reasonable estimates of probable recoverable reserves. The Los Medanos Field area is depicted to develop on 160-acre spacing, which is considered to be the densest spacing possible for optimum recovery. In contrast, the wells in the undeveloped areas are spaced essentially on 320-acre

spacing. This latter spacing is what is normally designated by the New Mexico Oil Conservation Commission, unless one can show that 320-acre spacing cannot effectively drain the reservoir. In the "investigation area", sufficient bottom-hole pressure and other reservoir data were not available to reach any definite conclusion on the drainage efficiency; however, pore volume calculations for the Morrow zone indicated drainage areas of between 160 and 320 acres are being realized by existing wells. These pore volume calculations are subject to unknown corrections due to discontinuity of pay zones, variations in rock characteristics, etc. For this evaluation it was assumed that 320-acre spacing was adequate to obtain the recoverable reserves in place.

Excluding the wells discussed above, there remain approximately 11,360 acres in the "site area" which have not been assigned any reserve potential. Insufficient engineering or geological data exist to even consider possible reserves. Statistically one could conclude that this acreage should contain some hydrocarbon reserves; however, the risk of encountering economical oil and/or gas reserves would be extremely high. Secondly, one would have to expect poor pay quality which could restrict recovery of any hydrocarbons in place to a very low percentage of the total. At some point in the future, such rank wildcat drilling may be necessary regardless of the costs. Under such conditions additional reserves of 26,732,000 MCF of gas and 436,650 barrels of oil could be recovered from 36 wells, assuming an average recovery equal to that from all wells drilled in the "investigation area". It is reiterated that these reserves are highly speculative and the

above analogy is intended only to illustrate what the additional reserve potential could be. It is noted that this same analogy could be applied to most areas of the North Delaware Basin. It is also pointed out that drilling for such reserves would not be economical even at the higher gas price discussed under "Economics".

ECONOMICS

In order to determine the value of the forecasted reserves, production and cash flow projections were made for each active or future well discussed above. Production forecasts were based on performance characteristics of active wells in the area. The average life of a Morrow well is eleven years while the expected life of the Atoka wells to be drilled is 26 years.

The basic economic parameters for the income projections are discussed on Table No. 4. It was assumed that the net revenue interest to the 100 percent working (expense) interest would be 87.5 percent. The remaining 12.5 percent of the revenue would go to the royalty interest owners. The future net revenue figures discussed herein are therefore attributable to the 100 percent working interest after deductions for royalty, operating expenses, severance and ad valorem taxes, investments for drilling, recompletions and major equipment items. No considerations for federal income taxes were made.

Two primary economic cases were forecasted, each with two sub-cases. Cases I-A and I-B assumed that the new FPC interstate area pricing schedule would be realized. This schedule is now in effect but is

subject to court approval. In essence, it allows any qualified wells which are selling gas to the interstate market to receive $1.42 per MCF of gas with a yearly escalation of $0.04 per MCF. To qualify, a well must be spudded after January 1, 1975, and must have a rate escalation clause in its gas contract. This price is also subject to an adjustment for BTU content but none was applied in these forecasts. Wells spudded prior to January 1, 1975, are subject to different prices, but the only well in this position is the James Ranch Unit No. 1. This well was drilled prior to January 1, 1973, and therefore, must remain at the older price of $0.55 per MCF of gas. Exact price information from Shell Oil Company was not available but this is what is being paid to offset operators in the James Ranch Unit. It was assumed that all other wells could qualify for the $1.42 price.

Cases II-A and II-B assumed that all wells would have to receive the older FPC price of $0.55 per MCF of gas, plus $0.01 per MCF per year escalation. These cases therefore present the lowest economic picture possible. In our opinion, the new FPC area pricing schedule will be upheld by the courts. Therefore, Cases I-A and I-B are considered to be the most representative of the future value of hydrocarbon reserves.

The difference in Cases I-A and I-B is the method in which development of the proved Atoka reserves was forecasted. In Case I-A, it was assumed that two Atoka wells (James Ranch Unit Nos. 8 and 36-1) would be drilled and would encounter the same Atoka reservoir that is now being produced by James Ranch Unit No. 1. Under this assumption the remaining proved Atoka reserves of 18,521,869 MCF of gas would be produced proportionately from the three wells at the rate of

7,453,869 MCF from No. 1 and 5,534,000 MCF each from Nos. 8 and 36-1. In Case I-B it was assumed that Wells Nos. 8 and 36-1 would be non-productive in the Atoka and that all of the 18,446,131 MCF of gas would be produced from James Ranch Unit No. 1. Since Conoco has recently applied for a permit to drill No. 8 at the location shown on Exhibit No. 7, and the probability is high that this well will encounter the reservoir, it is felt that Case I-A is the most realistic production and economic forecast.

Printouts for Case I-A are included as Tables Nos. 6 through 50. Individual production and cash flow projections are presented for each well. Summary tables are included for different reserve categories and combinations of reserve categories for Group I and Group II. Group I is that group of wells in the Los Medanos Field area. Group II represents the 15 probable and possible locations to be drilled in the northwest and south-central portions of the "site area".

Table No. 5 summarizes the results of the runs under Cases I-A, I-B, II-A and II-B. The discounted revenue stream was calculated at a discount factor of 10.0 percent per annum. The "Fair Market Value" (FMV) was determined by multiplying the discounted future net revenue by a factor of 0.60. This factor is somewhat arbitrary and typically varies from 0.60 to 0.75, depending on the nature of the properties evaluated. This FMV factor is an attempt to allow for the risk associated with realizing the recovery of projected reserves, rate of recovery, product price variations, etc. Since this evaluation contains a large portion of undrilled reserves, a FMV factor of 0.60 was used. The fair market value is theoretically what the subject

acreage might be worth on the open market. Normally, however, property acquisition is based on future net revenue from proved and probable reserves, with the latter being assigned a higher risk factor. Possible reserves are normally considered as upside potential and are subject to negotiation.

The future net discounted revenue for Case I-A is $21,216,899 as compared to $15,427,997 for Case I-B. The major reason for the difference in these values is that the accelerated recovery of the Atoka reserves through Wells Nos. 8 and 36-1 results in a greater income rate and present day value. Further, the new wells can produce the Atoka gas at the base price of $1.42 rather than $0.55 per MCF.

Cases II-A and II-B are theoretically the same as Cases I-A and I-B except for the lower gas price. As shown on Table No. 5, the future net revenue positions for Cases II-A and II-B are considerably lower than the former. This is due to the fact that at the lower gas price of $0.55 per MCF of gas only James Ranch Unit Nos. 8 and 36-1 can be drilled economically. All other proposed locations were uneconomical and would not return the original drilling investment under the assumed conditions. Under Case II-B even James Ranch Unit Nos. 8 and 36-1 are uneconomical. Therefore, Case II-B implies that under the old FPC area gas price it would not be economical to drill in this area unless one could expect to encounter upwards of 5,000,000 MCF of gas.

As stated earlier it is felt that the higher FPC pricing will be upheld by the courts. Therefore, an increase in development and exploration drilling is expected to be seen in this area of the Delaware Basin.

TABLES

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SANDIA LABORATORIES

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY COUNTY, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

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* PP = Proved Producing Reserves
PNP = Proved Nonproducing Reserves
PU = Proved Undeveloped Reserves
PR = Probable Reserves
PO = Possible Reserves

** Group I wells pertain to the existing and proposed wells in the Los Medanos Field area. Existing wells are the James Ranch Unit Wells Nos. 1 and 7 (SW&A Tract Nos. 10 and 14). Proposed wells are the James Ranch Unit Wells Nos. 8, 31-2, 36-1, 36-2, 25-1, and 30-1 (SW&A Tract Nos. 33 through 38).
Group II wells pertain to the fifteen proposed drilling locations outside of the Los Medanos Field area. These are assigned SW&A Tract Nos. 39 through 53.

TABLE NO. 1

WELL COMPLETION AND PRODUCTION DATA
WELLS WITHIN AND IMMEDIATELY ADJACENT TO STORAGE AREA
HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY AND LEA COUNTIES, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

Lease / OPERATOR / Field / Location	(SW&A Tr. No.)	Date Completed	Total Depth (PB Depth)	Completion Interval Zone (*Active)	Completion Interval Feet	Stimulation	Potential	RESERVE DATA Cumulative ** Oil-BBL	Cumulative ** Gas-MMCF	Current Rate Oil-BBL (Month)	Current Rate Gas-MMCF (Month)	Remaining Reserves Oil-BBL	Remaining Reserves Gas-MMCF	Ultimate Recovery Oil-BBL	Ultimate Recovery Gas-MMCF	Remarks
Livingston Ridge Unit #1 C. GRACE Cabin Lake (Morrow) 36-21S-30E	(1)	10-27-75	13,785'	Morrow*	13,318- 13,710	A/6,000	1,750 MCF/D (Dry Gas)									New Well-No production history posted.
		12-20-75		Atoka*	12,826- 12,875	Nat'l.	3,450 MCF/D (Dry Gas)									
Compona - P&A BRYRON McKNIGHT Wildcat (Morrow) 6-22S-31E	(2)	D & A 3-28-75	14,050'	Morrow	13,982- 13,990	A/1,000	SWB 216 BFW									DST 12,458-497' (Strawn) Pkr Failed.
				Atoka	12,773- 12,776 12,932- 12,936 12,952- 12,956	A/1,500	SWB WTR	-	-	-	-	-	-	-	-	DST 13,355-463' (Morrow Lm) Pkr Failed.
				Strawn	12,463- 12,469	A/1,000	SWB 20 BWPH									
				Bone Springs	10,208- 10,212 10,421- 10,426	A/3,000 F/25,000	SWB Good SO&G									
Cabana No. 1 TROPORO OIL & GAS CO. Cabin Lake (Morrow) 1-22S-30E	(3)	7-8-74	13,950'	Morrow*	13,893- 13,905	A/2,500	SWB WTR-Sq'd.	592	1,539.0	-	28.0	-	224.0	592	1,763.0	DST 12,366-403' (Strawn) GTS 50" @ 2,700,000 CFPD. Rec. 750' GC Cond, 930' wtr. ISIP 6505, FSIP 6390 DST 12,710-764' (Strawn) Rec. 3,000'WB, 1,300' ØF. No ISIP, FSIP 2,489 HP 6,850-6,850
				Morrow*	13,543- 13,670	Nat'l.	24,990 MCF/D (Dry Gas)									
James "C" No. 1 PHILLIPS Cabin Lake (Morrow) 35-21S-30E	(1-A)	10-13-73	13,800'	Morrow*	13,124- 13,569	A/6,000	1,535 MCF/D (Dry Gas)	-	696.4	-	19.0	-	946.0	-	1,642.0	DST 5,336-405' (Delaware) Rec. 120'ØM, ISIP 2428. Pkr failed on 2nd flow. DST 5,628-93' (Delaware) Rec. 270' ØM, 360' SWCØM 210' HWCØM - I&FSIP 2638
James "A" No. 1 PHILLIPS Cabin Lake (Morrow) 2-22S-30E	(4)		14,923'	Morrow	13,768- 13,783	A/1,000	F 540 MCF/D & 30 BFW-Sq'd.									DST 5,369-422' (Delaware) GTS 26" TSTM. Rec.180' Oil 520' FW. ISIP 2174, FSIP 2128
		2-73		Morrow*	13,246- 13,424	A/1,000	F 632 MCF	-	1,251.0	-	2.0	-	4.6	-	1,255.6	
		2-13-67		Strawn	12,155- 12,167		F 228 BO & 260 BW & 10,392 GOR	60,529	821.6	-	-	-	-	60,529	821.6	DST 5,627-940' Pkr Failed No test. DST 9,759-820' (Bone Spgs) Rec. 1,800' Gas, 161' GCM. ISIP 467, FSIP 511 (Gas recovery, but low pressure) (Continued on page 2)

**Estimated cumulative on or about July 1, 1976.

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND, TEXAS 79701
JOHN JAY KEESEY, P. E./cs 12-1-76

TABLE NO. 1

WELL COMPLETION AND PRODUCTION DATA
WELLS WITHIN AND IMMEDIATELY ADJACENT TO STORAGE AREA
HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY AND LEA COUNTIES, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

Lease OPERATOR Field Location	(SW&A Tr. No.)	Date Completed	Total Depth (PB Depth)	Completion Interval Zone (*Active)	Completion Interval Feet	Stimulation	Potential	RESERVE DATA Cumulative ** Oil-BBL	Cumulative ** Gas-MMCF	Current Rate Oil-BBL (Month)	Current Rate Gas-MMCF (Month)	Remaining Reserves Oil-BBL	Remaining Reserves Gas-MMCF	Ultimate Recovery Oil-BBL	Ultimate Recovery Gas-MMCF	Remarks
James "A" No. 1 PHILLIPS Cabin Lake (Morrow) 2-22S-30E	(4)															DST 12,387-574'(Atoka) Failed DST 13,116-304'(Morrow) GTS 100" @ 168,000 CFPD. Rev. out 3,800' VHGCWB,ISIP 5,944, FSIP 5,944 DST 13,321-442' (Morrow) GTS 22" WB 46" F 1,952,000 CFPD. Rec. 790' GCWM 500' GCM. ISIP 6,092, FSIP 6,157 DST 13,594-710', GTS 93" TSTM (Morrow) DST 14,825-850' (Devonian) GTS 10" F @ 1,496,000 CFGPD No FSIP-tool did not close- Hole in drill pipe also. (Possible gas in Devonian, but due to drill pipe leak, believe 2nd test condemns) DST 14,833-923' (Devonian) Rec. 4,800' gas and MCWB, 6,100' HG & MC SW, FSIP 6,306. Produced as Strawn well until 1st 1973 - Abd. Strawn and produced Morrow. Strawn production avg. 450 BOPM in 1972 and 172 BO in Jan. 1973 - Possible some oil reserves remain.
(Continued from page 1)																
James "E" No. 1 PHILLIPS Cabin Lake (Morrow) 1G 11-22S-30E	(5)	3-22-74	13,950'	Strawn*	12,214-12,221	A/1,000	F 71 BO & 350 BW & 17,950 GOR	9,541	228.4	660	15.5	12,261	257.0	21,802	485.4	DST 12,215-256' (Strawn) GTS 4" @ 750,000 CFPD. Rec. 6 BO. ISIP 6,521, FSIP 6,438.
				Morrow	13,710-13,760	A/3,000	SWB 30 BW No Gas-Sq'd.	-	-	-	-	-	-	-	-	
				Morrow*	13,323-13,400	A/4,000	3,275 MCFD (Dry Gas)	302	715.6	-	3.8	-	133.4	302	849.0	
Abandoned Location	(6)															
R. H. Legg No. 1 RICHARDSON & BASS Quahada Ridge (Delaware) 27-22S-30E	(7)	5-11-54	15,854' (6,122') P & A'd 1968	Delaware	6,112-6,118	A/1,000 SF/2,000	67 BO & 204 BW & 639 GOR	24,939	-	-	-	-	-	24,939 P&A'd 1968	-	DST 12,589-99' F 414,000 CFPD & 70 BFW DST 15,633-854' (Devonian) Rec. 200' ØM & 1,200' SW Perf. 7,456-60', F/2,000 Rec. 70% Wtr. Perf. 7,218-26' Rec. (unknown) Sq'd. perfs. Perf 6,112-18' & completed for 67 BO & 204 BW

**Estimated cumulative on or about July 1, 1976.

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND TEXAS 79701
JOHN JAY KEESEY, P. E. /cs
12-1-76

TABLE NO. 1

WELL COMPLETION AND PRODUCTION DATA
WELLS WITHIN AND IMMEDIATELY ADJACENT TO STORAGE AREA
HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY AND LEA COUNTIES, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

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Montgomery No. 1 NEILL WILLS Wildcat 10-23S-30E	(8)	1-31-35 D & A	3,718'	None	-	-	-	-	-	-	-	-	-	-	-	Delaware - No test data available.
Forty-Niner Ridge Unit No. 1 SKELLY OIL COMPANY Forty-Niner Ridge (Morrow) 1J 16-23S-30E	(9)	12-19-73	14,519'	Morrow*	13,914- 13,942 14,012- 14,022 14,029- 14,040 14,059- 14,061 14,149- 14,172 14,178- 14,184	A/1,000 F 1,904,000 CFPD A/3,000 F 42,000 CFPD	3,703 MCF/D (Dry Gas)	515	576.6	17	19.0	479	553.9	994	1,130.5	DST 4,380-479' (Delaware) GTS 55", Rec. 2,700' gas, 330' oil, 1350' FW, ISIP 2,023, FSIP 2,017. DST 5,196-256', Rec. 140' ØM, ISIP 2,073, FSIP 2,111 DST 5,408-512', Rec. 4,989' gas, 90' oil, 335' ØM, ISIP 2,162, FSIP 2,239. DST 7,559-607'(Bone Springs) Rec. 5,625' gas, 40' oil, ISIP 655, FSIP 1,153 DST 9,332-431',(BS) Rec. 5' oil, 85' ØM, ISIP 222, FSIP 388 DST 10,670-733', (WC), Rec. 4,710' gas, 240' ØM, ISIP 580, FSIP 1,353 DST 13,870-915', (Failed) DST 13,880-915', (Morrow) Rec. 3,000' GCWB, 90' GCØM. ISIP 4,028, FSIP 2,918.
James Ranch Unit No. 1 SHELL OIL COMPANY Los Mendanos (Atoka) 36-22S-30E	(10)	3-1-58	17,555' (12,993')	Atoka*	12,920- 12,929	Nat'l.	CAOF 9,000 MCF/D & 104 BO/D	203,770	17,438.9	1,200	106.2	221,100	18,461.0	424,870	35,900.0	DST 5,765-820', Rec. 20' HO & SGØM, 100' SO&GCØM. SIP 860. DST 6,476-548', Rec. 90' SO & GCM, 20' M. SIP 1980. DST 6,719-768', GTS 10" TSTM. Rec. 450' FO, 530' SMCO, ISIP 3,020, FSIP 2,680 DST 6,820-920', Rec. 280' SO & GCM, 20' HO & GCM. ISIP 2,490, FSIP 2,300. DST 7,164-334', Rec. 360' SGCM, SIP 2,170. DST 8,580-9,645',Rec. 20' M, SIP 265. DST 10,040-10,108',GTS 40" TSTM, Rec. 110' GCM, SIP 1,335 DST 14,927-15,601', (Miss.) & (Dev.) F 2,850 MCF, Rev. out gas. Rec. 250' GCM. SIP 6,345. (Continued on page 4.)

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James Ranch Unit No. 1 SHELL OIL COMPANY Los Mendanos (Atoka) 36-22S-30E (Continued from page 3)	(10)															DST 14,927-15,688', (Miss.) & (Dev.) M&GTS 42", F 2,770 MCF/D Stab 1' 1,310 MCF/D, WTS 2' 10", F BFW in 1', Rev out 5 BFW, Rec. 340' FW 4' SIP 6,635. DST 15,764-937'(Dev) Rec 1,860 BL & Sulfur wtr. FSIP 7,045 DST 16,322-433', Rec. 6,400' gas & FW cut ØM, FSIP 3,890. DST 17,375-555', (Ellen) Rec 210' SG & FW&CØM & 1,206' SG & MCFW FSIP 6,365. DST 15,545-576'(Ellen) Sulfur wtr. Ts 1' 40" F 8 BHP & 1,350 MCF/D, Rec 1,100' Sulfur wtr 1' SIP 6,510. DST 14,927-15,578', GTS 55" (TSTM) Rec. 1,200' MC & Sulfur wtr. 1' 45" SIP 6,688 (Same test zone as above, 14,927-15,601', picked up water) DST 14,927-15,578', GTS 45" & M 1' 30" & FW 2' F 960 MCF/D & 127 BFW. Rec. 1.700' Sulfur wtr. FSIP 6,500 DST 14,927-15,375', GTS 30" Rec. 1,110' GCM 1' SIP 1,220 Perf. 14,270-295', F 254 MCF/D & dec. to 170 MCF/D. F 1,850 MCF/D & dec. to 980 MCF/D & in 1' to 150 MCF/D. Flwd 150 MCF/D for 5'. A/500 & F 8 BLO & 100 MCF/D for 6'. Perf. 14,277-299', 14,030-050', 14,186-200' A/1,000 SWB & Flwd. 18 BFW & gas @ 230 MCF/D. Perf. 13,742-750', 13,890-900' & SWB dry. Perf. 12,920-929', (Atoka completion zone) F 25 BO & gas @ 3,015 MCF/D, PB 12,993

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Hudson Federal Com No. 1 (11) BELCO PETROLEUM Los Mendanos (Atoka) 1F 1-23S-30E	8-8-74	14,325'	Atoka*	12,989-12,995	A/250	1,054 MCF/D w/cond.	3,508	404.1	72	11.2	2,262	253.7	5,770	657.8	DST 12,986-13,021', (Atoka) GTS @ 2,700 MCF/D. Rec. 1,265' HGCMW, ISIP 6,453, FSIP 6,453. Perf. 14,229-248', (Morrow) F 2,535 MCF/D A/3,000 & F 360 MCF/D. Reperf. 14,225-14,248' & Perf. 13,844-14,177 & A/1,500 & SWF 46,000, did not rec. load.
James Ranch Unit No. 3 (12) BELCO PETROLEUM Los Mendanos (Morrow & Strawn) 3J 1-23S-30E	3-7-72	15,595'	Morrow	13,835-14,266 (TA)	WF/10,000	6,500 MCF/D (Dry Gas)	-	220.1	-	-	-	-	-	220.1	DST 6,720-768', Rec. 20' ØM (Delaware) DST 7,290-7,347', (Delaware) Rec. 1,000' gas, 1' oil, 60' FW, ISIP 1,408, FSIP 1,871. DST 12,690-775', (Strawn) GTS 28", WBTS 40", F 4,400 MCF/D, Dec. to 3,800, rec. 4,400' GCM. ISIP 8,104, FSIP 8,168. DST 15,450-495', (Devonian) Rec. 3,000' WB, ISIP 1,639, FSIP 1,639. HP 7,172-7,172. DST 15,450-545', (Devonian) Rec. 3,000' WB, 800' ØM, ISIP & FSIP 1,846. DST 15,450-595', (Devonian) GTS 60" @ 110,000 CF/D to 213,000 CF/D, Rec. 3,000' GCWB, 3,472' GC SW, ISIP 4,582, FSIP 4,508. HP 7,090-6,593 (Leak or fluid loss to form above pkr.) Perf. 14,062-266', F 550,000 CF/D, Reperf. 14,062-068' & F 620,000 CFPD, WF/10,000 & F 841,000 CF/D. Reperf. 13,862-14,262', F 5,400,000 CF/D. Reperf. 13,826-872', 13,835-842', Abandoned Morrow 1973. Max. flow rate 85,600 MCF/M. Prod. 7 months. Mechanical problems probable. Recompleted to Strawn & Atoka Came in good, but dropped off quickly. Possible scale.
	11-28-72		Atoka*	12,998-13,005	A/5,000	39,000 MCF/D (Dry Gas)	17,772	1,325.4	-	-	-	-	17,772	1,325.4	
	12-4-72		Strawn*	12,731-12,773	A/2,500	18,000 MCF/D & 21 BC/MM									

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James Ranch Unit #4 BELCO PETROLEUM Los Mendanos (Morrow) 6-23S-31E	(13)	9-11-73	14,380'	Morrow*	13,865-13,879 13,888-13,896 14,072-14,088 14,110-14,114	F/7,500	7,800 MCF/D (Dry Gas)	2,012	3,696.4	100	70.0	1,478	940.8	3,490	4,637.2	DST 13,000-048', (Atoka) Rev. out 6,138' GCM & 3,000' WB. ISIP 5,427, FSIP 5,183. DST 12,732-13,079', (Strawn & Atoka) GTS 40 WBTS 45", F 3,400 MCF/D. Rev. out 3,000' WB & GCØM. ISIP 5,166. FSIP 5,126. Possible potential to produce 12,912-920'. Appears there was trouble trying to get perfs. to flow. Appears weak.
				Atoka	12,912-12,920	A/500 F/7,500 ReA/750	F 750 MCF/D F 1,000 MCF/D F 450 MCF/D	Isolated - never produced -								
James Ranch Unit #7 CONTINENTAL OIL COMPANY Los Mendanos (Morrow) 6-23S-31E	(14)	11-14-74	14,599'	Bone Springs	11,017-11,052	A/3,000 F/13,000	Pot 160 BO & 16 BW F 228 BO & 97 BW F 105 BO & 45 BW F 14 BO & 6 BW	Isolated Bone Springs perfs - Produced about 4,900 BO prior to SI. Reportedly could produce 50 BOPD.								
				Morrow*	14,062-14,526	A/9,000 F/16,200	F 1,850 MCF/D CAOF (Dry Gas)	12	248.0	-	42.0	-	1,172.0	12	1,420.0	New well - reserves subject to performance.
Cabin-Baby Federal No. 1 M. P. GRACE Wildcat (Delaware) 5-23S-31E	(15)	2-8-75 TA	4,150'	Delaware	-	-	None	-	-	-	-	-	-	-	-	No test data or logs. Well temp. abandoned.
Arco State No. 1 EL PASO NATURAL GAS CO. Sand Dunes (Atoka) 16-23S-31E	(16)	8-71	15,000'	Atoka	14,117-14,126	A/2,000	F 500 MCF/D & Wtr. for 7 hrs.	Set BP - Completed 13,880-890'								DST 13,800-921', (L, Atoka) WBTS 40", GTS 50" @ 11,000,000 CFPD - Stabilized @ 6,400,000 CFPD. Rec. 188' WB, 632' GCM, 60" ISIP 9,197, 4', FSIP 9,121. DST 14,090-513', (Atoka & Morrow) GTS 35" @ 250,000 CFGPD, dec. to 100,000 CFG Rec. 6,100' HGCWB&ØM, 60" ISIP 7,771, 4' FSIP 7,932. DST 14,818-910', (Morrow) Rec. 3,960' HGCM, 540' FW, 60" ISIP 6,477, 60" FSIP 6,152. DST 14,117-126', GTS 10" @ 21,000,000 CFPD. Rec. 4,830' GCØM 60" ISIP 2,336,6 FSIP 6,839.
		8-8-71		Atoka*	13,880-13,890	Nat'l.	F 3,826 MCF/D CAOF (Dry Gas)	-	331.1	-	-	-	-	-	331.1	
		9-1-74		Atoka*	13,396-13,408	Nat'l.	F 5.0 MCF/D									

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Todd "14" Federal No. 1 TEXAS AMERICAN Sand Dunes (Lower Penn.) 14-23S-31E	(17)	12-9-70	16,550'	L/Penn.	14,719-14,772	A/1,500 F/10,000	F 10 BLF SWB Dn-NS SITP 1,075 Bled to 0 in 3"	-	-	-	-	-	-	-	-	DST 10,780-11,152', GTS 20" @ 125,000 CFPD. Rec. 432' oil, 615' ØF 60" ISIP 4,712 2' FSIP 4,712. Potentially productive.
				Atoka*	14,051-14,076	A/10,000 ReA/1,000 & A/1,000	F 6,700 MCF/D on CAOF (Dry Gas)	-	154.1	-	-	-	-	-	154.1	DST 13,700-940', (Atoka) GTS 12" TSTM, Rec. 510' GCØM 60" ISIP 1,342 6' FSIP 2,373. DST 14,016-067', (Atoka) WBTS 90" GTS 113" @ 5,300 MCFPD, dec. to 1,200 MCFPD 90" ISIP 8,626, 240" FSIP 8,691. DST 14,710-810', (L/Penn.) GTS 45" Flwd 14,400 MCFPD Dec. to 5,250 MCFPD, Dec. to 4,400 MCFPD to 1,200 MCFPD. ISIP 6,514 in 60", FSIP 6,091 in 6'. DST 14,855-985', (L/Penn.) Rec. 7,000' WB, 300' ØM, 2' ISIP 5,693, FSIP 5,431. DST 16,500-550', (Devonian) Rec. 3,820' SGC Sulfur wtr. 60" ISIP 2,658 90", FSIP 2,302.
Bauerdorf-Federal #1 MAX WILSON Wildcat 11-23S-31E	(18)	2-23-63 P & A	6,054'	None	-	-	None	-	-	-	-	-	-	-	-	Lost Drill Collars in hole. No tests - P&A
Federal Sand "18" No. 1 SKELLY OIL COMPANY Wildcat (Bone Springs) 18-23S-32E	(19)	8-25-75	15,500'	Bone Springs*	8,713-8,737	A/4,500	F 96 BO & ? BW & 1,760 GOR	9,182	20.85	1,000	2.5	50,212	114.15	59,394	135.0	New Well - DST 8,697-771', (Bone Spgs) Rec. 90' Oil, 220' ØM, 60" ISIP 1,730, 120" FSIP 3,787 DST 14,350-420', (Atoka) GTS 91" @ 20 MCFPD. Rec. 4,400' GCWB 110' GCM 60" ISIP 9,383, 120" FSIP 2,938. DST 14,754-805', (Morrow) Rec. 6,500' GCWB, 475' G&W CØM, 180' GCW 60" ISIP 7,502 120" FSIP 7,502.
Federal "WL" No. 5-7 JOHN H. TRIGG Wildcat (Delaware) 7-23S-32E	(20)	6-26-65 D & A	4,721'	None	-	-	None	-	-	-	-	-	-	-	-	D & A - No tests.

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Grace Cotton Baby-Federal No. 1 MICHAEL P. GRACE Wildcat (Delaware) 34-22S-31E	(21)	2-11-74 D & A	4,475'	None	-	-	None	-	-	-	-	-	-	-	-	D & A - No tests.
State "AA" No. 1 CONTINENTAL OIL CO. Wildcat 2-23S-31E	(22)	2-18-61 D & A	5,190'	None	-	-	None	-	-	-	-	-	-	-	-	Cored 4,465-615' - No show. No tests.
Stecher-Federal No. 1 MAX M. WILSON Wildcat 31-22S-32E	(23)	3-7-63 D & A	266'	None	-	-	None	-	-	-	-	-	-	-	-	Lost lease - D & A @ TD 266'.
Perry-Federal No. 1-31 PERRY R. BASS Wildcat 31-22S-32E	(24)	3-7-63 D & A	4,777'	None	-	-	None	-	-	-	-	-	-	-	-	Cored 4,625-75', 4,677-727', 4,727-77'. No core reports. No tests.
Federal "B" No. 1 CLEARY PETROLEUM CORP. Wildcat (Morrow) 25-22S-31E	(25)	10-23-74 D & A	661'	None	-	-	None	-	-	-	-	-	-	-	-	D & A @ TD 661'
Wright-Federal No. 1-23 TEXAS CRUDE Wildcat 23-22S-31E	(26)	4-25-62 P & A	4,766'	None	-	-	None	-	-	-	-	-	-	-	-	DST 4,490-531', Rec. 90' M 30" ISIP 1,375 30" FSIP 1,350.
Federal "A" No. 1 CLEARY PETROLEUM CORP. Wildcat (Delaware) 24-22S-31E	(27)	10-23-74 D & A	1,066'	None	-	-	None	-	-	-	-	-	-	-	-	D & A @ TD 1,066
Bass-Federal #1 RALPH LOWE Wildcat 19-22S-32E	(28)	6-9-64 D & A	4,800'	None	-	-	None	-	-	-	-	-	-	-	-	Cored 4,700-802'. No show. No tests.
R. J. Zonne #1 CLEARY PETROLEUM CORP. Red Tank (Morrow) 20-22S-32E	(29)	10-7-73	14,855'	Morrow*	14,556-14,596	A/2,000	F 4,945 MCF/D (Dry Gas)	1,489	386.6	15	5.8	200	213.4	1,689	600.0	DST 13,646-775', Pkr failed. DST 14,370-422', Pkr failed.

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EFFECTIVE DATE: SEPTEMBER 1, 1976

Lease OPERATOR Field Location	(SW&A Tr. No.)	Date Completed	Total Depth (PB Depth)	Completion Interval Zone (*Active)	Completion Interval Feet	Stimulation	Potential	RESERVE DATA Cumulative ** Oil-BBL	Cumulative ** Gas-MMCF	Current Rate Oil-BBL (Month)	Current Rate Gas-MMCF (Month)	Remaining Reserves Oil-BBL	Remaining Reserves Gas-MMCF	Ultimate Recovery Oil-BBL	Ultimate Recovery Gas-MMCF	Remarks
Federal #17-1 CLEARY PETROLEUM CORP. Red Tank (Morrow) 17-22S-32E	(30)	2-20-75	14,800'	Morrow*	14,373-14,586	A/6,000 F/30,000	F 570 MCF/D	461	100.0	70	14.0	1,360	500.0	1,821	600.0	DST 14,370-800', Test failed.
Federal Jennings #1-18 JOHN H. TRIGG Wildcat 18-22S-32E	(31)	5-7-61 D & A	4,896'	None	-	-	None	-	-	-	-	-	-	-	-	Cored 4,742-792-1/2 - No show. D & A
Badger Unit Federal #1 C. W. WILLIAMS Wildcat 15-22S-31E	(32)	9-16-73 D & A	15,225'	None	-	-	None	-	-	-	-	-	-	-	-	DST 6,230-297', (L/Canyon) Rec. 190' O&CCØF, 780' ØF, 45" ISIP 2,700, 2' FSIP 2,700. Minor gas kick 11,260-64' Drlg break 14,114-129' DST 14,035-200', (Morrow) Rec. 300' WCØF, 60" ISIP 2,543, 3' FSIP 4,119.

**Estimated cumulative on or about July 1, 1976.

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND, TEXAS 79701
JOHN JAY KEESEY, P. E. /cs 12-1-76

TABLE NO. 2

DEFINITION OF RESERVE CATEGORIES

SANDIA LABORATORIES
HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY COUNTY, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

Proved Reserves - The quantities of crude oil, natural gas and natural gas liquids which geological and engineering data demonstrate with reasonable certainty to be recoverable in the future from known oil and gas reservoirs under existing economic and operating conditions. They represent strictly technical judgments, and are not knowingly influenced by attitudes of conservatism or optimism.

Undrilled Acreage - Both drilled and undrilled acreage of proved reservoirs are considered in the estimate of the proved reserves. The proved reserves of the undrilled acreage are limited to those drilling units immediately adjacent to the developed areas which are virtually certain of productive development, except where the geological information on the producing formations insures continuity across other undrilled acreage.

When evaluating an individual property in an existing oil or gas field, the proved reserves within the framework of the above definition are those quantities indicated to be recoverable commercially from the subject property at current prices and costs, under existing regulatory practices, and with conventional methods and equipment. Depending on their development or producing status, these proved reserves are further subdivided into:

1. Proved Developed Reserves - Proved reserves to be recovered through existing wells and with existing facilities;

   a. Proved Developed Producing Reserves - Proved developed reserves to be produced from completion interval(s) open to production in existing wells;

   b. Proved Developed Nonproducing Reserves - Proved developed reserves behind the casing of existing wells or at minor depths below the present bottom of such wells which are expected to be produced through these wells in the predictable future. The development cost of such reserves should be relatively small compared to the cost of a new well.

2. Proved Undeveloped Reserves - Proved reserves to be recovered from new wells on undrilled acreage or from existing wells requiring a relatively major expenditure for recompletion or new facilities for fluid injection.

3. Probable Reserves include the same subdivisions listed under Proved Reserves. Reserves assigned under this classification are those which are supported by favorable engineering and geological data, but which are subject to some element of risk which prevents classification as Proved Reserves.

4. Possible Reserves include speculative reserves where risk is relatively high. Usually, reserves to be included herein are those which depend on some favorable development or event (such as creation of a unit to conduct fluid injection operation, development drilling or remedial work to correct a mechanical defect) which is not predictable with good accuracy.

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND, TEXAS 79701
JOHN JAY KEESEY, P. E./cd 12-1-76

TABLE NO. 3

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY COUNTY, NEW MEXICO

RESUME OF ASSIGNED OIL AND GAS RESERVES
IN PROPOSED STORAGE SITE
(WORK SITE PLUS 2 MILE BUFFER ZONE)

EFFECTIVE DATE: SEPTEMBER 1, 1976

SW&A TRACT NO.	OPERATOR LEASE NAME AND WELL	LOCATION	ASSIGNED RESERVES: MORROW ZONE RES CAT[1]	MORROW ZONE OIL,BBL	MORROW ZONE GAS,BCF	ATOKA ZONE RES CAT[1]	ATOKA ZONE OIL,BBL	ATOKA ZONE GAS,BCF	STRAWN ZONE RES CAT[1]	STRAWN ZONE OIL,BBL	STRAWN ZONE GAS,BCF	OTHER ZONES - AS SHOWN RES CAT[1]	OTHER ZONES OIL,BBL	OTHER ZONES GAS,BCF	DATE TO DRILL	ESTIMATED DRILLING COST, $	REMARKS
33	Conoco James Ranch Unit # 8	SW 1/4 31-22-31	PU	0	2.074	PU	65,464	5.534							7/1/77	1,400,000	
34	Richardson & Bass James Ranch Unit # 36-1	NE 1/4 36-22-30	PR	0	2.074	PU	65,464	5.534							7/1/77	1,400,000	
36	Conoco James Ranch Unit # 31-2	NW 1/4 31-22-31	PR	0	1.638										1/1/78	1,350,000	
35	Richardson & Bass James Ranch Unit # 36-2	NW 1/4 36-22-30	PR	0	1.638										1/1/78	1,350,000	
37	Richardson Oils James Ranch Unit # 25-1	SE 1/4 25-22-30	PO	0	1.327										1/1/79	1,350,000	
38	Richardson & Bass James Ranch Unit # 30-1	SW 1/4 30-22-31	PO	0	1.327										1/1/79	1,350,000	
10	Shell James Ranch Unit # 1	SE 1/4 36-22-30				PP	218,218	18.446				Delaware: PNP	41,700	0.084	ACTIVE WELL	---	Recomplete 1/1/98 to Delaware Zone
14	Conoco James Ranch Unit # 7	NE 1/4 6-23-31	PP	0	1.086	PR	47,201	3.990				Bone Springs: PNP	46,469	0.107	ACTIVE WELL	---	Recomplete 1/1/82 to Atoka and Bone Springs
39	Richardson & Bass James Ranch Unit # 13-1	SE 1/4 13-22-30	PR	722	0.825	PR	1,326	1.215	PR	1,950	0.047				1/1/78	1,400,000	*Total Reserves from all three zones = 3,998 BBL and 2.087 BCF
40	Richardson & Bass James Ranch Unit # 24-1	NE 1/4 24-22-30	PR*	3,998	2.087	*Includes all "PR" reserves from Morrow, Atoka and Strawn Zones as per SW&A Tract No. 39.									10/1/78	1,400,000	
41	Richardson & Bass James Ranch Unit # 7-1	SE 1/4 7-22-31	PR*	3,998	2.087		"			"					1/1/79	1,400,000	
44	Richardson & Bass James Ranch Unit # 17-1	NW 1/4 17-22-31	PR*	3,998	2.087		"			"					1/1/79	1,400,000	
45	Yentz, et al Federal # 17-2	NE 1/4 17-22-31	PR*	3,998	2.087		"			"					1/1/80	1,400,000	
42	Richardson & Bass James Ranch Unit # 19-1	NE 1/4 19-22-31	PR*	3,998	2.087		"			"					1/1/78	1,400,000	
43	Richardson & Bass James Ranch Unit # 20-1	NW 1/4 20-22-31	PR*	3,998	2.087		"			"					1/1/79	1,400,000	

TABLE NO. 3

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY COUNTY, NEW MEXICO

RESUME OF ASSIGNED OIL AND GAS RESERVES
IN PROPOSED STORAGE SITE
(WORK SITE PLUS 2 MILE BUFFER ZONE)

EFFECTIVE DATE: SEPTEMBER 1, 1976

SW&A TRACT NO.	OPERATOR LEASE NAME AND WELL	LOCATION	ASSIGNED RESERVES: MORROW ZONE RES CAT[1]	MORROW ZONE OIL,BBL	MORROW ZONE GAS,BCF	ATOKA ZONE RES CAT[1]	ATOKA ZONE OIL,BBL	ATOKA ZONE GAS,BCF	STRAWN ZONE RES CAT[1]	STRAWN ZONE OIL,BBL	STRAWN ZONE GAS,BCF	OTHER ZONES - AS SHOWN RES CAT[1]	OTHER ZONES OIL,BBL	OTHER ZONES GAS,BCF	DATE TO DRILL	ESTIMATED DRILLING COST, $	REMARKS
46	Martinez Federal # 21-1	NW 1/4 21-22-31	PR*	3,998	2.087	*Includes all "PR" reserves from Morrow, Atoka and Strawn Zones as per SW&A Tract No. 39.									10/1/79	1,400,000	
49	Richardson & Bass James Ranch Unit # 19-2	SW 1/4 19-22-31	PO**	578	0.660	PO	1,060	0.972	PO	1,560	0.038				1/1/79	1,400,000	**Total Reserves from all three zones = 3,198 BBL and 1.670 BCF.
48	Richardson and Bass James Ranch Unit # 20-2	SE 1/4 20-22-31	PO**	3,198	1.670	**Includes all "PO" reserves from Morrow, Atoka and Strawn Zones as per SW&A Tract No. 49.									1/1/80	1,400,000	
47	Unleased State # 16-1	SE 1/4 16-22-31	PO**	3,198	1.670		"			"					1/1/81	1,400,000	
50	Macibarka Federal # 28-1	SW 1/4 28-22-31	PO**	3,198	1.670		"			"					10/1/78	1,400,000	
51	Gulf Federal # 33-1	NE 1/4 28-22-31	PO**	3,198	1.670		"			"					1/1/78	1,400,000	
52	Gulf Federal # 33-2	SW 1/4 28-22-31	PO**	3,198	1.670		"			"					7/1/79	1,400,000	
53	U. S. Federal # 34-1	NW 1/4 34-22-31	PO**	3,198	1.670		"			"					1/1/80	1,400,000	

[1]Reserve Category: PP - Proved Developed Producing
PNP - Proved Developed Nonproducing
PU - Proved Undeveloped
PR - Probable
PO - Possible

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND, TEXAS 79701
JOHN JAY KEESEY, P. E./cd 12-1-76

TABLE NO. 4

ECONOMIC FORECAST PARAMETERS

SANDIA LABORATORIES
HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE,
EDDY COUNTY, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

1) Working interest equal to 100 percent. Revenue interest equal to 87.5 percent.

2) Case I-A and I-B assumed the new FPC area gas price of $1.42 per MCF with an escalation of $0.04 per MCF per year to a maximum of $3.00 per MCF.

   Case II-A and II-B used current gas prices of $0.55 per MCF, based on general information from the operators. These were escalated at $0.01 per MCF per year with a top limit of $3.00 per MCF.

   NOTE: All wells are eligible for this FPC interstate gas price increase under the new guidelines, except for Shell's James Ranch Unit No. 1. This well was producing prior to 1973.

3) Oil prices were escalated from the current area price of about $12.60 per barrel to a maximum of $20.00 per barrel, as follows:

   a) 1977 - escalated at 3.5 percent.
   b) 1978 and thereafter - escalated at 7.0 percent per year to a maximum of $20.00 per barrel.

   The only exception to the above is Shell's James Ranch Unit No. 1, which is classified as old oil. This well's oil price was set at $5.60 initially and escalated at 7.0 percent per year to a maximum of $20.00 per barrel.

4) Operating expenses were estimated at $650.00 and $750.00 per well per month based on verbal information from operators in the area. These were escalated at 7.0 percent per year to a maximum of $1500.00 or $2000.00 per month, depending on the well's nature.

5) Investments were included for recompletion work, etc.

6) Drilling and completion costs for new Morrow-Atoka wells were set at $1,400,000 for duals and $1,350,000 for singles.

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND, TEXAS 79701
JOHN JAY KEESEY, P. E./cd 12-1-76

TABLE NO. 5

SANDIA LABORATORIES

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE

SUMMARY OF RESERVES AND INCOME
AS OF SEPTEMBER 1, 1976

	PROVED PRODUCING	PROVED NONPRODUCING	PROVED UNDEVELOPED	PROBABLE	POSSIBLE	TOTAL
I Assumes New FPC Area Gas Price Applies to All Wells After 1/1/73						
Case I-A						
Base Case. Recovery of Proved Atoka Reserves Accelerated by Completion of James Ranch Unit Nos. 8 and 36-1						
Gross Reserves						
Oil, BBL	88,181	88,800	130,935	79,261	22,451	409,628
Gas, MCF	8,539,516	191,728	13,142,000	26,036,000	14,344,000	62,253,244
Future Net Revenue, $						
Undiscounted	5,187,285	1,243,236	16,141,055	20,083,794	5,755,451	48,410,821
Discounted @ 10%/Annum	3,082,875	351,144	7,366,837	9,043,487	1,372,556	21,216,899
Estimated Fair Market Value (FMV) @ 10% Discounted Value x 0.6 factor, $						12,730,139
Case I-B						
Same as Case I-A except that Proposed James Ranch Unit No. 8 and 36-1 are dry in the Atoka and all remaining proved Atoka reserves are produced from James Ranch Unit No. 1						
Gross Reserves						
Oil, BBL	218,218	88,800	0	79,261	22,451	408,730
Gas, MCF	19,531,778	191,728	2,074,000	26,036,000	14,344,000	62,177,506
Future Net Revenue, $						
Undiscounted	12,532,150	1,243,236	1,216,341	18,773,794	5,755,451	39,520,972
Discounted @ 10%/Annum	5,214,363	351,144	671,820	7,818,114	1,372,556	15,427,997
Estimated Fair Market Value (FMV) @ 10% Discounted Value x 0.6 factor, $						9,256,798
II Assumes Gas Prices Will Remain at Older FPC Area Price Levels						
Case II-A						
Base Case. Same as Case I-A						
Gross Reserves						
Oil, BBL	88,181	88,800	130,929	47,202	0	355,112
Gas, MCF	8,539,516	191,729	13,142,000	6,064,000	0	27,937,245
Future Net Revenue, $						
Undiscounted	4,385,106	1,144,685	4,578,995	3,258,942	0	13,367,728
Discounted @ 10%/Annum	2,399,444	309,442	1,457,679	1,498,304	0	5,664,869
Estimated Fair Market Value (FMV) @ 10% Discounted Value x 0.6 factor, $						3,398,921
Case II-B						
Same as Case I-B						
Gross Reserves						
Oil, BBL	218,218	88,800	0	47,202	0	354,220
Gas, MCF	19,531,778	191,729	0	3,990,000	0	23,713,507
Future Net Revenue, $						
Undiscounted	11,729,971	1,144,685	0	2,333,832	0	15,208,488
Discounted @ 10%/Annum	4,530,932	309,442	0	797,482	0	5,637,856
Estimated Fair Market Value (FMV) @ 10% Discounted Value x 0.6 factor, $						3,382,714

SIPES, WILLIAMSON & AYCOCK, INC.
1100 GIHLS TOWER WEST MIDLAND, TEXAS 79701
JOHN JAY KEESEY, P. E./cd
12-1-76

CASE I-A

TABLE NO. 6

EVALUATION FOR SANDIA LABORATORIES
JOB NO. 6.1025 DATE 07 DEC 76 TIME 11:42:41
AS OF SEP 01, 1976 4.0 MONTHS IN FIRST PERIOD

PAGE		LEASE ID	LEASE NAME					
1		1	JAMES RANCH UNIT #1 PP10	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO			
2		2	JAMES RANCH UNIT #1 PP10	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO			
3		3	JAMES RANCH UNIT #7 PP14	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO			
4	SUM.	4	EXISTING WELLS - PP	TRACTS #10 & 14	GROUP I	91	LEVEL 1	
5		5	JAMES RANCH UNIT#1 PNP10	LOS MEDANOS (DELAWARE)	EDDY CO., NEW MEXICO			
6		6	JAMES RANCH UNIT#7 PNP14	LOS MEDANOS-BONE SPRINGS	EDDY CO., NEW MEXICO			
7	SUM.	7	EXISTING WELLS - PNP	WELLS 10 & 14	GROUP I	91	LEVEL 1	
8		8	JAMES RANCH UNIT #7 PR14	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO		D	L
9	SUM.	9	EXISTING WELLS - PR	WELLS 10 & 14	GROUP I	91	LEVEL 1	
10	SUM.	10	EXISTING WELLS PP-PNP-PR	WELLS 10 & 14	GROUP I	92	LEVEL 2	
11		11	JAMES RANCH UT#8 PU33	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO		C	
12		12	JAMES RANCH UT#8 PU33	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		C	
13		13	JAMES RANCH UT36-1 PU34	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO			
14	SUM.	14	PROPOSED WELLS - PU	TRACTS 33 & 34	GROUP I	91	LEVEL 1	
15		15	JAMES RANCH UT36-1 PR34	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO		D	L
16		16	JAMES RANCH UT36-2 PR35	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		D	L
17		17	JAMES RANCH UT31-2 PR36	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		D	L
18	SUM.	18	PROPOSED WELLS - PR	TRACTS 34,35 & 36	GROUP I	91	LEVEL 1	
19		19	JAMES RANCH UT25-1 P037	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		E	
20		20	JAMES RANCH UT30-1 P038	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		E	
21	SUM.	21	PROPOSED WELLS - PO	TRACTS 37 & 38	GROUP I	91	LEVEL 1	
22	SUM.	22	PROPOSED WELLS-PU-PR-PO	TR. 33,34,35,36,37&36	GROUP I	92	LEVEL 2	
23	SUM.	23	EXISTING & PROPOSED - I	PP-PNP-PU-PR-PO		93	LEVEL 3	
24	SUM.	24	TOTAL JAMES RANCH UT8-PU	TRACT 33	GROUP I	96	C	
25	SUM.	25	TOTAL PR - GROUP I	TRACTS 14,34,35,&36		97	D	

TABLE NO. 6

07 DEC 76 11:42:41

26		26	JAMES RANCH UT13-1	PR39	WILDCAT	EDDY CO., NEW MEXICO			L
27		27	JAMES RANCH UT24-1	PR40	WILDCAT	EDDY CO., NEW MEXICO			L
28		28	JAMES RANCH UT7-1	PR41	WILDCAT	EDDY CO., NEW MEXICO			L
29		29	JAMES RANCH UT19-1	PR42	WILDCAT	EDDY CO., NEW MEXICO			L
30		30	JAMES RANCH UT20-1	PR43	WILDCAT	EDDY CO., NEW MEXICO			L
31		31	JAMES RANCH UT17-1	PR44	WILDCAT	EDDY CO., NEW MEXICO			L
32		32	FEDERAL #17-2	PR45	WILDCAT	EDDY CO., NEW MEXICO			L
33		33	FEDERAL #21-1	PR46	WILDCAT	EDDY CO., NEW MEXICO			L
34	SUM.	34	PROPOSED WELLS-PR GR. II		TRACTS 39 THRU 46		91	LEVEL 1	
35		35	STATE	P047	WILDCAT	EDDY CO., NEW MEXICO		E	
36		36	JAMES RANCH UT20-2	P048	WILDCAT	EDDY CO., NEW MEXICO		E	
37		37	JAMES RANCH UT19-2	P049	WILDCAT	EDDY CO., NEW MEXICO		E	
38		38	FEDERAL #28-1	P050	WILDCAT	EDDY CO., NEW MEXICO		E	
39		39	FEDERAL #33-1	P051	WILDCAT	EDDY CO., NEW MEXICO		E	
40		40	FEDERAL #33-2	P052	WILDCAT	EDDY CO., NEW MEXICO		E	
41		41	FEDERAL #34-1	P053	WILDCAT	EDDY CO., NEW MEXICO		E	
42	SUM.	42	PROPOSED WELLS-PO-GR.II		TRACTS 47 THRU 53		91	LEVEL 1	
43	SUM.	43	PROPOSED WELLS-GROUP II		39 THRU 53	PR-PO	92	LEVEL 2	
44	SUM.	44	TOTAL ALL LEASES		PP-PNP-PU-PR-PO	GROUP I & GROUP II	94		
45	SUM.	45	ALL PO LEASES		GROUP I & GROUP II		98	E	
46	SUM.	46	TOTAL PR-GROUP I & II		TRACTS 34,35,36	TRACTS 39 THRU 46	90	L	

PROJECTION PROGRAM 29 LEASES AND 17 SUMMARIES

08 DEC 76 22:17:34

EVALUATION FOR
SANDIA LABORATORIES

TABLE NO. 7

TOTALS ALL LEASES
AS OF SEP 01, 1976

		GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
	JAMES RANCH UNIT #1 PP10	88181	7453869	77161	6522139	4571944	612769	25000	3934175	2010001
	JAMES RANCH UNIT #7 PP14	0	1085647	0	949942	1300468	47378	0	1253110	1072874
1	EXISTING WELLS - PP	88181	8539516	77161	7472081	5872432	660147	25000	5187285	3082875
	JAMES RANCH UNIT#1 PNP10	41700	83400	36488	72976	728400	153049	20000	555351	52414
	JAMES RANCH UNIT#7 PNP14	47100	108328	41213	94788	890221	202336	0	687885	298736
1	EXISTING WELLS - PNP	88800	191728	77701	167764	1618621	355365	20000	1243236	351144
	JAMES RANCH UNIT #7 PR14	47200	3990000	41302	3491251	6890178	498173	95000	6297005	2037021
1	EXISTING WELLS - PR	47200	3990000	41302	3491251	6890178	498173	95000	6297005	2037021
2	EXISTING WELLS PP-PNP-PR	224181	12721244	196164	11131096	14381231	1513705	140000	12727526	5471040
	JAMES RANCH UT#8 PU33	65467	5534000	57265	4842251	8755454	498160	1450000	6807294	2734906
	JAMES RANCH UT#8 PU33	0	2074000	0	1814750	2576111	49770	0	2526341	1897199
	JAMES RANCH UT36-1 PU34	65468	5534000	57284	4842254	8755589	498169	1450000	6807420	2734742
1	PROPOSED WELLS - PU	130935	13142000	114569	11499255	20087154	1046099	2900000	16141055	7366837
	JAMES RANCH UT 36-1 PR34	0	2074000	0	1814750	2576111	49770	0	2526341	1897199
	JAMES RANCH UT36-2 PR35	0	1638000	0	1433251	2041423	76797	1310000	654626	281530
	JAMES RANCH UT31-2 PR36	0	1638000	0	1433251	2041423	76797	1310000	654626	281530
1	PROPOSED WELLS - PR	0	5350000	0	4681252	6658957	203364	2620000	3835593	2460259
	JAMES RANCH UT25-1 PU37	0	1327000	0	1161126	1675932	60602	1310000	305330	79459
	JAMES RANCH UT30-1 PU38	0	1327000	0	1161126	1675932	60602	1310000	305330	79459
1	PROPOSED WELLS - PU	0	2654000	0	2322252	3351864	121204	2620000	610660	158918
2	PROPOSED WELLS-PU-PR-PU	130935	21146000	114569	18502759	30097975	1370667	8140000	20587308	9985956
3	EXISTING & PROPOSED - I	355116	33867244	310733	29633855	44479206	2884372	8280000	33314834	15457038
C	TOTAL JAMES RANCH UT6-PU	65467	7608000	57285	6657001	11331565	547930	1450000	9333635	4632059

08 DEC 76 22:17:34

EVALUATION FOR
SANDIA LABORATORIES

TABLE NO. 7

TOTALS ALL LEASES
AS OF SEP 01, 1976

			GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
0	TOTAL PR - GROUP I		47200	9340000	41302	8172503	13549135	701537	2715000	10132598	4497274
	JAMES RANCH UT13-1	PR39	4008	2087000	3507	1826125	2678301	172462	1350000	1155839	577813
	JAMES RANCH UT24-1	PR40	4008	2087000	3507	1826124	2764101	176958	1350000	1237143	511110
	JAMES RANCH UT7-1	PR41	4008	2087000	3507	1826125	2748923	176462	1350000	1220461	563519
	JAMES RANCH UT19-1	PR42	4008	2087000	3508	1826125	2737633	140111	1350000	1247522	649804
	JAMES RANCH UT20-1	PR43	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	586653
	JAMES RANCH UT17-1	PR44	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	586653
	FEDERAL #17-2	PR45	4008	2087000	3508	1826125	2811186	151276	1350000	1309912	568273
	FEDERAL #21-1	PR46	4005	2087000	3504	1826125	2791183	149982	1350000	1291201	502390
1	PROPOSED WELLS-PR GR. II		32061	16696000	28057	14608999	22012669	1261473	10800000	9951196	4546213
	STATE	PO47	3209	1670000	2809	1461250	2337524	204421	1350000	783103	198473
	JAMES RANCH UT20-2	PO48	3205	1670000	2804	1461250	2321863	200167	1350000	771696	132657
	JAMES RANCH UT19-2	PO49	3209	1670000	2809	1461250	2296061	195002	1350000	751059	222413
	FEDERAL #28-1	PO50	3205	1670000	2804	1461250	2250037	193496	1350000	706539	121611
	FEDERAL #33-1	PO51	3209	1670000	2809	1461250	2209462	189002	1350000	670460	192919
	FEDERAL #33-2	PO52	3205	1670000	2807	1461251	2278211	197583	1350000	730628	154340
	FEDERAL #34-1	PO53	3209	1670000	2809	1461250	2281473	200167	1350000	731306	191237
1	PROPOSED WELLS-PO-GR.II		22451	11690000	19651	10228751	15974631	1379840	9450000	5144791	1213650
2	PROPOSED WELLS-GROUP II		54512	28386000	47708	24837750	37987300	2641313	20250000	15095987	5759863
4	TOTAL ALL LEASES		409628	62253244	358441	54471605	82466506	5525665	28530000	48410821	21216895
E	ALL PO LEASES		22451	14344000	19651	12551003	19326495	1501044	12070000	5755451	1372556
L	TOTAL PR-GROUP I & II		79261	26036000	69359	22781502	35561804	1963010	13515000	20083794	9043487

TABLE NO. 8

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.620 AVERAGE GAS PRICE = 1.528
NUMBER OF WELLS = 28.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	424774	2658	371677	320812	5400	0	315412	315412	310220
1977	16013	2474984	14011	2165611	2500392	31133	2800000	-330741	-15329	5620
1978	25258	6254409	22101	5472608	7270359	105663	9700000	-2535304	-2550633	-2106401
1979	28639	9218146	25060	8065877	11195972	210006	11100000	-114034	-2664667	-2192398
1980	27591	8621714	24142	7544000	10768194	272834	4200000	6295360	3630693	2105251
1981	24452	7118051	21394	6228295	9107877	316948	1400000	7390929	11021622	6672555
1982	36676	5794715	32091	5070378	7812582	357795	65000	7389787	18411409	10806364
1983	30680	4462774	26847	3904926	6162336	382133	0	5780203	24191612	13733246
1984	25821	3481026	22596	3045898	4911168	408747	0	4502421	28694033	15797005
1985	21869	2636101	19136	2306587	3785450	378852	140000	3266596	31960631	17155361
1986	18634	2059956	16308	1802463	3005528	357245	0	2648283	34608914	18150030
1987	15902	1657858	13916	1450629	2452521	344298	50000	2058223	36667137	18850665
1988	13557	1302514	11864	1139703	1950655	306091	-200000	1844564	38511701	19420402
1989	11594	1017876	10146	890641	1539772	248791	-200000	1490981	40002682	19837225
1990	10027	831734	8775	727769	1270438	202255	-100000	1168183	41170865	20132403
1991	8717	690885	7628	604526	1065053	166893	-100000	998160	42169025	20360921
1992	7579	581925	6632	509184	905639	136225	-140000	909414	43078439	20549339
1993	5899	498603	5162	436277	772236	96000	0	676236	43754675	20675832
1994	5295	447509	4633	391571	704736	96000	0	608736	44363411	20778904
1995	4752	401662	4159	351455	643034	96000	0	547034	44910445	20862751
SUB TOTAL	341993	59977216	299259	52480075	78144754	4519309	28715000	44910445	44910445	20862751
REMAINING	67635	2276026	59182	1991530	4321752	1006376	-185000	3500376	48410821	21216899
TOTAL	409628	62253244	358441	54471605	82466506	5525685	28530000	48410821	48410821	21216899
PRIOR CUM	207524	17713736								
ULTIMATE	617152	79966980								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 24696661
12.000 PER CENT 18309270
15.000 PER CENT 14778406
20.000 PER CENT 10463167

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 9

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.586 AVERAGE GAS PRICE = 1.450
NUMBER OF WELLS = 13.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	424774	2658	371677	320612	5400	0	315412	315412	310220
1977	16013	2474984	14011	2165611	2500392	31133	2600000	-330741	-15329	5820
1978	21505	4299674	18817	3762215	4868681	63687	2700000	2104994	2089665	1759540
1979	19319	4364276	16905	3818742	5099835	84858	2700000	2314977	4404642	3505390
1980	17356	3292123	15187	2880609	3912305	90817	0	3821486	8226130	6114201
1981	15593	2504044	13643	2191039	3021376	97174	0	2924202	11150332	7921243
1982	30177	2410376	26404	2109081	3232114	122627	65000	3044487	14194819	9624352
1983	25909	1978659	22671	1731327	2714738	130504	0	2584234	16779053	10932913
1984	22319	1656272	19530	1449239	2316477	139637	0	2176840	18955893	11930704
1985	19294	1294662	16883	1132828	1834389	108852	140000	1585537	20541430	12591555
1986	16737	1073056	14647	938924	1538006	87245	0	1450761	21992191	13136445
1987	14563	961876	12743	841642	1395667	92014	100000	1203653	23195844	13545673
1988	12710	862353	11121	754560	1267359	97116	0	1170243	24366087	13905829
1989	11123	773237	9733	676583	1151482	102574	0	1048908	25414995	14198045
1990	9761	693416	8541	606740	1046724	108417	0	938307	26353302	14434671
1991	8585	621907	7512	544171	951868	113554	0	838314	27191616	14626040
1992	7533	557753	6591	488034	865223	114387	-40000	790836	27982452	14789476
1993	5899	498603	5162	436277	772236	96000	0	676236	28658688	14915969
1994	5295	447509	4633	391571	704736	96000	0	608736	29267424	15019041
1995	4752	401662	4159	351455	643034	96000	0	547034	29814458	15102888
SUB TOTAL	287481	31591216	251551	27642325	40157454	1877996	8465000	29814458	29814456	15102888
REMAINING	67635	2276026	59182	1991530	4321752	1006376	-185000	3500376	33314834	15457036
TOTAL	355116	33867244	310733	29633855	44479206	2884372	8280000	33314834	33314834	15457036
PRIOR CUM	207524	17713736								
ULTIMATE	562640	51580980								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 17630847
12.000 PER CENT 13659763
15.000 PER CENT 11491624
20.000 PER CENT 8849927

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 10

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.837 AVERAGE GAS PRICE = 1.620
NUMBER OF WELLS = 15.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	3753	1954735	3284	1710393	2401678	41976	7000000	-4640298	-4640298	-3865941
1979	9320	4853870	8155	4247135	6096137	125146	6400000	-2429011	-7069309	-5697788
1980	10235	5329591	8955	4663391	6855889	182017	4200000	2473872	-4595437	-4008950
1981	8859	4614007	7751	4037256	6086501	219774	1400000	4466727	-128710	-1248688
1982	6499	3384339	5687	2961297	4580468	235168	0	4345300	4216590	1182012
1983	4771	2484115	4176	2173599	3447598	251629	0	3195969	7412559	2800333
1984	3502	1824754	3066	1596659	2594691	269110	0	2325581	9738140	3866301
1985	2575	1341439	2253	1173759	1951061	270000	0	1681061	11419201	4563806
1986	1897	986900	1661	863539	1467522	270000	0	1197522	12616723	5013585
1987	1339	695982	1173	608987	1056854	252284	-50000	854570	13471293	5304992
1988	847	440161	743	385143	683296	208975	-200000	674321	14145614	5514573
1989	471	244639	413	214058	388290	146217	-200000	442073	14587687	5639180
1990	266	138318	234	121029	223714	93838	-100000	229876	14817563	5697732
1991	132	68978	116	60355	113185	53339	-100000	159846	14977409	5734881
1992	46	24172	41	21150	40416	21838	-100000	118578	15095987	5759863
1993	0	0	0	0	0	0	0	0	15095987	5759863
1994	0	0	0	0	0	0	0	0	15095987	5759863
1995	0	0	0	0	0	0	0	0	15095987	5759863
SUB TOTAL	54512	28386000	47708	24837750	37987300	2641313	20250000	15095987	15095987	5759863
REMAINING	0	0	0	0	0	0	0	0	15095987	5759863
TOTAL	54512	28386000	47708	24837750	37987300	2641313	20250000	15095987	15095987	5759863
PRIOR CUM	0	0								
ULTIMATE	54512	28386000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 7066014
12.000 PER CENT 4649507
15.000 PER CENT 3286562
20.000 PER CENT 1633240

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 11

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 10.320 AVERAGE GAS PRICE = .744
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	424774	2656	371677	320612	5400	0	315412	315412	310220
1977	8527	1122281	7461	981996	836991	17340	0	819651	1135063	1064596
1978	7714	890431	6750	779127	626355	18553	0	607802	1742865	1570970
1979	6978	731395	6106	639971	489133	19852	0	469281	2212146	1924880
1980	6313	617638	5524	540434	397460	21241	0	376219	2588365	2181713
1981	5711	532608	4997	466032	334205	22728	0	311477	2899842	2374194
1982	5166	439025	4520	384147	252464	14190	0	238274	3138116	2507547
1983	4673	395034	4089	345655	230901	14460	0	216441	3354557	2617145
1984	4228	357359	3700	312689	213856	15473	0	198383	3552940	2708077
1985	3824	323277	3346	282867	198084	16556	100000	81528	3634468	2741905
1986	3460	292446	3028	255890	183514	17715	0	165799	3800267	2804177
1987	3130	264554	2739	231485	170039	18955	0	151084	3951351	2855544
1988	2831	239323	2477	209408	157581	20281	0	137300	4088651	2897800
1989	2561	216499	2241	189437	146072	21701	0	124371	4213022	2932449
1990	2317	195851	2027	171370	135439	23220	0	112219	4325241	2960749
1991	2096	177172	1834	155026	125613	23999	0	101614	4426855	2983945
1992	1896	160275	1659	140241	116532	24000	0	92532	4519387	3003066
1993	1715	144989	1501	126665	108141	24000	0	84141	4603528	3018805
1994	1552	131161	1358	114766	100399	24000	0	76399	4679927	3031741
1995	1404	118652	1229	103821	93240	24000	0	69240	4749167	3042354
SUB TOTAL	79134	7774744	69244	6802904	5236631	387664	100000	4749167	4749167	3042354
REMAINING	9047	764772	7917	669177	635601	272483	-75000	438118	5187285	3082875
TOTAL	88181	8539516	77161	7472081	5872432	660147	25000	5187285	5187285	3082875
PRIOR CUM	202624	17713736								
ULTIMATE	290805	26253252								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 3340927
12.000 PER CENT 2866841
15.000 PER CENT 2600991
20.000 PER CENT 2263942

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. REESEY, P.E./SM

TABLE NO. 11

08 DEC 76 22:17:34
EVALUATION FOR
SANDIA LABORATORIES

EXISTING WELLS - PNP
WELLS 10 & 14
GROUP I
PAGE 7

TABLE NO. 12

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.664 AVERAGE GAS PRICE = 1.334
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	10775	24781	9428	21683	188595	15590	40000	133005	133005	74401
1983	8496	19541	7434	17098	157941	16691	0	141250	274255	145925
1984	6694	15396	5857	13472	129524	17860	0	111664	385919	197108
1985	5274	12130	4615	10614	102443	19110	0	83333	469252	231684
1986	4155	9557	3636	8362	81017	19116	0	61901	531153	254933
1987	3273	7526	2864	6587	64062	19116	0	44946	576099	270214
1988	2579	5932	2257	5191	50670	19116	0	31554	607653	279925
1989	2032	4674	1778	4090	40075	19116	0	20959	628612	285764
1990	1601	3682	1401	3222	31693	19116	0	12577	641189	288936
1991	1261	2900	1103	2538	25056	19116	0	5940	647129	290292
1992	960	2207	840	1931	19145	18389	-40000	40756	687885	298730
1993	0	0	0	0	0	0	0	0	687885	298730
1994	0	0	0	0	0	0	0	0	687885	298730
1995	0	0	0	0	0	0	0	0	687885	298730
SUB TOTAL	47100	108328	41213	94788	890221	202336	0	687885	687885	298730
REMAINING	41700	83400	36488	72976	728400	153049	20000	555351	1243236	351144
TOTAL	88800	191728	77701	167764	1618621	355385	20000	1243236	1243236	351144
PRIOR CUM	4900	0								
ULTIMATE	93700	191728								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	434692
12.000 PER CENT	287752
15.000 PER CENT	218083
20.000 PER CENT	143106

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:17:34
EVALUATION FOR
SANDIA LABORATORIES

EXISTING WELLS - PR
WELLS 10 & 14
GROUP 1
PAGE 9

TABLE NO. 13

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.682 AVERAGE GAS PRICE = 1.903
NUMBER OF WELLS = 1.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	5394	455971	4720	398975	682827	13191	25000	644636	644636	360600
1983	4827	408030	4224	357026	629137	14123	0	615014	1259650	672020
1984	4316	364871	3777	319262	577177	15112	0	562065	1821715	929652
1985	3860	326277	3378	285492	526688	16170	0	510518	2332233	1141476
1986	3452	291765	3021	255294	480418	17302	0	463116	2795349	1315418
1987	3086	260904	2700	228291	438627	18513	100000	319514	3114863	1424049
1988	2760	233307	2415	204144	399246	19809	0	379437	3494300	1540825
1989	2468	208629	2160	182550	363762	21195	0	342567	3836867	1636261
1990	2207	186561	1931	163241	331319	22679	0	308640	4145507	1714095
1991	1974	166828	1727	145975	301677	23999	0	277678	4423185	1777463
1992	1765	149182	1544	130534	274589	24000	0	250589	4673774	1829265
1993	1578	133402	1381	116727	249853	24000	0	225853	4899627	1871512
1994	1411	119292	1235	104381	227282	24000	0	203282	5102909	1905932
1995	1262	106674	1104	93340	206696	24000	0	182696	5285605	1933935
SUB TOTAL	40360	3411693	35317	2985232	5688698	278093	125000	5285605	5285605	1933935
REMAINING	6840	578307	5985	506019	1201480	220080	-30000	1011400	6297005	2037021
TOTAL	47200	3990000	41302	3491251	6890178	498173	95000	6297005	6297005	2037021
PRIOR CUM	0	0								
ULTIMATE	47200	3990000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2500732
12.000 PER CENT 1672658
15.000 PER CENT 1260885
20.000 PER CENT 809910

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 14

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 15.992 AVERAGE GAS PRICE = 1.116
NUMBER OF WELLS = 5.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	424774	2658	371677	320612	5400	0	315412	315412	310220
1977	8527	1122281	7461	981996	836991	17340	0	819651	1135063	1064596
1978	7714	890431	6750	779127	626355	18553	0	607802	1742865	1570970
1979	6978	731395	6106	639971	489133	19852	0	469281	2212146	1924880
1980	6313	617638	5524	540434	397460	21241	0	376219	2588365	2181713
1981	5711	532608	4997	466032	334205	22728	0	311477	2899842	2374194
1982	21335	919777	18668	804805	1123886	42971	65000	1015915	3915757	2942548
1983	17996	822605	15747	719779	1017979	45274	0	972705	4888462	3435090
1984	15238	737626	13334	645423	920557	48445	0	872112	5760574	3834837
1985	12958	661684	11339	578973	827215	51836	100000	675379	6435953	4115065
1986	11067	593768	9685	519546	744949	54133	0	690816	7126769	4374528
1987	9489	532936	8303	466363	672128	56584	100000	515544	7642313	4549807
1988	8170	478562	7149	418743	607497	59206	0	548291	8190604	4718550
1989	7061	429802	6179	376077	549909	62012	0	487897	8678501	4854474
1990	6125	386094	5359	337833	498451	65015	0	433436	9111937	4963780
1991	5331	346900	4664	303539	452346	67114	0	385232	9497169	5051720
1992	4621	311664	4043	272706	410266	66389	-40000	383877	9881046	5131061
1993	3293	278391	2882	243592	357994	48000	0	309994	10191040	5189047
1994	2963	250453	2593	219147	327681	48000	0	279681	10470721	5236403
1995	2666	225326	2333	197161	299936	48000	0	251936	10722657	5275019
SUB TOTAL	166594	11294765	145774	9882924	11815750	868093	225000	10722657	10722657	5275019
REMAINING	57587	1426479	50390	1248172	2565481	645612	-85000	2004869	12727526	5471040
TOTAL	224181	12721244	196164	11131096	14381231	1513705	140000	12727526	12727526	5471040
PRIOR CUM	207524	17713736								
ULTIMATE	431705	30434980								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 6276351
12.000 PER CENT 4827251
15.000 PER CENT 4079959
20.000 PER CENT 3216956

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 14

TABLE NO. 15

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.604 AVERAGE GAS PRICE = 1.715
NUMBER OF WELLS = 3.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	7486	992751	6550	868657	1241420	11393	2800000	-1569973	-1569973	-1444943
1978	13791	1767739	12067	1546771	2281686	24408	0	2257276	687305	435648
1979	12341	1444307	10799	1263768	1932352	26115	0	1906237	2593542	1873244
1980	11043	1200771	9663	1050675	1663734	27944	0	1635790	4229332	2989947
1981	9882	1013428	8646	886749	1452778	29900	0	1422878	5652210	3869229
1982	8842	866163	7736	757893	1283406	31992	0	1251414	6903624	4569253
1983	7913	747964	6924	654469	1144490	34231	0	1110259	8013883	5131447
1984	7081	651244	6196	569839	1025381	36624	0	988757	9002640	5584660
1985	6336	550658	5544	481826	890458	33874	200000	656584	9659224	5857331
1986	5670	479288	4962	419378	793057	33112	0	759945	10419169	6142756
1987	5074	428890	4440	375279	723539	35430	0	688109	11107278	6376707
1988	4540	383791	3972	335817	659862	37910	0	621952	11729230	6568120
1989	4062	343435	3554	300506	601573	40562	0	561011	12290241	6724412
1990	3636	307322	3182	268907	548273	43402	0	504871	12795112	6851732
1991	3254	275007	2848	240632	499522	46440	0	453082	13248194	6955161
1992	2912	246089	2548	215328	454957	47998	0	406959	13655153	7039256
1993	2606	220212	2280	192685	414242	48000	0	366242	14021395	7107763
1994	2332	197056	2040	172424	377055	48000	0	329055	14350450	7163479
1995	2086	176336	1826	154294	343098	48000	0	295098	14645548	7208710
SUB TOTAL	120887	12292451	105777	10755897	18330883	685335	3000000	14645548	14645548	7208710
REMAINING	10048	849549	8792	743358	1756271	360764	-100000	1495507	16141055	7366637
TOTAL	130935	13142000	114569	11499255	20087154	1046099	2900000	16141055	16141055	7366837
PRIOR CUM	0	0								
ULTIMATE	130935	13142000								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	8448650
12.000 PER CENT	6469429
15.000 PER CENT	5382951
20.000 PER CENT	4051375

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 16

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = .000 AVERAGE GAS PRICE = 1.539
NUMBER OF WELLS = 3.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	0	419581	419581	386167
1978	0	1641504	0	1436317	1960640	20726	2700000	-760086	-340505	-247078
1979	0	1160150	0	1015131	1422814	22199	0	1400615	1060110	809202
1980	0	789422	0	690744	993569	23752	0	969837	2029947	1471279
1981	0	537282	0	470122	693553	25416	0	668137	2698084	1884162
1982	0	365758	0	320039	483928	27194	0	456734	3154818	2139653
1983	0	249046	0	217915	337533	29097	0	308436	3463254	2295834
1984	0	169616	0	148415	235349	31132	0	204217	3667471	2389441
1985	0	77270	0	67611	109570	21448	-80000	168122	3835593	2460253
1986	0	0	0	0	0	0	0	0	3835593	2460253
1987	0	0	0	0	0	0	0	0	3835593	2460253
1988	0	0	0	0	0	0	0	0	3835593	2460253
1989	0	0	0	0	0	0	0	0	3835593	2460253
1990	0	0	0	0	0	0	0	0	3835593	2460253
1991	0	0	0	0	0	0	0	0	3835593	2460253
1992	0	0	0	0	0	0	0	0	3835593	2460253
1993	0	0	0	0	0	0	0	0	3835593	2460253
1994	0	0	0	0	0	0	0	0	3835593	2460253
1995	0	0	0	0	0	0	0	0	3835593	2460253
SUB TOTAL	0	5350000	0	4681252	6658957	203364	2620000	3835593	3835593	2460253
REMAINING	0	0	0	0	0	0	0	0	3835593	2460253
TOTAL	0	5350000	0	4681252	6658957	203364	2620000	3835593	3835593	2460253
PRIOR CUM	0	0								
ULTIMATE	0	5350000								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	2681366
12.000 PER CENT	2260365
15.000 PER CENT	1995478
20.000 PER CENT	1631650

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 17

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = .000 AVERAGE GAS PRICE = 1.562
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	1028424	0	899872	1255536	16692	2700000	-1461156	-1461156	-1101936
1980	0	664292	0	598756	857522	17880	0	839642	-621514	-528736
1981	0	420726	0	366136	540840	19130	0	521710	-99804	-206342
1982	0	258678	0	226344	340894	20470	0	320424	220620	-27102
1983	0	159044	0	139164	214736	21902	0	192834	413454	70542
1984	0	97786	0	85562	135190	23436	0	111754	525208	121766
1985	0	5050	0	4418	7146	1694	-80000	85452	610660	158906
1986	0	0	0	0	0	0	0	0	610660	158906
1987	0	0	0	0	0	0	0	0	610660	158906
1988	0	0	0	0	0	0	0	0	610660	158906
1989	0	0	0	0	0	0	0	0	610660	158906
1990	0	0	0	0	0	0	0	0	610660	158906
1991	0	0	0	0	0	0	0	0	610660	158906
1992	0	0	0	0	0	0	0	0	610660	158906
1993	0	0	0	0	0	0	0	0	610660	158906
1994	0	0	0	0	0	0	0	0	610660	158906
1995	0	0	0	0	0	0	0	0	610660	158906
SUB TOTAL	0	2654000	0	2322252	3351664	121204	2620000	610660	610660	158906
REMAINING	0	0	0	0	0	0	0	0	610660	158906
TOTAL	0	2654000	0	2322252	3351664	121204	2620000	610660	610660	158906
PRIOR CUM	0	0								
ULTIMATE	0	2654000								

CUMULATIVE DISCOUNTED NET REVENUE AT	8.000 PER CENT	224460
	12.000 PER CENT	102718
	15.000 PER CENT	35436
	20.000 PER CENT	-50056

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:17:34
EVALUATION FOR
SANDIA LABORATORIES

PROPOSED WELLS-PU-PR-PC
TR. 33,34,35,36,37&38
GROUP I
PAGE 22

TABLE NO. 18

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.604 AVERAGE GAS PRICE = 1.651
NUMBER OF WELLS = 8.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	7486	1352703	6550	1183615	1663401	13793	2800000	-1150392	-1150392	-1056776
1978	13791	3409243	12067	2983088	4242326	45134	2700000	1497192	346800	168570
1979	12341	3632881	10799	3178771	4610702	65006	2700000	1845696	2192496	1580510
1980	11043	2674485	9663	2340175	3514845	69576	0	3445269	5637765	3932488
1981	9882	1971436	8646	1725007	2687171	74446	0	2612725	8250490	5547049
1982	8842	1490599	7736	1304276	2108228	79656	0	2028572	10279062	6681804
1983	7913	1156054	6924	1011548	1696759	85230	0	1611529	11890591	7497823
1984	7081	918646	6196	803816	1395920	91192	0	1304728	13195319	8095867
1985	6336	632978	5544	553855	1007174	57016	40000	910158	14105477	8476490
1986	5670	479288	4962	419378	793057	33112	0	759945	14865422	8761917
1987	5074	428890	4440	375279	723539	35430	0	688109	15553531	8995866
1988	4540	383791	3972	335817	659862	37910	0	621952	16175483	9187279
1989	4062	343435	3554	300506	601573	40562	0	561011	16736494	9343571
1990	3636	307322	3182	268907	548273	43402	0	504871	17241365	9470891
1991	3254	275007	2848	240632	499522	46440	0	453082	17694447	9574320
1992	2912	246089	2548	215328	454957	47998	0	406959	18101406	9658415
1993	2606	220212	2280	192685	414242	48000	0	366242	18467648	9726922
1994	2332	197056	2040	172424	377055	48000	0	329055	18796703	9782638
1995	2086	176336	1826	154294	343098	48000	0	295098	19091801	9827869
SUB TOTAL	120887	20296451	105777	17759401	28341704	1009903	8240000	19091801	19091801	9827869
REMAINING	10048	849549	8792	743358	1756271	360764	-100000	1495507	20587308	9985996
TOTAL	130935	21146000	114569	18502759	30097975	1370667	8140000	20587308	20587308	9985996
PRIOR CUM	0	0								
ULTIMATE	130935	21146000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 11354496
12.000 PER CENT 8832512
15.000 PER CENT 7411865
20.000 PER CENT 5632969

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 19

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.475 AVERAGE GAS PRICE = 1.599
NUMBER OF WELLS = 8.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	2715	1414149	2376	1237380	1734729	26984	4200000	-2492255	-2492255	-2076356
1979	6699	3488789	5862	3052689	4361150	80220	5600000	-1319070	-3811325	-3071137
1980	6837	3559908	5982	3114918	4563551	109898	1400000	3053653	-757672	-986500
1981	4890	2546446	4279	2228140	3350972	117602	0	3233370	2475698	1011596
1982	3498	1821284	3061	1593624	2458886	125834	0	2333052	4808750	2316672
1983	2502	1302650	2190	1139818	1803320	134642	0	1668678	6477428	3161630
1984	1787	931719	1565	815254	1321413	143992	0	1177421	7654849	3701320
1985	1278	666421	1118	583118	966702	144000	0	822702	8477551	4042675
1986	916	476673	801	417090	706901	144000	0	562901	9040452	4254096
1987	597	310316	523	271528	469392	126284	-50000	393108	9433560	4388612
1988	286	148647	251	130067	229785	82975	-200000	346810	9780370	4497397
1989	56	28998	49	25373	45868	25042	-150000	170826	9951196	4546213
1990	0	0	0	0	0	0	0	0	9951196	4546213
1991	0	0	0	0	0	0	0	0	9951196	4546213
1992	0	0	0	0	0	0	0	0	9951196	4546213
1993	0	0	0	0	0	0	0	0	9951196	4546213
1994	0	0	0	0	0	0	0	0	9951196	4546213
1995	0	0	0	0	0	0	0	0	9951196	4546213
SUB TOTAL	32061	16696000	28057	14608999	22012669	1261473	10800000	9951196	9951196	4546213
REMAINING	0	0	0	0	0	0	0	0	9951196	4546213
TOTAL	32061	16696000	28057	14608999	22012669	1261473	10800000	9951196	9951196	4546213
PRIOR CUM	0	0								
ULTIMATE	32061	16696000								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	5336687
12.000 PER CENT	3861213
15.000 PER CENT	2999975
20.000 PER CENT	1913313

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 20

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.353 AVERAGE GAS PRICE = 1.649
NUMBER OF WELLS = 7.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	1038	540586	908	473013	666949	14992	2800000	-2148043	-2148043	-1789565
1979	2621	1365081	2293	1194446	1734987	44928	2800000	-1109941	-3257984	-2626651
1980	3398	1769663	2973	1548473	2292338	72119	2800000	-579781	-3837765	-3022450
1981	3969	2067561	3472	1809116	2735529	102172	1400000	1233357	-2604408	-2260284
1982	3001	1563055	2626	1367673	2121582	109334	0	2012248	-592160	-1134660
1983	2269	1181465	1986	1033781	1644278	116967	0	1527291	935131	-361297
1984	1715	893035	1501	781405	1273278	125118	0	1148160	2083291	164981
1985	1297	675018	1135	590641	984359	126000	0	858359	2941650	521131
1986	981	510227	860	446449	760621	126000	0	634621	3576271	759489
1987	742	385666	650	337459	587462	126000	0	461462	4037733	916380
1988	561	291514	492	255076	453511	126000	0	327511	4365244	1017176
1989	415	215641	364	188685	342422	121175	-50000	271247	4636491	1092967
1990	266	138316	234	121029	223714	93838	-100000	229876	4866367	1151519
1991	132	68978	116	60355	113185	53339	-100000	159846	5026213	1186668
1992	46	24172	41	21150	40416	21838	-100000	118578	5144791	1213650
1993	0	0	0	0	0	0	0	0	5144791	1213650
1994	0	0	0	0	0	0	0	0	5144791	1213650
1995	0	0	0	0	0	0	0	0	5144791	1213650
SUB TOTAL	22451	11690000	19651	10228751	15974631	1379840	9450000	5144791	5144791	1213650
REMAINING	0	0	0	0	0	0	0	0	5144791	1213650
TOTAL	22451	11690000	19651	10228751	15974631	1379840	9450000	5144791	5144791	1213650
PRIOR CUM	0	0								
ULTIMATE	22451	11690000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 1729327
12.000 PER CENT 788294
15.000 PER CENT 286607
20.000 PER CENT -280073

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 21

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.353 AVERAGE GAS PRICE = 1.633
NUMBER OF WELLS = 9.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	1038	540586	908	473013	666949	14992	2800000	-2148043	-2148043	-1789585
1979	2621	2393505	2293	2094318	2990523	61620	5500000	-2571097	-4719140	-3728587
1980	3398	2453975	2973	2147229	3149860	89999	2600000	259861	-4459279	-3551188
1981	3969	2488287	3472	2177252	3276369	121302	1400000	1755067	-2704212	-2466626
1982	3001	1821733	2626	1594017	2462476	129804	0	2332672	-371540	-1161762
1983	2269	1340509	1986	1172945	1859014	138889	0	1720125	1348585	-290755
1984	1715	990821	1501	866967	1408468	148554	0	1259914	2608499	286747
1985	1297	680068	1135	595059	991505	127694	-80000	943811	3552310	680037
1986	981	510227	860	446449	760621	126000	0	634621	4186931	918395
1987	742	385666	650	337459	587462	126000	0	461462	4648393	1075286
1988	561	291514	492	255076	453511	126000	0	327511	4975904	1176082
1989	415	215641	364	188685	342422	121175	-50000	271247	5247151	1251873
1990	266	138318	234	121029	223714	93838	-100000	229876	5477027	1310425
1991	132	68978	116	60355	113185	53339	-100000	159846	5636873	1347574
1992	46	24172	41	21150	40416	21838	-100000	118578	5755451	1372556
1993	0	0	0	0	0	0	0	0	5755451	1372556
1994	0	0	0	0	0	0	0	0	5755451	1372556
1995	0	0	0	0	0	0	0	0	5755451	1372556
SUB TOTAL	22451	14344000	19651	12551003	19326495	1501044	12070000	5755451	5755451	1372556
REMAINING	0	0	0	0	0	0	0	0	5755451	1372556
TOTAL	22451	14344000	19651	12551003	19326495	1501044	12070000	5755451	5755451	1372556
PRIOR CUM	0	0								
ULTIMATE	22451	14344000								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	1953787
12.000 PER CENT	891012
15.000 PER CENT	320043
20.000 PER CENT	-330129

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 22

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.385 AVERAGE GAS PRICE = 1.633
NUMBER OF WELLS = 12.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	0	419581	419581	386167
1978	2715	3055653	2376	2673697	3695369	47710	6900000	-3252341	-2832760	-2323434
1979	6699	4648939	5862	4067820	5783964	102419	5600000	81545	-2751215	-2261935
1980	6837	4349330	5982	3805662	5557140	133650	1400000	4023490	1272275	484779
1981	4890	3083728	4279	2698262	4044525	143018	0	3901507	5173782	2895758
1982	8892	2643013	7781	2312638	3625641	166219	25000	3434422	8608204	4816925
1983	7329	1959726	6414	1714759	2769990	177862	0	2592128	11200332	6129484
1984	6103	1466206	5342	1282931	2133939	190236	0	1943703	13144035	7020413
1985	5138	1069968	4496	936221	1602960	181618	-80000	1501342	14645377	7644404
1986	4368	768438	3822	672384	1187319	161302	0	1026017	15671394	8029767
1987	3683	571220	3223	499819	907419	144797	50000	712622	16384016	8272914
1988	3046	381954	2666	334211	629031	102784	-200000	726247	17110263	8498475
1989	2524	237627	2209	207923	409630	46237	-150000	513393	17623656	8642727
1990	2207	186561	1931	163241	331319	22679	0	308640	17932296	8720561
1991	1974	166828	1727	145975	301677	23999	0	277678	18209974	8783949
1992	1765	149182	1544	130534	274589	24000	0	250589	18460563	8835731
1993	1578	133402	1381	116727	249653	24000	0	225653	18686416	8877978
1994	1411	119292	1235	104381	227282	24000	0	203282	18869698	8912398
1995	1262	106674	1104	93340	206696	24000	0	182696	19072394	8940401
SUB TOTAL	72421	25457693	63374	22275483	34360324	1742930	13545000	19072394	19072394	8940401
REMAINING	6840	578307	5985	506019	1201480	220080	-30000	1011400	20083794	9043467
TOTAL	79261	26036000	69359	22781502	35561804	1963010	13515000	20083794	20083794	9043467
PRIOR CUM	0	0								
ULTIMATE	79261	26036000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 10518805
12.000 PER CENT 7794236
15.000 PER CENT 6256338
20.000 PER CENT 4354873

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

SHELL
SE 1/4 36-22-30

JAMES RANCH UNIT #1 FF10
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO
PAGE 2

TABLE NO. 23

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = 5.6000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .5500 LIFETIME = 30.687 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	256774	2658	224677	127936	3000	0	124936	124936	122879
1977	8527	720799	7461	630699	366330	9636	0	356694	481630	451167
1978	7714	652055	6750	570548	339197	10310	0	328887	810517	725170
1979	6978	589867	6106	516134	314065	11032	0	303033	1113550	953703
1980	6313	533610	5524	466909	290801	11804	0	278997	1392547	1144166
1981	5711	482719	4997	422379	269266	12630	0	256636	1649183	1302757
1982	5166	436681	4520	382096	249337	13514	0	235823	1885006	1434673
1983	4673	395034	4089	345655	230901	14460	0	216441	2101447	1544271
1984	4228	357359	3700	312689	213856	15473	0	198383	2299830	1635203
1985	3824	323277	3346	282867	198084	16556	100000	81528	2381358	1669031
1986	3460	292446	3028	255890	183514	17715	0	165799	2547157	1731303
1987	3130	264554	2739	231485	170039	18955	0	151084	2698241	1782670
1988	2831	239323	2477	209408	157581	20281	0	137300	2835541	1824926
1989	2561	216499	2241	189437	146072	21701	0	124371	2959912	1859575
1990	2317	195851	2027	171370	135439	23220	0	112219	3072131	1887675
1991	2096	177172	1834	155026	125613	23999	0	101614	3173745	1911071
1992	1896	160275	1659	140241	116532	24000	0	92532	3266277	1930192
1993	1715	144989	1501	126865	108141	24000	0	84141	3350418	1945931
1994	1552	131161	1358	114766	100399	24000	0	76399	3426817	1958867
1995	1404	118652	1229	103821	93240	24000	0	69240	3496057	1969480
SUB TOTAL	79134	6689097	69244	5852962	3936343	340286	100000	3496057	3496057	1969480
REMAINING	9047	764772	7917	669177	635601	272483	-75000	438118	3934175	2010001
TOTAL	88181	7453869	77161	6522139	4571944	612769	25000	3934175	3934175	2010001
PRIOR CUM	202612	17378131								
ULTIMATE	290793	24832000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2235640
12.000 PER CENT 1824795
15.000 PER CENT 1602436
20.000 PER CENT 1331256

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. REESEY, P.E./SM

TABLE NO. 23

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
NE 1/4 6-23-31

JAMES RANCH UNIT #7 PP14
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO

TABLE NO. 24

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = 1.4200 LIFETIME = 5.396 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	168000	0	147000	192876	2400	0	190476	190476	187341
1977	0	401482	0	351297	470661	7704	0	462957	653433	613429
1978	0	238376	0	208579	287158	8243	0	278915	932348	845800
1979	0	141528	0	123837	175068	8820	0	166248	1098596	971177
1980	0	84028	0	73525	106659	9437	0	97222	1195818	1037547
1981	0	49889	0	43653	64939	10098	0	54841	1250659	1071457
1982	0	2344	0	2051	3127	676	0	2451	1253110	1072874
1983	0	0	0	0	0	0	0	0	1253110	1072874
1984	0	0	0	0	0	0	0	0	1253110	1072874
1985	0	0	0	0	0	0	0	0	1253110	1072874
1986	0	0	0	0	0	0	0	0	1253110	1072874
1987	0	0	0	0	0	0	0	0	1253110	1072874
1988	0	0	0	0	0	0	0	0	1253110	1072874
1989	0	0	0	0	0	0	0	0	1253110	1072874
1990	0	0	0	0	0	0	0	0	1253110	1072874
1991	0	0	0	0	0	0	0	0	1253110	1072874
1992	0	0	0	0	0	0	0	0	1253110	1072874
1993	0	0	0	0	0	0	0	0	1253110	1072874
1994	0	0	0	0	0	0	0	0	1253110	1072874
1995	0	0	0	0	0	0	0	0	1253110	1072874
SUB TOTAL	0	1085647	0	949942	1300488	47378	0	1253110	1253110	1072874
REMAINING	0	0	0	0	0	0	0	0	1253110	1072874
TOTAL	0	1085647	0	949942	1300488	47378	0	1253110	1253110	1072874
PRIOR CUM	12	335605								
ULTIMATE	12	1421252								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 1105267
12.000 PER CENT 1042042
15.000 PER CENT 998555
20.000 PER CENT 932688

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 24

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

SHELL
SE 1/4 36-22-30
1-1-98

JAMES RANCH UNIT#1 PNP1C
LOS MEDANOS (DELAWARE)
EDDY CO., NEW MEXICO

TABLE NO. 25

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE =20.0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 29.837 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	0	0	0	0	0	0	0	0	0	0
REMAINING	41700	83400	36488	72976	728400	153049	20000	555351	555351	52414
TOTAL	41700	83400	36488	72976	728400	153049	20000	555351	555351	52414
PRIOR CUM	0	0								
ULTIMATE	41700	83400								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 83675
12.000 PER CENT 32901
15.000 PER CENT 16423
20.000 PER CENT 5206

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 25

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
NE 1/4 6-23-31
1-1-82

JAMES RANCH UNIT#7 PNF14
LOS MEDANOS-BONE SPRINGS
EDDY CO., NEW MEXICO
PAGE 6

TABLE NO. 26

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 16.295 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	10775	24781	9428	21683	188595	15590	40000	133005	133005	74401
1983	8496	19541	7434	17098	157941	16691	0	141250	274255	145925
1984	6694	15396	5857	13472	129524	17860	0	111664	385919	197108
1985	5274	12130	4615	10614	102443	19110	0	83333	469252	231684
1986	4155	9557	3636	8362	81017	19116	0	61901	531153	254933
1987	3273	7528	2864	6587	64062	19116	0	44946	576099	270214
1988	2579	5932	2257	5191	50670	19116	0	31554	607653	279925
1989	2032	4674	1778	4090	40075	19116	0	20959	628612	285764
1990	1601	3682	1401	3222	31693	19116	0	12577	641189	288936
1991	1261	2900	1103	2538	25056	19116	0	5940	647129	290292
1992	960	2207	840	1931	19145	18389	-40000	40756	687885	298730
1993	0	0	0	0	0	0	0	0	687885	298730
1994	0	0	0	0	0	0	0	0	687885	298730
1995	0	0	0	0	0	0	0	0	687885	298730
SUB TOTAL	47100	108328	41213	94788	890221	202336	0	687885	687885	298730
REMAINING	0	0	0	0	0	0	0	0	687885	298730
TOTAL	47100	108328	41213	94788	890221	202336	0	687885	687885	298730
PRIOR CUM	4900	0								
ULTIMATE	52000	108328								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 351017
12.000 PER CENT 254851
15.000 PER CENT 201660
20.000 PER CENT 157900

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
NE 1/4 6-23-31
1-1-82

JAMES RANCH UNIT #7 PR14
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO

TABLE NO. 27

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 28.503 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	5394	455971	4720	398975	682827	13191	25000	644636	644636	360600
1983	4827	408030	4224	357026	629137	14123	0	615014	1259650	672020
1984	4316	364871	3777	319262	577177	15112	0	562065	1821715	929652
1985	3860	326277	3378	285492	526688	16170	0	510518	2332233	1141476
1986	3452	291765	3021	255294	480418	17302	0	463116	2795349	1315418
1987	3086	260904	2700	228291	438027	18513	100000	319514	3114863	1424049
1988	2760	233307	2415	204144	399246	19809	0	379437	3494300	1540825
1989	2468	208629	2160	182550	363762	21195	0	342567	3836867	1636261
1990	2207	186561	1931	163241	331319	22679	0	308640	4145507	1714095
1991	1974	166828	1727	145975	301677	23999	0	277678	4423185	1777483
1992	1765	149182	1544	130534	274589	24000	0	250589	4673774	1829265
1993	1578	133402	1381	116727	249853	24000	0	225853	4899627	1871512
1994	1411	119292	1235	104381	227282	24000	0	203282	5102909	1905932
1995	1262	106674	1104	93340	206696	24000	0	182696	5285605	1933935
SUB TOTAL	40360	3411693	35317	2985232	5688698	278093	125000	5285605	5285605	1933935
REMAINING	6840	578307	5985	506019	1201480	220080	-30000	1011400	6297005	2037021
TOTAL	47200	3990000	41302	3491251	6890178	498173	95000	6297005	6297005	2037021
PRIOR CUM	0	0								
ULTIMATE	47200	3990000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2500732
12.000 PER CENT 1672658
15.000 PER CENT 1260865
20.000 PER CENT 809910

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
SW 1/4 31-22-31
7-1-77

JAMES RANCH UT#8 F033
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO

TABLE NO. 28

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 26.849 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	3745	316585	3277	277012	409958	4499	1400000	-994541	-994541	-915338
1978	6895	582854	6033	509997	778221	9636	0	768585	-225956	-275012
1979	6170	521565	5399	456369	718045	10310	0	707735	481779	258729
1980	5521	466722	4831	408382	662198	11032	0	651166	1132945	703260
1981	4941	417645	4323	365439	610451	11804	0	598647	1731592	1073200
1982	4421	373728	3868	327012	562525	12630	0	549895	2281487	1380804
1983	3956	334430	3462	292626	518196	13514	0	504682	2786169	1636356
1984	3540	299264	3098	261856	475816	14460	0	461356	3247525	1847826
1985	3168	267796	2772	234322	434449	15473	100000	318976	3566501	1980175
1986	2835	239636	2481	209682	396517	16556	0	379961	3946462	2122864
1987	2537	214438	2220	187633	361759	17715	0	344044	4290506	2239855
1988	2270	191889	1986	167903	329921	18955	0	310966	4601472	2335558
1989	2031	171712	1777	150248	300778	20281	0	280497	4881969	2413702
1990	1818	153656	1591	134449	274129	21701	0	252428	5134397	2477360
1991	1627	137499	1424	120312	249754	23220	0	226534	5360931	2529073
1992	1456	123040	1274	107660	227471	23999	0	203472	5564403	2571119
1993	1303	110102	1140	96339	207114	24000	0	183114	5747517	2605371
1994	1166	98525	1020	86209	188522	24000	0	164522	5912039	2633228
1995	1043	88165	913	77144	171544	24000	0	147544	6059583	2655843
SUB TOTAL	60443	5109251	52889	4470594	7877368	317785	1500000	6059583	6059583	2655843
REMAINING	5024	424749	4396	371657	878086	180375	-50000	747711	6807294	2734902
TOTAL	65467	5534000	57285	4842251	8755454	498160	1450000	6807294	6807294	2734902
PRIOR CUM	0	0								
ULTIMATE	65467	5534000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 3222541
12.000 PER CENT 2335527
15.000 PER CENT 1859682
20.000 PER CENT 1291146

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
SW 1/4 31-22-31
7-1-77

TABLE NO. 29

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 8.713 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	0	419581	419581	386167
1978	0	601992	0	526743	725186	5136	0	720050	1139631	986058
1979	0	401142	0	350999	496206	5495	0	490711	1630342	1356130
1980	0	267296	0	233884	339285	5880	0	333405	1963747	1583735
1981	0	176110	0	155846	231839	6292	0	225547	2189294	1723114
1982	0	118682	0	103847	158322	6732	0	151590	2340884	1807911
1983	0	79082	0	69197	108053	7203	0	100850	2441734	1858978
1984	0	52696	0	46109	73705	7704	0	66001	2507735	1889231
1985	0	15048	0	13167	21534	2928	0	18606	2526341	1897193
1986	0	0	0	0	0	0	0	0	2526341	1897193
1987	0	0	0	0	0	0	0	0	2526341	1897193
1988	0	0	0	0	0	0	0	0	2526341	1897193
1989	0	0	0	0	0	0	0	0	2526341	1897193
1990	0	0	0	0	0	0	0	0	2526341	1897193
1991	0	0	0	0	0	0	0	0	2526341	1897193
1992	0	0	0	0	0	0	0	0	2526341	1897193
1993	0	0	0	0	0	0	0	0	2526341	1897193
1994	0	0	0	0	0	0	0	0	2526341	1897193
1995	0	0	0	0	0	0	0	0	2526341	1897193
SUB TOTAL	0	2074000	0	1814750	2576111	49770	0	2526341	2526341	1897193
REMAINING	0	0	0	0	0	0	0	0	2526341	1897193
TOTAL	0	2074000	0	1814750	2576111	49770	0	2526341	2526341	1897193
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2003698
12.000 PER CENT 1798561
15.000 PER CENT 1663800
20.000 PER CENT 1469324

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
NE 1/4 36-22-30
7-1-77

JAMES RANCH UT36-1 PU34
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO

TABLE NO. 30

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 26.850 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	3741	316214	3273	276687	409481	4494	1400000	-995013	-995013	-915772
1978	6896	582893	6034	510031	778279	9636	0	768643	-226370	-275398
1979	6171	521600	5400	456400	718101	10310	0	707791	481421	258385
1980	5522	466753	4832	408409	662251	11032	0	651219	1132640	702952
1981	4941	417673	4323	365464	610488	11804	0	598684	1731324	1072915
1982	4421	373753	3868	327034	562559	12630	0	549929	2281253	1380538
1983	3957	334452	3462	292646	518241	13514	0	504727	2785980	1636113
1984	3541	299284	3098	261874	475860	14460	0	461400	3247380	1847603
1985	3168	267814	2772	234337	434475	15473	100000	319002	3566382	1979963
1986	2835	239652	2481	209696	396540	16556	0	379984	3946366	2122661
1987	2537	214452	2220	187646	361780	17715	0	344065	4290431	2239659
1988	2270	191902	1986	167914	329941	18955	0	310986	4601417	2335369
1989	2031	171723	1777	150258	300795	20281	0	280514	4881931	2413517
1990	1818	153666	1591	134458	274144	21701	0	252443	5134374	2477179
1991	1627	137508	1424	120320	249768	23220	0	226548	5360922	2528895
1992	1456	123049	1274	107668	227486	23999	0	203487	5564409	2570944
1993	1303	110110	1140	96346	207128	24000	0	183128	5747537	2605199
1994	1166	98531	1020	86215	188533	24000	0	164533	5912070	2633058
1995	1043	88171	913	77150	171554	24000	0	147554	6059624	2655674
SUB TOTAL	60444	5109200	52868	4470553	7877404	317780	1500000	6059624	6059624	2655674
REMAINING	5024	424800	4396	371701	878185	180389	-50000	747796	6807420	2734742
TOTAL	65468	5534000	57264	4842254	8755589	498169	1450000	6807420	6807420	2734742
PRIOR CUM	0	0								
ULTIMATE	65468	5534000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 3222411
12.000 PER CENT 2335341
15.000 PER CENT 1859469
20.000 PER CENT 1290905

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 30

08 DEC 76 22:17:34
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS

7-1-77

JAMES RANCH UT 36-1 PR34
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO

TABLE NO. 31

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 8.713 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	0	419581	419581	386167
1978	0	601992	0	526743	725186	5136	0	720050	1139631	986058
1979	0	401142	0	350999	496206	5495	0	490711	1630342	1356130
1980	0	267296	0	233884	339285	5880	0	333405	1963747	1583735
1981	0	178110	0	155846	231839	6292	0	225547	2189294	1723114
1982	0	118682	0	103847	158322	6732	0	151590	2340884	1807911
1983	0	79082	0	69197	108053	7203	0	100850	2441734	1858978
1984	0	52696	0	46109	73705	7704	0	66001	2507735	1889231
1985	0	15048	0	13167	21534	2928	0	18606	2526341	1897193
1986	0	0	0	0	0	0	0	0	2526341	1897193
1987	0	0	0	0	0	0	0	0	2526341	1897193
1988	0	0	0	0	0	0	0	0	2526341	1897193
1989	0	0	0	0	0	0	0	0	2526341	1897193
1990	0	0	0	0	0	0	0	0	2526341	1897193
1991	0	0	0	0	0	0	0	0	2526341	1897193
1992	0	0	0	0	0	0	0	0	2526341	1897193
1993	0	0	0	0	0	0	0	0	2526341	1897193
1994	0	0	0	0	0	0	0	0	2526341	1897193
1995	0	0	0	0	0	0	0	0	2526341	1897193
SUB TOTAL	0	2074000	0	1814750	2576111	49770	0	2526341	2526341	1897193
REMAINING	0	0	0	0	0	0	0	0	2526341	1897193
TOTAL	0	2074000	0	1814750	2576111	49770	0	2526341	2526341	1897193
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2003698
12.000 PER CENT 1798561
15.000 PER CENT 1663800
20.000 PER CENT 1469324

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
NW 1/4 36-22-30
1-1-78

JAMES RANCH UT36-2 PR35
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO
PAGE 16

TABLE NO. 32

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 9.072 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	519756	0	454787	617727	7795	1350000	-740068	-740068	-616568
1979	0	379504	0	332066	463304	8352	0	454952	-285116	-273464
1980	0	261063	0	228430	327152	8936	0	318216	33100	-56228
1981	0	179586	0	157138	230857	9562	0	221295	254395	80524
1982	0	123538	0	108096	162803	10231	0	152572	406967	165871
1983	0	84982	0	74359	114740	10947	0	103793	510760	218428
1984	0	58460	0	51153	80822	11714	0	69108	579868	250105
1985	0	31111	0	27222	44018	9260	-40000	74758	654626	281530
1986	0	0	0	0	0	0	0	0	654626	281530
1987	0	0	0	0	0	0	0	0	654626	281530
1988	0	0	0	0	0	0	0	0	654626	281530
1989	0	0	0	0	0	0	0	0	654626	281530
1990	0	0	0	0	0	0	0	0	654626	281530
1991	0	0	0	0	0	0	0	0	654626	281530
1992	0	0	0	0	0	0	0	0	654626	281530
1993	0	0	0	0	0	0	0	0	654626	281530
1994	0	0	0	0	0	0	0	0	654626	281530
1995	0	0	0	0	0	0	0	0	654626	281530
SUB TOTAL	0	1638000	0	1433251	2041423	76797	1310000	654626	654626	281530
REMAINING	0	0	0	0	0	0	0	0	654626	281530
TOTAL	0	1638000	0	1433251	2041423	76797	1310000	654626	654626	281530
PRIOR CUM	0	0								
ULTIMATE	0	1638000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 336844
12.000 PER CENT 230902
15.000 PER CENT 165839
20.000 PER CENT 81163

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 32

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
NW 1/4 31-22-31
1-1-78

JAMES RANCH UT31-2 PR36
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO
PAGE 17

TABLE NO. 33

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 9.072 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	519756	0	454787	617727	7795	1350000	-740068	-740068	-616568
1979	0	379504	0	332066	463304	8352	0	454952	-285116	-273464
1980	0	261063	0	228430	327152	8936	0	318216	33100	-56228
1981	0	179586	0	157138	230857	9562	0	221295	254395	80524
1982	0	123538	0	108096	162803	10231	0	152572	406967	165871
1983	0	84982	0	74359	114740	10947	0	103793	510760	218428
1984	0	58460	0	51153	80822	11714	0	69108	579868	250105
1985	0	31111	0	27222	44018	9260	-40000	74758	654626	281530
1986	0	0	0	0	0	0	0	0	654626	281530
1987	0	0	0	0	0	0	0	0	654626	281530
1988	0	0	0	0	0	0	0	0	654626	281530
1989	0	0	0	0	0	0	0	0	654626	281530
1990	0	0	0	0	0	0	0	0	654626	281530
1991	0	0	0	0	0	0	0	0	654626	281530
1992	0	0	0	0	0	0	0	0	654626	281530
1993	0	0	0	0	0	0	0	0	654626	281530
1994	0	0	0	0	0	0	0	0	654626	281530
1995	0	0	0	0	0	0	0	0	654626	281530
SUB TOTAL	0	1638000	0	1433251	2041423	76797	1310000	654626	654626	281530
REMAINING	0	0	0	0	0	0	0	0	654626	281530
TOTAL	0	1638000	0	1433251	2041423	76797	1310000	654626	654626	281530
PRIOR CUM	0	0								
ULTIMATE	0	1638000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 338844
12.000 PER CENT 230902
15.000 PER CENT 165839
20.000 PER CENT 81163

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
SE 1/4 25-22-30
1-1-79

JAMES RANCH UT25-1 PU37
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO
PAGE 19

TABLE NO. 34

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .675000 GAS PRICE = .0000 LIFETIME = 8.401 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	514212	0	449936	627768	8346	1350000	-730578	-730578	-550968
1980	0	342146	0	299378	428761	8940	0	419821	-310757	-264369
1981	0	210363	0	184068	270420	9565	0	260855	-49902	-103171
1982	0	129339	0	113172	170447	10235	0	160212	110310	-13551
1983	0	79522	0	69582	107368	10951	0	96417	206727	35271
1984	0	48893	0	42781	67595	11718	0	55877	262604	60883
1985	0	2525	0	2209	3573	847	-40000	42726	305330	79453
1986	0	0	0	0	0	0	0	0	305330	79453
1987	0	0	0	0	0	0	0	0	305330	79453
1988	0	0	0	0	0	0	0	0	305330	79453
1989	0	0	0	0	0	0	0	0	305330	79453
1990	0	0	0	0	0	0	0	0	305330	79453
1991	0	0	0	0	0	0	0	0	305330	79453
1992	0	0	0	0	0	0	0	0	305330	79453
1993	0	0	0	0	0	0	0	0	305330	79453
1994	0	0	0	0	0	0	0	0	305330	79453
1995	0	0	0	0	0	0	0	0	305330	79453
SUB TOTAL	0	1327000	0	1161126	1675932	60602	1310000	305330	305330	79453
REMAINING	0	0	0	0	0	0	0	0	305330	79453
TOTAL	0	1327000	0	1161126	1675932	60602	1310000	305330	305330	79453
PRIOR CUM	0	0								
ULTIMATE	0	1327000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 112230
12.000 PER CENT 51355
15.000 PER CENT 16718
20.000 PER CENT -25028

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
SW 1/4 30-22-31
1-1-79

JAMES RANCH UT30-1 PC38
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO

TABLE NO. 35

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 8.401 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	514212	0	449936	627768	8346	1350000	-730578	-730578	-550968
1980	0	342146	0	299378	428761	8940	0	419821	-310757	-264369
1981	0	210363	0	184068	270420	9565	0	260855	-49902	-103171
1982	0	129339	0	113172	170447	10235	0	160212	110310	-13551
1983	0	79522	0	69582	107368	10951	0	96417	206727	35271
1984	0	48893	0	42781	67595	11718	0	55877	262604	60883
1985	0	2525	0	2209	3573	847	-40000	42726	305330	79453
1986	0	0	0	0	0	0	0	0	305330	79453
1987	0	0	0	0	0	0	0	0	305330	79453
1988	0	0	0	0	0	0	0	0	305330	79453
1989	0	0	0	0	0	0	0	0	305330	79453
1990	0	0	0	0	0	0	0	0	305330	79453
1991	0	0	0	0	0	0	0	0	305330	79453
1992	0	0	0	0	0	0	0	0	305330	79453
1993	0	0	0	0	0	0	0	0	305330	79453
1994	0	0	0	0	0	0	0	0	305330	79453
1995	0	0	0	0	0	0	0	0	305330	79453
SUB TOTAL	0	1327000	0	1161126	1675932	60602	1310000	305330	305330	79453
REMAINING	0	0	0	0	0	0	0	0	305330	79453
TOTAL	0	1327000	0	1161126	1675932	60602	1310000	305330	305330	79453
PRIOR CUM	0	0								
ULTIMATE	0	1327000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 112230
12.000 PER CENT 51359
15.000 PER CENT 16718
20.000 PER CENT -25028

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
SE 1/4 13-22-30
1-1-78

JAMES RANCH UT13-1 PR35
WILDCAT
EDDY CO., NEW MEXICO
PAGE 26

TABLE NO. 36

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 12.146 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	1187	618394	1039	541095	747943	11992	1400000	-664049	-664049	-553235
1979	845	439990	739	384991	546990	12839	0	534151	-129898	-150403
1980	601	312805	526	273704	399485	13738	0	385747	255849	112935
1981	427	222385	374	194587	291570	14700	0	276870	532719	284030
1982	304	158102	266	138339	212691	15729	0	196962	729681	394208
1983	216	112400	189	98350	155058	16830	0	138228	867909	464202
1984	153	79909	134	69920	112949	17999	0	94950	962859	507724
1985	109	56810	95	49709	82141	18000	0	64141	1027000	534337
1986	78	40388	68	35340	59710	18000	0	41710	1068710	550003
1987	55	28714	48	25125	43372	18000	0	25372	1094082	558629
1988	33	17103	29	14965	26392	14635	-50000	61757	1155839	577813
1989	0	0	0	0	0	0	0	0	1155839	577813
1990	0	0	0	0	0	0	0	0	1155839	577813
1991	0	0	0	0	0	0	0	0	1155839	577813
1992	0	0	0	0	0	0	0	0	1155839	577813
1993	0	0	0	0	0	0	0	0	1155839	577813
1994	0	0	0	0	0	0	0	0	1155839	577813
1995	0	0	0	0	0	0	0	0	1155839	577813
SUB TOTAL	4008	2087000	3507	1826125	2678301	172462	1350000	1155839	1155839	577813
REMAINING	0	0	0	0	0	0	0	0	1155839	577813
TOTAL	4008	2087000	3507	1826125	2678301	172462	1350000	1155839	1155839	577813
PRIOR CUM	0	0								
ULTIMATE	4008	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 665263
12.000 PER CENT 500813
15.000 PER CENT 402014
20.000 PER CENT 273061

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
NE 1/4 24-22-30
10-1-78

JAMES RANCH UT24-1 PR40
WILDCAT
EDDY CO., NEW MEXICO

TABLE NO. 37

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 12.896 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	336	174997	294	153122	215904	3000	1400000	-1187096	-1187096	-988997
1979	1091	568159	955	497139	715578	12839	0	702739	-484357	-459024
1980	776	403925	679	353434	522431	13738	0	508693	24336	-111755
1981	551	287165	482	251269	381177	14700	0	366477	390813	114713
1982	392	204156	343	178637	277967	15729	0	262238	653051	261405
1983	279	145142	244	126999	202595	16830	0	185765	838816	355470
1984	198	103187	173	90289	147528	17999	0	129529	968345	414842
1985	141	73359	123	64189	107258	18000	0	89258	1057603	451877
1986	100	52154	88	45635	77937	18000	0	59937	1117540	474389
1987	71	37078	62	32443	56606	18000	0	38606	1156146	487515
1988	51	26360	45	23065	41104	18000	0	23104	1179250	494626
1989	22	11318	19	9903	18016	10123	-50000	57893	1237143	511110
1990	0	0	0	0	0	0	0	0	1237143	511110
1991	0	0	0	0	0	0	0	0	1237143	511110
1992	0	0	0	0	0	0	0	0	1237143	511110
1993	0	0	0	0	0	0	0	0	1237143	511110
1994	0	0	0	0	0	0	0	0	1237143	511110
1995	0	0	0	0	0	0	0	0	1237143	511110
SUB TOTAL	4008	2087000	3507	1826124	2764101	176958	1350000	1237143	1237143	511110
REMAINING	0	0	0	0	0	0	0	0	1237143	511110
TOTAL	4008	2087000	3507	1826124	2764101	176958	1350000	1237143	1237143	511110
PRIOR CUM	0	0								
ULTIMATE	4008	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 618714
12.000 PER CENT 417298
15.000 PER CENT 298486
20.000 PER CENT 146928

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
SE 1/4 7-22-31
1-1-79

JAMES RANCH UT7-1 PR41
WILDCAT
EDDY CO., NEW MEXICO
PAGE 28

TABLE NO. 38

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 13.146 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	1187	618394	1039	541095	768844	12831	1400000	-643987	-643987	-485665
1980	845	439990	739	384991	561950	13738	0	548212	-95775	-111417
1981	601	312805	526	273704	410157	14700	0	395457	299682	132960
1982	427	222385	374	194587	299184	15729	0	283455	583137	291521
1983	304	158102	266	138339	218126	16830	0	201296	784433	393450
1984	216	112400	189	98350	158888	17999	0	140889	925322	458029
1985	153	79909	134	69920	115534	18000	0	97534	1022856	498498
1986	109	56810	95	49709	83978	18000	0	65978	1088834	523279
1987	78	40388	68	35340	61016	18000	0	43016	1131850	537904
1988	55	28714	48	25125	44301	18000	0	26301	1158151	545998
1989	33	17103	29	14965	26945	14635	-50000	62310	1220461	563519
1990	0	0	0	0	0	0	0	0	1220461	563519
1991	0	0	0	0	0	0	0	0	1220461	563519
1992	0	0	0	0	0	0	0	0	1220461	563519
1993	0	0	0	0	0	0	0	0	1220461	563519
1994	0	0	0	0	0	0	0	0	1220461	563519
1995	0	0	0	0	0	0	0	0	1220461	563519
SUB TOTAL	4008	2087000	3507	1826125	2748923	178462	1350000	1220461	1220461	563519
REMAINING	0	0	0	0	0	0	0	0	1220461	563519
TOTAL	4008	2087000	3507	1826125	2748923	178462	1350000	1220461	1220461	563519
PRIOR CUM	0	0								
ULTIMATE	4008	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 658550
12.000 PER CENT 481516
15.000 PER CENT 378924
20.000 PER CENT 250411

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 38

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
NE 1/4 19-22-31
1-1-78

JAMES RANCH UT19-1 PR42
WILDCAT
EDDY CO., NEW MEXICO

TABLE NO. 39

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 10.349 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	1192	620758	1043	543163	770882	11992	1400000	-641110	-641110	-534124
1979	856	445605	749	389904	568432	12839	0	555593	-85517	-115121
1980	614	319620	537	279668	418560	13738	0	404822	319305	161239
1981	440	229254	385	200597	308016	14700	0	293316	612621	342497
1982	316	164437	277	143882	226550	15729	0	210821	823442	460427
1983	226	117946	198	103203	166530	16830	0	149700	973142	536230
1984	162	84599	142	74024	122314	17999	0	104315	1077457	584044
1985	117	60680	102	53095	89708	18000	0	71708	1149165	613797
1986	84	43524	74	38084	65753	18000	0	47753	1196918	631733
1987	1	577	1	505	888	284	-50000	50604	1247522	649802
1988	0	0	0	0	0	0	0	0	1247522	649802
1989	0	0	0	0	0	0	0	0	1247522	649802
1990	0	0	0	0	0	0	0	0	1247522	649802
1991	0	0	0	0	0	0	0	0	1247522	649802
1992	0	0	0	0	0	0	0	0	1247522	649802
1993	0	0	0	0	0	0	0	0	1247522	649802
1994	0	0	0	0	0	0	0	0	1247522	649802
1995	0	0	0	0	0	0	0	0	1247522	649802
SUB TOTAL	4008	2087000	3508	1826125	2737633	140111	1350000	1247522	1247522	649802
REMAINING	0	0	0	0	0	0	0	0	1247522	649802
TOTAL	4008	2087000	3508	1826125	2737633	140111	1350000	1247522	1247522	649802
PRIOR CUM	0	0								
ULTIMATE	4008	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 741572
12.000 PER CENT 568553
15.000 PER CENT 463636
20.000 PER CENT 325453

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
NW 1/4 20-22-31
1-1-79

JAMES RANCH UT20-1 PR43
WILDCAT
EDDY CO., NEW MEXICO

TABLE NO. 40

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 11.349 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	1192	620758	1043	543163	771788	12831	1400000	-641043	-641043	-483445
1980	856	445605	749	389904	569124	13738	0	555386	-85657	-104300
1981	614	319620	537	279668	419091	14700	0	404391	318734	145598
1982	440	229254	385	200597	308424	15729	0	292695	611429	309327
1983	316	164437	277	143882	226863	16830	0	210033	821462	415680
1984	226	117946	198	103203	166716	17999	0	148717	970179	483847
1985	162	84599	142	74024	122315	18000	0	104315	1074494	527129
1986	117	60680	102	53095	89708	18000	0	71708	1146202	554062
1987	84	43524	74	38084	65753	18000	0	47753	1193955	570297
1988	1	577	1	505	888	284	-50000	50604	1244559	586653
1989	0	0	0	0	0	0	0	0	1244559	586653
1990	0	0	0	0	0	0	0	0	1244559	586653
1991	0	0	0	0	0	0	0	0	1244559	586653
1992	0	0	0	0	0	0	0	0	1244559	586653
1993	0	0	0	0	0	0	0	0	1244559	586653
1994	0	0	0	0	0	0	0	0	1244559	586653
1995	0	0	0	0	0	0	0	0	1244559	586653
SUB TOTAL	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	1244559	586653
REMAINING	0	0	0	0	0	0	0	0	1244559	586653
TOTAL	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	1244559	586653
PRIOR CUM	0	0								
ULTIMATE	4008	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 682973
12.000 PER CENT 503192
15.000 PER CENT 398292
20.000 PER CENT 266068

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
NW 1/4 17-22-31
1-1-79

JAMES RANCH UT17-1 PR44
WILDCAT
EDDY CO., NEW MEXICO

TABLE NO. 41

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 11.349 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	1192	620758	1043	543163	771788	12831	1400000	-641043	-641043	-483445
1980	856	445605	749	389904	569124	13738	0	555386	-85657	-104300
1981	614	319620	537	279668	419091	14700	0	404391	318734	145598
1982	440	229254	385	200597	308424	15729	0	292695	611429	309327
1983	316	164437	277	143882	226863	16830	0	210033	821462	415680
1984	226	117946	198	103203	166716	17999	0	148717	970179	483847
1985	162	84599	142	74024	122315	18000	0	104315	1074494	527129
1986	117	60680	102	53095	89708	18000	0	71708	1146202	554062
1987	84	43524	74	38084	65753	18000	0	47753	1193955	570297
1988	1	577	1	505	888	284	-50000	50604	1244559	586653
1989	0	0	0	0	0	0	0	0	1244559	586653
1990	0	0	0	0	0	0	0	0	1244559	586653
1991	0	0	0	0	0	0	0	0	1244559	586653
1992	0	0	0	0	0	0	0	0	1244559	586653
1993	0	0	0	0	0	0	0	0	1244559	586653
1994	0	0	0	0	0	0	0	0	1244559	586653
1995	0	0	0	0	0	0	0	0	1244559	586653
SUB TOTAL	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	1244559	586653
REMAINING	0	0	0	0	0	0	0	0	1244559	586653
TOTAL	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	1244559	586653
PRIOR CUM	0	0								
ULTIMATE	4008	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 682973
12.000 PER CENT 503192
15.000 PER CENT 398292
20.000 PER CENT 266068

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

YENTZ, ETAL
NE 1/4 17-22-31
1-1-80

FEDERAL #17-2 PR45
WILDCAT
EDDY CO., NEW MEXICO
PAGE 32

TABLE NO. 42

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 12.349 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	1192	620758	1043	543163	792846	13731	1400000	-620885	-620885	-423859
1981	856	445605	749	389904	584289	14701	0	569588	-51297	-71876
1982	614	319620	537	279668	430007	15730	0	414277	362980	159865
1983	440	229254	385	200597	316281	16831	0	299450	662430	311495
1984	316	164437	277	143882	232446	17999	0	214447	876877	409790
1985	226	117946	198	103203	170530	18000	0	152530	1029407	473078
1986	162	84599	142	74024	125051	18000	0	107051	1136458	513285
1987	117	60680	102	53095	91670	18000	0	73670	1210128	538332
1988	84	43524	74	38084	67161	18000	0	49161	1259289	553462
1989	1	577	1	505	907	284	-50000	50623	1309912	568273
1990	0	0	0	0	0	0	0	0	1309912	568273
1991	0	0	0	0	0	0	0	0	1309912	568273
1992	0	0	0	0	0	0	0	0	1309912	568273
1993	0	0	0	0	0	0	0	0	1309912	568273
1994	0	0	0	0	0	0	0	0	1309912	568273
1995	0	0	0	0	0	0	0	0	1309912	568273
SUB TOTAL	4008	2087000	3508	1826125	2811188	151276	1350000	1309912	1309912	568273
REMAINING	0	0	0	0	0	0	0	0	1309912	568273
TOTAL	4008	2087000	3508	1826125	2811188	151276	1350000	1309912	1309912	568273
PRIOR CUM	0	0								
ULTIMATE	4008	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 672146
12.000 PER CENT 479994
15.000 PER CENT 371668
20.000 PER CENT 240265

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

MARTINEZ
NW 1/4 21-22-31
10-1-79

FEDERAL #21-1 PR46
WILDCAT
EDDY CO., NEW MEXICO
PAGE 33

TABLE NO. 43

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 12.098 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	336	175125	294	153234	217730	3210	1400000	-1185480	-1185480	-894034
1980	1097	571600	960	500150	730031	13739	0	716292	-469188	-405043
1981	787	409992	689	358743	537581	14701	0	522880	53692	-81924
1982	565	294076	494	257317	395639	15730	0	379909	433601	130592
1983	405	210932	354	184566	291004	16831	0	274173	707774	269423
1984	290	151295	254	132383	213856	17999	0	195857	903631	359197
1985	208	108519	182	94954	156901	18000	0	138901	1042532	416830
1986	149	77838	130	68108	115056	18000	0	97056	1139588	453283
1987	107	55831	94	48852	84334	18000	0	66334	1205922	475836
1988	61	31792	53	27818	49051	13772	-50000	85279	1291201	502390
1989	0	0	0	0	0	0	0	0	1291201	502390
1990	0	0	0	0	0	0	0	0	1291201	502390
1991	0	0	0	0	0	0	0	0	1291201	502390
1992	0	0	0	0	0	0	0	0	1291201	502390
1993	0	0	0	0	0	0	0	0	1291201	502390
1994	0	0	0	0	0	0	0	0	1291201	502390
1995	0	0	0	0	0	0	0	0	1291201	502390
SUB TOTAL	4005	2087000	3504	1826125	2791183	149982	1350000	1291201	1291201	502390
REMAINING	0	0	0	0	0	0	0	0	1291201	502390
TOTAL	4005	2087000	3504	1826125	2791183	149982	1350000	1291201	1291201	502390
PRIOR CUM	0	0								
ULTIMATE	4005	2087000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 614496
12.000 PER CENT 406655
15.000 PER CENT 288663
20.000 PER CENT 145059

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

UNLEASED
SE 1/4 16-22-31
1-1-81

STATE P047
WILDCAT
EDDY CO., NEW MEXICO
PAGE 35

TABLE NO. 44

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 16.065 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	813	423334	711	370417	555094	14690	1400000	-859596	-859596	-531197
1982	615	320234	538	280205	430830	15728	0	415102	-444494	-298995
1983	465	242055	407	211798	333948	16829	0	317119	-127375	-138418
1984	351	182962	307	160092	258622	17999	0	240623	113248	-28125
1985	266	138295	233	121008	199968	18000	0	181968	295216	47377
1986	201	104533	176	91466	154529	18000	0	136529	431745	98656
1987	152	79014	133	69137	119362	18000	0	101362	533107	133118
1988	115	59724	101	52259	92155	18000	0	74155	607262	155940
1989	87	45144	76	39501	71119	18000	0	53119	660381	170738
1990	66	34123	58	29858	54864	18000	0	36864	697245	180034
1991	50	25792	44	22568	42306	18000	0	24306	721551	185583
1992	28	14790	25	12941	24727	13175	-50000	61552	783103	198473
1993	0	0	0	0	0	0	0	0	783103	198473
1994	0	0	0	0	0	0	0	0	783103	198473
1995	0	0	0	0	0	0	0	0	783103	198473
SUB TOTAL	3209	1670000	2809	1461250	2337524	204421	1350000	783103	783103	198473
REMAINING	0	0	0	0	0	0	0	0	783103	198473
TOTAL	3209	1670000	2809	1461250	2337524	204421	1350000	783103	783103	198473
PRIOR CUM	0	0								
ULTIMATE	3209	1670000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 269053
12.000 PER CENT 142400
15.000 PER CENT 79417
20.000 PER CENT 14035

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 44

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
SE 1/4 20-22-31
10-1-80

JAMES RANCH UT20-2 P046
WILDCAT
EDDY CO., NEW MEXICO
PAGE 36

TABLE NO. 45

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 15.815 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	225	117252	197	102596	149755	3435	1400000	-1253680	-1253680	-855849
1981	758	394956	663	345587	517867	13980	0	503887	-749793	-544467
1982	573	298536	501	261219	401634	14959	0	386675	-363118	-328166
1983	433	225654	379	197447	311313	16006	0	295307	-67811	-178633
1984	327	170565	286	149244	241095	17124	0	223971	156160	-75972
1985	248	128925	217	112809	186420	18000	0	168420	324580	-6091
1986	187	97451	164	85270	144054	18000	0	126054	450634	41254
1987	141	73660	123	64453	111262	18000	0	93262	543896	72962
1988	107	55678	94	48718	85908	18000	0	67908	611804	93861
1989	81	42085	71	36824	66298	18000	0	48298	660102	107316
1990	61	31811	53	27835	51138	18000	0	33138	693240	115673
1991	46	24045	40	21039	39430	18000	0	21430	714670	120565
1992	18	9382	16	8209	15689	8663	-50000	57026	771696	132657
1993	0	0	0	0	0	0	0	0	771696	132657
1994	0	0	0	0	0	0	0	0	771696	132657
1995	0	0	0	0	0	0	0	0	771696	132657
SUB TOTAL	3205	1670000	2804	1461250	2321863	200167	1350000	771696	771696	132657
REMAINING	0	0	0	0	0	0	0	0	771696	132657
TOTAL	3205	1670000	2804	1461250	2321863	200167	1350000	771696	771696	132657
PRIOR CUM	0	0								
ULTIMATE	3205	1670000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 211237
12.000 PER CENT 69926
15.000 PER CENT -743
20.000 PER CENT -73689

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
SW 1/4 19-22-31
1-1-79

JAMES RANCH UT19-2 P049
WILDCAT
EDDY CO., NEW MEXICO
PAGE 37

TABLE NO. 46

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 14.065 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	813	423334	711	370417	543112	12831	1400000	-869719	-869719	-655902
1980	615	320234	538	280205	422029	13738	0	408291	-461428	-377174
1981	465	242055	407	211798	327490	14700	0	312790	-148638	-183882
1982	351	182962	307	160092	253971	15729	0	238242	89604	-50613
1983	266	138295	233	121008	196863	16830	0	180033	269637	40549
1984	201	104533	176	91466	152460	17999	0	134461	404098	102181
1985	152	79014	133	69137	117881	18000	0	99881	503979	143624
1986	115	59724	101	52259	91098	18000	0	73098	577077	171079
1987	87	45144	76	39501	70368	18000	0	52368	629445	188884
1988	66	34123	58	29858	54332	18000	0	36332	665777	200066
1989	50	25792	44	22568	41930	18000	0	23930	689707	206733
1990	28	14790	25	12941	24527	13175	-50000	61352	751059	222413
1991	0	0	0	0	0	0	0	0	751059	222413
1992	0	0	0	0	0	0	0	0	751059	222413
1993	0	0	0	0	0	0	0	0	751059	222413
1994	0	0	0	0	0	0	0	0	751059	222413
1995	0	0	0	0	0	0	0	0	751059	222413
SUB TOTAL	3209	1670000	2809	1461250	2296061	195002	1350000	751059	751059	222413
REMAINING	0	0	0	0	0	0	0	0	751059	222413
TOTAL	3209	1670000	2809	1461250	2296061	195002	1350000	751059	751059	222413
PRIOR CUM	0	0								
ULTIMATE	3209	1670000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 293870
12.000 PER CENT 162703
15.000 PER CENT 91115
20.000 PER CENT 7983

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

MACIBARKA
SW 1/4 28-22-31
10-1-78

FEDERAL #28-1 P050
WILDCAT
EDDY CO., NEW MEXICO
PAGE 38

TABLE NO. 47

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 13.815 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	225	117252	197	102596	144658	3000	1400000	-1258342	-1258342	-1048354
1979	758	394956	663	345587	500621	12839	0	487782	-770560	-680491
1980	573	298536	501	261219	388528	13738	0	374790	-395770	-424633
1981	433	225654	379	197447	301352	14700	0	286652	-109118	-247493
1982	327	170565	286	149244	233601	15729	0	217872	108754	-125618
1983	248	128925	217	112809	181003	16830	0	164173	272927	-42487
1984	187	97451	164	85270	140115	17999	0	122116	395043	13487
1985	141	73660	123	64453	108285	18000	0	90285	485328	50948
1986	107	55678	94	48718	83657	18000	0	65657	550985	75608
1987	81	42085	71	36824	64597	18000	0	46597	597582	91450
1988	61	31811	53	27835	49852	18000	0	31852	629434	101253
1989	46	24045	40	21039	38458	18000	0	20458	649892	106952
1990	18	9382	16	8209	15310	8663	-50000	56647	706539	121611
1991	0	0	0	0	0	0	0	0	706539	121611
1992	0	0	0	0	0	0	0	0	706539	121611
1993	0	0	0	0	0	0	0	0	706539	121611
1994	0	0	0	0	0	0	0	0	706539	121611
1995	0	0	0	0	0	0	0	0	706539	121611
SUB TOTAL	3205	1670000	2804	1461250	2250037	193498	1350000	706539	706539	121611
REMAINING	0	0	0	0	0	0	0	0	706539	121611
TOTAL	3205	1670000	2804	1461250	2250037	193498	1350000	706539	706539	121611
PRIOR CUM	0	0								
ULTIMATE	3205	1670000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 203642
12.000 PER CENT 51919
15.000 PER CENT -33414
20.000 PER CENT -135967

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

GULF
NE 1/4 28-22-31
1-1-78

FEDERAL #33-1 P051
WILDCAT
EDDY CO., NEW MEXICO
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TABLE NO. 48

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 13.065 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	813	423334	711	370417	522291	11992	1400000	-889701	-889701	-741231
1979	615	320234	538	280205	405913	12839	0	393074	-496627	-444793
1980	465	242055	407	211798	315028	13738	0	301290	-195337	-239112
1981	351	182962	307	160092	244338	14700	0	229638	34301	-97205
1982	266	138295	233	121008	189419	15729	0	173690	207991	-45
1983	201	104533	176	91466	146757	16830	0	129927	337918	65745
1984	152	79014	133	69137	113612	17999	0	95613	433531	109571
1985	115	59724	101	52259	87809	18000	0	69809	503340	138536
1986	87	45144	76	39501	67834	18000	0	49834	553174	157253
1987	66	34123	58	29858	52381	18000	0	34381	587555	168942
1988	50	25792	44	22568	40429	18000	0	22429	609984	175845
1989	28	14790	25	12941	23651	13175	-50000	60476	670460	192919
1990	0	0	0	0	0	0	0	0	670460	192919
1991	0	0	0	0	0	0	0	0	670460	192919
1992	0	0	0	0	0	0	0	0	670460	192919
1993	0	0	0	0	0	0	0	0	670460	192919
1994	0	0	0	0	0	0	0	0	670460	192919
1995	0	0	0	0	0	0	0	0	670460	192919
SUB TOTAL	3209	1670000	2809	1461250	2209462	189002	1350000	670460	670460	192919
REMAINING	0	0	0	0	0	0	0	0	670460	192919
TOTAL	3209	1670000	2809	1461250	2209462	189002	1350000	670460	670460	192919
PRIOR CUM	0	0								
ULTIMATE	3209	1670000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 261125
12.000 PER CENT 134464
15.000 PER CENT 62037
20.000 PER CENT -26943

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

GULF
NW 1/4 28-22-31
7-1-79

FEDERAL #33-2 P052
WILDCAT
EDDY CO., NEW MEXICO
PAGE 40

TABLE NO. 49

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 14.565 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	435	226557	381	198237	285341	6419	1400000	-1121078	-1121078	-845465
1980	707	368272	619	322238	476304	13739	0	462565	-658513	-529686
1981	534	278366	467	243570	369490	14701	0	354789	-303724	-310440
1982	404	210408	354	184107	286474	15730	0	270744	-32980	-158990
1983	305	159041	267	139161	221981	16831	0	205150	172170	-55110
1984	231	120215	202	105188	171878	17999	0	153879	326049	15423
1985	174	90867	152	79509	132647	18000	0	114847	440896	63075
1986	132	68683	116	60098	102642	18000	0	84642	525538	94866
1987	100	51916	88	45427	79268	18000	0	61268	586806	115696
1988	75	39242	66	34337	61176	18000	0	43176	629982	128984
1989	57	29662	50	25954	47206	18000	0	29206	659188	137120
1990	43	22420	38	19618	36404	18000	0	18404	677592	141761
1991	8	4351	7	3807	7200	4164	-50000	53036	730628	154340
1992	0	0	0	0	0	0	0	0	730628	154340
1993	0	0	0	0	0	0	0	0	730628	154340
1994	0	0	0	0	0	0	0	0	730628	154340
1995	0	0	0	0	0	0	0	0	730628	154340
SUB TOTAL	3205	1670000	2807	1461251	2278211	197583	1350000	730628	730628	154340
REMAINING	0	0	0	0	0	0	0	0	730628	154340
TOTAL	3205	1670000	2807	1461251	2278211	197583	1350000	730628	730628	154340
PRIOR CUM	0	0								
ULTIMATE	3205	1670000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 230530
12.000 PER CENT 91389
15.000 PER CENT 17097
20.000 PER CENT -66539

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

U. S.
NW 1/4 34-22-31
1-1-80

FEDERAL #34-1 P053
WILDCAT
EDDY CO., NEW MEXICO
PAGE 41

TABLE NO. 50

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 15.065 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	813	423334	711	370417	540694	13731	1400000	-873037	-873037	-595996
1981	615	320234	538	280205	419898	14701	0	405197	-467840	-345600
1982	465	242055	407	211798	325653	15730	0	309923	-157917	-172233
1983	351	182962	307	160092	252413	16831	0	235582	77665	-52943
1984	266	138295	233	121008	195496	17999	0	177497	255162	28416
1985	201	104533	176	91466	151149	18000	0	133149	388311	83662
1986	152	79014	133	69137	116807	18000	0	98807	487118	120773
1987	115	59724	101	52259	90224	18000	0	72224	559342	145328
1988	87	45144	76	39501	69659	18000	0	51659	611001	161227
1989	66	34123	58	29858	53760	18000	0	35760	646761	171189
1990	50	25792	44	22568	41471	18000	0	23471	670232	177108
1991	28	14790	25	12941	24249	13175	-50000	61074	731306	191237
1992	0	0	0	0	0	0	0	0	731306	191237
1993	0	0	0	0	0	0	0	0	731306	191237
1994	0	0	0	0	0	0	0	0	731306	191237
1995	0	0	0	0	0	0	0	0	731306	191237
SUB TOTAL	3209	1670000	2809	1461250	2281473	200167	1350000	731306	731306	191237
REMAINING	0	0	0	0	0	0	0	0	731306	191237
TOTAL	3209	1670000	2809	1461250	2281473	200167	1350000	731306	731306	191237
PRIOR CUM	0	0								
ULTIMATE	3209	1670000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 259870
12.000 PER CENT 135493
15.000 PER CENT 71098
20.000 PER CENT 1047

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 50

CASE I-B

EVALUATION FOR
SANDIA LABORATORIES

TABLE NO. 51

TOTALS ALL LEASES
AS OF SEP 01, 1976

		GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
	JAMES RANCH UNIT #1 PP10	218218	18446131	190947	16140368	12481344	1177304	25000	11279040	4141489
	JAMES RANCH UNIT #7 PP14	0	1085647	0	949942	1300488	47378	0	1253110	1072874
1	EXISTING WELLS - PP	218218	19531778	190947	17090310	13781832	1224682	25000	12532150	5214363
	JAMES RANCH UNIT#1 PNP10	41700	83400	36488	72976	728400	153049	20000	555351	52414
	JAMES RANCH UNIT#7 PNP14	47100	108328	41213	94788	890221	202336	0	687885	298730
1	EXISTING WELLS - PNP	88800	191728	77701	167764	1618621	355385	20000	1243236	351144
	JAMES RANCH UNIT #7 PR14	47200	3990000	41302	3491251	6890178	498173	95000	6297005	2037021
1	EXISTING WELLS - PR	47200	3990000	41302	3491251	6890178	498173	95000	6297005	2037021
2	EXISTING WELLS PP-PNP-PR	354218	23713506	309950	20749325	22290631	2078240	140000	20072391	7602528
	JAMES RANCH UT#8 PU33	0	2074000	0	1814750	2576111	49770	1310000	1216341	671820
1	PROPOSED WELLS - PU	0	2074000	0	1814750	2576111	49770	1310000	1216341	671820
	JAMES RANCH UT36-1 PR34	0	2074000	0	1814750	2576111	49770	1310000	1216341	671820
	JAMES RANCH UT36-2 PR35	0	1638000	0	1433251	2041423	76797	1310000	654626	281530
	JAMES RANCH UT31-2 PR36	0	1638000	0	1433251	2041423	76797	1310000	654626	281530
1	PROPOSED WELLS - PR	0	5350000	0	4681252	6658957	203364	3930000	2525593	1234880
	JAMES RANCH UT25-1 PO37	0	1327000	0	1161126	1675932	60602	1310000	305330	79453
	JAMES RANCH UT30-1 PO38	0	1327000	0	1161126	1675932	60602	1310000	305330	79453
1	PROPOSED WELLS - PO	0	2654000	0	2322252	3351864	121204	2620000	610660	158906
2	PROPOSED WELLS-PU-PR-PO	0	10078000	0	8818254	12586932	374338	7860000	4352594	2065606
3	EXISTING & PROPOSED - I	354218	33791506	309950	29567579	34877563	2452578	8000000	24424985	9668134
C	TOTAL JAMES RANCH UT8-PU	0	2074000	0	1814750	2576111	49770	1310000	1216341	671820
D	TOTAL PR - GROUP I	47200	9340000	41302	8172503	13549135	701537	4025000	8822598	3271901

EVALUATION FOR
SANDIA LABORATORIES

TABLE NO. 51

TOTALS ALL LEASES
AS OF SEP 01, 1976

			GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
	JAMES RANCH UT15-1	PR39	4008	2087000	3507	1826125	2678301	172462	1350000	1155839	577813
	JAMES RANCH UT24-1	PR40	4008	2087000	3507	1826124	2764101	176958	1350000	1237143	511110
	JAMES RANCH UT7-1	PR41	4008	2087000	3507	1826125	2748923	178462	1350000	1220461	563519
	JAMES RANCH UT19-1	PR42	4008	2087000	3508	1826125	2737633	140111	1350000	1247522	649804
	JAMES RANCH UT20-1	PR43	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	586653
	JAMES RANCH UT17-1	PR44	4008	2087000	3508	1826125	2740670	146111	1350000	1244559	586653
	FEDERAL #17-2	PR45	4008	2087000	3508	1826125	2811188	151276	1350000	1309912	568273
	FEDERAL #21-1	PR46	4005	2087000	3504	1826125	2791183	149982	1350000	1291201	502390
1	PROPOSED WELLS-PR GR. II		32061	16696000	28057	14606999	22012669	1261473	10800000	9951196	4546213
	STATE	PO47	3209	1670000	2809	1461250	2337524	204421	1350000	783103	198473
	JAMES RANCH UT20-2	PO48	3205	1670000	2804	1461250	2321863	200167	1350000	771696	132657
	JAMES RANCH UT19-2	PO49	3209	1670000	2809	1461250	2296061	195002	1350000	751059	222413
	FEDERAL #28-1	PO50	3205	1670000	2804	1461250	2250037	193498	1350000	706539	121611
	FEDERAL #33-1	PO51	3209	1670000	2809	1461250	2209462	189002	1350000	670460	192919
	FEDERAL #33-2	PO52	3205	1670000	2807	1461251	2278211	197583	1350000	730628	154340
	FEDERAL #34-1	PO53	3209	1670000	2809	1461250	2281473	200167	1350000	731306	191237
1	PROPOSED WELLS-PO-GR.II		22451	11690000	19651	10228751	15974631	1379840	9450000	5144791	1213650
2	PROPOSED WELLS-GROUP II		54512	28386000	47708	24837750	37987300	2641313	20250000	15095987	5759863
4	TOTAL ALL LEASES		408730	62177506	357658	54405329	72864863	5093891	28250000	39520972	15427997
E	ALL PO LEASES		22451	14344000	19651	12551003	19326495	1501044	12070000	5755451	1372556
L	TOTAL PR-GROUP I & II		79261	26036000	69359	22781502	35561804	1963010	14825000	18773794	7818114

TABLE NO. 52

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 15.480 AVERAGE GAS PRICE = 1.346
NUMBER OF WELLS = 26.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	576607	4230	504531	396459	5400	0	391059	391059	384622
1977	13888	2295385	12152	2008462	1911280	22140	2700000	-810860	-419801	-361664
1978	16764	5536469	14669	4844411	5946803	86391	9700000	-3839588	-4259389	-3560513
1979	21510	8615521	18821	7538580	9994387	189386	11100000	-1294999	-5554388	-4537138
1980	21655	8119967	18948	7104971	9679019	250770	4200000	5228249	-326139	-967973
1981	19558	6704391	17113	5866343	8122141	293340	1400000	6428801	6102662	3004774
1982	32691	5457820	28605	4775595	6921934	332535	65000	6524399	12627061	6654496
1983	27484	4192621	24050	3668542	5358961	355105	0	5003856	17630917	9188265
1984	23309	3268756	20397	2860161	4190645	379827	0	3810818	21441735	10935017
1985	19951	2473891	17458	2164653	3145331	347906	-140000	2937425	24379160	12157833
1986	17225	1940905	15074	1698293	2438516	324133	0	2114383	26493543	12951976
1987	14932	1575881	13067	1378899	1951953	308868	50000	1593085	28086628	13494469
1988	12963	1252253	11345	1095724	1510409	268181	-200000	1442228	29528856	13940382
1989	11320	994620	9906	870291	1154229	208229	-200000	1146000	30674856	14261096
1990	10022	831348	8771	727431	934423	158853	-100000	875570	31550426	14482482
1991	8939	709743	7822	621025	773670	120453	-100000	753417	32303843	14655131
1992	7991	616852	6993	539745	654997	88227	-140000	706770	33010613	14801674
1993	6469	546826	5661	478473	558219	48000	0	510219	33520832	14897113
1994	5993	506609	5244	443283	523745	48000	0	475745	33996577	14977667
1995	5555	469532	4860	410841	491827	48000	0	443827	34440404	15045695
SUB TOTAL	303053	56685997	265186	49600254	66659148	3883744	28335000	34440404	34440404	15045695
REMAINING	105677	5491509	92472	4805075	6205715	1210147	-85000	5080568	39520972	15427997
TOTAL	408730	62177506	357658	54405329	72864863	5093891	28250000	39520972	39520972	15427997
PRIOR CUM	207524	17789474								
ULTIMATE	616254	79966980								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 18304527
12.000 PER CENT 13052542
15.000 PER CENT 10199263
20.000 PER CENT 6777564

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 53

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 15.271 AVERAGE GAS PRICE = 1.117
NUMBER OF WELLS = 11.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	576607	4230	504531	396459	5400	0	391059	391059	384622
1977	13888	2295385	12152	2008462	1911280	22140	2700000	-810860	-419801	-361664
1978	13011	3581734	11385	3134018	3545125	44415	2700000	800710	380909	305428
1979	12190	3761651	10666	3291445	3898250	64238	2700000	1134012	1514921	1160650
1980	11420	2790376	9993	2441580	2823130	68753	0	2754377	4269296	3040977
1981	10699	2090384	9362	1829087	2035640	73566	0	1962074	6231372	4253462
1982	26192	2073481	22918	1814298	2341466	97367	65000	2179099	8410471	5472484
1983	22713	1708506	19874	1494943	1911363	103476	0	1807887	10218358	6387932
1984	19807	1444002	17331	1263502	1595954	110717	0	1485237	11703595	7068716
1985	17376	1132452	15205	990894	1194270	77906	-140000	1256364	12959959	7594027
1986	15328	954005	13413	834754	970994	54133	0	916861	13876820	7938391
1987	13593	879899	11894	769912	895099	56584	100000	738515	14615335	8189477
1988	12116	812092	10602	710581	827113	59206	0	767907	15383242	8425809
1989	10849	749981	9493	656233	765939	62012	0	703927	16087169	8621916
1990	9756	693030	8537	606402	710709	65015	0	645694	16732863	8784750
1991	8807	640765	7706	560670	660685	67114	0	593571	17326434	8920250
1992	7945	592680	6952	518595	614581	66389	-40000	588192	17914626	9041811
1993	6469	546826	5661	478473	558219	48000	0	510219	18424845	9137250
1994	5993	506609	5244	443283	523745	48000	0	475745	18900590	9217804
1995	5555	469532	4860	410841	491827	48000	0	443827	19344417	9285832
SUB TOTAL	248541	28299997	217478	24762504	28671848	1242431	8085000	19344417	19344417	9285832
REMAINING	105677	5491509	92472	4805075	6205715	1210147	-85000	5080568	24424985	9668134
TOTAL	354218	33791506	309950	29567579	34877563	2452578	8000000	24424985	24424985	9668134
PRIOR CUM	207524	17789474								
ULTIMATE	561742	51580980								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 11238513
12.000 PER CENT 8403035
15.000 PER CENT 6912661
20.000 PER CENT 5144324

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 54

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.837 AVERAGE GAS PRICE = 1.620
NUMBER OF WELLS = 15.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	3753	1954735	3284	1710393	2401678	41976	7000000	-4640298	-4640298	-3865941
1979	9320	4853870	8155	4247135	6096137	125148	8400000	-2429011	-7069309	-5697788
1980	10235	5329591	8955	4663391	6855889	182017	4200000	2473872	-4595437	-4008950
1981	8859	4614007	7751	4037256	6086501	219774	1400000	4466727	-128710	-1248688
1982	6499	3384339	5687	2961297	4580468	235168	0	4345300	4216590	1182012
1983	4771	2484115	4176	2173599	3447598	251629	0	3195969	7412559	2800333
1984	3502	1824754	3066	1596659	2594691	269110	0	2325581	9738140	3866301
1985	2575	1341439	2253	1173759	1951061	270000	0	1681061	11419201	4563806
1986	1897	986900	1661	863539	1467522	270000	0	1197522	12616723	5013585
1987	1339	695982	1173	608987	1056854	252284	-50000	854570	13471293	5304992
1988	847	440161	743	385143	683296	208975	-200000	674321	14145614	5514573
1989	471	244639	413	214058	388290	146217	-200000	442073	14587687	5639180
1990	266	138318	234	121029	223714	93838	-100000	229876	14817563	5697732
1991	132	68978	116	60355	113185	53339	-100000	159846	14977409	5734881
1992	46	24172	41	21150	40416	21838	-100000	118578	15095987	5759863
1993	0	0	0	0	0	0	0	0	15095987	5759863
1994	0	0	0	0	0	0	0	0	15095987	5759863
1995	0	0	0	0	0	0	0	0	15095987	5759863
SUB TOTAL	54512	28386000	47708	24837750	37987300	2641313	20250000	15095987	15095987	5759863
REMAINING	0	0	0	0	0	0	0	0	15095987	5759863
TOTAL	54512	28386000	47708	24837750	37987300	2641313	20250000	15095987	15095987	5759863
PRIOR CUM	0	0								
ULTIMATE	54512	28386000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 7066014
12.000 PER CENT 4649507
15.000 PER CENT 3286582
20.000 PER CENT 1633240

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 55

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 12.529 AVERAGE GAS PRICE = .733
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	576607	4230	504531	396459	5400	0	391059	391059	384622
1977	13888	1575481	12152	1378546	1067318	17340	0	1049978	1441037	1350982
1978	13011	1338238	11385	1170958	859299	18553	0	840746	2281783	2051428
1979	12190	1171935	10666	1025443	723694	19852	0	703842	2985625	2582234
1980	11420	1049366	9993	918196	632734	21241	0	611493	3597118	2999681
1981	10699	954266	9362	834983	569408	22728	0	546680	4143798	3337508
1982	10023	849611	8770	743410	486900	14190	0	472710	4616508	3602001
1983	9390	793763	8216	694543	463963	14460	0	449503	5066011	3829613
1984	8797	743637	7697	650682	445009	15473	0	429536	5495547	4026498
1985	8242	696677	7212	609592	426889	16556	100000	310333	5805880	4155261
1986	7721	652683	6756	571098	409559	17715	0	391844	6197724	4302434
1987	7234	611467	6330	535034	393010	18955	0	374055	6571779	4429608
1988	6777	572853	5930	501246	377197	20281	0	356916	6928695	4539453
1989	6349	536678	5555	469593	362102	21701	0	340401	7269096	4634285
1990	5948	502787	5205	439939	347697	23220	0	324477	7593573	4716113
1991	5572	471037	4876	412157	333952	23999	0	309953	7903526	4786869
1992	5220	441291	4568	386130	320847	24000	0	296847	8200373	4848210
1993	4891	413424	4280	361746	308366	24000	0	284366	8484739	4901402
1994	4582	387317	4009	338902	296463	24000	0	272463	8757202	4947536
1995	4293	362858	3756	317501	285131	24000	0	261131	9018333	4987561
SUB TOTAL	161081	14701976	140948	12864230	9505997	387664	100000	9018333	9018333	4987561
REMAINING	57137	4829802	49999	4226080	4275835	837018	-75000	3513817	12532150	5214363
TOTAL	218218	19531778	190947	17090310	13781832	1224682	25000	12532150	12532150	5214363
PRIOR CUM	202624	17789474								
ULTIMATE	420842	37321252								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 5879429
12.000 PER CENT 4696343
15.000 PER CENT 4103133
20.000 PER CENT 3414280

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 56

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.664 AVERAGE GAS PRICE = 1.334
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	10775	24781	9428	21683	188595	15590	40000	133005	133005	74401
1983	8496	19541	7434	17098	157941	16691	0	141250	274255	145925
1984	6694	15396	5857	13472	129524	17860	0	111664	385919	197108
1985	5274	12130	4615	10614	102443	19110	0	83333	469252	231684
1986	4155	9557	3636	8362	81017	19116	0	61901	531153	254933
1987	3273	7528	2864	6587	64062	19116	0	44946	576099	270214
1988	2579	5932	2257	5191	50670	19116	0	31554	607653	279925
1989	2032	4674	1778	4090	40075	19116	0	20959	628612	285764
1990	1601	3682	1401	3222	31693	19116	0	12577	641189	288936
1991	1261	2900	1103	2538	25056	19116	0	5940	647129	290292
1992	960	2207	840	1931	19145	18389	-40000	40756	687885	298730
1993	0	0	0	0	0	0	0	0	687885	298730
1994	0	0	0	0	0	0	0	0	687885	298730
1995	0	0	0	0	0	0	0	0	687885	298730
SUB TOTAL	47100	108328	41213	94788	890221	202336	0	687885	687885	298730
REMAINING	41700	83400	36488	72976	728400	153049	20000	555351	1243236	351144
TOTAL	88800	191728	77701	167764	1618621	355385	20000	1243236	1243236	351144
PRIOR CUM	4900	0								
ULTIMATE	93700	191728								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 434692
12.000 PER CENT 287752
15.000 PER CENT 218083
20.000 PER CENT 143106

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 57

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.682 AVERAGE GAS PRICE = 1.903
NUMBER OF WELLS = 1.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	5394	455971	4720	398975	682827	13191	25000	644636	644636	360600
1983	4827	408030	4224	357026	629137	14123	0	615014	1259650	672020
1984	4316	364871	3777	319262	577177	15112	0	562065	1821715	929652
1985	3860	326277	3378	285492	526688	16170	0	510518	2332233	1141476
1986	3452	291765	3021	255294	480418	17302	0	463116	2795349	1315418
1987	3086	260904	2700	228291	438027	18513	100000	319514	3114863	1424049
1988	2760	233307	2415	204144	399246	19809	0	379437	3494300	1540825
1989	2468	208629	2160	182550	363762	21195	0	342567	3836867	1636261
1990	2207	186561	1931	163241	331319	22679	0	308640	4145507	1714095
1991	1974	166828	1727	145975	301677	23999	0	277678	4423185	1777483
1992	1765	149182	1544	130534	274589	24000	0	250589	4673774	1829265
1993	1578	133402	1381	116727	249853	24000	0	225853	4899627	1871512
1994	1411	119292	1235	104381	227282	24000	0	203282	5102909	1905932
1995	1262	106674	1104	93340	206696	24000	0	182696	5285605	1933935
SUB TOTAL	40360	3411693	35317	2985232	5688698	278093	125000	5285605	5285605	1933935
REMAINING	6840	578307	5985	506019	1201480	220080	-30000	1011400	6297005	2037021
TOTAL	47200	3990000	41302	3491251	6890178	498173	95000	6297005	6297005	2037021
PRIOR CUM	0	0								
ULTIMATE	47200	3990000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2500732
12.000 PER CENT 1672658
15.000 PER CENT 1260885
20.000 PER CENT 809910

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 58

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 15.271 AVERAGE GAS PRICE = .935
NUMBER OF WELLS = 5.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	576607	4230	504531	396459	5400	0	391059	391059	384622
1977	13888	1575481	12152	1378546	1067318	17340	0	1049978	1441037	1350982
1978	13011	1338238	11385	1170958	859299	18553	0	840746	2281783	2051428
1979	12190	1171935	10666	1025443	723694	19852	0	703842	2985625	2582234
1980	11420	1049366	9993	918196	632734	21241	0	611493	3597118	2999681
1981	10699	954266	9362	834983	569408	22728	0	546680	4143798	3337508
1982	26192	1330363	22918	1164068	1358322	42971	65000	1250351	5394149	4037002
1983	22713	1221334	19874	1068667	1251041	45274	0	1205767	6599916	4647558
1984	19807	1123904	17331	983416	1151710	48445	0	1103265	7703181	5153258
1985	17376	1035084	15205	905698	1056020	51836	100000	904184	8607365	5528421
1986	15328	954005	13413	834754	970994	54133	0	916861	9524226	5872785
1987	13593	879899	11894	769912	895099	56584	100000	738515	10262741	6123871
1988	12116	812092	10602	710581	827113	59206	0	767907	11030648	6360203
1989	10849	749981	9493	656233	765939	62012	0	703927	11734575	6556310
1990	9756	693030	8537	606402	710709	65015	0	645694	12380269	6719144
1991	8807	640765	7706	560670	660685	67114	0	593571	12973840	6854644
1992	7945	592680	6952	518595	614581	66389	-40000	588192	13562032	6976205
1993	6469	546826	5661	478473	558219	48000	0	510219	14072251	7071644
1994	5993	506609	5244	443283	523745	48000	0	475745	14547996	7152198
1995	5555	469532	4860	410841	491827	48000	0	443827	14991823	7220226
SUB TOTAL	248541	18221997	217478	15944250	16084916	868093	225000	14991823	14991823	7220226
REMAINING	105677	5491509	92472	4805075	6205715	1210147	-85000	5080568	20072391	7602528
TOTAL	354218	23713506	309950	20749325	22290631	2078240	140000	20072391	20072391	7602528
PRIOR CUM	207524	17789474								
ULTIMATE	561742	41502980								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	8814853
12.000 PER CENT	6656753
15.000 PER CENT	5582101
20.000 PER CENT	4367296

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

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EVALUATION FOR
SANDIA LABORATORIES

PROPOSED WELLS - PU
TRACTS 33 & 34
GROUP I
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TABLE NO. 59

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = .000 AVERAGE GAS PRICE = 1.536
NUMBER OF WELLS = 1.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	1350000	-930419	-930419	-856323
1978	0	601992	0	526743	725186	5136	0	720050	-210369	-256432
1979	0	401142	0	350999	496206	5495	0	490711	280342	113640
1980	0	267296	0	233884	339285	5880	0	333405	613747	341245
1981	0	178110	0	155846	231839	6292	0	225547	839294	480624
1982	0	118682	0	103847	158322	6732	0	151590	990884	565421
1983	0	79082	0	69197	108053	7203	0	100850	1091734	616488
1984	0	52696	0	46109	73705	7704	0	66001	1157735	646741
1985	0	15048	0	13167	21534	2928	-40000	58606	1216341	671820
1986	0	0	0	0	0	0	0	0	1216341	671820
1987	0	0	0	0	0	0	0	0	1216341	671820
1988	0	0	0	0	0	0	0	0	1216341	671820
1989	0	0	0	0	0	0	0	0	1216341	671820
1990	0	0	0	0	0	0	0	0	1216341	671820
1991	0	0	0	0	0	0	0	0	1216341	671820
1992	0	0	0	0	0	0	0	0	1216341	671820
1993	0	0	0	0	0	0	0	0	1216341	671820
1994	0	0	0	0	0	0	0	0	1216341	671820
1995	0	0	0	0	0	0	0	0	1216341	671820
SUB TOTAL	0	2074000	0	1814750	2576111	49770	1310000	1216341	1216341	671820
REMAINING	0	0	0	0	0	0	0	0	1216341	671820
TOTAL	0	2074000	0	1814750	2576111	49770	1310000	1216341	1216341	671820
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 760756
12.000 PER CENT 590880
15.000 PER CENT 482733
20.000 PER CENT 332379

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

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EVALUATION FOR
SANDIA LABORATORIES

PROPOSED WELLS - PR
TRACTS 34,35 & 36
GROUP I
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TABLE NO. 60

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = .000 AVERAGE GAS PRICE = 1.539
NUMBER OF WELLS = 3.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	1350000	-930419	-930419	-856323
1978	0	1641504	0	1436317	1960640	20726	2700000	-760086	-1690505	-1489568
1979	0	1160150	0	1015131	1422814	22199	0	1400615	-289890	-433288
1980	0	789422	0	690744	993589	23752	0	969837	679947	228789
1981	0	537282	0	470122	693553	25416	0	668137	1348084	641672
1982	0	365758	0	320039	483928	27194	0	456734	1804818	897163
1983	0	249046	0	217915	337533	29097	0	308436	2113254	1053344
1984	0	169616	0	148415	235349	31132	0	204217	2317471	1146951
1985	0	77270	0	67611	109570	21448	-120000	208122	2525593	1234880
1986	0	0	0	0	0	0	0	0	2525593	1234880
1987	0	0	0	0	0	0	0	0	2525593	1234880
1988	0	0	0	0	0	0	0	0	2525593	1234880
1989	0	0	0	0	0	0	0	0	2525593	1234880
1990	0	0	0	0	0	0	0	0	2525593	1234880
1991	0	0	0	0	0	0	0	0	2525593	1234880
1992	0	0	0	0	0	0	0	0	2525593	1234880
1993	0	0	0	0	0	0	0	0	2525593	1234880
1994	0	0	0	0	0	0	0	0	2525593	1234880
1995	0	0	0	0	0	0	0	0	2525593	1234880
SUB TOTAL	0	5350000	0	4681252	6658957	203364	3930000	2525593	2525593	1234880
REMAINING	0	0	0	0	0	0	0	0	2525593	1234880
TOTAL	0	5350000	0	4681252	6658957	203364	3930000	2525593	2525593	1234880
PRIOR CUM	0	0								
ULTIMATE	0	5350000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 1438444
12.000 PER CENT 1052684
15.000 PER CENT 814411
20.000 PER CENT 494705

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 61

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = .000 AVERAGE GAS PRICE = 1.562
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	1028424	0	899872	1255536	16692	2700000	-1461156	-1461156	-1101936
1980	0	684292	0	598756	857522	17880	0	839642	-621514	-528738
1981	0	420726	0	368136	540840	19130	0	521710	-99804	-206342
1982	0	258678	0	226344	340894	20470	0	320424	220620	-27102
1983	0	159044	0	139164	214736	21902	0	192834	413454	70542
1984	0	97786	0	85562	135190	23436	0	111754	525208	121766
1985	0	5050	0	4418	7146	1694	-80000	85452	610660	158906
1986	0	0	0	0	0	0	0	0	610660	158906
1987	0	0	0	0	0	0	0	0	610660	158906
1988	0	0	0	0	0	0	0	0	610660	158906
1989	0	0	0	0	0	0	0	0	610660	158906
1990	0	0	0	0	0	0	0	0	610660	158906
1991	0	0	0	0	0	0	0	0	610660	158906
1992	0	0	0	0	0	0	0	0	610660	158906
1993	0	0	0	0	0	0	0	0	610660	158906
1994	0	0	0	0	0	0	0	0	610660	158906
1995	0	0	0	0	0	0	0	0	610660	158906
SUB TOTAL	0	2654000	0	2322252	3351864	121204	2620000	610660	610660	158906
REMAINING	0	0	0	0	0	0	0	0	610660	158906
TOTAL	0	2654000	0	2322252	3351664	121204	2620000	610660	610660	158906
PRIOR CUM	0	0								
ULTIMATE	0	2654000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 224460
12.000 PER CENT 102718
15.000 PER CENT 33436
20.000 PER CENT -50056

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 62

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = .000 AVERAGE GAS PRICE = 1.545
NUMBER OF WELLS = 6.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	719904	0	629916	843962	4800	2700000	-1860838	-1860838	-1712646
1978	0	2243496	0	1963060	2685826	25862	2700000	-40036	-1900874	-1746000
1979	0	2589716	0	2266002	3174556	44386	2700000	430170	-1470704	-1421584
1980	0	1741010	0	1523384	2190396	47512	0	2142884	672180	41296
1981	0	1136118	0	994104	1466232	50838	0	1415394	2087574	915954
1982	0	743118	0	650230	983144	54396	0	928748	3016322	1435482
1983	0	487172	0	426276	660322	58202	0	602120	3618442	1740374
1984	0	320098	0	280086	444244	62272	0	381972	4000414	1915458
1985	0	97368	0	85196	138250	26070	-240000	352180	4352594	2065606
1986	0	0	0	0	0	0	0	0	4352594	2065606
1987	0	0	0	0	0	0	0	0	4352594	2065606
1988	0	0	0	0	0	0	0	0	4352594	2065606
1989	0	0	0	0	0	0	0	0	4352594	2065606
1990	0	0	0	0	0	0	0	0	4352594	2065606
1991	0	0	0	0	0	0	0	0	4352594	2065606
1992	0	0	0	0	0	0	0	0	4352594	2065606
1993	0	0	0	0	0	0	0	0	4352594	2065606
1994	0	0	0	0	0	0	0	0	4352594	2065606
1995	0	0	0	0	0	0	0	0	4352594	2065606
SUB TOTAL	0	10078000	0	8818254	12586932	374338	7860000	4352594	4352594	2065606
REMAINING	0	0	0	0	0	0	0	0	4352594	2065606
TOTAL	0	10078000	0	8818254	12586932	374338	7860000	4352594	4352594	2065606
PRIOR CUM	0	0								
ULTIMATE	0	10078000								

CUMULATIVE DISCOUNTED NET REVENUE AT

8.000 PER CENT	2423660
12.000 PER CENT	1746282
15.000 PER CENT	1330580
20.000 PER CENT	777028

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 63

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.475 AVERAGE GAS PRICE = 1.599
NUMBER OF WELLS = 8.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	2715	1414149	2376	1237380	1734729	26984	4200000	-2492255	-2492255	-2076356
1979	6699	3488789	5862	3052689	4361150	80220	5600000	-1319070	-3811325	-3071137
1980	6837	3559908	5982	3114918	4563551	109898	1400000	3053653	-757672	-986500
1981	4890	2546446	4279	2228140	3350972	117602	0	3233370	2475698	1011596
1982	3498	1821284	3061	1593624	2458886	125834	0	2333052	4808750	2316672
1983	2502	1302650	2190	1139818	1803320	134642	0	1668678	6477428	3161630
1984	1787	931719	1565	815254	1321413	143992	0	1177421	7654849	3701320
1985	1278	666421	1118	583118	966702	144000	0	822702	8477551	4042675
1986	916	476673	801	417090	706901	144000	0	562901	9040452	4254096
1987	597	310316	523	271528	469392	126284	-50000	393108	9433560	4388612
1988	286	148647	251	130067	229785	82975	-200000	346810	9780370	4497397
1989	56	28998	49	25373	45868	25042	-150000	170826	9951196	4546213
1990	0	0	0	0	0	0	0	0	9951196	4546213
1991	0	0	0	0	0	0	0	0	9951196	4546213
1992	0	0	0	0	0	0	0	0	9951196	4546213
1993	0	0	0	0	0	0	0	0	9951196	4546213
1994	0	0	0	0	0	0	0	0	9951196	4546213
1995	0	0	0	0	0	0	0	0	9951196	4546213
SUB TOTAL	32061	16696000	28057	14608999	22012669	1261473	10800000	9951196	9951196	4546213
REMAINING	0	0	0	0	0	0	0	0	9951196	4546213
TOTAL	32061	16696000	28057	14608999	22012669	1261473	10800000	9951196	9951196	4546213
PRIOR CUM	0	0								
ULTIMATE	32061	16696000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 5336687
12.000 PER CENT 3861213
15.000 PER CENT 2999975
20.000 PER CENT 1913313

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 64

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.353 AVERAGE GAS PRICE = 1.649
NUMBER OF WELLS = 7,000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	1038	540586	908	473013	666949	14992	2800000	-2148043	-2148043	-1789585
1979	2621	1365081	2293	1194446	1734987	44928	2800000	-1109941	-3257984	-2626651
1980	3398	1769683	2973	1548473	2292338	72119	2800000	-579781	-3837765	-3022450
1981	3969	2067561	3472	1809116	2735529	102172	1400000	1233357	-2604408	-2260284
1982	3001	1563055	2626	1367673	2121582	109334	0	2012248	-592160	-1134660
1983	2269	1181465	1986	1033781	1644278	116987	0	1527291	935131	-361297
1984	1715	893035	1501	781405	1273278	125118	0	1148160	2083291	164981
1985	1297	675018	1135	590641	984359	126000	0	858359	2941650	521131
1986	981	510227	860	446449	760621	126000	0	634621	3576271	759489
1987	742	385666	650	337459	587462	126000	0	461462	4037733	916380
1988	561	291514	492	255076	453511	126000	0	327511	4365244	1017176
1989	415	215641	364	188685	342422	121175	-50000	271247	4636491	1092967
1990	266	138318	234	121029	223714	93838	-100000	229876	4866367	1151519
1991	132	68978	116	60355	113185	53339	-100000	159846	5026213	1188668
1992	46	24172	41	21150	40416	21838	-100000	118578	5144791	1213650
1993	0	0	0	0	0	0	0	0	5144791	1213650
1994	0	0	0	0	0	0	0	0	5144791	1213650
1995	0	0	0	0	0	0	0	0	5144791	1213650
SUB TOTAL	22451	11690000	19651	10228751	15974631	1379840	9450000	5144791	5144791	1213650
REMAINING	0	0	0	0	0	0	0	0	5144791	1213650
TOTAL	22451	11690000	19651	10228751	15974631	1379840	9450000	5144791	5144791	1213650
PRIOR CUM	0	0								
ULTIMATE	22451	11690000								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	1729327
12.000 PER CENT	788294
15.000 PER CENT	286607
20.000 PER CENT	-280073

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 65

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.353 AVERAGE GAS PRICE = 1.633
NUMBER OF WELLS = 9.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	1038	540586	908	473013	666949	14992	2800000	-2148043	-2148043	-1789585
1979	2621	2393505	2293	2094318	2990523	61620	5500000	-2571097	-4719140	-3728587
1980	3398	2453975	2973	2147229	3149860	89999	2800000	259861	-4459279	-3551188
1981	3969	2488287	3472	2177252	3276369	121302	1400000	1755067	-2704212	-2466626
1982	3001	1821733	2626	1594017	2462476	129804	0	2332672	-371540	-1161762
1983	2269	1340509	1986	1172945	1859014	138869	0	1720125	1348585	-290755
1984	1715	990821	1501	866967	1408468	148554	0	1259914	2608499	286747
1985	1297	680068	1135	595059	991505	127694	-80000	943811	3552310	680037
1986	981	510227	860	446449	760621	126000	0	634621	4186931	918395
1987	742	385666	650	337459	587462	126000	0	461462	4648393	1075286
1988	561	291514	492	255076	453511	126000	0	327511	4975904	1176082
1989	415	215641	364	188685	342422	121175	-50000	271247	5247151	1251873
1990	266	138318	234	121029	223714	93838	-100000	229876	5477027	1310425
1991	132	68978	116	60355	113185	53339	-100000	159846	5636873	1347574
1992	46	24172	41	21150	40416	21838	-100000	118578	5755451	1372556
1993	0	0	0	0	0	0	0	0	5755451	1372556
1994	0	0	0	0	0	0	0	0	5755451	1372556
1995	0	0	0	0	0	0	0	0	5755451	1372556
SUB TOTAL	22451	14344000	19651	12551003	19326495	1501044	12070000	5755451	5755451	1372556
REMAINING	0	0	0	0	0	0	0	0	5755451	1372556
TOTAL	22451	14344000	19651	12551003	19326495	1501044	12070000	5755451	5755451	1372556
PRIOR CUM	0	0								
ULTIMATE	22451	14344000								

CUMULATIVE DISCOUNTED NET REVENUE AT	
8.000 PER CENT	1953787
12.000 PER CENT	891012
15.000 PER CENT	320043
20.000 PER CENT	-330129

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 66

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 18.385 AVERAGE GAS PRICE = 1.633
NUMBER OF WELLS = 12.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	1350000	-930419	-930419	-856323
1978	2715	3055653	2376	2673697	3695369	47710	6900000	-3252341	-4182760	-3565924
1979	6699	4648939	5862	4067820	5783964	102419	5600000	81545	-4101215	-3504425
1980	6837	4349330	5982	3805662	5557140	133650	1400000	4023490	-77725	-757711
1981	4890	3083728	4279	2698262	4044525	143018	0	3901507	3823782	1653268
1982	8892	2643013	7781	2312638	3625641	166219	25000	3434422	7258204	3574435
1983	7329	1959726	6414	1714759	2769990	177862	0	2592128	9850332	4886994
1984	6103	1466206	5342	1282931	2133939	190236	0	1943703	11794035	5777923
1985	5138	1069968	4496	936221	1602960	181618	-120000	1541342	13335377	6419031
1986	4368	768438	3822	672384	1187319	161302	0	1026017	14361394	6804394
1987	3683	571220	3223	499819	907419	144797	50000	712622	15074016	7047541
1988	3046	381954	2666	334211	629031	102784	-200000	726247	15800263	7273102
1989	2524	237627	2209	207923	409630	46237	-150000	513393	16313656	7417354
1990	2207	186561	1931	163241	331319	22679	0	308640	16622296	7495188
1991	1974	166828	1727	145975	301677	23999	0	277678	16899974	7558576
1992	1765	149182	1544	130534	274589	24000	0	250589	17150563	7610358
1993	1578	133402	1381	116727	249853	24000	0	225853	17376416	7652605
1994	1411	119292	1235	104381	227282	24000	0	203282	17579698	7687025
1995	1262	106674	1104	93340	206696	24000	0	182696	17762394	7715028
SUB TOTAL	72421	25457693	63374	22275483	34360324	1742930	14855000	17762394	17762394	7715028
REMAINING	6840	578307	5985	506019	1201480	220080	-30000	1011400	18773794	7818114
TOTAL	79261	26036000	69359	22781502	35561804	1963010	14825000	18773794	18773794	7818114
PRIOR CUM	0	0								
ULTIMATE	79261	26036000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 9275863
12.000 PER CENT 6586555
15.000 PER CENT 5075271
20.000 PER CENT 3217926

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

07 DEC 76 11:42:41
EVALUATION FOR
SANDIA LABORATORIES

SHELL
SE 1/4 36-22-30

JAMES RANCH UNIT #1 PP10
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO
PAGE 1

TABLE NO. 67

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = 5.6000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .5500 LIFETIME = 54.209 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	408607	4230	357531	203583	3000	0	200583	200583	197281
1977	13888	1173999	12152	1027249	596657	9636	0	587021	787604	737553
1978	13011	1099862	11385	962379	572141	10310	0	561831	1349435	1205628
1979	12190	1030407	10666	901606	548626	11032	0	537594	1887029	1611057
1980	11420	965338	9993	844671	526075	11804	0	514271	2401300	1962134
1981	10699	904377	9362	791330	504469	12630	0	491839	2893139	2266071
1982	10023	847267	8770	741359	483773	13514	0	470259	3363398	2529127
1983	9390	793763	8216	694543	463963	14460	0	449503	3812901	2756739
1984	8797	743637	7697	650682	445009	15473	0	429536	4242437	2953624
1985	8242	696677	7212	609592	426889	16556	100000	310333	4552770	3082387
1986	7721	652683	6756	571098	409559	17715	0	391844	4944614	3229560
1987	7234	611467	6330	535034	393010	18955	0	374055	5318669	3356734
1988	6777	572853	5930	501246	377197	20281	0	356916	5675585	3466579
1989	6349	536678	5555	469593	362102	21701	0	340401	6015986	3561411
1990	5948	502787	5205	439939	347697	23220	0	324477	6340463	3643239
1991	5572	471037	4876	412157	333952	23999	0	309953	6650416	3713995
1992	5220	441291	4568	386130	320847	24000	0	296847	6947263	3775336
1993	4891	413424	4280	361746	308366	24000	0	284366	7231629	3828528
1994	4582	387317	4009	338902	296463	24000	0	272463	7504092	3874662
1995	4293	362858	3756	317501	285131	24000	0	261131	7765223	3914687
SUB TOTAL	161081	13616329	140948	11914288	8205509	340286	100000	7765223	7765223	3914687
REMAINING	57137	4829802	49999	4226080	4275835	837018	-75000	3513817	11279040	4141489
TOTAL	218218	18446131	190947	16140368	12481344	1177304	25000	11279040	11279040	4141489
PRIOR CUM	202612	17453869								
ULTIMATE	420830	35900000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 4774142
12.000 PER CENT 3654301
15.000 PER CENT 3104578
20.000 PER CENT 2481594

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

16 DEC 76 16:30:09
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
SW 1/4 31-22-31
7-1-77

JAMES RANCH UT#8 PU33
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO

TABLE NO. 68

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 8.713 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	1350000	-930419	-930419	-856323
1978	0	601992	0	526743	725186	5136	0	720050	-210369	-256432
1979	0	401142	0	350999	496206	5495	0	490711	280342	113640
1980	0	267296	0	233884	339285	5880	0	333405	613747	341245
1981	0	178110	0	155846	231839	6292	0	225547	839294	480624
1982	0	118682	0	103847	158322	6732	0	151590	990884	565421
1983	0	79082	0	69197	108053	7203	0	100850	1091734	616488
1984	0	52696	0	46109	73705	7704	0	66001	1157735	646741
1985	0	15048	0	13167	21534	2928	-40000	58606	1216341	671820
1986	0	0	0	0	0	0	0	0	1216341	671820
1987	0	0	0	0	0	0	0	0	1216341	671820
1988	0	0	0	0	0	0	0	0	1216341	671820
1989	0	0	0	0	0	0	0	0	1216341	671820
1990	0	0	0	0	0	0	0	0	1216341	671820
1991	0	0	0	0	0	0	0	0	1216341	671820
1992	0	0	0	0	0	0	0	0	1216341	671820
1993	0	0	0	0	0	0	0	0	1216341	671820
1994	0	0	0	0	0	0	0	0	1216341	671820
1995	0	0	0	0	0	0	0	0	1216341	671820
SUB TOTAL	0	2074000	0	1814750	2576111	49770	1310000	1216341	1216341	671820
REMAINING	0	0	0	0	0	0	0	0	1216341	671820
TOTAL	0	2074000	0	1814750	2576111	49770	1310000	1216341	1216341	671820
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 760756
12.000 PER CENT 590880
15.000 PER CENT 482733
20.000 PER CENT 332379

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 68

TABLE NO. 69

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 8.713 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	421981	2400	1350000	-930419	-930419	-856323
1978	0	601992	0	526743	725186	5136	0	720050	-210369	-256432
1979	0	401142	0	350999	496206	5495	0	490711	280342	113640
1980	0	267296	0	233884	339285	5880	0	333405	613747	341245
1981	0	178110	0	155846	231839	6292	0	225547	839294	480624
1982	0	118682	0	103847	158322	6732	0	151590	990884	565421
1983	0	79082	0	69197	108053	7203	0	100850	1091734	616488
1984	0	52696	0	46109	73705	7704	0	66001	1157735	646741
1985	0	15048	0	13167	21534	2928	-40000	58606	1216341	671820
1986	0	0	0	0	0	0	0	0	1216341	671820
1987	0	0	0	0	0	0	0	0	1216341	671820
1988	0	0	0	0	0	0	0	0	1216341	671820
1989	0	0	0	0	0	0	0	0	1216341	671820
1990	0	0	0	0	0	0	0	0	1216341	671820
1991	0	0	0	0	0	0	0	0	1216341	671820
1992	0	0	0	0	0	0	0	0	1216341	671820
1993	0	0	0	0	0	0	0	0	1216341	671820
1994	0	0	0	0	0	0	0	0	1216341	671820
1995	0	0	0	0	0	0	0	0	1216341	671820
SUB TOTAL	0	2074000	0	1814750	2576111	49770	1310000	1216341	1216341	671820
REMAINING	0	0	0	0	0	0	0	0	1216341	671820
TOTAL	0	2074000	0	1814750	2576111	49770	1310000	1216341	1216341	671820
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 760756
12.000 PER CENT 590880
15.000 PER CENT 482733
20.000 PER CENT 332379

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

CASE II-A

TABLE NO. 70

EVALUATION FOR SANDIA LABORATORIES
JOB NO. 6.1025 DATE 08 DEC 76 TIME 22:22:01
AS OF SEP 01, 1976 4.0 MONTHS IN FIRST PERIOD

PAGE	LEASE ID	LEASE NAME					
1	1	JAMES RANCH UNIT #1 PP10	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO			
2	2	JAMES RANCH UNIT #1 PP10	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO			
3	3	JAMES RANCH UNIT #7 PP14	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO			
4 SUM.	4	EXISTING WELLS - PP	TRACTS #10 & 14	GROUP I	91	LEVEL 1	
5	5	JAMES RANCH UNIT #1PNP10	LOS MEDANOS (DELAWARE)	EDDY CO., NEW MEXICO			
6	6	JAMES RANCH UNIT#7 PNP14	LOS MEDANOS-BONE SPRINGS	EDDY CO., NEW MEXICO			
7 SUM.	7	EXISTING WELLS - PNP	WELLS 10 & 14	GROUP I	91	LEVEL 1	
8	8	JAMES RANCH UNIT #7 PR14	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO		D	L
9 SUM.	9	EXISTING WELLS - PR	WELLS 10 & 14	GROUP I	91	LEVEL 1	
10 SUM.	10	EXISTING WELLS PP-PNP-PR	WELLS 10 & 14	GROUP I	92	LEVEL 2	
11	11	JAMES RANCH UT #8 PU33	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO		C	
12	12	JAMES RANCH UT #8 PU33	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		C	
13	13	JAMES RANCH UT36-1 PU34	LOS MEDANOS (ATOKA)	EDDY CO., NEW MEXICO			
14 SUM.	14	PROPOSED WELLS - PU	TRACTS 33 & 34	GROUP I	91	LEVEL 1	
15	15	JAMES RANCH UT36-1 PR34	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		D	L
16	16	JAMES RANCH UT36-2 PR35	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		D	L
17	17	JAMES RANCH UT31-2 PR36	LOS MEDANOS (MORROW)	EDDY CO., NEW MEXICO		D	L
18 SUM.	18	PROPOSED WELLS - PR	TRACTS 34, 35 & 36	GROUP I	91	LEVEL 1	
22 SUM.	22	PROPOSED WELLS - PU-PR	TR. 33,34,35, & 36	GROUP I	92	LEVEL 2	
23 SUM.	23	EXISTING & PROPOSED - I	PP-PNP-PU-PR		93	LEVEL 3	
24 SUM.	24	TOTAL JAMES RANCH UT8-PU	TRACT 33	GROUP I	96	C	
25 SUM.	25	TOTAL PR-GROUP I	TRACTS 14,34,35&36		97	D	

PROJECTION PROGRAM 12 LEASES AND 10 SUMMARIES

TABLE NO. 70

09 DEC 76 12:04:54

EVALUATION FOR
SANDIA LABORATORIES

TABLE NO. 71

TOTALS ALL LEASES
AS OF SEP 01, 1976

		GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
	JAMES RANCH UNIT #1 PP10	88181	7453869	77161	6522139	4571944	612769	25000	3934175	2010004
	JAMES RANCH UNIT #7 PP14	0	1085647	0	949942	498121	47190	0	450931	389443
1	EXISTING WELLS - PP	88181	8539516	77161	7472081	5070065	659959	25000	4385106	2399444
	JAMES RANCH UNIT #1PNP10	41700	83400	36488	72977	727731	153934	20000	553797	52277
	JAMES RANCH UNIT#7 PNP14	47100	108329	41213	94790	792521	201633	0	590888	257165
1	EXISTING WELLS - PNP	88800	191729	77701	167767	1520252	355567	20000	1144685	309442
	JAMES RANCH UNIT #7 PR14	47202	3990000	41304	3491250	2931768	502936	95000	2333832	797482
1	EXISTING WELLS - PR	47202	3990000	41304	3491250	2931768	502936	95000	2333832	797482
2	EXISTING WELLS PP-PNP-PR	224183	12721245	196166	11131098	9522085	1518462	140000	7863623	3506368
	JAMES RANCH UT #8 PU33	65463	5534000	57282	4842252	3770486	493581	1450000	1826905	378455
	JAMES RANCH UT #8 PU33	0	2074000	0	1814751	975258	50148	0	925110	700822
	JAMES RANCH UT36-1 PU34	65466	5534000	57283	4842254	3770570	493590	1450000	1826980	378402
1	PROPOSED WELLS - PU	130929	13142000	114565	11499257	8516314	1037319	2900000	4578995	1457679
	JAMES RANCH UT36-1 PR34	0	2074000	0	1814751	975258	50148	0	925110	700822
1	PROPOSED WELLS - PR	0	2074000	0	1814751	975258	50148	0	925110	700822
2	PROPOSED WELLS - PU-PR	130929	15216000	114565	13314008	9491572	1087467	2900000	5504105	2158501
3	EXISTING & PROPOSED - I	355112	27937245	310731	24445106	19013657	2605929	3040000	13367728	5664869
C	TOTAL JAMES RANCH UT8-PU	65463	7608000	57282	6657003	4745744	543729	1450000	2752015	1079277
D	TOTAL PR-GROUP I	47202	6064000	41304	5306001	3907026	553084	95000	3258942	1498304

TABLE NO. 72

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 16.586 AVERAGE GAS PRICE = .631
NUMBER OF WELLS = 9.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	424774	2658	371677	202641	5400	0	197241	197241	193994
1977	16013	2475085	14011	2165700	1238191	31133	2800000	-1592942	-1395701	-1272090
1978	21507	3260252	18819	2852721	1693370	48097	0	1645273	249572	98625
1979	19323	2576770	16908	2254675	1391588	51462	0	1340126	1589698	1109285
1980	17361	2085651	15192	1824946	1170769	55065	0	1115704	2705402	1870943
1981	15599	1724190	13649	1508666	1005215	58920	0	946295	3651697	2455717
1982	30188	1904032	26415	1666029	1335083	81507	65000	1188576	4840273	3120598
1983	25918	1649750	22679	1443532	1188825	86708	0	1102117	5942390	3678669
1984	22328	1441711	19538	1261498	1058714	92773	0	965941	6908331	4121423
1985	19302	1231269	16889	1077361	918091	89394	300000	528697	7437028	4340919
1986	16745	1073468	14652	939284	808698	87245	0	721453	8158481	4611889
1987	14571	962252	12749	841971	727274	92014	100000	535260	8693741	4793872
1988	12717	862696	11128	754860	655065	97116	0	557949	9251690	4965588
1989	11130	773551	9740	676857	590848	102574	0	488274	9739964	5101616
1990	9766	693702	8545	606990	533591	108417	0	425174	10165138	5208838
1991	8590	622169	7516	544399	482441	113554	0	368887	10534025	5293047
1992	7503	557916	6566	488177	435436	113684	-40000	361752	10895777	5367830
1993	5901	498816	5164	436464	381797	96000	0	285797	11181574	5421289
1994	5297	447703	4635	391740	347779	96000	0	251779	11433353	5463921
1995	4754	401838	4160	351609	316836	96000	0	220836	11654189	5497769
SUB TOTAL	287551	25667595	251613	22459156	16482252	1603063	3225000	11654189	11654189	5497769
REMAINING	67561	2269650	59118	1985950	2531405	1002866	-185000	1713539	13367728	5664869
TOTAL	355112	27937245	310731	24445106	19013657	2605929	3040000	13367728	13367728	5664869
PRIOR CUM	207524	17713736								
ULTIMATE	562636	45650981								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 6577797
12.000 PER CENT 4916514
15.000 PER CENT 4022217
20.000 PER CENT 2946185

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

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EVALUATION FOR
SANDIA LABORATORIES

EXISTING WELLS - PP
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TABLE NO. 73

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 10.320 AVERAGE GAS PRICE = .628
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	424774	2658	371677	202641	5400	0	197241	197241	193994
1977	8527	1122360	7461	982065	548139	17340	0	530799	728040	682522
1978	7714	890591	6750	779267	449124	18553	0	430571	1158611	1041240
1979	6978	731557	6106	640113	380507	19852	0	360655	1519266	1313229
1980	6313	617774	5524	540553	330948	21241	0	309707	1828973	1524657
1981	5711	532712	4997	466123	293517	22728	0	270789	2099762	1691994
1982	5166	438384	4520	383586	250177	14002	0	236175	2335937	1824116
1983	4673	395034	4089	345655	230901	14460	0	216441	2552378	1933714
1984	4228	357359	3700	312689	213856	15473	0	198383	2750761	2024646
1985	3824	323277	3346	282867	198084	16556	100000	81528	2832289	2058474
1986	3460	292446	3028	255890	183514	17715	0	165799	2998088	2120746
1987	3130	264554	2739	231485	170039	18955	0	151084	3149172	2172113
1988	2831	239323	2477	209408	157581	20281	0	137300	3286472	2214369
1989	2561	216499	2241	189437	146072	21701	0	124371	3410843	2249018
1990	2317	195851	2027	171370	135439	23220	0	112219	3523062	2277318
1991	2096	177172	1834	155026	125613	23999	0	101614	3624676	2300514
1992	1896	160275	1659	140241	116532	24000	0	92532	3717208	2319635
1993	1715	144989	1501	126865	108141	24000	0	84141	3801349	2335374
1994	1552	131161	1358	114766	100399	24000	0	76399	3877748	2348310
1995	1404	118652	1229	103821	93240	24000	0	69240	3946988	2358923
SUB TOTAL	79134	7774744	69244	6802904	4434464	387476	100000	3946988	3946988	2358923
REMAINING	9047	764772	7917	669177	635601	272483	-75000	438116	4385106	2399444
TOTAL	88181	8539516	77161	7472081	5070065	659959	25000	4385106	4385106	2399444
PRIOR CUM	202624	17713736								
ULTIMATE	290805	26253252								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2636206
12.000 PER CENT 2203634
15.000 PER CENT 1966258
20.000 PER CENT 1672227

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 73

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EVALUATION FOR
SANDIA LABORATORIES

EXISTING WELLS - PNP
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TABLE NO. 74

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.664 AVERAGE GAS PRICE = .700
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	10778	24787	9431	21689	168005	15590	40000	112415	112415	62883
1983	8499	19548	7437	17105	141244	16691	0	124553	236968	125952
1984	6697	15403	5860	13478	116008	17860	0	98148	335116	170940
1985	5277	12137	4617	10620	91511	19110	0	72401	407517	200981
1986	4159	9566	3639	8370	72201	19116	0	53085	460602	220919
1987	3277	7537	2867	6595	56950	19116	0	37834	498436	233782
1988	2582	5939	2259	5197	44920	19116	0	25804	524240	241723
1989	2035	4681	1781	4096	35442	19116	0	16326	540566	246271
1990	1603	3687	1403	3226	27948	19116	0	8832	549398	248498
1991	1264	2907	1106	2544	22061	19116	0	2945	552343	249170
1992	929	2137	813	1870	16231	17686	-40000	38545	590888	257165
1993	0	0	0	0	0	0	0	0	590888	257165
1994	0	0	0	0	0	0	0	0	590888	257165
1995	0	0	0	0	0	0	0	0	590888	257165
SUB TOTAL	47100	108329	41213	94790	792521	201633	0	590888	590888	257165
REMAINING	41700	83400	36488	72977	727731	153934	20000	553797	1144685	309442
TOTAL	88800	191729	77701	167767	1520252	355567	20000	1144685	1144685	309442
PRIOR CUM	4900	0								
ULTIMATE	93700	191729								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 385511
12.000 PER CENT 252284
15.000 PER CENT 190124
20.000 PER CENT 124074

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 74

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EVALUATION FOR
SANDIA LABORATORIES

EXISTING WELLS - PR
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TABLE NO. 75

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.662 AVERAGE GAS PRICE = .676
NUMBER OF WELLS = 1.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	5394	455920	4720	398930	303090	13191	25000	264899	264899	148161
1983	4825	407881	4222	356896	279352	14123	0	265229	530128	282483
1984	4314	364645	3775	319064	255488	15112	0	240376	770504	392663
1985	3856	325993	3374	285244	231032	16170	0	214862	985366	481813
1986	3448	291438	3017	255008	208910	17302	0	191608	1176974	553779
1987	3082	260545	2697	227977	188864	18513	100000	70351	1247325	577698
1988	2756	232927	2412	203811	170739	19809	0	150930	1398255	624149
1989	2463	208237	2155	182207	154310	21195	0	133115	1531370	661233
1990	2202	186164	1927	162894	139459	22679	0	116780	1648150	690683
1991	1969	166431	1723	145627	126030	23999	0	102031	1750181	713975
1992	1760	148789	1540	130190	113868	24000	0	89868	1840049	732545
1993	1574	133017	1377	116390	102883	24000	0	78883	1918932	747300
1994	1407	118917	1231	104052	92936	24000	0	68936	1987868	758973
1995	1258	106312	1101	93023	83947	24000	0	59947	2047815	768161
SUB TOTAL	40308	3407216	35271	2981313	2450908	278093	125000	2047815	2047815	768161
REMAINING	6894	582784	6033	509937	480860	224843	-30000	286017	2333832	797482
TOTAL	47202	3990000	41304	3491250	2931768	502936	95000	2333832	2333832	797482
PRIOR CUM	0	0								
ULTIMATE	47202	3990000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 970817
12.000 PER CENT 659686
15.000 PER CENT 501984
20.000 PER CENT 326382

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 75

TABLE NO. 76

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 15.992 AVERAGE GAS PRICE = .644
NUMBER OF WELLS = 5.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	424774	2658	371677	202641	5400	0	197241	197241	193994
1977	8527	1122360	7461	982065	548139	17340	0	530799	728040	682522
1978	7714	890591	6750	779267	449124	18553	0	430571	1158611	1041240
1979	6978	731557	6106	640113	380507	19852	0	360655	1519266	1313229
1980	6313	617774	5524	540553	330948	21241	0	309707	1828973	1524657
1981	5711	532712	4997	466123	293517	22728	0	270789	2099762	1691994
1982	21338	919091	18671	804205	721272	42783	65000	613489	2713251	2035160
1983	17997	822463	15748	719656	651497	45274	0	606223	3319474	2342149
1984	15239	737407	13335	645231	585352	48445	0	536907	3856381	2588249
1985	12957	661407	11337	578731	520627	51836	100000	368791	4225172	2741268
1986	11067	593450	9684	519268	464625	54133	0	410492	4635664	2895444
1987	9489	532636	8303	466057	415853	56584	100000	259269	4894933	2983593
1988	8169	478189	7148	418416	373240	59206	0	314034	5208967	3080241
1989	7059	429417	6177	375740	335824	62012	0	273812	5482779	3156522
1990	6122	385702	5357	337490	302846	65015	0	237831	5720610	3216499
1991	5329	346510	4663	303197	273704	67114	0	206590	5927200	3263659
1992	4585	311201	4012	272301	246631	65686	-40000	220945	6148145	3309345
1993	3289	278006	2878	243255	211024	48000	0	163024	6311169	3339839
1994	2959	250078	2589	218818	193335	48000	0	145335	6456504	3364448
1995	2662	224964	2330	196844	177187	48000	0	129187	6585691	3384249
SUB TOTAL	166542	11290289	145728	9879007	7677893	867202	225000	6585691	6585691	3384249
REMAINING	57641	1430956	50438	1252091	1844192	651260	-85000	1277932	7863623	3506368
TOTAL	224183	12721245	196166	11131098	9522085	1518462	140000	7863623	7863623	3506368
PRIOR CUM	207524	17713736								
ULTIMATE	431707	30434981								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 3992534
12.000 PER CENT 3115604
15.000 PER CENT 2658366
20.000 PER CENT 2122683

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

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EVALUATION FOR
SANDIA LABORATORIES

PROPOSED WELLS - PU
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TABLE NO. 77

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.602 AVERAGE GAS PRICE = .626
NUMBER OF WELLS = 3.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	7486	992773	6550	868677	527080	11393	2800000	-2284313	-2284313	-2102396
1978	13793	1767798	12069	1546824	966884	24408	0	942476	-1341837	-1317197
1979	12345	1444362	10802	1263817	823112	26115	0	796997	-544840	-716139
1980	11048	1200910	9668	1050797	712475	27944	0	684531	139691	-248830
1981	9888	1013678	8652	886968	625448	29900	0	595548	735239	119196
1982	8850	866526	7744	758211	555411	31992	0	523419	1258658	411989
1983	7921	748423	6931	654870	497796	34231	0	463565	1722223	646721
1984	7089	651780	6203	570308	446609	36624	0	409985	2132208	834644
1985	6345	553098	5552	483961	388790	34252	200000	154538	2286746	898829
1986	5678	480018	4968	420016	344073	33112	0	310961	2597707	1015623
1987	5082	429616	4446	375914	311421	35430	0	275991	2873698	1109457
1988	4548	384507	3980	336444	281825	37910	0	243915	3117613	1184525
1989	4071	344134	3563	301117	255024	40562	0	214462	3332075	1244272
1990	3644	308000	3188	269500	230745	43402	0	187343	3519418	1291517
1991	3261	275659	2853	241202	208737	46440	0	162297	3681715	1328566
1992	2918	246715	2554	215876	188805	47998	0	140807	3822522	1357663
1993	2612	220810	2286	193209	170773	48000	0	122773	3945295	1380628
1994	2338	197625	2046	172922	154444	48000	0	106444	4051739	1398651
1995	2092	176874	1830	154765	139649	48000	0	91649	4143388	1412698
SUB TOTAL	121009	12303306	105885	10765398	7829101	685713	3000000	4143388	4143388	1412698
REMAINING	9920	838694	8680	733859	687213	351606	-100000	435607	4578995	1457679
TOTAL	130929	13142000	114565	11499257	8516314	1037319	2900000	4578995	4578995	1457679
PRIOR CUM	0	0								
ULTIMATE	130929	13142000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 1846257
12.000 PER CENT 1135535
15.000 PER CENT 747048
20.000 PER CENT 277101

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 78

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = .000 AVERAGE GAS PRICE = .582
NUMBER OF WELLS = 1.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	162972	2400	0	160572	160572	147784
1978	0	601863	0	526630	277362	5136	0	272226	432798	374582
1979	0	400851	0	350745	187969	5495	0	182474	615272	512195
1980	0	266967	0	233596	127346	5880	0	121466	736738	595116
1981	0	177800	0	155575	86250	6292	0	79958	816696	644527
1982	0	118415	0	103613	58400	6732	0	51668	868364	673429
1983	0	78864	0	69006	39532	7203	0	32329	900693	689799
1984	0	52524	0	45959	26753	7704	0	19049	919742	698530
1985	0	16764	0	14669	8674	3306	0	5368	925110	700822
1986	0	0	0	0	0	0	0	0	925110	700822
1987	0	0	0	0	0	0	0	0	925110	700822
1988	0	0	0	0	0	0	0	0	925110	700822
1989	0	0	0	0	0	0	0	0	925110	700822
1990	0	0	0	0	0	0	0	0	925110	700822
1991	0	0	0	0	0	0	0	0	925110	700822
1992	0	0	0	0	0	0	0	0	925110	700822
1993	0	0	0	0	0	0	0	0	925110	700822
1994	0	0	0	0	0	0	0	0	925110	700822
1995	0	0	0	0	0	0	0	0	925110	700822
SUB TOTAL	0	2074000	0	1814751	975258	50148	0	925110	925110	700822
REMAINING	0	0	0	0	0	0	0	0	925110	700822
TOTAL	0	2074000	0	1814751	975258	50148	0	925110	925110	700822
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT

8.000 PER CENT	739006
12.000 PER CENT	665375
15.000 PER CENT	616803
20.000 PER CENT	546401

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 79

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 17.602 AVERAGE GAS PRICE = .620
NUMBER OF WELLS = 4.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	7486	1352725	6550	1183635	690052	13793	2800000	-2123741	-2123741	-1954612
1978	13793	2369661	12069	2073454	1244246	29544	0	1214702	-909039	-942615
1979	12345	1845213	10802	1614562	1011081	31610	0	979471	70432	-203944
1980	11048	1467877	9668	1284393	839821	33824	0	805997	876429	346286
1981	9888	1191478	8652	1042543	711698	36192	0	675506	1551935	763723
1982	8850	984941	7744	861824	613811	38724	0	575087	2127022	1085418
1983	7921	827287	6931	723876	537328	41434	0	495894	2622916	1336520
1984	7089	704304	6203	616267	473362	44328	0	429034	3051950	1533174
1985	6345	569862	5552	498630	397464	37558	200000	159906	3211856	1599651
1986	5678	480013	4968	420016	344073	33112	0	310961	3522817	1716445
1987	5082	429616	4446	375914	311421	35430	0	275991	3798808	1810279
1988	4548	384507	3980	336444	281825	37910	0	243915	4042723	1885347
1989	4071	344134	3563	301117	255024	40562	0	214462	4257185	1945094
1990	3644	308000	3188	269500	230745	43402	0	187343	4444528	1992339
1991	3261	275659	2853	241202	208737	46440	0	162297	4606825	2029388
1992	2918	246715	2554	215876	188805	47998	0	140807	4747632	2058485
1993	2612	220810	2286	193209	170773	48000	0	122773	4870405	2081450
1994	2338	197625	2046	172922	154444	48000	0	106444	4976849	2099473
1995	2092	176874	1830	154765	139649	48000	0	91649	5068498	2113520
SUB TOTAL	121009	14377306	105885	12580149	8804359	735861	3000000	5068498	5068498	2113520
REMAINING	9920	838694	8680	733859	687213	351606	-100000	435607	5504105	2158501
TOTAL	130929	15216000	114565	13314008	9491572	1087467	2900000	5504105	5504105	2158501
PRIOR CUM	0	0								
ULTIMATE	130929	15216000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2585263
12.000 PER CENT 1800910
15.000 PER CENT 1363851
20.000 PER CENT 823502

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

SHELL
SE 1/4 36-22-30

JAMES RANCH UNIT #1 PP10
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO

TABLE NO. 80

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = 5.6000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .5500 LIFETIME = 30.687 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	3038	256774	2658	224677	127936	3000	0	124936	124936	122879
1977	8527	720799	7461	630699	366330	9636	0	356694	481630	451167
1978	7714	652055	6750	570548	339197	10310	0	328887	810517	725170
1979	6978	589867	6106	516134	314065	11032	0	303033	1113550	953703
1980	6313	533610	5524	466909	290801	11804	0	278997	1392547	1144166
1981	5711	482719	4997	422379	269266	12630	0	256636	1649183	1302757
1982	5166	436681	4520	382096	249337	13514	0	235823	1885006	1434673
1983	4673	395034	4089	345655	230901	14460	0	216441	2101447	1544271
1984	4228	357359	3700	312689	213856	15473	0	198383	2299830	1635203
1985	3824	323277	3346	282867	198084	16556	100000	81528	2381358	1669031
1986	3460	292446	3028	255890	183514	17715	0	165799	2547157	1731303
1987	3130	264554	2739	231485	170039	18955	0	151084	2698241	1782670
1988	2831	239323	2477	209408	157581	20281	0	137300	2835541	1824926
1989	2561	216499	2241	189437	146072	21701	0	124371	2959912	1859575
1990	2317	195851	2027	171370	135439	23220	0	112219	3072131	1887875
1991	2096	177172	1834	155026	125613	23999	0	101614	3173745	1911071
1992	1896	160275	1659	140241	116532	24000	0	92532	3266277	1930192
1993	1715	144989	1501	126865	108141	24000	0	84141	3350418	1945931
1994	1552	131161	1358	114766	100399	24000	0	76399	3426817	1958867
1995	1404	118652	1229	103821	93240	24000	0	69240	3496057	1969480
SUB TOTAL	79134	6689097	69244	5852962	3936343	340286	100000	3496057	3496057	1969480
REMAINING	9047	764772	7917	669177	635601	272483	75000	438118	3934175	2010001
TOTAL	88181	7453869	77161	6522139	4571944	612769	25000	3934175	3934175	2010001
PRIOR CUM	202612	17378131								
ULTIMATE	290793	24832000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 2235640
12.000 PER CENT 1824799
15.000 PER CENT 1602436
20.000 PER CENT 1331256

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
NE 1/4 6-23-31

JAMES RANCH UNIT #7 PP14
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO

TABLE NO. 81

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .5500 LIFETIME = 5.379 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	168000	0	147000	74705	2400	0	72305	72305	71115
1977	0	401561	0	351366	181809	7704	0	174105	246410	231355
1978	0	238536	0	208719	109927	8243	0	101684	348094	316070
1979	0	141690	0	123979	66442	8820	0	57622	405716	359526
1980	0	84164	0	73644	40147	9437	0	30710	436426	380491
1981	0	49993	0	43744	24251	10098	0	14153	450579	389237
1982	0	1703	0	1490	840	488	0	352	450931	389443
1983	0	0	0	0	0	0	0	0	450931	389443
1984	0	0	0	0	0	0	0	0	450931	389443
1985	0	0	0	0	0	0	0	0	450931	389443
1986	0	0	0	0	0	0	0	0	450931	389443
1987	0	0	0	0	0	0	0	0	450931	389443
1988	0	0	0	0	0	0	0	0	450931	389443
1989	0	0	0	0	0	0	0	0	450931	389443
1990	0	0	0	0	0	0	0	0	450931	389443
1991	0	0	0	0	0	0	0	0	450931	389443
1992	0	0	0	0	0	0	0	0	450931	389443
1993	0	0	0	0	0	0	0	0	450931	389443
1994	0	0	0	0	0	0	0	0	450931	389443
1995	0	0	0	0	0	0	0	0	450931	389443
SUB TOTAL	0	1085647	0	949942	498121	47190	0	450931	450931	389443
REMAINING	0	0	0	0	0	0	0	0	450931	389443
TOTAL	0	1085647	0	949942	498121	47190	0	450931	450931	389443
PRIOR CUM	12	335605								
ULTIMATE	12	1421252								

CUMULATIVE DISCOUNTED NET REVENUE AT

8.000 PER CENT	400566
12.000 PER CENT	378835
15.000 PER CENT	363822
20.000 PER CENT	340971

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

SHELL
SE 1/4 36-22-30
1-1-98

JAMES RANCH UNIT #1PNP10
LOS MEDANOS (DELAWARE)
EDDY CO., NEW MEXICO

TABLE NO. 82

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE =20.0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 29.886 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
SUB TOTAL	0	0	0	0	0	0	0	0	0	0
REMAINING	41700	83400	36488	72977	727731	153934	20000	553797	553797	52277
TOTAL	41700	83400	36488	72977	727731	153934	20000	553797	553797	52277
PRIOR CUM	0	0								
ULTIMATE	41700	83400								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 83451
12.000 PER CENT 32816
15.000 PER CENT 16381
20.000 PER CENT 5193

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
NE 1/4 6-23-31
1-1-82

JAMES RANCH UNIT#7 PNP14
LOS MEDANOS-BONE SPRINGS
EDDY CO., NEW MEXICO

TABLE NO. 83

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 16.259 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	10778	24787	9431	21689	168005	15590	40000	112415	112415	62883
1983	8499	19548	7437	17105	141244	16691	0	124553	236968	125952
1984	6697	15403	5860	13478	116008	17860	0	98148	335116	170940
1985	5277	12137	4617	10620	91511	19110	0	72401	407517	200981
1986	4159	9566	3639	8370	72201	19116	0	53085	460602	220919
1987	3277	7537	2867	6595	56950	19116	0	37834	498436	233782
1988	2582	5939	2259	5197	44920	19116	0	25804	524240	241723
1989	2035	4681	1781	4096	35442	19116	0	16326	540566	246271
1990	1603	3687	1403	3226	27948	19116	0	8832	549398	248498
1991	1264	2907	1106	2544	22061	19116	0	2945	552343	249170
1992	929	2137	813	1870	16231	17686	-40000	38545	590888	257165
1993	0	0	0	0	0	0	0	0	590888	257165
1994	0	0	0	0	0	0	0	0	590888	257165
1995	0	0	0	0	0	0	0	0	590888	257165
SUB TOTAL	47100	108329	41213	94790	792521	201633	0	590888	590888	257165
REMAINING	0	0	0	0	0	0	0	0	590888	257165
TOTAL	47100	108329	41213	94790	792521	201633	0	590888	590888	257165
PRIOR CUM	4900	0								
ULTIMATE	52000	108329								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 302060
12.000 PER CENT 219468
15.000 PER CENT 173743
20.000 PER CENT 118881

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
NE 1/4 6-23-31
1-1-82

JAMES RANCH UNIT #7 PR14
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO
PAGE 8

TABLE NO. 84

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 28.702 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	5394	455920	4720	398930	303090	13191	25000	264899	264899	148181
1983	4825	407881	4222	356896	279352	14123	0	265229	530128	282483
1984	4314	364645	3775	319064	255488	15112	0	240376	770504	392663
1985	3856	325993	3374	285244	231032	16170	0	214862	985366	481813
1986	3448	291438	3017	255008	208910	17302	0	191608	1176974	553779
1987	3082	260545	2697	227977	188864	18513	100000	70351	1247325	577698
1988	2756	232927	2412	203811	170739	19809	0	150930	1398255	624149
1989	2463	208237	2155	182207	154310	21195	0	133115	1531370	661233
1990	2202	186164	1927	162894	139459	22679	0	116780	1648150	690683
1991	1969	166431	1723	145627	126030	23999	0	102031	1750181	713975
1992	1760	148789	1540	130190	113868	24000	0	89868	1840049	732545
1993	1574	133017	1377	116390	102883	24000	0	78883	1918932	747300
1994	1407	118917	1231	104052	92936	24000	0	68936	1987868	758973
1995	1258	106312	1101	93023	83947	24000	0	59947	2047815	768161
SUB TOTAL	40308	3407216	35271	2981313	2450908	278093	125000	2047815	2047815	768161
REMAINING	6894	582784	6033	509937	480860	224843	-30000	286017	2333832	797482
TOTAL	47202	3990000	41304	3491250	2931768	502936	95000	2333832	2333832	797482
PRIOR CUM	0	0								
ULTIMATE	47202	3990000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 970817
12.000 PER CENT 659686
15.000 PER CENT 501984
20.000 PER CENT 326382

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESLY, P.E./SM

TABLE NO. 84

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
SW 1/4 31-22-31
7-1-77

JAMES RANCH UT #8 PU33
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO

TABLE NO. 85

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 26.658 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	3745	316596	3277	277022	182159	4499	1400000	-1222340	-1222340	-1124996
1978	6896	582948	6034	510080	344747	9636	0	335111	-887229	-845807
1979	6172	521738	5401	456521	317558	10310	0	307248	-579981	-614095
1980	5524	466956	4834	408587	292557	11032	0	281525	-298456	-421906
1981	4944	417925	4326	365684	269592	11804	0	257788	-40668	-262603
1982	4425	374043	3872	327288	248499	12630	0	235869	195201	-130661
1983	3960	334768	3465	292922	229118	13514	0	215604	410805	-21487
1984	3544	299618	3101	262166	209915	14460	0	195455	606260	68103
1985	3172	268158	2776	234638	190045	15473	100000	74572	680832	99044
1986	2839	240001	2484	210001	172032	16556	0	155476	836308	157439
1987	2541	214801	2223	187951	155707	17715	0	137992	974300	204355
1988	2274	192247	1990	168216	140909	18955	0	121954	1096254	241888
1989	2035	172061	1781	150553	127501	20281	0	107220	1203474	271758
1990	1822	153995	1594	134746	115370	21701	0	93669	1297143	295380
1991	1630	137825	1426	120597	104358	23220	0	81138	1378281	313902
1992	1459	123353	1277	107934	94400	23999	0	70401	1448682	328450
1993	1306	110401	1143	96601	85384	24000	0	61384	1510066	339932
1994	1169	98809	1023	86458	77220	24000	0	53220	1563286	348943
1995	1046	88434	915	77380	69823	24000	0	45823	1609109	355966
SUB TOTAL	60503	5114677	52942	4475345	3426894	317785	1500000	1609109	1609109	355966
REMAINING	4960	419323	4340	366907	343592	175796	-50000	217796	1826905	378455
TOTAL	65463	5534000	57282	4842252	3770486	493581	1450000	1826905	1826905	378455
PRIOR CUM	0	0								
ULTIMATE	65463	5534000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 553646
12.000 PER CENT 235115
15.000 PER CENT 65163
20.000 PER CENT -134600

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 85

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

CONOCO
SW 1/4 31-22-31
7-1-77

JAMES RANCH UT #8 PU33
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO
PAGE 12

TABLE NO. 86

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 8.762 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	162972	2400	0	160572	160572	147784
1978	0	601863	0	526630	277362	5136	0	272226	432798	374582
1979	0	400851	0	350745	187969	5495	0	182474	615272	512195
1980	0	266967	0	233596	127346	5880	0	121466	736738	595116
1981	0	177800	0	155575	86250	6292	0	79958	816696	644527
1982	0	118415	0	103613	58400	6732	0	51668	868364	673429
1983	0	78864	0	69006	39532	7203	0	32329	900693	689799
1984	0	52524	0	45959	26753	7704	0	19049	919742	698530
1985	0	16764	0	14669	8674	3306	0	5368	925110	700822
1986	0	0	0	0	0	0	0	0	925110	700822
1987	0	0	0	0	0	0	0	0	925110	700822
1988	0	0	0	0	0	0	0	0	925110	700822
1989	0	0	0	0	0	0	0	0	925110	700822
1990	0	0	0	0	0	0	0	0	925110	700822
1991	0	0	0	0	0	0	0	0	925110	700822
1992	0	0	0	0	0	0	0	0	925110	700822
1993	0	0	0	0	0	0	0	0	925110	700822
1994	0	0	0	0	0	0	0	0	925110	700822
1995	0	0	0	0	0	0	0	0	925110	700822
SUB TOTAL	0	2074000	0	1814751	975258	50148	0	925110	925110	700822
REMAINING	0	0	0	0	0	0	0	0	925110	700822
TOTAL	0	2074000	0	1814751	975258	50148	0	925110	925110	700822
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 739006
12.000 PER CENT 665375
15.000 PER CENT 616803
20.000 PER CENT 546401

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 86

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS
NE 1/4 36-22-30
7-1-77

JAMES RANCH UT36-1 PU34
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO
PAGE 13

TABLE NO. 87

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 26.659 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	3741	316225	3273	276697	181949	4494	1400000	-1222545	-1222545	-1125184
1978	6897	582987	6035	510114	344775	9636	0	335139	-887406	-845972
1979	6173	521773	5401	456551	317585	10310	0	307275	-580131	-614239
1980	5524	466987	4834	408614	292572	11032	0	281540	-298591	-422040
1981	4944	417953	4326	365709	269606	11804	0	257802	-40789	-262728
1982	4425	374068	3872	327310	248512	12630	0	235882	195093	-130779
1983	3961	334791	3466	292942	229146	13514	0	215632	410725	-21591
1984	3545	299638	3102	262183	209941	14460	0	195481	606206	68011
1985	3173	268176	2776	234654	190071	15473	100000	74598	680804	98963
1986	2839	240017	2484	210015	172041	16556	0	155485	836289	157362
1987	2541	214815	2223	187963	155714	17715	0	137999	974288	204280
1988	2274	192260	1990	168228	140916	18955	0	121961	1096249	241815
1989	2036	172073	1782	150564	127523	20281	0	107242	1203491	271692
1990	1822	154005	1594	134754	115375	21701	0	93674	1297165	295315
1991	1631	137834	1427	120605	104379	23220	0	81159	1378324	313842
1992	1459	123362	1277	107942	94405	23999	0	70406	1448730	328391
1993	1306	110409	1143	96608	85389	24000	0	61389	1510119	339874
1994	1169	98816	1023	86464	77224	24000	0	53224	1563343	348886
1995	1046	88440	915	77385	69826	24000	0	45826	1609169	355910
SUB TOTAL	60506	5114629	52943	4475302	3426949	317780	1500000	1609169	1609169	355910
REMAINING	4960	419371	4340	366952	343621	175810	-50000	217811	1826980	378402
TOTAL	65466	5534000	57283	4842254	3770570	493590	1450000	1826980	1826980	378402
PRIOR CUM	0	0								
ULTIMATE	65466	5534000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 553605
12.000 PER CENT 235045
15.000 PER CENT 65082
20.000 PER CENT -134700

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 87

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

RICHARDSON & BASS

7-1-77

JAMES RANCH UT36-1 PR34
LOS MEDANOS (MORROW)
EDDY CO., NEW MEXICO

TABLE NO. 88

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = .0000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .0000 LIFETIME = 8.762 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	359952	0	314958	162972	2400	0	160572	160572	147784
1978	0	601863	0	526630	277362	5136	0	272226	432798	374582
1979	0	400851	0	350745	187969	5495	0	182474	615272	512195
1980	0	266967	0	233596	127346	5880	0	121466	736738	595116
1981	0	177800	0	155575	86250	6292	0	79958	816696	644527
1982	0	118415	0	103613	58400	6732	0	51668	868364	673429
1983	0	78864	0	69006	39532	7203	0	32329	900693	689799
1984	0	52524	0	45959	26753	7704	0	19049	919742	698530
1985	0	16764	0	14669	8674	3306	0	5368	925110	700822
1986	0	0	0	0	0	0	0	0	925110	700822
1987	0	0	0	0	0	0	0	0	925110	700822
1988	0	0	0	0	0	0	0	0	925110	700822
1989	0	0	0	0	0	0	0	0	925110	700822
1990	0	0	0	0	0	0	0	0	925110	700822
1991	0	0	0	0	0	0	0	0	925110	700822
1992	0	0	0	0	0	0	0	0	925110	700822
1993	0	0	0	0	0	0	0	0	925110	700822
1994	0	0	0	0	0	0	0	0	925110	700822
1995	0	0	0	0	0	0	0	0	925110	700822
SUB TOTAL	0	2074000	0	1814751	975258	50148	0	925110	925110	700822
REMAINING	0	0	0	0	0	0	0	0	925110	700822
TOTAL	0	2074000	0	1814751	975258	50148	0	925110	925110	700822
PRIOR CUM	0	0								
ULTIMATE	0	2074000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 739006
12.000 PER CENT 665375
15.000 PER CENT 616803
20.000 PER CENT 546401

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

CASE II-B

17 DEC 76 11:15:53

EVALUATION FOR
SANDIA LABORATORIES

TABLE NO. 89

TOTALS ALL LEASES
AS OF SEP 01, 1976

		GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
	JAMES RANCH UNIT #1 PP10	218218	18446131	190947	16140368	12481344	1177304	25000	11279040	4141489
	JAMES RANCH UNIT #7 PP14	0	1085647	0	949942	498121	47190	0	450931	389443
1	EXISTING WELLS - PP	218218	19531778	190947	17090310	12979465	1224494	25000	11729971	4530932
	JAMES RANCH UNIT #1PNP10	41700	83400	36488	72977	727731	153934	20000	553797	52277
	JAMES RANCH UNIT#7 PNP14	47100	108329	41213	94790	792521	201633	0	590888	257165
1	EXISTING WELLS - PNP	88800	191729	77701	167767	1520252	355567	20000	1144685	309442
	JAMES RANCH UNIT #7 PR14	47202	3990000	41304	3491250	2931768	502936	95000	2333832	797482
1	EXISTING WELLS - PR	47202	3990000	41304	3491250	2931768	502936	95000	2333832	797482
2	EXISTING WELLS PP-PNP-PR	354220	23713507	309952	20749327	17431485	2082997	140000	15208488	5637856
1	PROPOSED WELLS - PU	0	0	0	0	0	0	0	0	0
1	PROPOSED WELLS - PR	0	0	0	0	0	0	0	0	0
2	PROPOSED WELLS - PU-PR	0	0	0	0	0	0	0	0	0
3	EXISTING & PROPOSED - 1	354220	23713507	309952	20749327	17431485	2082997	140000	15208488	5637856
C	TOTAL JAMES RANCH UT6-PU	0	0	0	0	0	0	0	0	0
D	TOTAL PR-GROUP I	47202	3990000	41304	3491250	2931768	502936	95000	2333832	797482

TABLE NO. 90

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 15.271 AVERAGE GAS PRICE = .681
NUMBER OF WELLS = 5.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	576607	4230	504531	278288	5400	0	272888	272888	268396
1977	13888	1575560	12152	1378615	778466	17340	0	761126	1034014	968908
1978	13011	1338398	11385	1171098	682068	18553	0	663515	1697529	1521698
1979	12190	1172097	10666	1025585	615068	19852	0	595216	2292745	1970583
1980	11420	1049502	9993	918315	566222	21241	0	544981	2837726	2342625
1981	10699	954370	9362	835074	528720	22728	0	505992	3343718	2655308
1982	26195	1329677	22921	1163468	955708	42783	65000	847925	4191643	3129634
1983	22714	1221192	19875	1068544	884559	45274	0	839285	5030928	3554617
1984	19808	1123685	17332	983224	816505	48445	0	768060	5798988	3906670
1985	17375	1034807	15203	905456	749432	51836	100000	597596	6396584	4154624
1986	15328	953687	13412	834476	690670	54133	0	636537	7033121	4393701
1987	13593	879549	11894	769606	638824	56584	100000	482240	7515361	4557657
1988	12115	811719	10601	710254	592856	59206	0	533650	8049011	4721894
1989	10847	749596	9491	655896	551854	62012	0	489842	8538853	4858358
1990	9753	692638	8535	606059	515104	65015	0	450089	8988942	4971863
1991	8805	640375	7705	560328	482043	67114	0	414929	9403871	5066583
1992	7909	592217	6921	518190	450946	65686	-40000	425260	9829131	5154489
1993	6465	546441	5657	478136	411249	48000	0	363249	10192380	5222436
1994	5989	506234	5240	442954	389399	48000	0	341399	10533779	5280243
1995	5551	469170	4857	410524	369078	48000	0	321078	10854857	5329456
SUB TOTAL	248489	18217521	217432	15940333	11947059	867202	225000	10854857	10854857	5329456
REMAINING	105731	5495986	92520	4808994	5484426	1215795	-85000	4353631	15208488	5637856
TOTAL	354220	23713507	309952	20749327	17431485	2082997	140000	15208488	15208488	5637856
PRIOR CUM	207524	17789474								
ULTIMATE	561744	41502981								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 6531036
12.000 PER CENT 4945106
15.000 PER CENT 4160508
20.000 PER CENT 3273021

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

17 DEC 76 11:15:53
EVALUATION FOR
SANDIA LABORATORIES

EXISTING WELLS - PP
TRACTS #10 & 14
GROUP I
PAGE 4

TABLE NO. 91

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 12.529 AVERAGE GAS PRICE = .682
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	576607	4230	504531	278288	5400	0	272888	272888	268396
1977	13888	1575560	12152	1378615	778466	17340	0	761126	1034014	968908
1978	13011	1338398	11385	1171098	682068	18553	0	663515	1697529	1521698
1979	12190	1172097	10666	1025585	615068	19852	0	595216	2292745	1970583
1980	11420	1049502	9993	918315	566222	21241	0	544981	2837726	2342625
1981	10699	954370	9362	835074	528720	22728	0	505992	3343718	2655308
1982	10023	848970	8770	742849	484613	14002	0	470611	3814329	2918570
1983	9390	793763	8216	694543	463963	14460	0	449503	4263832	3146182
1984	8797	743637	7697	650682	445009	15473	0	429536	4693368	3343067
1985	8242	696677	7212	609592	426889	16556	100000	310333	5003701	3471830
1986	7721	652683	6756	571098	409559	17715	0	391844	5395545	3619003
1987	7234	611467	6330	535034	393010	18955	0	374055	5769600	3746177
1988	6777	572853	5930	501246	377197	20281	0	356916	6126516	3856022
1989	6349	536678	5555	469593	362102	21701	0	340401	6466917	3950854
1990	5948	502787	5205	439939	347697	23220	0	324477	6791394	4032682
1991	5572	471037	4876	412157	333952	23999	0	309953	7101347	4103438
1992	5220	441291	4568	386130	320847	24000	0	296847	7398194	4164779
1993	4891	413424	4280	361746	308366	24000	0	284366	7682560	4217971
1994	4582	387317	4009	338902	296463	24000	0	272463	7955023	4264105
1995	4293	362858	3756	317501	285131	24000	0	261131	8216154	4304130
SUB TOTAL	161081	14701976	140948	12864230	8703630	387476	100000	8216154	8216154	4304130
REMAINING	57137	4829802	49999	4226080	4275835	837018	-75000	3513817	11729971	4530932
TOTAL	218218	19531778	190947	17090310	12979465	1224494	25000	11729971	11729971	4530932
PRIOR CUM	202624	17789474								
ULTIMATE	420842	37321252								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 5174708
12.000 PER CENT 4033136
15.000 PER CENT 3468400
20.000 PER CENT 2822565

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 91

17 DEC 76 11:15:53
EVALUATION FOR
SANDIA LABORATORIES

EXISTING WELLS - PNP
WELLS 10 & 14
GROUP I
PAGE 7

TABLE NO. 92

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.664 AVERAGE GAS PRICE = .700
NUMBER OF WELLS = 2.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	10778	24787	9431	21689	168005	15590	40000	112415	112415	62883
1983	8499	19548	7437	17105	141244	16691	0	124553	236968	125952
1984	6697	15403	5860	13478	116008	17860	0	98148	335116	170940
1985	5277	12137	4617	10620	91511	19110	0	72401	407517	200981
1986	4159	9566	3639	8370	72201	19116	0	53085	460602	220919
1987	3277	7537	2867	6595	56950	19116	0	37834	498436	233782
1988	2582	5939	2259	5197	44920	19116	0	25804	524240	241723
1989	2035	4681	1781	4096	35442	19116	0	16326	540566	246271
1990	1603	3687	1403	3226	27948	19116	0	8832	549398	248498
1991	1264	2907	1106	2544	22061	19116	0	2945	552343	249170
1992	929	2137	813	1870	16231	17686	-40000	38545	590888	257165
1993	0	0	0	0	0	0	0	0	590888	257165
1994	0	0	0	0	0	0	0	0	590888	257165
1995	0	0	0	0	0	0	0	0	590888	257165
SUB TOTAL	47100	108329	41213	94790	792521	201633	0	590888	590888	257165
REMAINING	41700	83400	36488	72977	727731	153934	20000	553797	1144685	309442
TOTAL	88800	191729	77701	167767	1520252	355567	20000	1144685	1144685	309442
PRIOR CUM	4900	0								
ULTIMATE	93700	191729								

CUMULATIVE DISCOUNTED NET REVENUE AT

8.000 PER CENT	385511
12.000 PER CENT	252284
15.000 PER CENT	190124
20.000 PER CENT	124074

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 92

TABLE NO. 93

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 19.662 AVERAGE GAS PRICE = .676
NUMBER OF WELLS = 1.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0
1982	5394	455920	4720	398930	303090	13191	25000	264899	264899	148181
1983	4825	407881	4222	356896	279352	14123	0	265229	530128	282483
1984	4314	364645	3775	319064	255488	15112	0	240376	770504	392663
1985	3856	325993	3374	285244	231032	16170	0	214862	985366	481813
1986	3448	291438	3017	255008	208910	17302	0	191608	1176974	553779
1987	3082	260545	2697	227977	188864	18513	100000	70351	1247325	577698
1988	2756	232927	2412	203811	170739	19809	0	150930	1398255	624149
1989	2463	208237	2155	182207	154310	21195	0	133115	1531370	661233
1990	2202	186164	1927	162894	139459	22679	0	116780	1648150	690683
1991	1969	166431	1723	145627	126030	23999	0	102031	1750181	713975
1992	1760	148789	1540	130190	113868	24000	0	89868	1840049	732545
1993	1574	133017	1377	116390	102883	24000	0	78883	1918932	747300
1994	1407	118917	1231	104052	92936	24000	0	68936	1987868	758973
1995	1258	106312	1101	93023	83947	24000	0	59947	2047815	768161
SUB TOTAL	40308	3407216	35271	2981313	2450908	278093	125000	2047815	2047815	768161
REMAINING	6894	582784	6033	509937	480860	224843	-30000	286017	2333832	797482
TOTAL	47202	3990000	41304	3491250	2931768	502936	95000	2333832	2333832	797482
PRIOR CUM	0	0								
ULTIMATE	47202	3990000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 970817
12.000 PER CENT 659686
15.000 PER CENT 501964
20.000 PER CENT 326362

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 94

SUMMARY

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

AVERAGE OIL PRICE = 15.271 AVERAGE GAS PRICE = .681
NUMBER OF WELLS = 5.000

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	576607	4230	504531	278288	5400	0	272888	272888	268396
1977	13888	1575560	12152	1378615	778466	17340	0	761126	1034014	968908
1978	13011	1338398	11385	1171098	682068	18553	0	663515	1697529	1521698
1979	12190	1172097	10666	1025585	615068	19852	0	595216	2292745	1970583
1980	11420	1049502	9993	918315	566222	21241	0	544981	2837726	2342625
1981	10699	954370	9362	835074	528720	22728	0	505992	3343718	2655308
1982	26195	1329677	22921	1163468	955708	42783	65000	847925	4191643	3129634
1983	22714	1221192	19875	1068544	884559	45274	0	839285	5030928	3554617
1984	19808	1123685	17332	983224	816505	48445	0	768060	5798988	3906670
1985	17375	1034807	15203	905456	749432	51836	100000	597596	6396584	4154624
1986	15328	953687	13412	834476	690670	54133	0	636537	7033121	4393701
1987	13593	879549	11894	769606	638624	56584	100000	482240	7515361	4557657
1988	12115	811719	10601	710254	592856	59206	0	533650	8049011	4721894
1989	10847	749596	9491	655896	551854	62012	0	489842	8538853	4858358
1990	9753	692638	8535	606059	515104	65015	0	450089	8988942	4971863
1991	8805	640375	7705	560328	482043	67114	0	414929	9403871	5066583
1992	7909	592217	6921	518190	450946	65686	-40000	425260	9829131	5154489
1993	6465	546441	5657	478136	411249	48000	0	363249	10192380	5222436
1994	5989	506234	5240	442954	389399	48000	0	341399	10533779	5280243
1995	5551	469170	4857	410524	369078	48000	0	321078	10854857	5329456
SUB TOTAL	248489	18217521	217432	15940333	11947059	867202	225000	10854857	10854857	5329456
REMAINING	105731	5495986	92520	4808994	5484426	1215795	-85000	4353631	15208488	5637856
TOTAL	354220	23713507	309952	20749327	17431485	2082997	140000	15208488	15208488	5637856
PRIOR CUM	207524	17789474								
ULTIMATE	561744	41502981								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 6531036
12.000 PER CENT 4945106
15.000 PER CENT 4160508
20.000 PER CENT 3273021

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

08 DEC 76 22:22:01
EVALUATION FOR
SANDIA LABORATORIES

SHELL
SE 1/4 36-22-30

JAMES RANCH UNIT #1 PP10
LOS MEDANOS (ATOKA)
EDDY CO., NEW MEXICO
PAGE 1

TABLE NO. 95

RESERVES AND ECONOMICS
AS OF SEP 01, 1976

EXPENSE INTEREST = 1.000000 OIL PRICE = 5.6000 DISC RATE = 10.000 PCT WELLS = 1.00
INCOME INTEREST = .875000 GAS PRICE = .5500 LIFETIME = 54.209 YEARS

YEAR ENDS DEC 31	GROSS PRODUCTION OIL BBL	GROSS PRODUCTION GAS MCF	NET PRODUCTION OIL BBL	NET PRODUCTION GAS MCF	REVENUE AFTER SEV TAX	OPERATING COSTS AND AD VAL TAX	CAPITAL COSTS	FUTURE NET REVENUE	CUMULATIVE NET REVENUE	CUM DISC NET REV AT 10.000 PCT
1976	4834	408607	4230	357531	203583	3000	0	200583	200583	197281
1977	13888	1173999	12152	1027249	596657	9636	0	587021	787604	737553
1978	13011	1099862	11385	962379	572141	10310	0	561831	1349435	1205628
1979	12190	1030407	10666	901606	548626	11032	0	537594	1887029	1611057
1980	11420	965338	9993	844671	526075	11804	0	514271	2401300	1962134
1981	10699	904377	9362	791330	504469	12630	0	491839	2893139	2266071
1982	10023	847267	8770	741359	483773	13514	0	470259	3363398	2529127
1983	9390	793763	8216	694543	463963	14460	0	449503	3812901	2756739
1984	8797	743637	7697	650682	445009	15473	0	429536	4242437	2953624
1985	8242	696677	7212	609592	426889	16556	100000	310333	4552770	3082387
1986	7721	652683	6756	571098	409559	17715	0	391844	4944614	3229560
1987	7234	611467	6330	535034	393010	18955	0	374055	5318669	3356734
1988	6777	572853	5930	501246	377197	20281	0	356916	5675585	3466579
1989	6349	536678	5555	469593	362102	21701	0	340401	6015986	3561411
1990	5948	502787	5205	439939	347697	23220	0	324477	6340463	3643239
1991	5572	471037	4876	412157	333952	23999	0	309953	6650416	3713995
1992	5220	441291	4568	386130	320847	24000	0	296847	6947263	3775336
1993	4891	413424	4280	361746	308366	24000	0	284366	7231629	3828528
1994	4582	387317	4009	338902	296463	24000	0	272463	7504092	3874662
1995	4293	362858	3756	317501	285131	24000	0	261131	7765223	3914687
SUB TOTAL	161081	13616329	140948	11914288	8205509	340286	100000	7765223	7765223	3914687
REMAINING	57137	4829802	49999	4226080	4275835	837018	-75000	3513817	11279040	4141489
TOTAL	218218	18446131	190947	16140368	12481344	1177304	25000	11279040	11279040	4141489
PRIOR CUM	202612	17453869								
ULTIMATE	420830	35900000								

CUMULATIVE DISCOUNTED NET REVENUE AT 8.000 PER CENT 4774142
12.000 PER CENT 3654301
15.000 PER CENT 3104578
20.000 PER CENT 2481594

SIPES, WILLIAMSON & AYCOCK, INC.
CONSUL.ENGRS.-MIDLAND,TX
JOHN J. KEESEY, P.E./SM

TABLE NO. 95

FIGURES

LIST OF FIGURES

SANDIA LABORATORIES

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE

EFFECTIVE DATE: SEPTEMBER 1, 1976

WELL PERFORMANCE & PROJECTION CURVES

OPERATOR Lease	Field	LOCATION	SW&A TRACT NO.	FIGURE NO.
PHILLIPS PETROLEUM CO. James "C" No. 1	Cabin Lake (Morrow)	35-21S-30E	1-A	1
CORINE GRACE Livingston Ridge Unit No. 1	Cabin Lake (Atoka)	36-21S-30E	1	2
KIMBALL PRODUCTION CO. Federal No. 1	Hat Mesa (Morrow)	1-21S-32E	*	3
TEAL PETROLEUM CO. Pubco Federal	Salt Lake, S. (Morrow)	2-21S-32E	*	4
PHILLIPS PETROLEUM CO. Hat Mesa "A"	Hat Mesa (Morrow)	2-21S-32E	*	5
TEAL PETROLEUM CO. New Mexico Federal	Salt Lake, S. (Morrow)	4-21S-32E	*	6
THE SUPERIOR OIL CO. Government H Com	Hat Mesa (Morrow)	10-21S-32E	*	7
PHILLIPS PETROLEUM CO. Hat Mesa Com 1	Hat Mesa (Morrow)	11-21S-32E	*	8
PHILLIPS PETROLEUM CO. Hat Mesa Com 2	Hat Mesa (Morrow)	11-21S-32E	*	9
BRUNSON & McKNIGHT Hat Mesa	Hat Mesa (Morrow)	14-21S-32E	*	10
TROPORO OIL & GAS CO. Cabana No. 1	Cabin Lake (Morrow)	1-22S-30E	3	11
PHILLIPS PETROLEUM CO. James "A" No. 1	Cabin Lake (Strawn & Morrow)	2-22S-30E	4	12
PHILLIPS PETROLEUM CO. James "E" No. 1	Cabin Lake (Morrow)	11-22S-30E	5	13
PHILLIPS PETROLEUM CO. James "E" No. 1	Cabin Lake (Strawn)	11-22S-30E	5	14
SHELL OIL CO. James Ranch Unit No. 1	Los Medanos (Atoka)	36-22S-30E	10	15
CLEARY PETROLEUM CORP. Federal 17-1	Lea Undesignated (Morrow)	17-22S-32E	30	16
CLEARY PETROLEUM CORP. Federal No. 1	Red Tank (Morrow)	20-22S-32E	29	17
MESA PETROLEUM CO. Nash Unit	Nash Draw (Morrow)	13-23S-29E	*	18

LIST OF FIGURES
SANDIA LABORATORIES
EFFECTIVE DATE: SEPTEMBER 1, 1976
WELL PERFORMANCE & PROJECTION CURVES

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE

OPERATOR Lease	Field	LOCATION	SW&A TRACT NO.	FIGURE NO.
TEXACO INC. Remuda Basin Units	Remuda (Wolfcamp)	24-23S-29E	*	19
BELCO PETROLEUM CO. James Ranch Unit No. 3	Los Medanos (Morrow & Strawn)	1-23S-30E	12	20
BELCO PETROLEUM CO. Hudson Federal Com. No. 1	Los Medanos (Atoka)	1-23S-30E	11	21
SKELLY OIL CO. Forth Niner Ridge Unit 1	Forth Niner Ridge (Morrow)	16-23S-30E	9	22
SKELLY OIL CO. Forth Niner Ridge Unit 2	Forty Niner Ridge (Morrow)	21-23S-30E	*	23
PHILLIPS PETROLEUM CO. Sandy Unit	Nash (Morrow)	24-23S-30E	*	24
CONTINENTAL OIL CO. James Ranch Unit No. 7	Los Medanos (Morrow)	6-23S-31E	14	25
BELCO PETROLEUM CO. James Ranch Unit No. 4	Eddy Undesignated (Morrow)	6-23S-31E	13	26
TEXAS AMERICAN OIL CORP. Todd "14" Federal No. 1	Sand Dunes (Lower Penn)	14-23S-31E	17	27
EL PASO NATURAL GAS CO. Arco State No. 1	Sand Dunes (Atoka West)	16-23S-31E	16	28
TEXAS AMERICAN OIL CORP. Todd 26 Federal	Sand Dunes (Atoka)	26-23S-31E	*	29
TOTAL FIELD 6 Wells	Sand Dunes (Cherry Canyon)	23 & 26-23S-31E	*	30
EL PASO NATURAL GAS CO. Mobil Federal	Sand Dunes (Morrow West)	29-23S-31E	*	31
TEXAS AMERICAN OIL CORP. Todd 36 State	Sand Dunes (Morrow)	36-23S-31E	*	32
SKELLY OIL CO. Federal Sand 18 No. 1	Sand Dunes (Bone Springs)	18-23S-32E	19	33
TOTAL FIELD 6 Wells	Triste Draw (Delaware)	26 & 35-23S-32E	*	34
EL PASO NATURAL GAS CO. Sundance Federal	Sand Dunes (Lower Penn, South)	4-24S-31E	*	35
CONTINENTAL OIL CO. Wimberly 2	Triple X (Delaware)	12-24S-32E	*	36
TOTAL FIELD 7 Wells	Triple X (Delaware)	1 & 12-24S-32E	*	37

* None Assigned

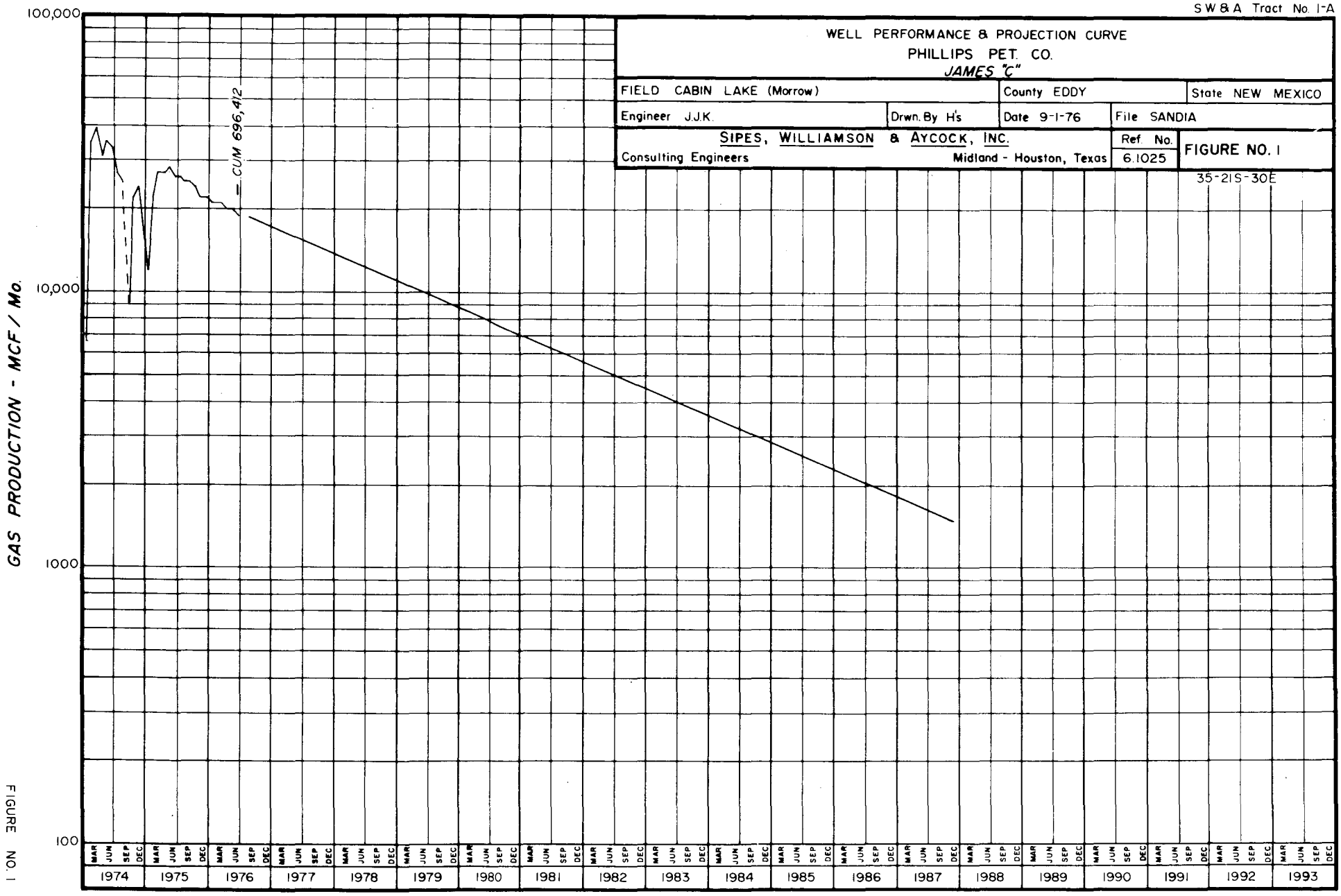
SW&A Tract No. 1-A
WELL PERFORMANCE & PROJECTION CURVE
PHILLIPS PET. CO.
JAMES "C"
FIELD CABIN LAKE (Morrow)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 1
35-21S-30E
CUM 696,412
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
MAR JUN SEP DEC
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

FIGURE NO. 1

S.W.& A. Tract No. 1

WELL PERFORMANCE & PROJECTION CURVE

CORINE GRACE

LIVINGSTON RIDGE UNIT

FIELD CABIN LAKE (Atoka)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers	Midland - Houston, Texas	Ref. No. 6.1025	FIGURE NO. 2

36-21S-30E

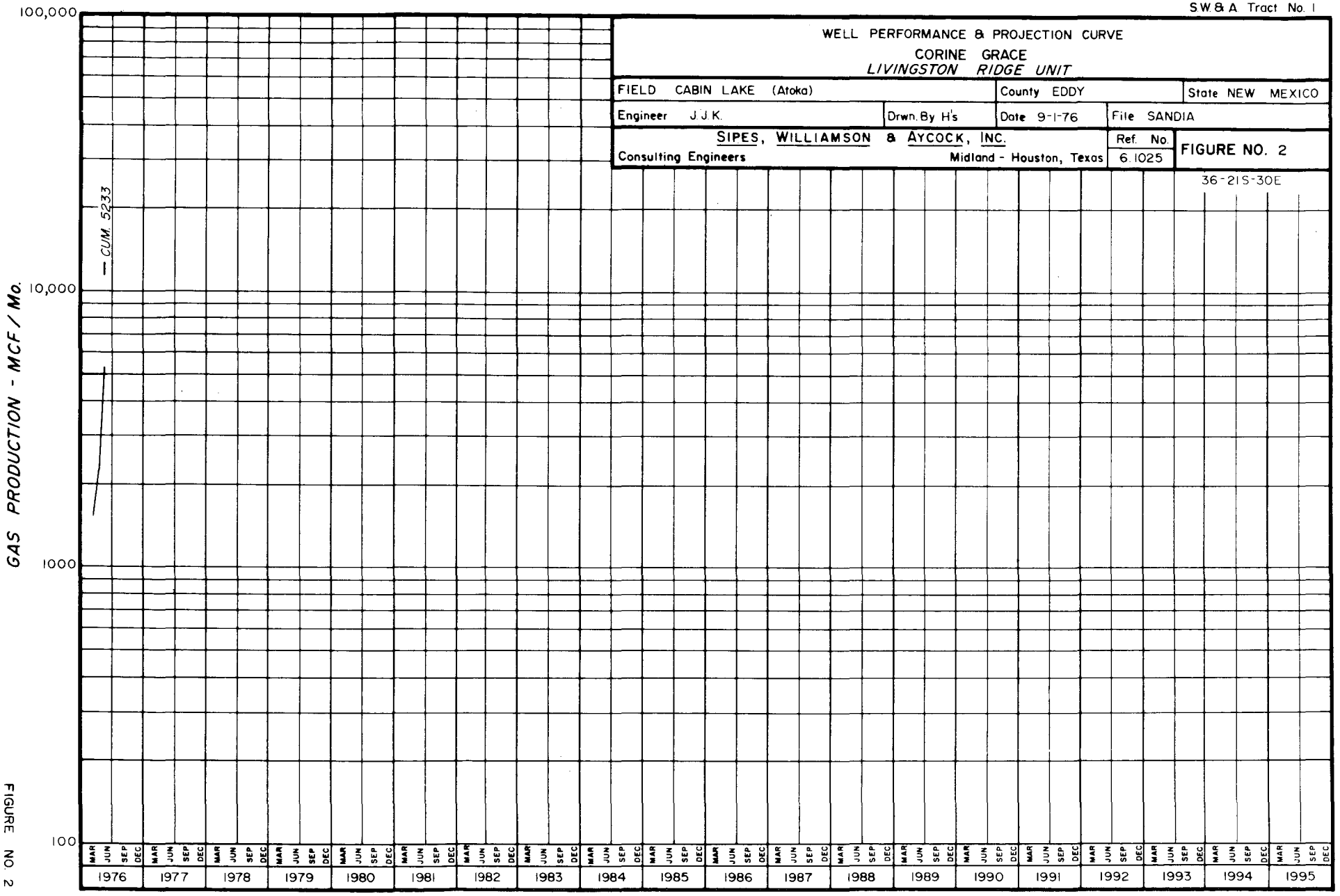

FIGURE NO. 2

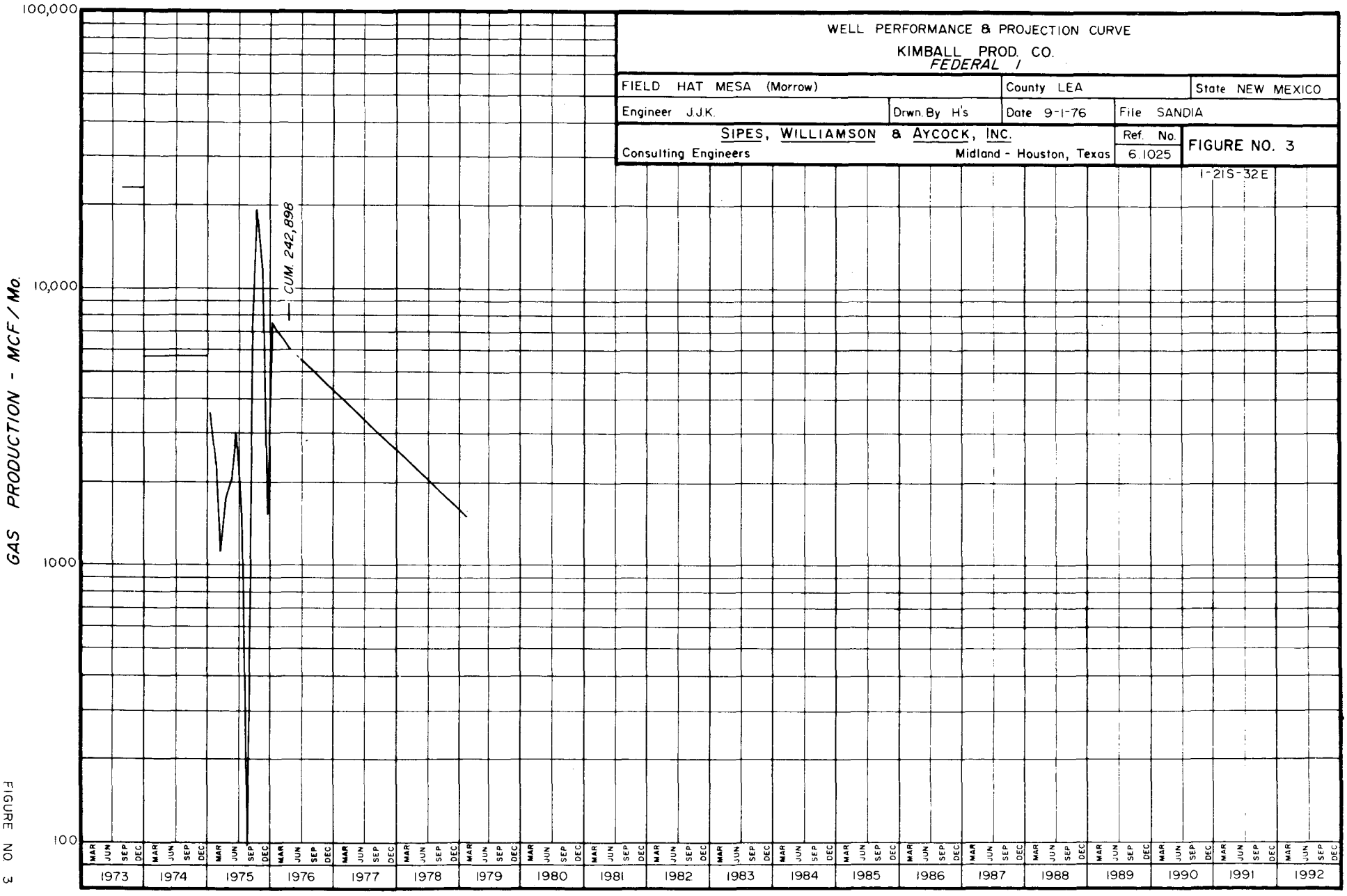
WELL PERFORMANCE & PROJECTION CURVE
KIMBALL PROD. CO.
FEDERAL 1
FIELD HAT MESA (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 3
1-21S-32E
CUM. 242,898
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
MAR
JUN
SEP
DEC
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992

FIGURE NO. 3

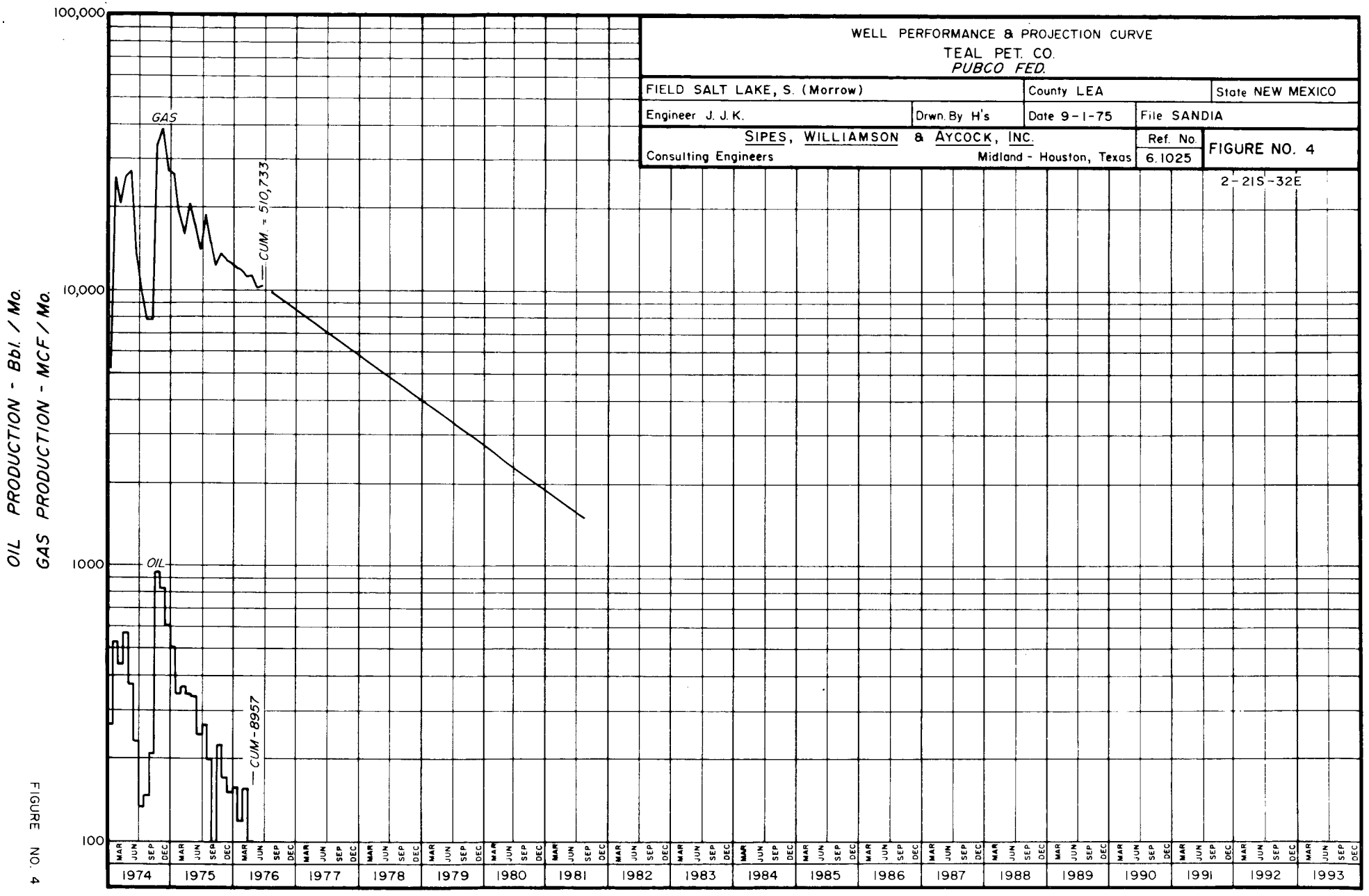
WELL PERFORMANCE & PROJECTION CURVE
TEAL PET. CO.
PUBCO FED.
FIELD SALT LAKE, S. (Morrow)
County LEA
State NEW MEXICO
Engineer J. J. K.
Drwn. By H's
Date 9-1-75
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 4
2-21S-32E
OIL PRODUCTION - Bbl. / Mo.
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
GAS
OIL
CUM. = 510,733
CUM-8957
MAR JUN SEP DEC
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993

FIGURE NO. 4

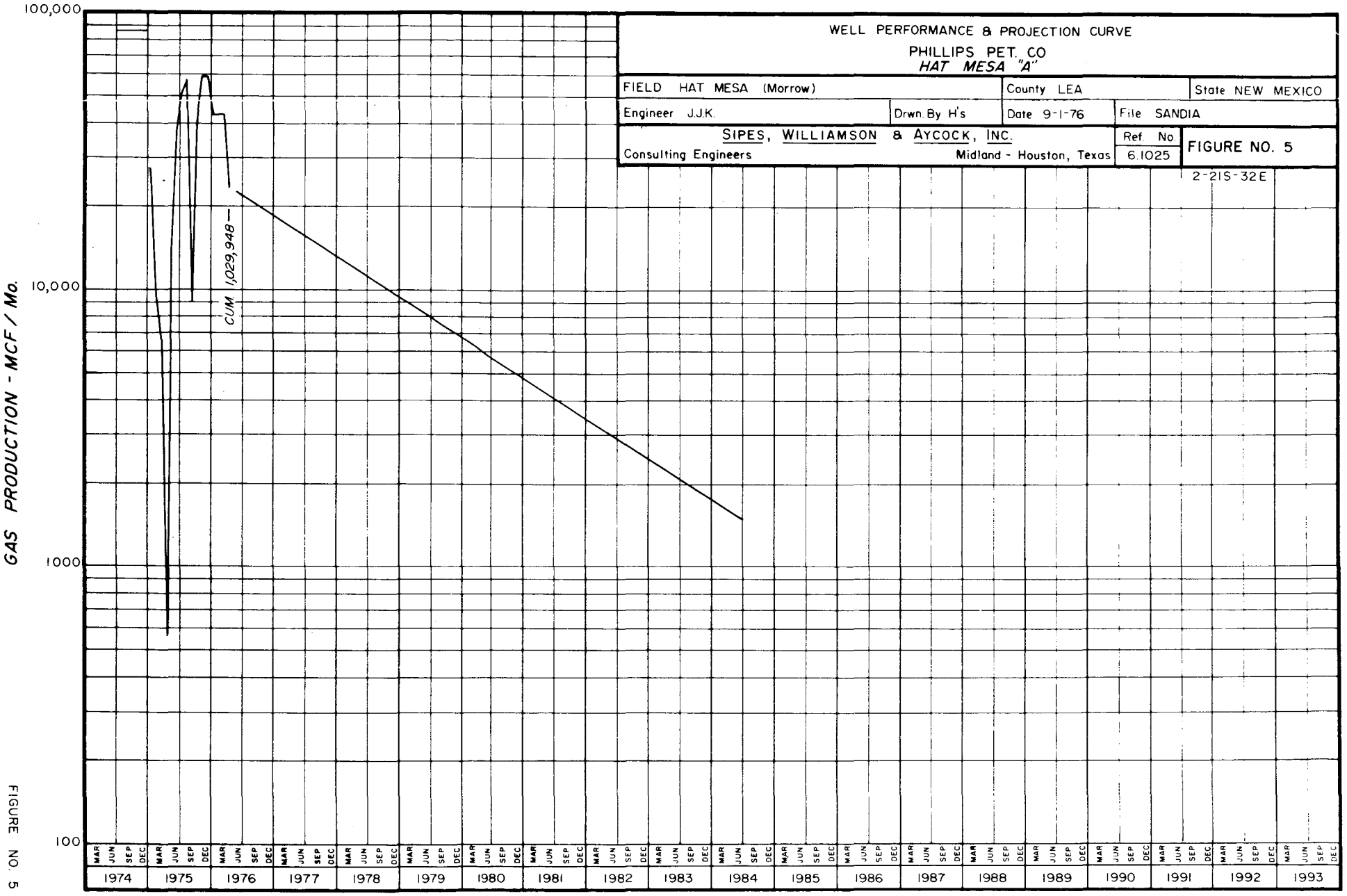
WELL PERFORMANCE & PROJECTION CURVE
PHILLIPS PET. CO
HAT MESA "A"
FIELD HAT MESA (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 5
2-21S-32E
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
CUM. 1,029,948
MAR JUN SEP DEC
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993

FIGURE NO. 5

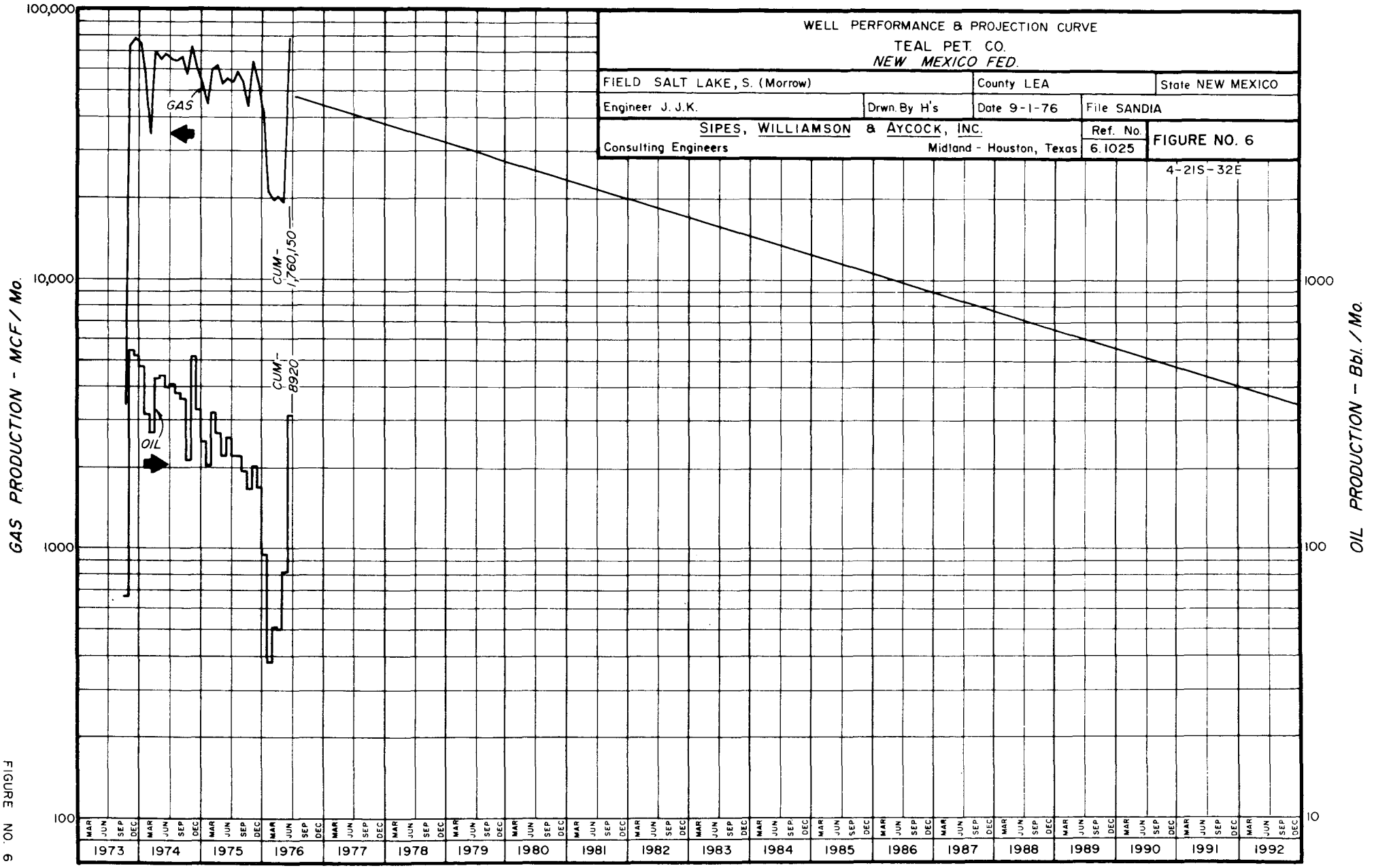
WELL PERFORMANCE & PROJECTION CURVE
TEAL PET. CO.
NEW MEXICO FED.
FIELD SALT LAKE, S. (Morrow)
County LEA
State NEW MEXICO
Engineer J. J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No.
6.1025
FIGURE NO. 6
4-21S-32E
GAS
OIL
CUM-1,760,150
CUM-8920
GAS PRODUCTION - MCF / Mo.
OIL PRODUCTION - Bbl. / Mo.
100,000
10,000
1000
100
1000
100
10
MAR
JUN
SEP
DEC
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992

FIGURE NO. 6

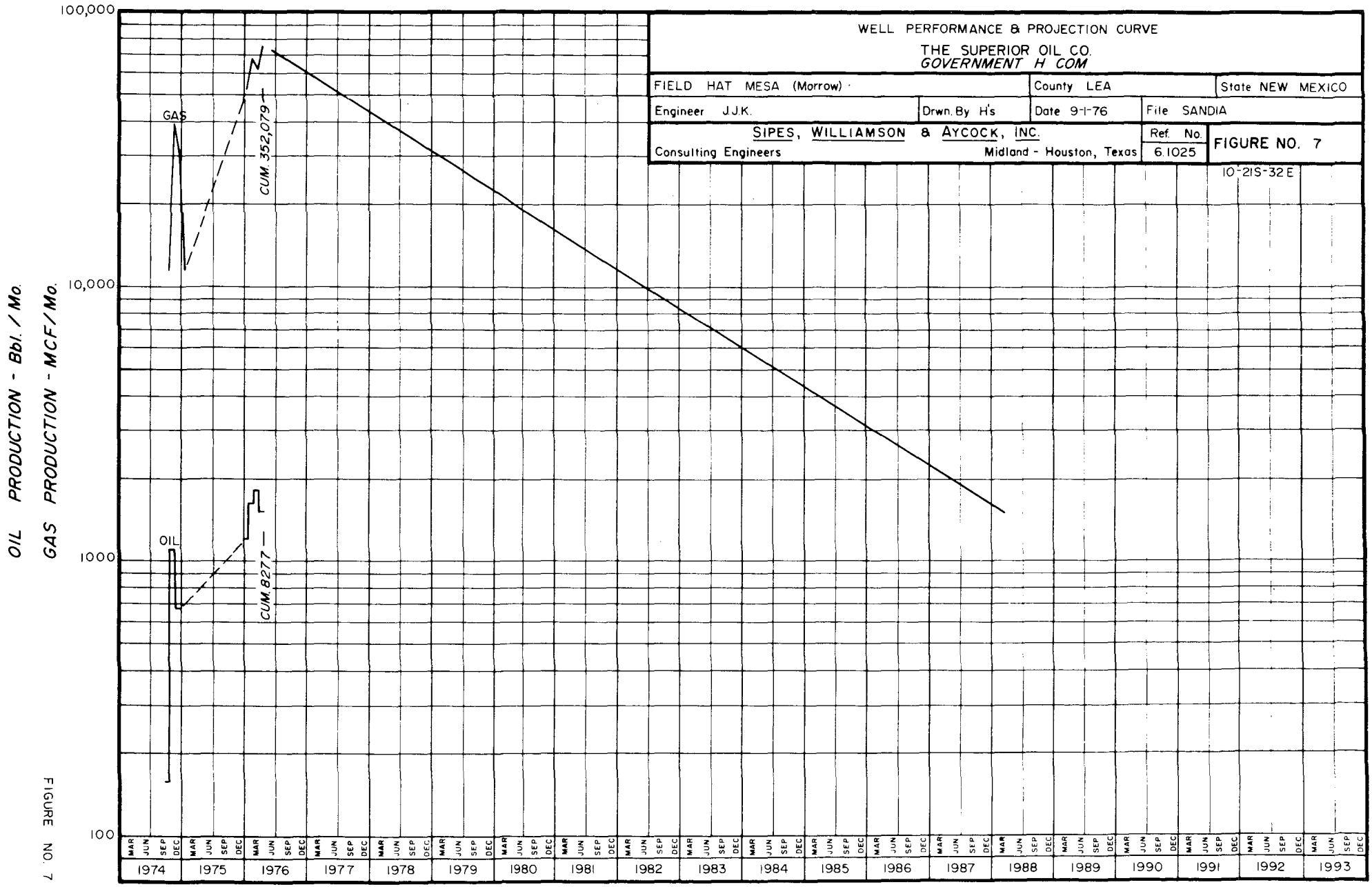
WELL PERFORMANCE & PROJECTION CURVE
THE SUPERIOR OIL CO.
GOVERNMENT H COM
FIELD HAT MESA (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 7
10-21S-32E
OIL PRODUCTION - Bbl. / Mo.
GAS PRODUCTION - MCF/Mo.
100,000
10,000
1000
100
GAS
OIL
CUM. 352,079
CUM. 8277
MAR JUN SEP DEC
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

FIGURE NO. 7

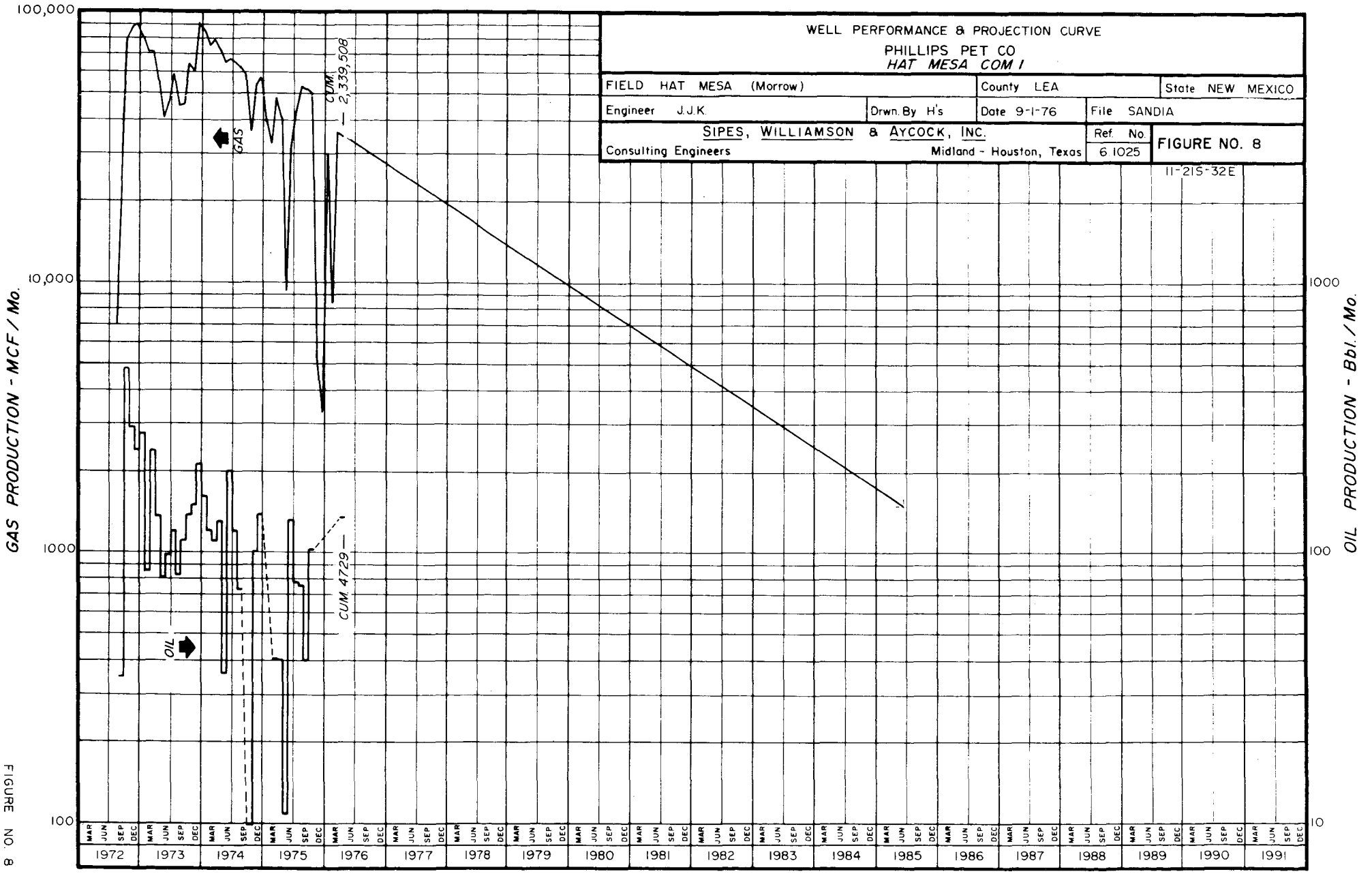
WELL PERFORMANCE & PROJECTION CURVE
PHILLIPS PET CO
HAT MESA COM I
FIELD HAT MESA (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6 1025
FIGURE NO. 8
11-21S-32E
GAS PRODUCTION - MCF / Mo.
OIL PRODUCTION - Bbl. / Mo.
100,000
10,000
1000
100
1000
100
10
GAS
OIL
CUM. 2,339,508
CUM. 4729
MAR JUN SEP DEC
1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991

FIGURE NO. 8

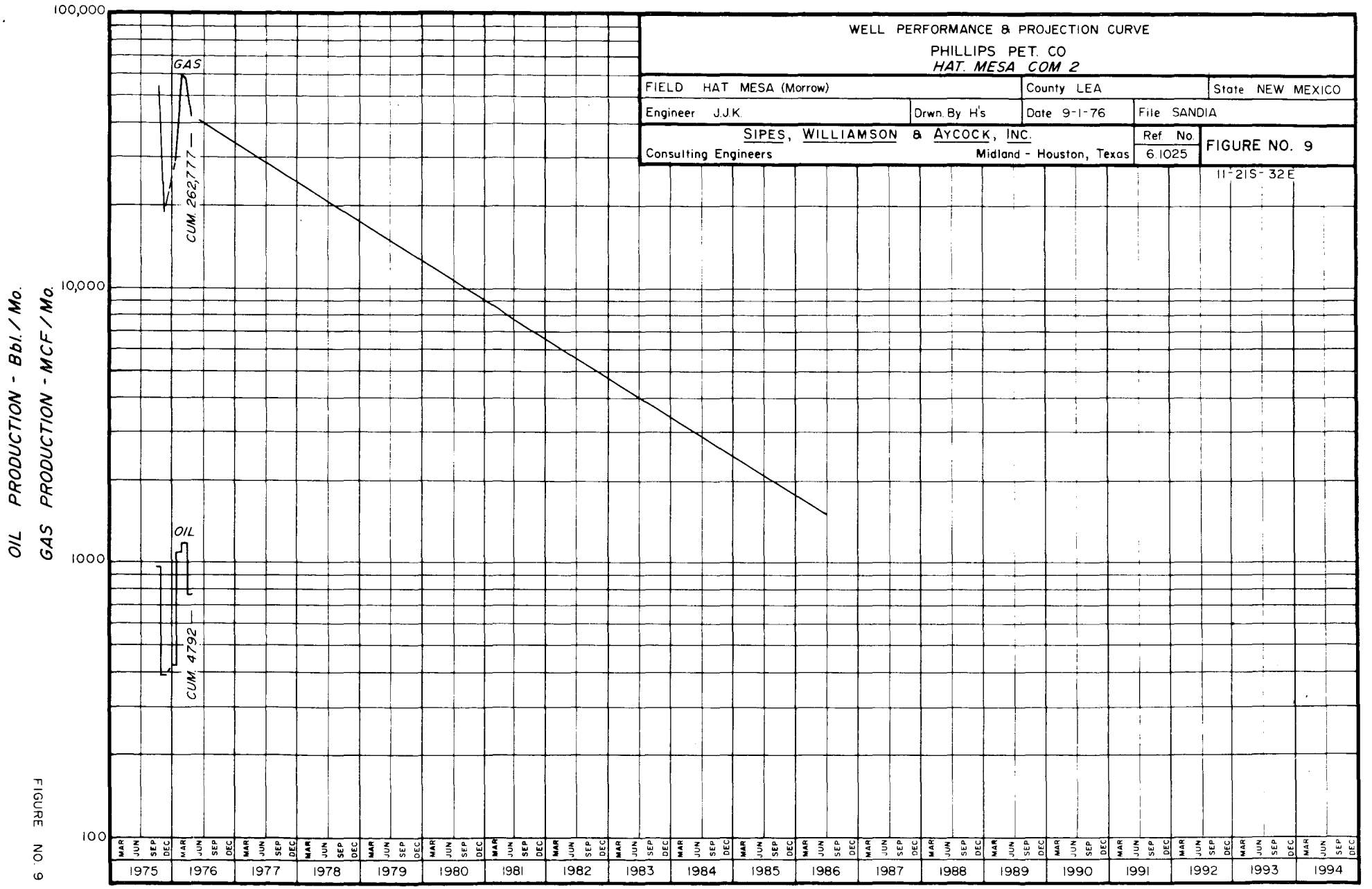
WELL PERFORMANCE & PROJECTION CURVE
PHILLIPS PET. CO
HAT. MESA COM 2
FIELD HAT MESA (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 9
11-21S-32E
OIL PRODUCTION - Bbl./Mo.
GAS PRODUCTION - MCF/Mo.
100,000
10,000
1000
100
GAS
CUM. 262,777
OIL
CUM. 4792
MAR
JUN
SEP
DEC
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994

FIGURE NO. 9

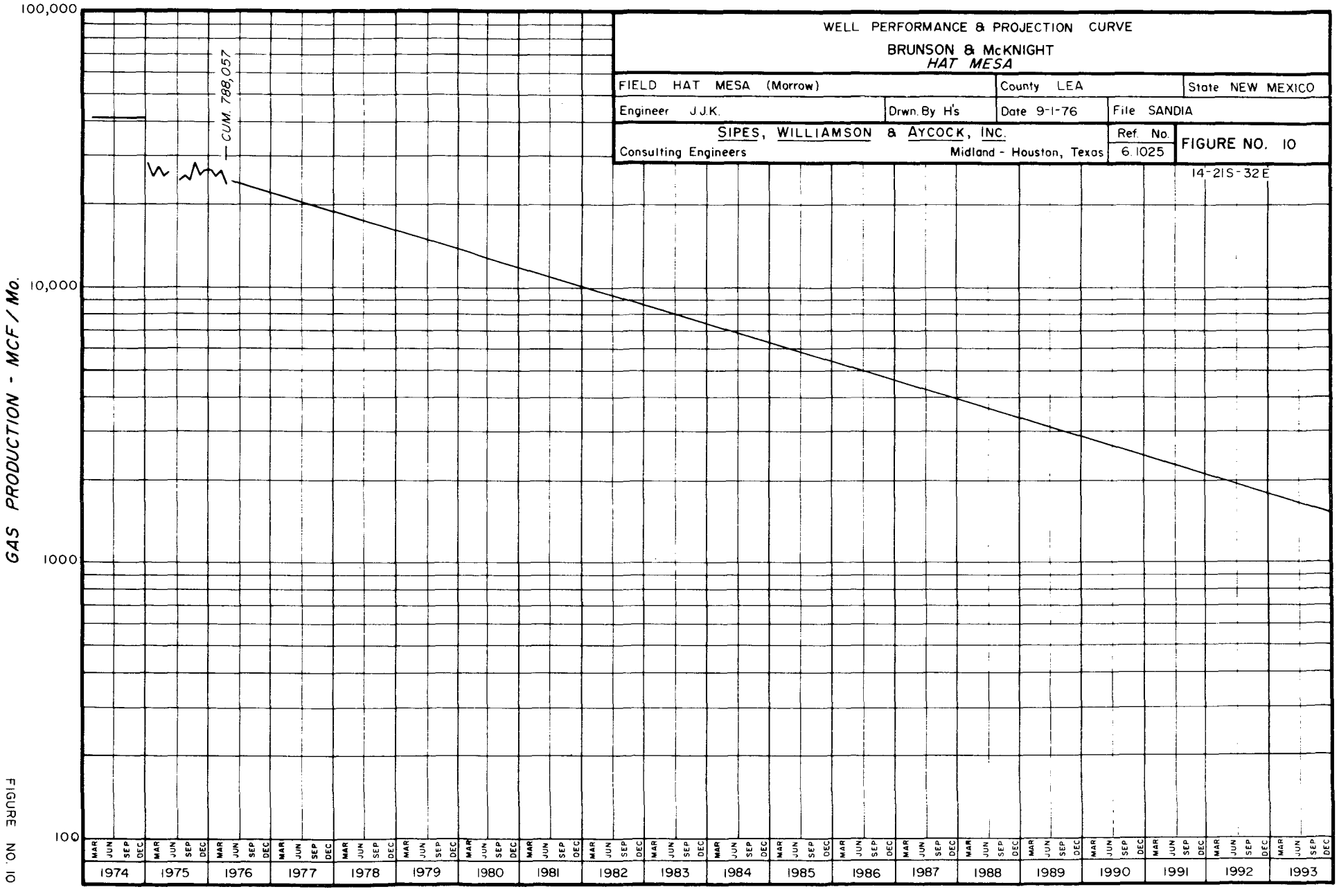
WELL PERFORMANCE & PROJECTION CURVE
BRUNSON & McKNIGHT
HAT MESA
FIELD HAT MESA (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 10
14-21S-32E
CUM. 788,057
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
MAR JUN SEP DEC
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

FIGURE NO. 10

S.W.& A. Tract No. 3

WELL PERFORMANCE & PROJECTION CURVE
TROPORO OIL & GAS CO.
CABANA

FIELD CABIN LAKE (Morrow)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers	Midland - Houston, Texas	Ref. No. 6.1025	FIGURE NO. 11

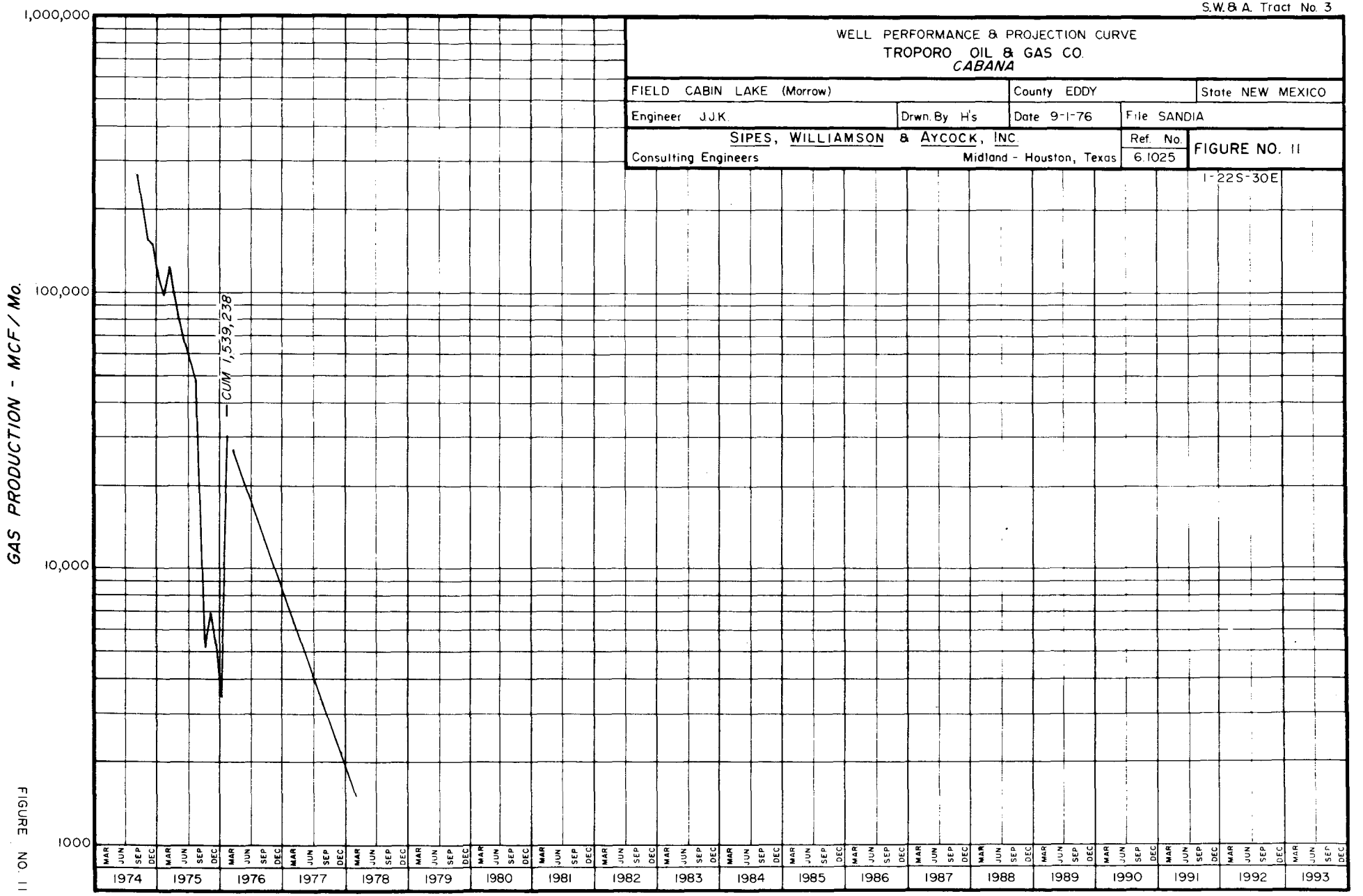

FIGURE NO. 11

S.W.&A. Tract No 4

WELL PERFORMANCE & PROJECTION CURVE

PHILLIPS PET. CO.

JAMES "A"

FIELD CABIN LAKE (Strawn & Morrow)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers Midland - Houston, Texas		Ref. No. 6.1025	FIGURE NO. 12

2-22S-30E

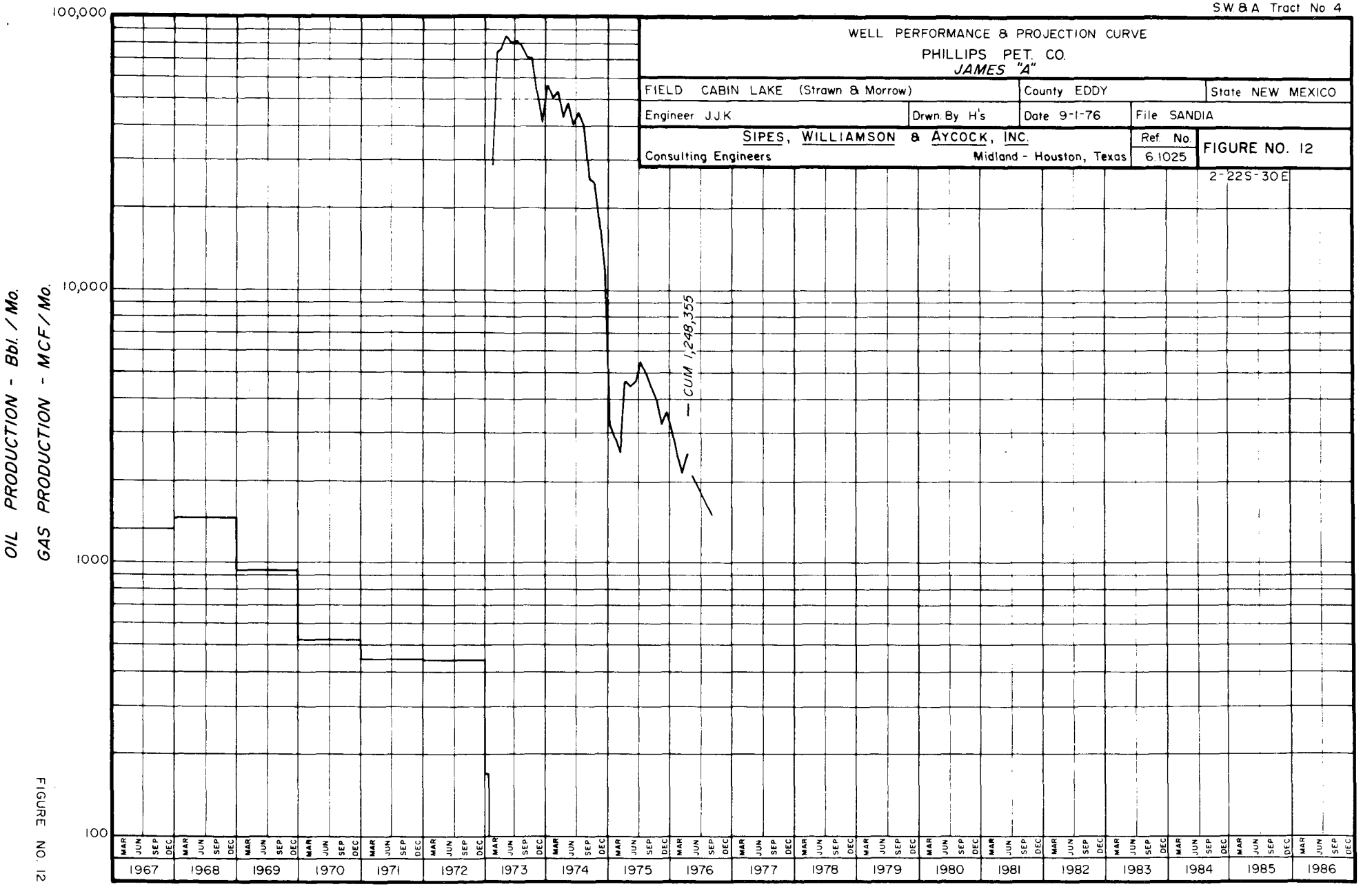

FIGURE NO. 12

SW & A Tract No. 5

WELL PERFORMANCE & PROJECTION CURVE

PHILLIPS PET. CO.

JAMES "E"

FIELD CABIN LAKE (Morrow)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers	Midland - Houston, Texas	Ref. No. 6.1025	FIGURE NO. 13

11-22S-30E

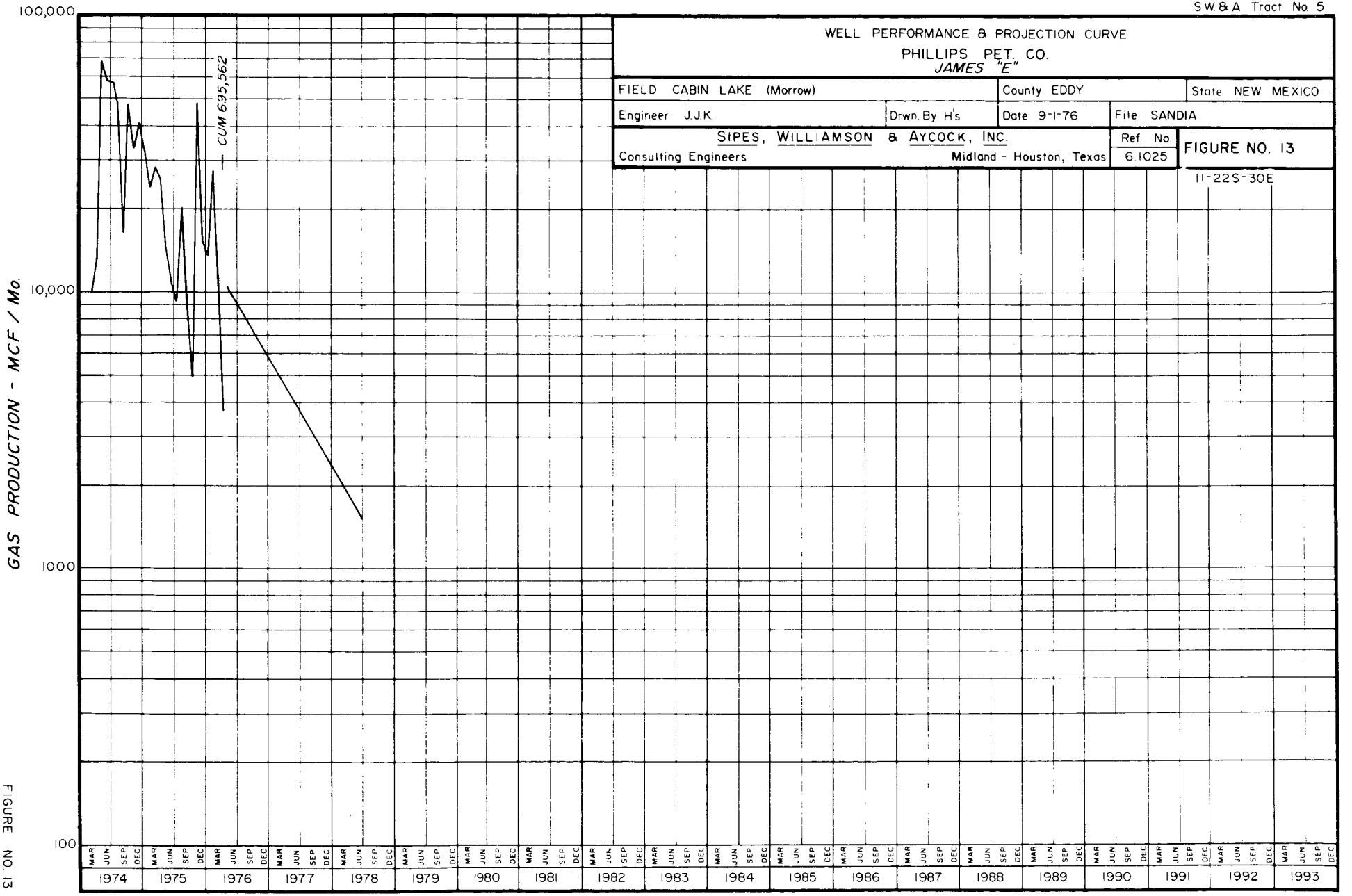

FIGURE NO. 13

SW&A Tract No. 5

WELL PERFORMANCE & PROJECTION CURVE

PHILLIPS PET. CO.

JAMES "E"

FIELD CABIN LAKE (Strawn)		County EDDY	State NEW MEXICO
Engineer J.J.K	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers		Midland - Houston, Texas	Ref. No. 6.1025

FIGURE NO. 14

11-22S-30E

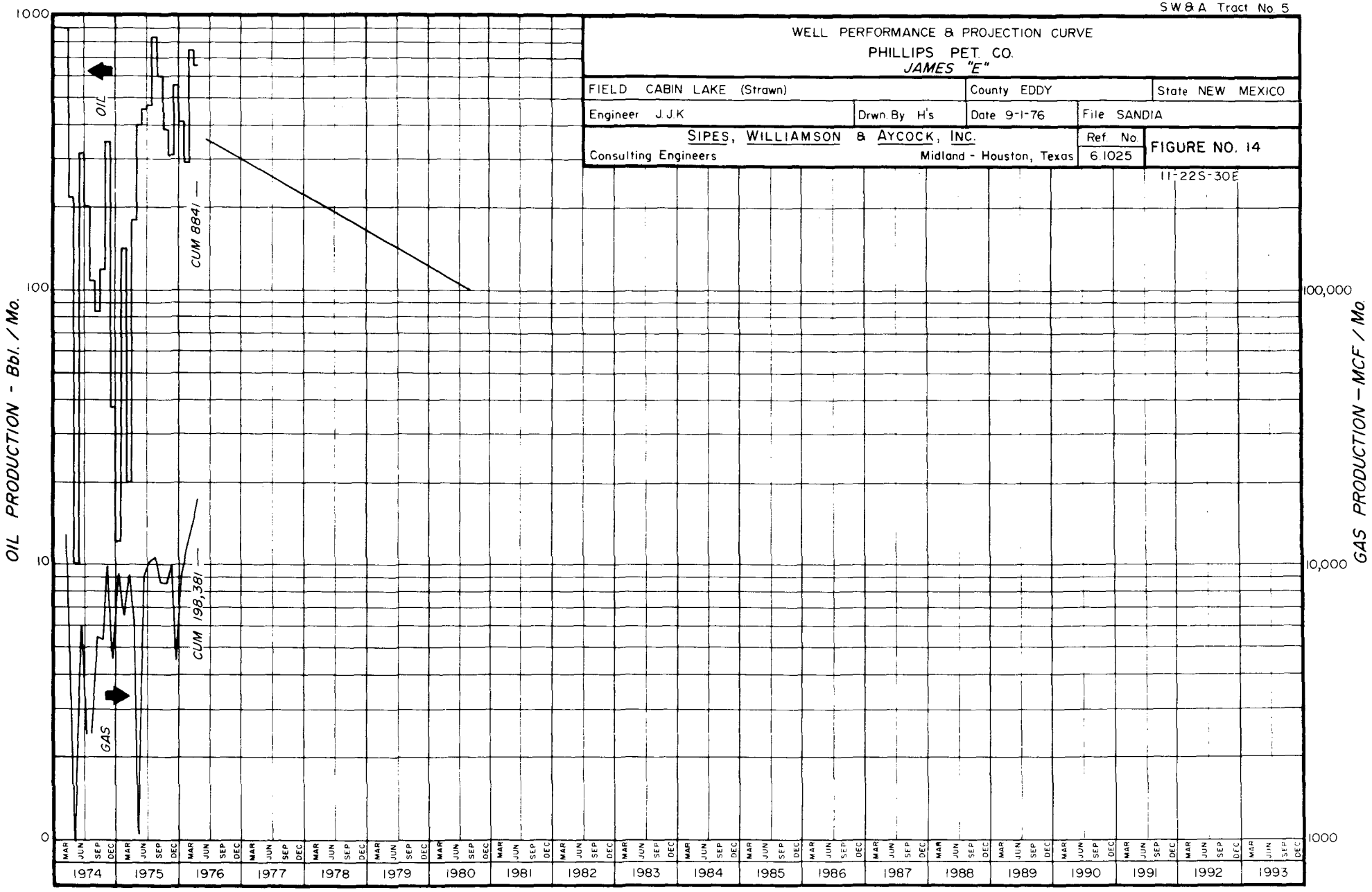

FIGURE NO. 14

S.W.& A. Tract No. 10

WELL PERFORMANCE & PROJECTION CURVE

SHELL OIL CO.

JAMES RANCH UNIT

FIELD LOS MEDANOS (Atoka)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers Midland - Houston, Texas		Ref. No. 6.1025	FIGURE NO. 15

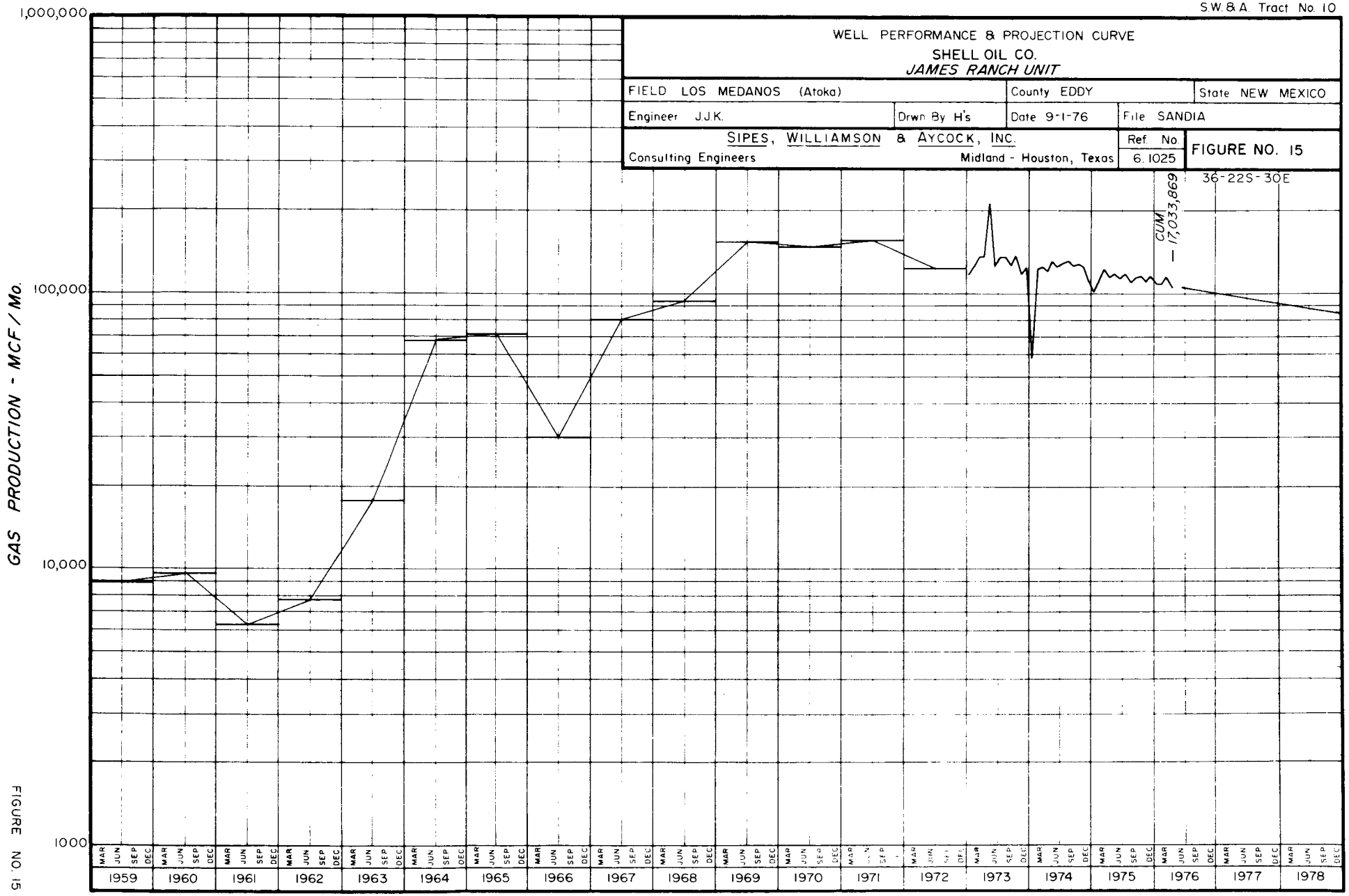

FIGURE NO. 15

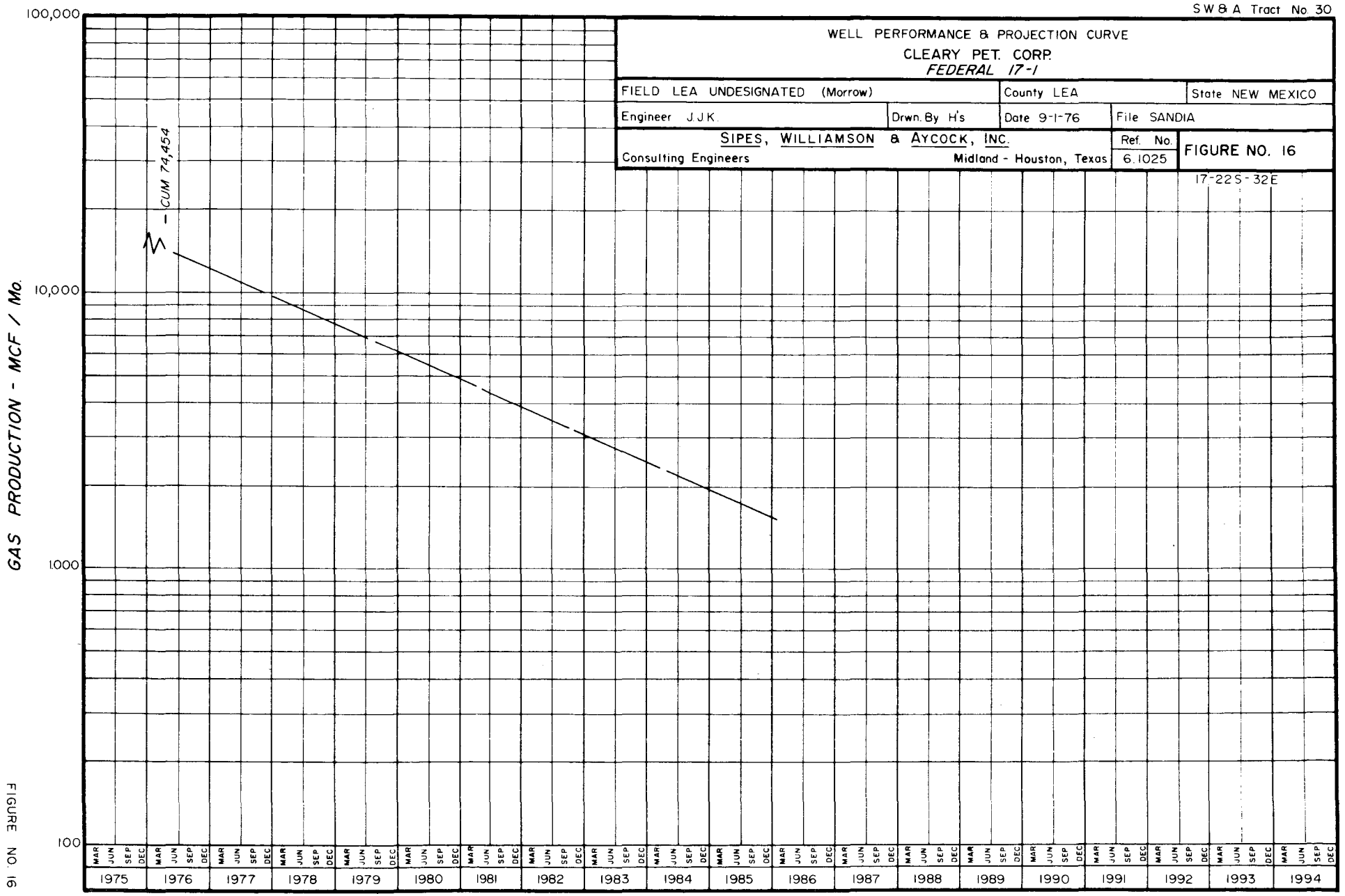
S W & A Tract No. 30
WELL PERFORMANCE & PROJECTION CURVE
CLEARY PET. CORP.
FEDERAL 17-1
FIELD LEA UNDESIGNATED (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 16
17-22S-32E
CUM 74,454
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
MAR JUN SEP DEC
1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994

FIGURE NO. 16

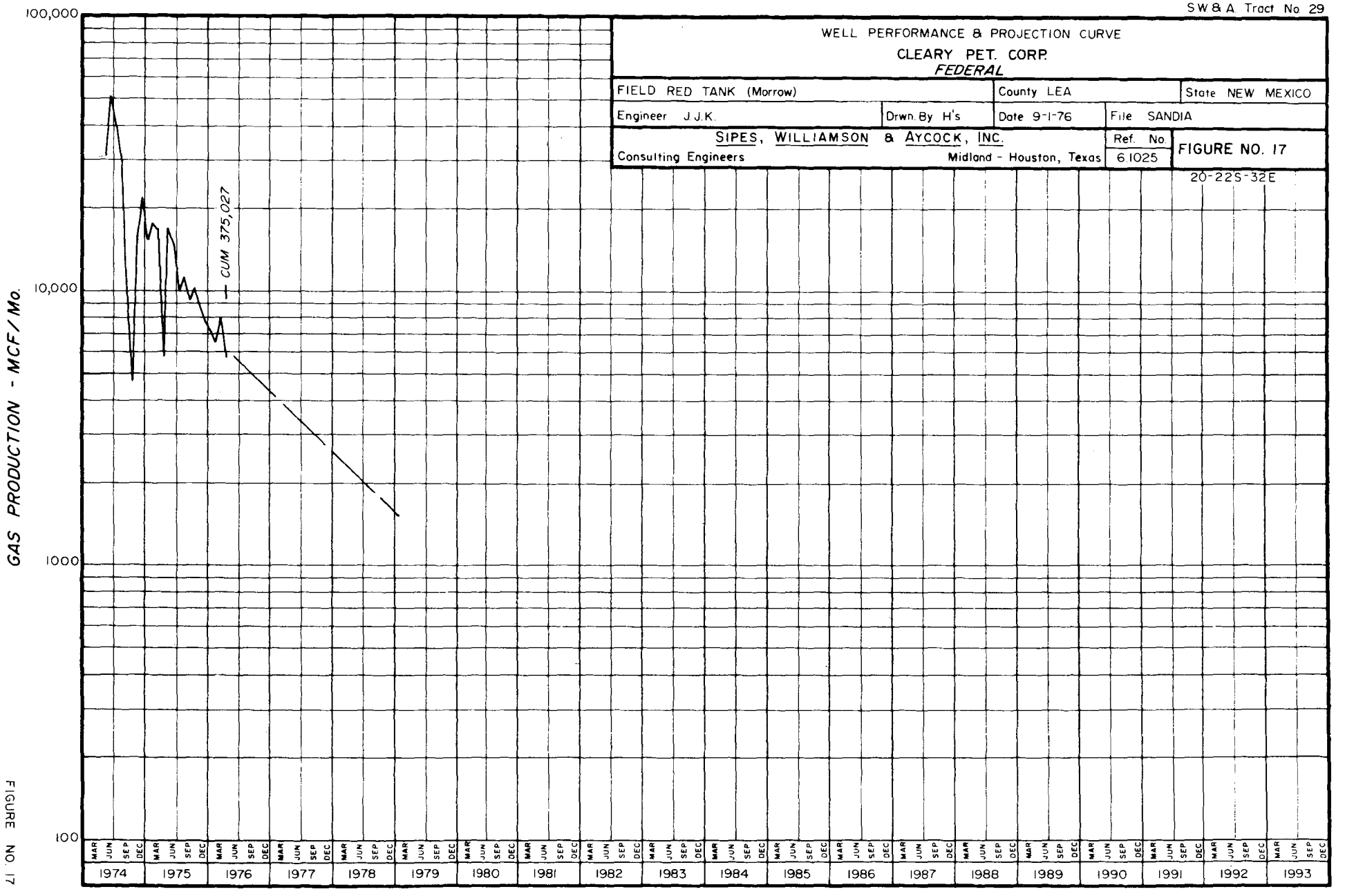
S.W.& A. Tract No. 29
WELL PERFORMANCE & PROJECTION CURVE
CLEARY PET. CORP.
FEDERAL
FIELD RED TANK (Morrow)
County LEA
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 17
20-22S-32E
GAS PRODUCTION - MCF/Mo.
100,000
10,000
1000
100
CUM 375,027
MAR
JUN
SEP
DEC
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

FIGURE NO. 17

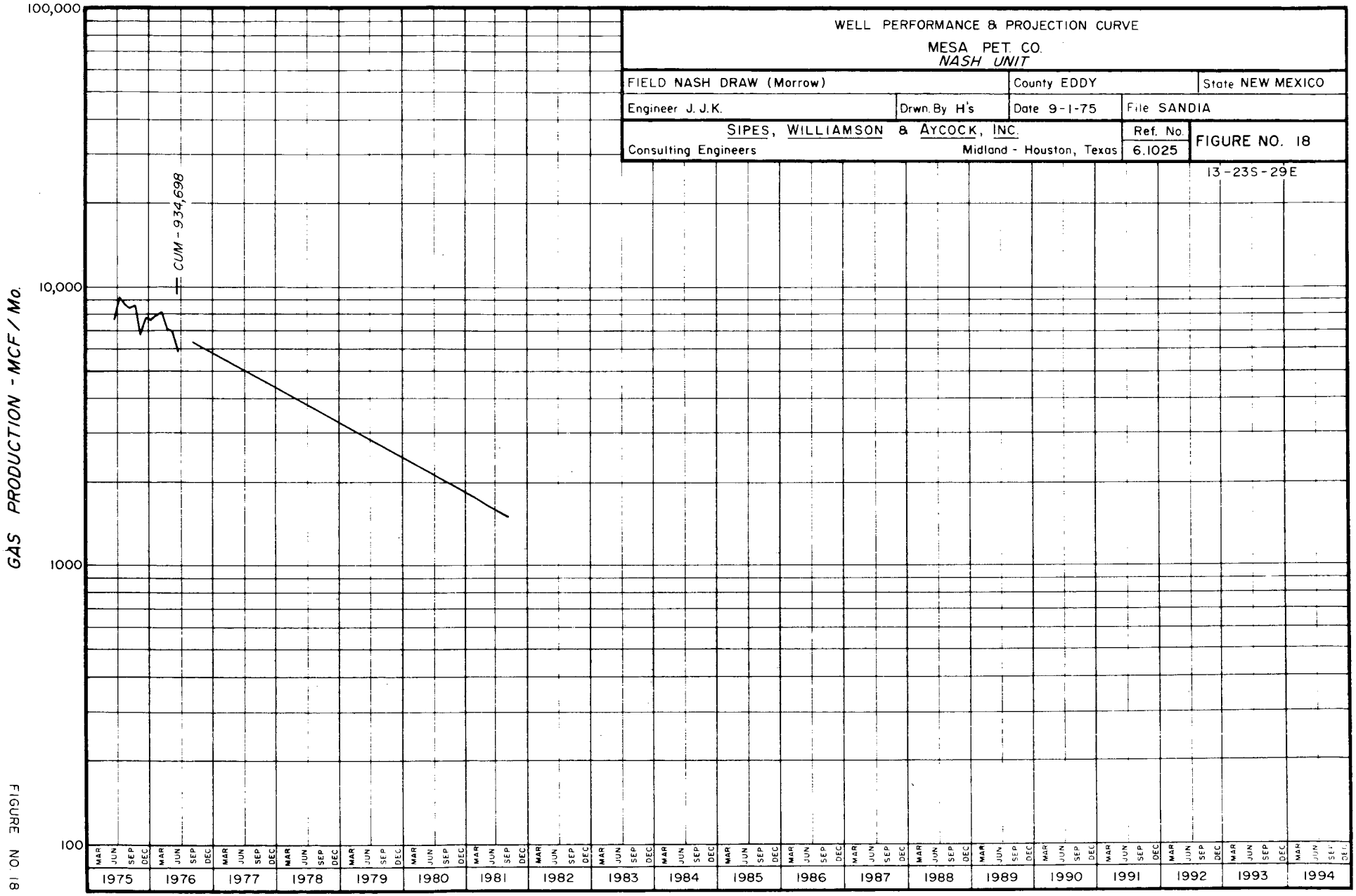
WELL PERFORMANCE & PROJECTION CURVE
MESA PET. CO.
NASH UNIT
FIELD NASH DRAW (Morrow)
County EDDY
State NEW MEXICO
Engineer J. J. K.
Drwn. By H's
Date 9-1-75
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No.
6.1025
FIGURE NO. 18
13-23S-29E
CUM - 934,698
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
MAR
JUN
SEP
DEC
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994

FIGURE NO. 18

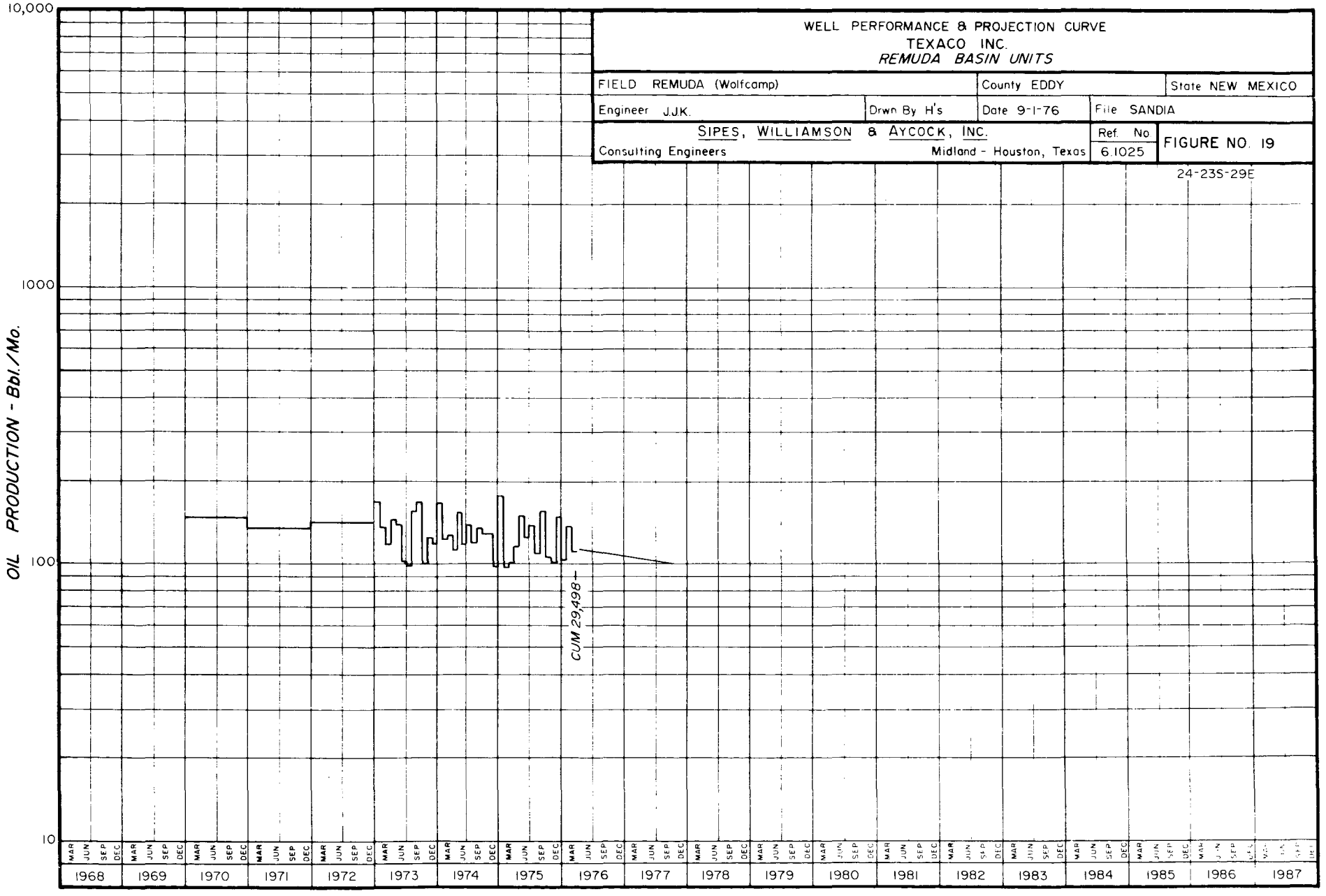
WELL PERFORMANCE & PROJECTION CURVE
TEXACO INC.
REMUDA BASIN UNITS
FIELD REMUDA (Wolfcamp)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No 6.1025
FIGURE NO. 19
24-23S-29E
OIL PRODUCTION - Bbl./Mo.
10,000
1000
100
10
CUM 29,498
MAR
JUN
SEP
DEC
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987

FIGURE NO. 19

SW & A Tract No 12

WELL PERFORMANCE & PROJECTION CURVE
BELCO PET CORP.
JAMES RANCH UNIT

FIELD LOS MEDANOS (Morrow & Strawn)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers		Midland - Houston, Texas	Ref. No. 6.1025

FIGURE NO. 20

1-23S-30E

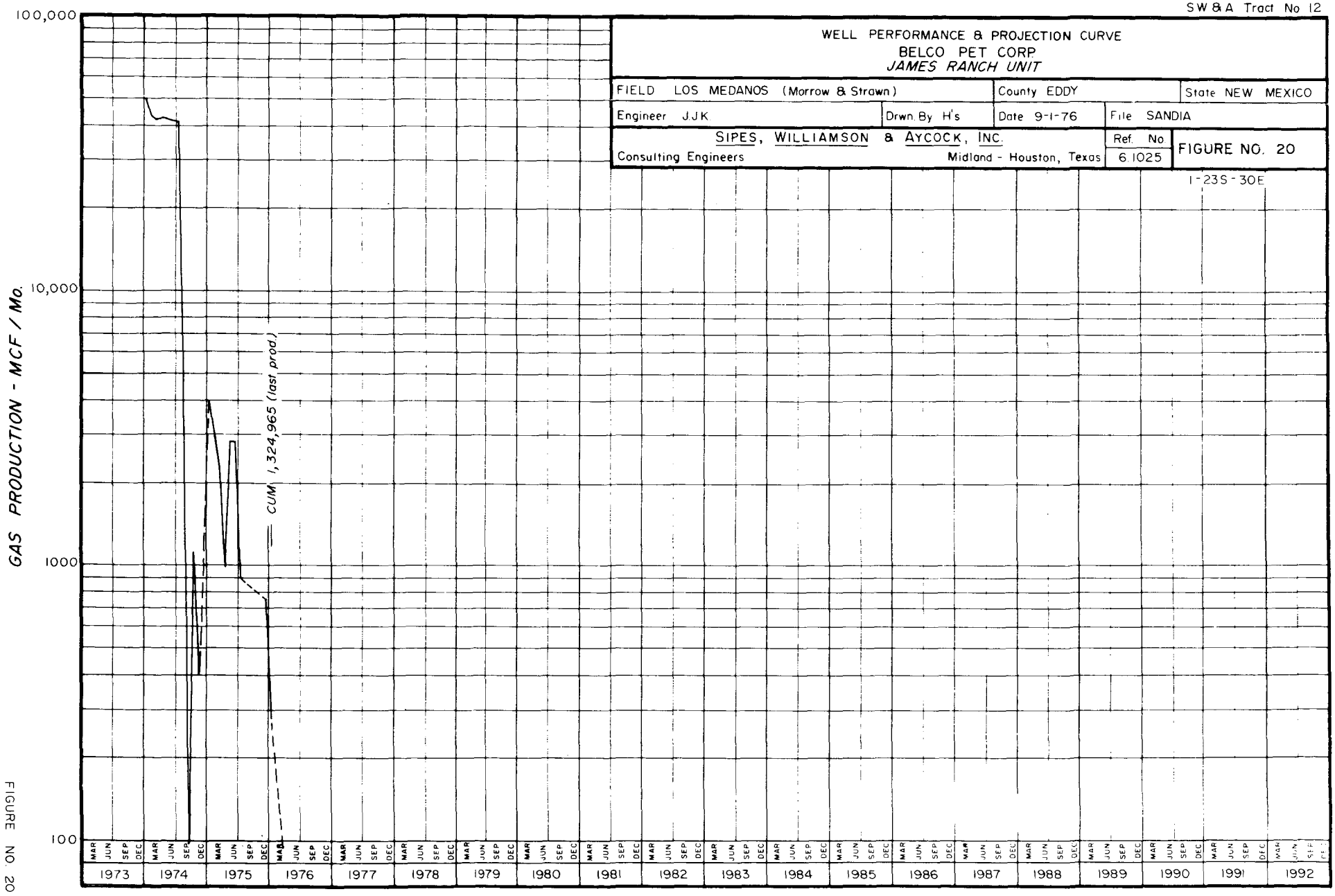

FIGURE NO. 20

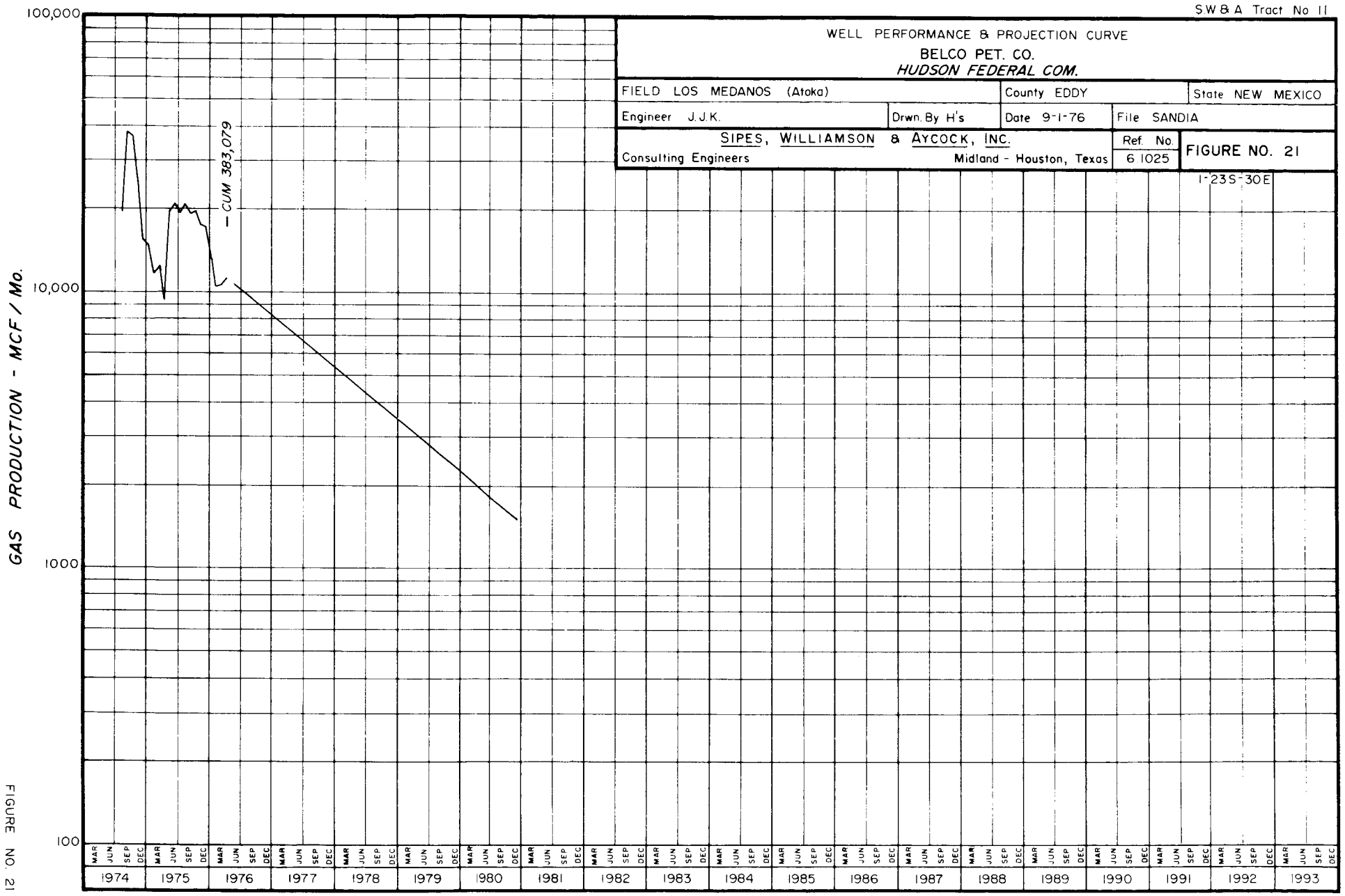
S.W.& A. Tract No. 11
WELL PERFORMANCE & PROJECTION CURVE
BELCO PET. CO.
HUDSON FEDERAL COM.
FIELD LOS MEDANOS (Atoka)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6 1025
FIGURE NO. 21
1-23S-30E
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
CUM 383,079
MAR
JUN
SEP
DEC
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

FIGURE NO. 21

S.W.& A. Tract No. 9

WELL PERFORMANCE & PROJECTION CURVE

SKELLY OIL CO.

FORTY NINER RIDGE UNIT 1

FIELD FORTY NINER RIDGE (Morrow)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers	Midland - Houston, Texas	Ref No. 61025	FIGURE NO. 22

16-23S-30E

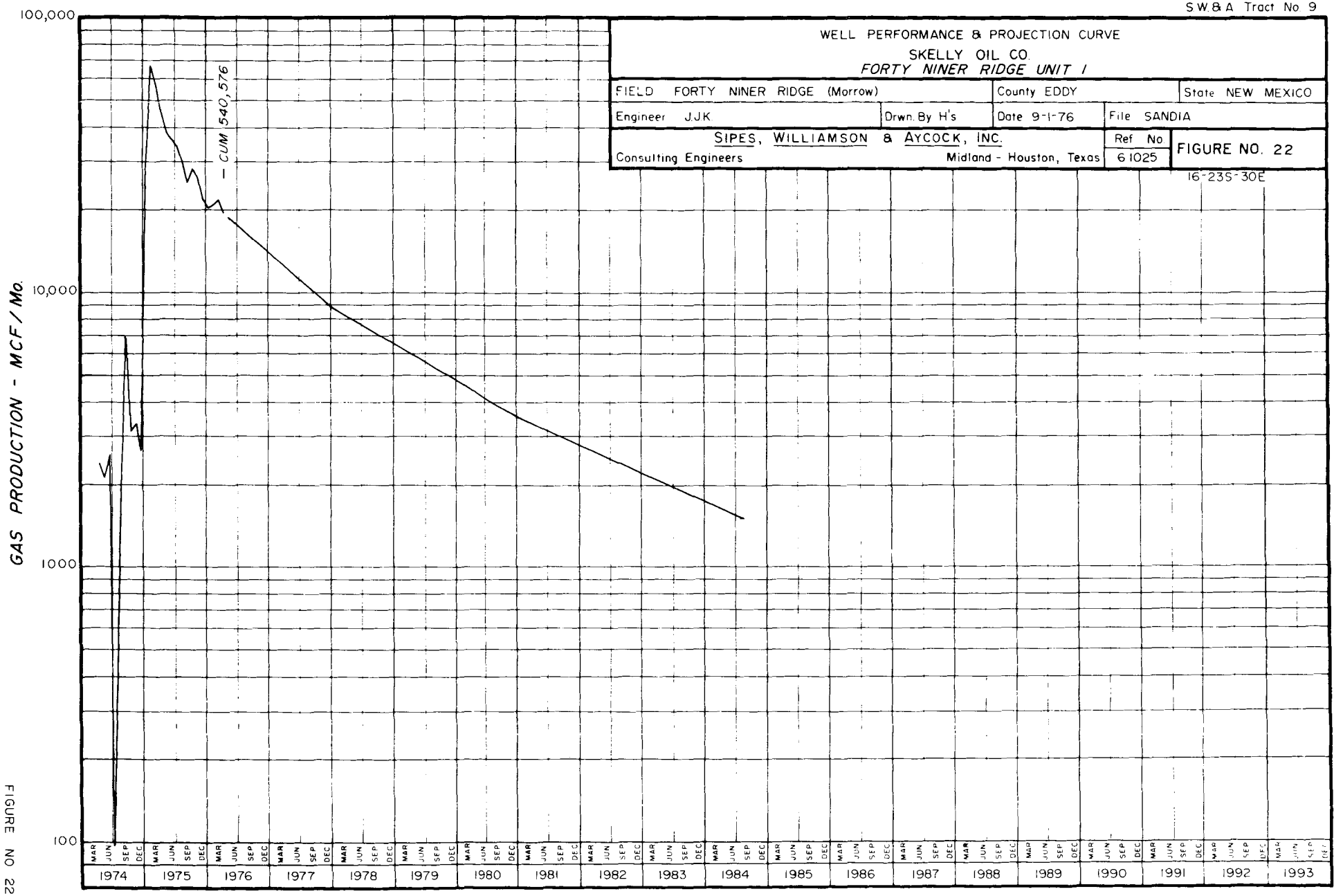

FIGURE NO 22

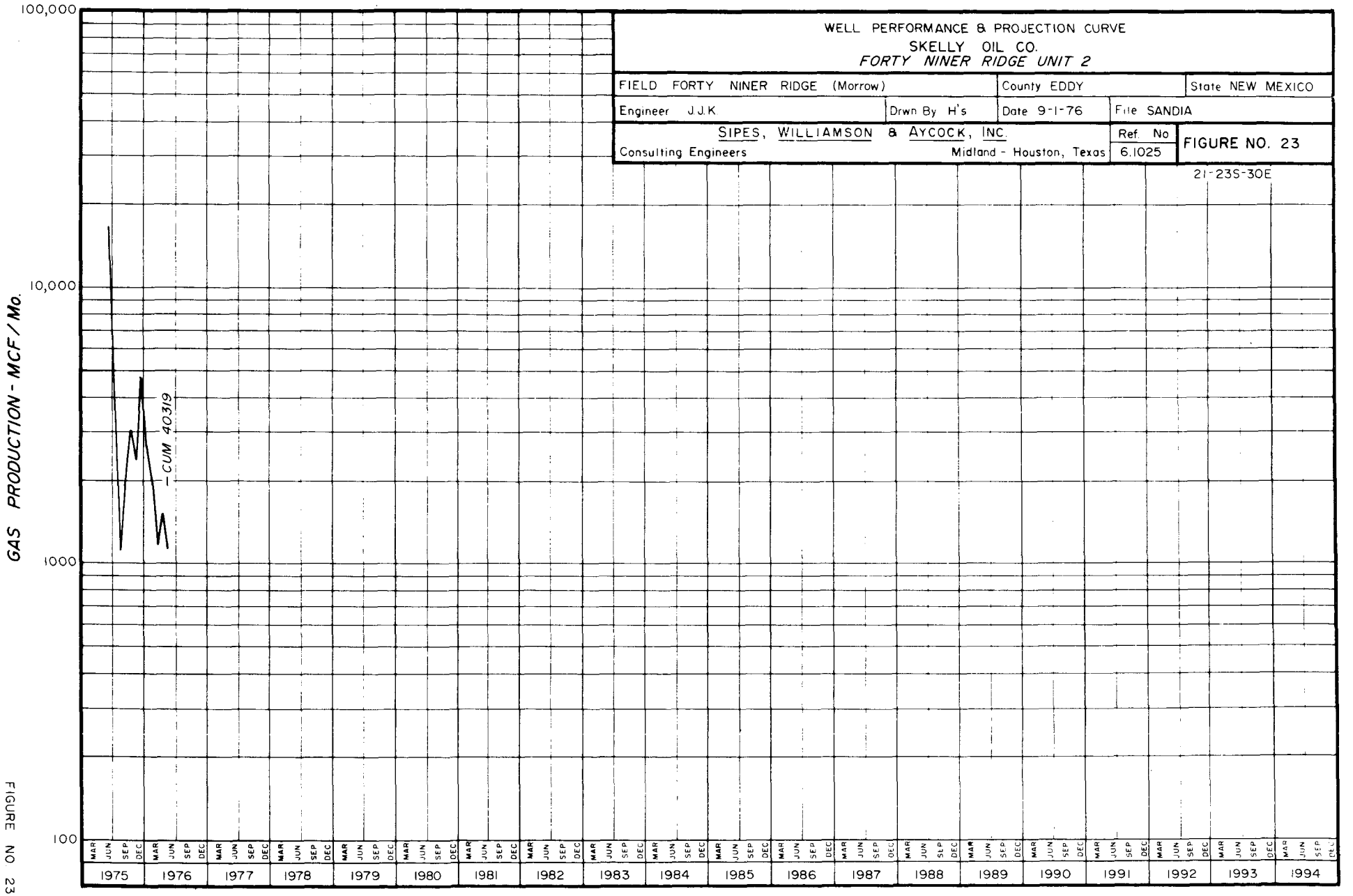
WELL PERFORMANCE & PROJECTION CURVE
SKELLY OIL CO.
FORTY NINER RIDGE UNIT 2
FIELD FORTY NINER RIDGE (Morrow)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No 6.1025
FIGURE NO. 23
21-23S-30E
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
CUM 40319
MAR
JUN
SEP
DEC
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994

FIGURE NO 23

WELL PERFORMANCE & PROJECTION CURVE

PHILLIPS PET CO.

SANDY UNIT

FIELD NASH (Morrow)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers	Midland - Houston, Texas	Ref. No. 6.1025	FIGURE NO. 24

24-23S-30E

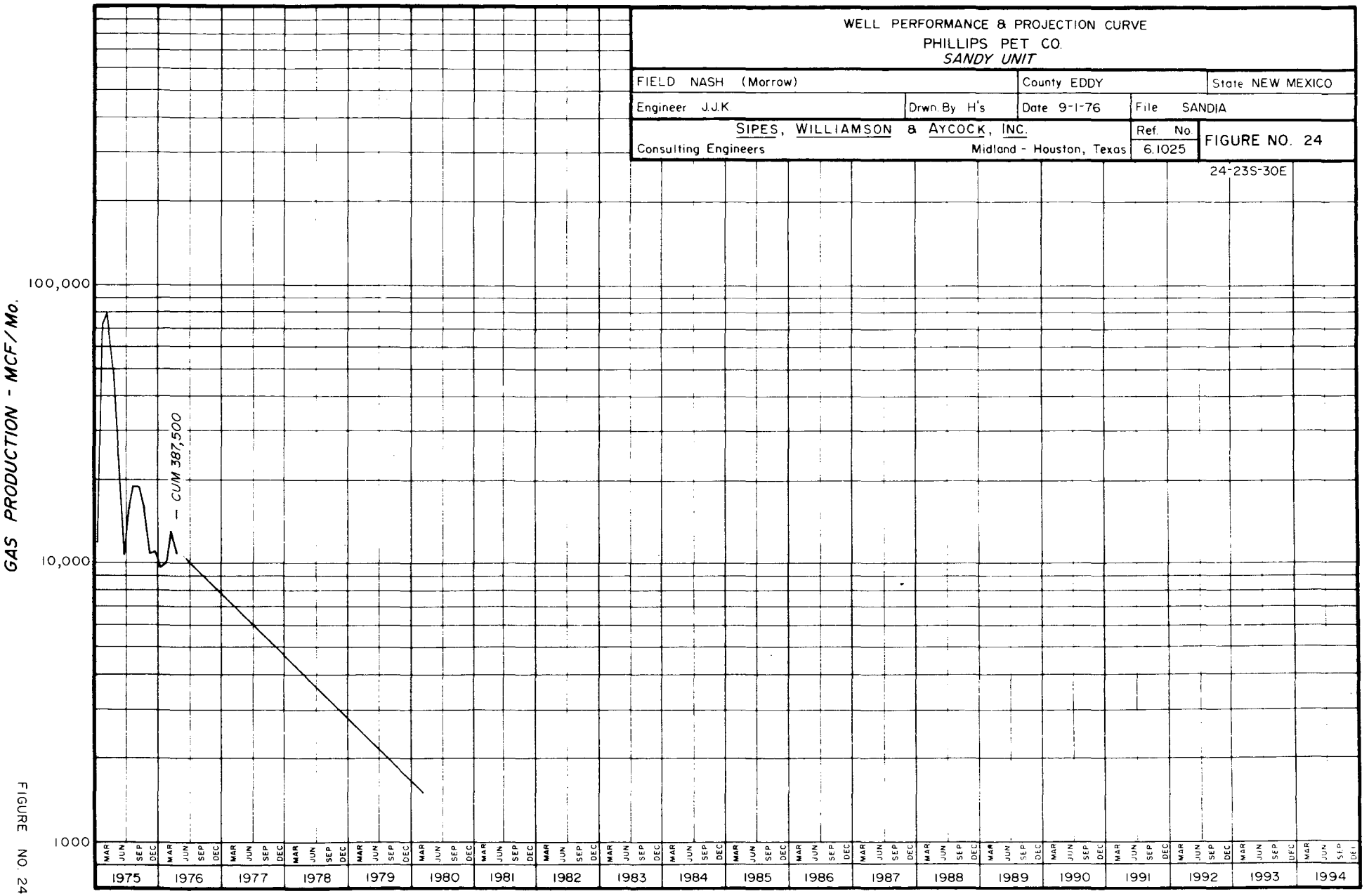

FIGURE NO. 24

S.W.& A. Tract No. 14

WELL PERFORMANCE & PROJECTION CURVE

CONTINENTAL OIL CO.

JAMES RANCH UNIT

FIELD LOS MEDANOS (Morrow)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers	Midland - Houston, Texas	Ref. No. 6.1025	FIGURE NO. 25

6-23S-31E

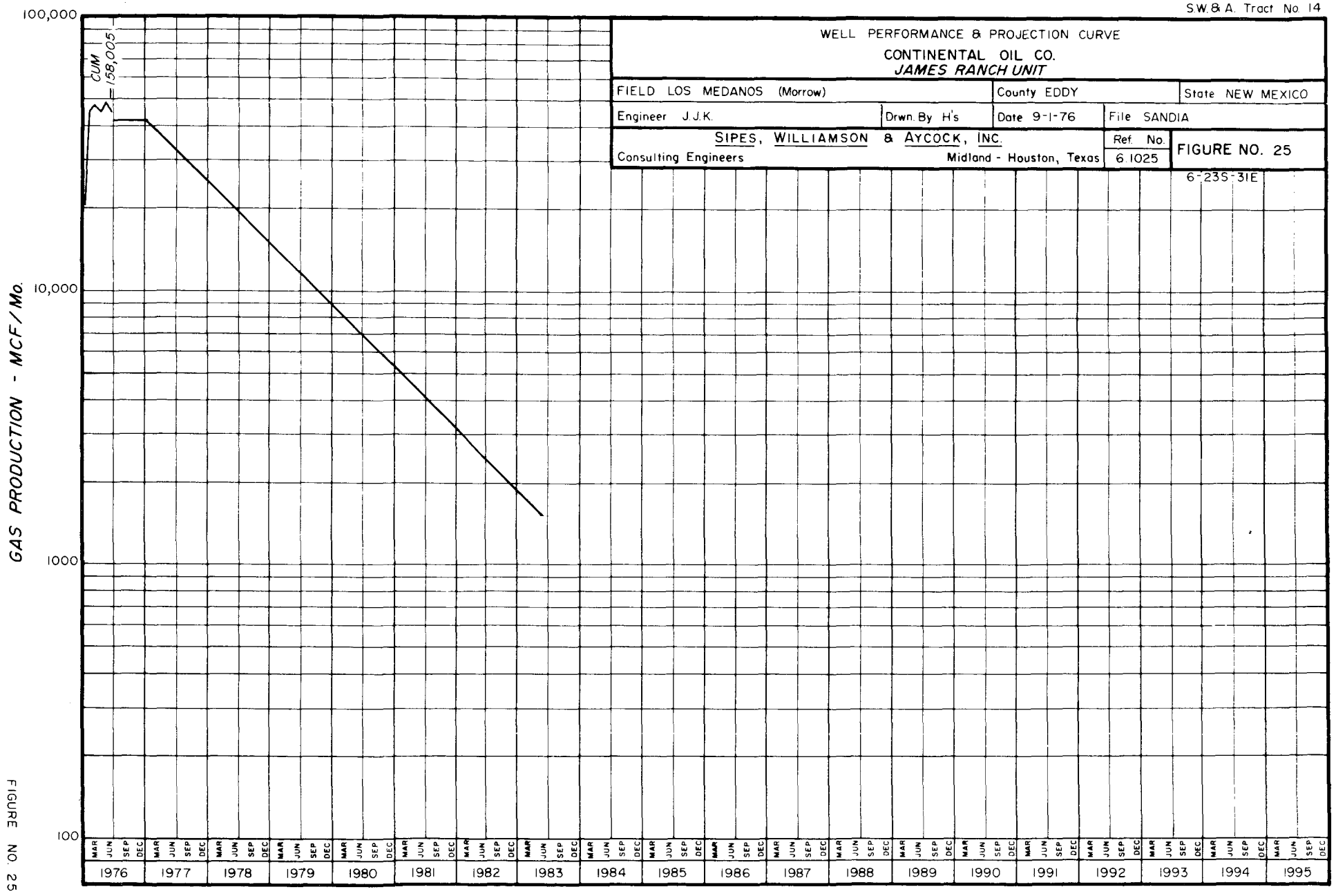

FIGURE NO. 25

S.W.& A. Tract No. 13

WELL PERFORMANCE & PROJECTION CURVE

BELCO PET. CO.

JAMES RANCH UNIT

FIELD EDDY UNDESIGNATED (Morrow)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers Midland - Houston, Texas		Ref. No. 6.1025	FIGURE NO. 26

6-23S-31E

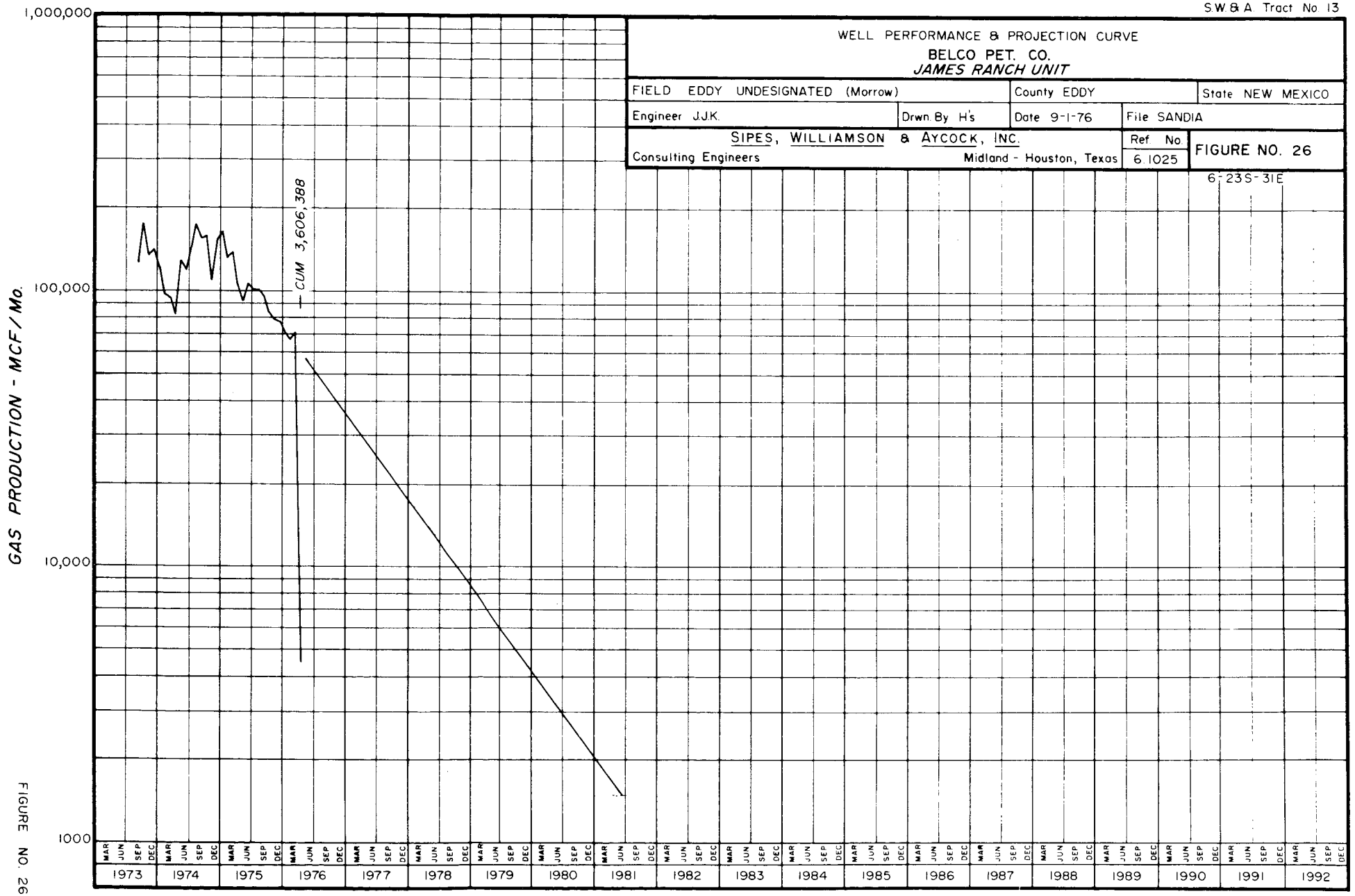

FIGURE NO. 26

S.W.& A. Tract No. 17

WELL PERFORMANCE & PROJECTION CURVE

TEXAS AMERICAN OIL CORP.

TODD "14" FED.

FIELD SAND DUNES (Lower Penn)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers Midland - Houston, Texas		Ref. No. 6.1025	FIGURE NO. 27

14-23S-31E

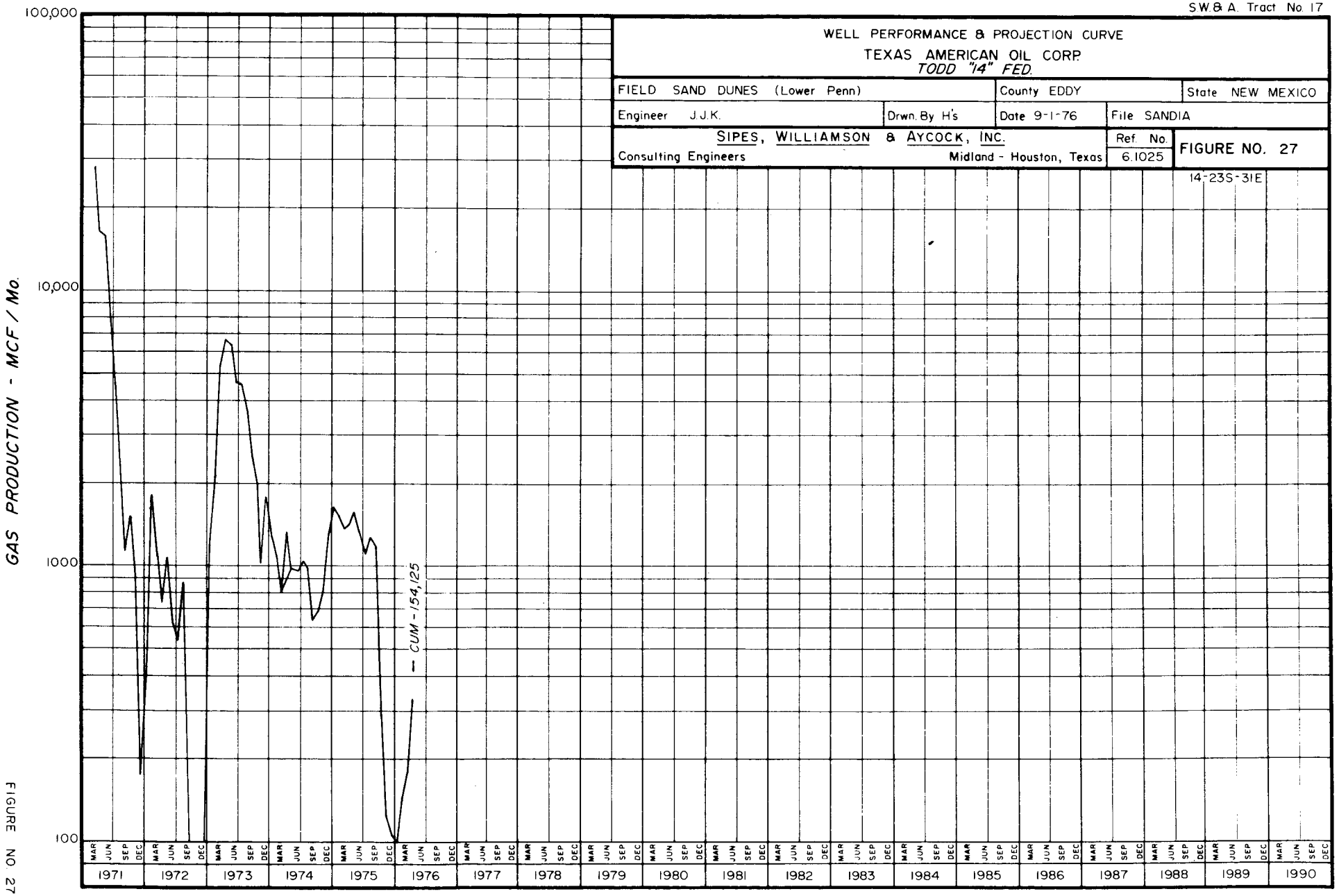

FIGURE NO. 27

S.W.& A. Tract No. 16

WELL PERFORMANCE & PROJECTION CURVE

EL PASO NATURAL GAS CO.

ARCO STATE

FIELD SAND DUNES (Atoka West)		County EDDY	State NEW MEXICO
Engineer J.J.K.	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers	Midland - Houston, Texas	Ref. No. 6.1025	FIGURE NO. 28

16-23S-31E

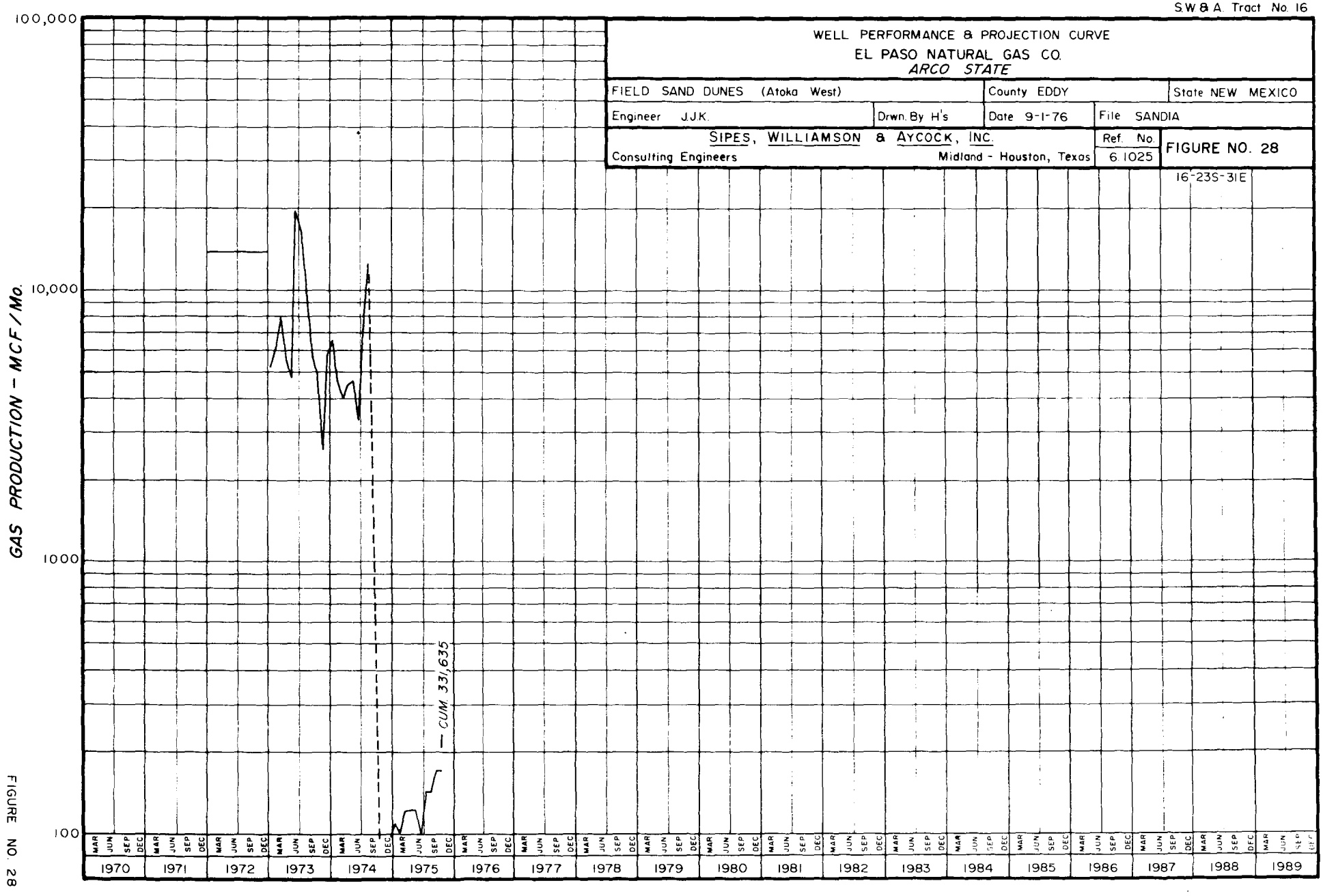

FIGURE NO. 28

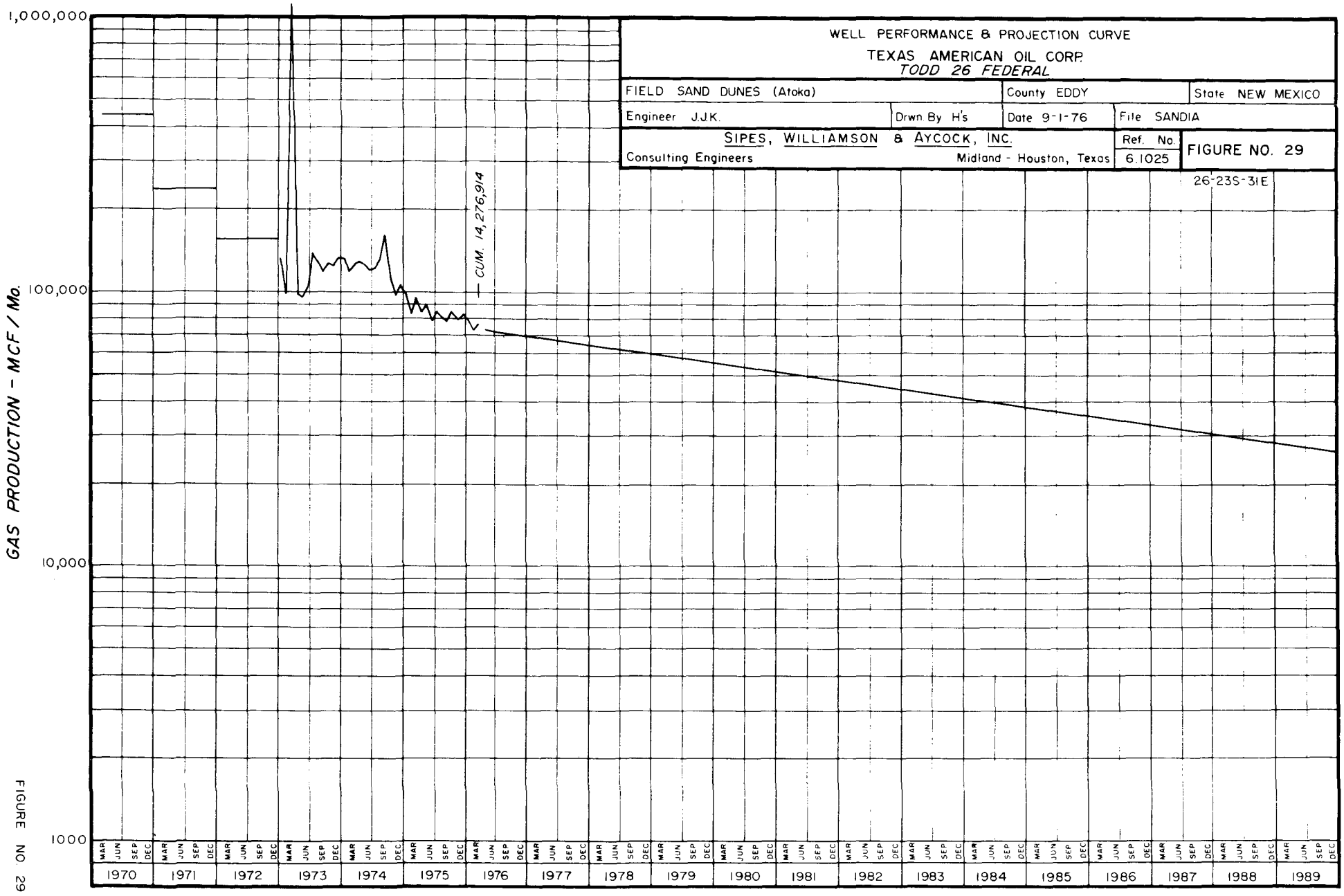
WELL PERFORMANCE & PROJECTION CURVE
TEXAS AMERICAN OIL CORP.
TODD 26 FEDERAL
FIELD SAND DUNES (Atoka)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 29
26-23S-31E
CUM. 14,276,914
GAS PRODUCTION - MCF / Mo.
1,000,000
100,000
10,000
1000
MAR JUN SEP DEC
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

FIGURE NO. 29

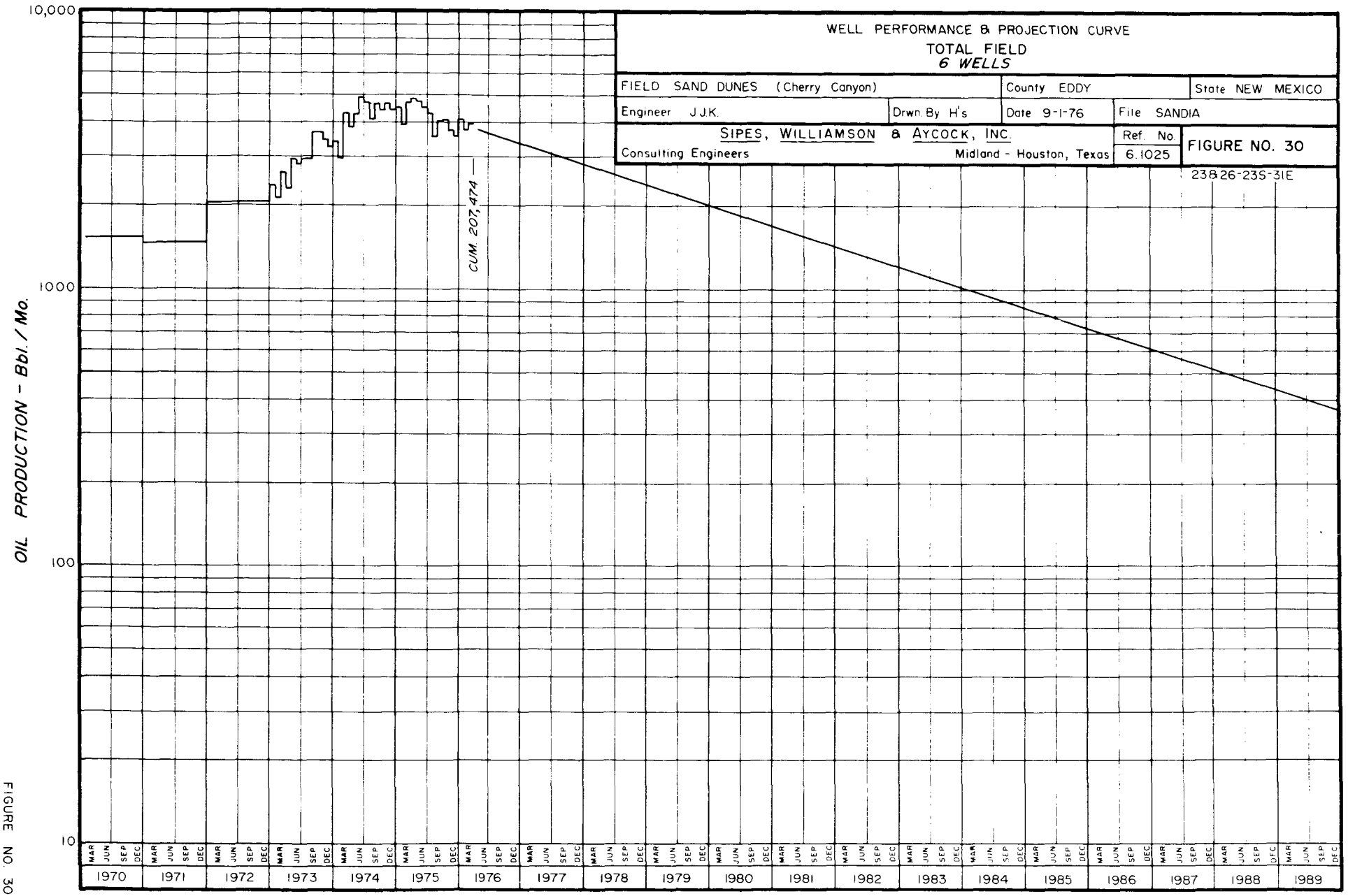
WELL PERFORMANCE & PROJECTION CURVE
TOTAL FIELD
6 WELLS
FIELD SAND DUNES (Cherry Canyon)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 30
23&26-23S-31E
CUM. 207,474
OIL PRODUCTION - Bbl. / Mo.
10,000
1000
100
10
MAR
JUN
SEP
DEC
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989

FIGURE NO. 30

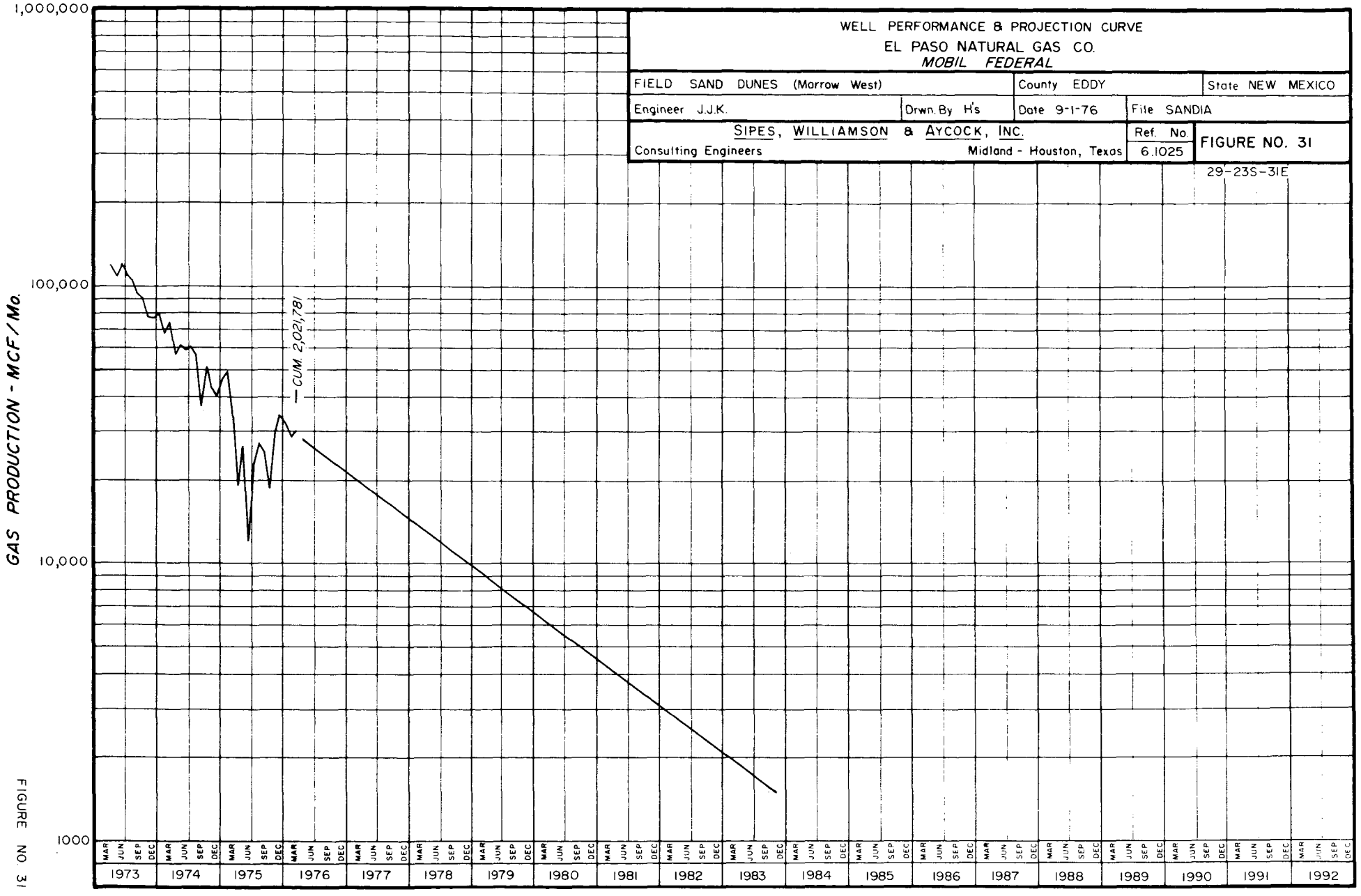
WELL PERFORMANCE & PROJECTION CURVE
EL PASO NATURAL GAS CO.
MOBIL FEDERAL
FIELD SAND DUNES (Morrow West)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 31
29-23S-31E
GAS PRODUCTION - MCF/Mo.
1,000,000
100,000
10,000
1000
— CUM. 2,021,781
MAR JUN SEP DEC
1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992

FIGURE NO 31

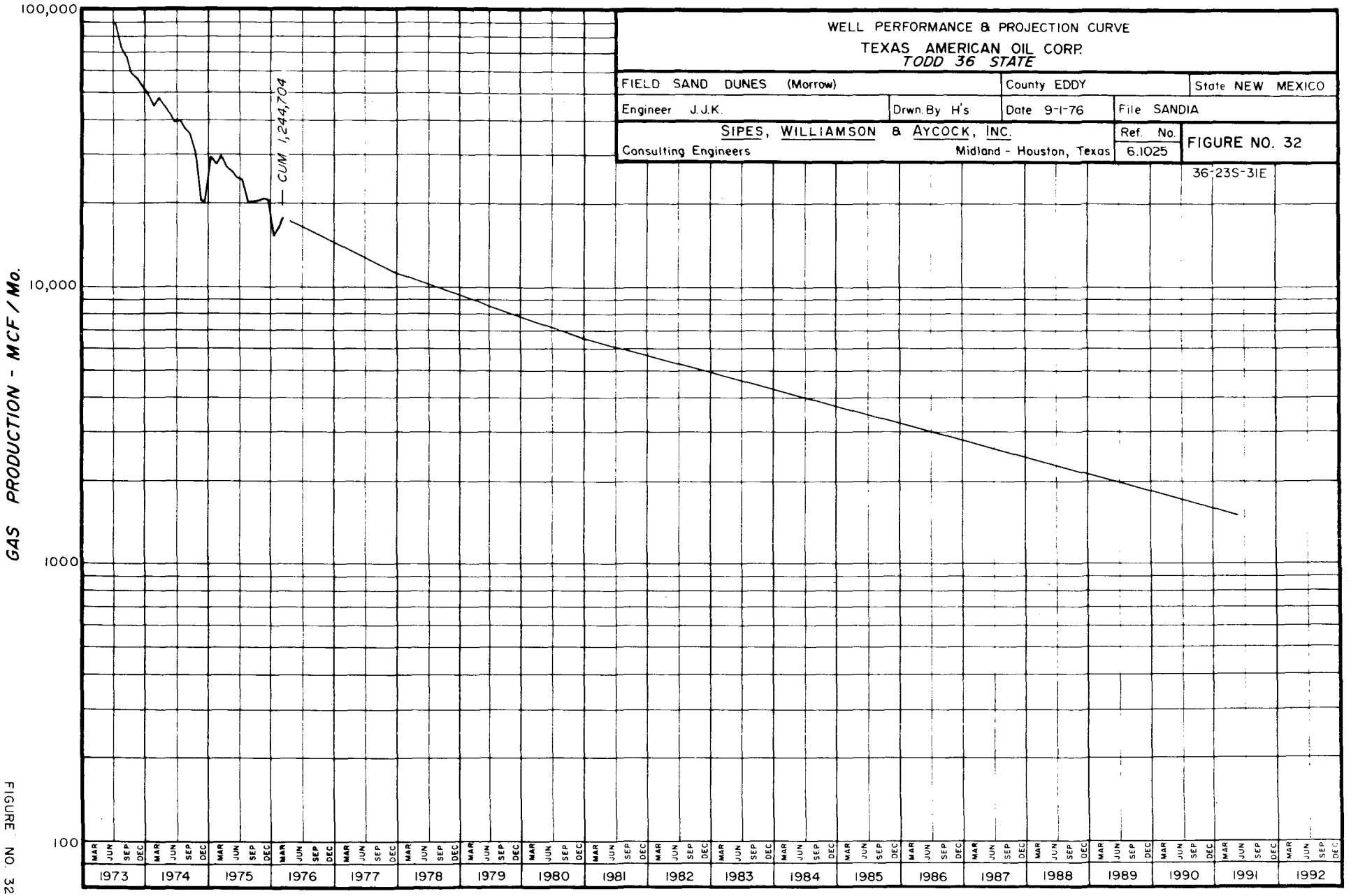
WELL PERFORMANCE & PROJECTION CURVE
TEXAS AMERICAN OIL CORP.
TODD 36 STATE
FIELD SAND DUNES (Morrow)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 32
36-23S-31E
CUM 1,244,704
GAS PRODUCTION - MCF / Mo.
100,000
10,000
1000
100
MAR JUN SEP DEC
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992

FIGURE NO. 32

SW & A Tract No 19

WELL PERFORMANCE & PROJECTION CURVE

SKELLY OIL

FEDERAL SAND 18

FIELD SAND DUNES (Bone Spring)		County LEA	State NEW MEXICO
Engineer J.J.K	Drwn. By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers		Midland - Houston, Texas	Ref No 6.1025

FIGURE NO. 33

18-23S-32E

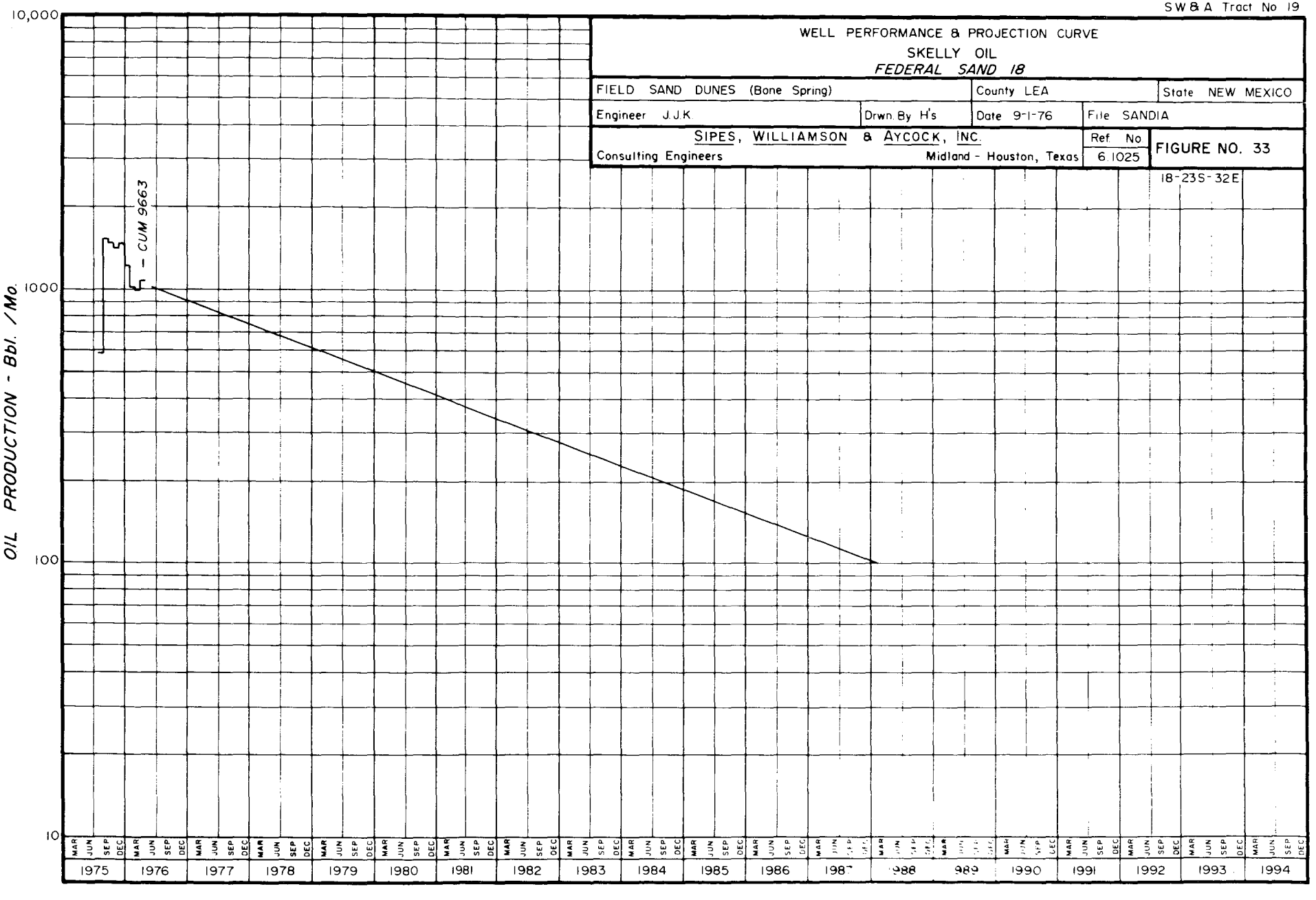

FIGURE NO. 33

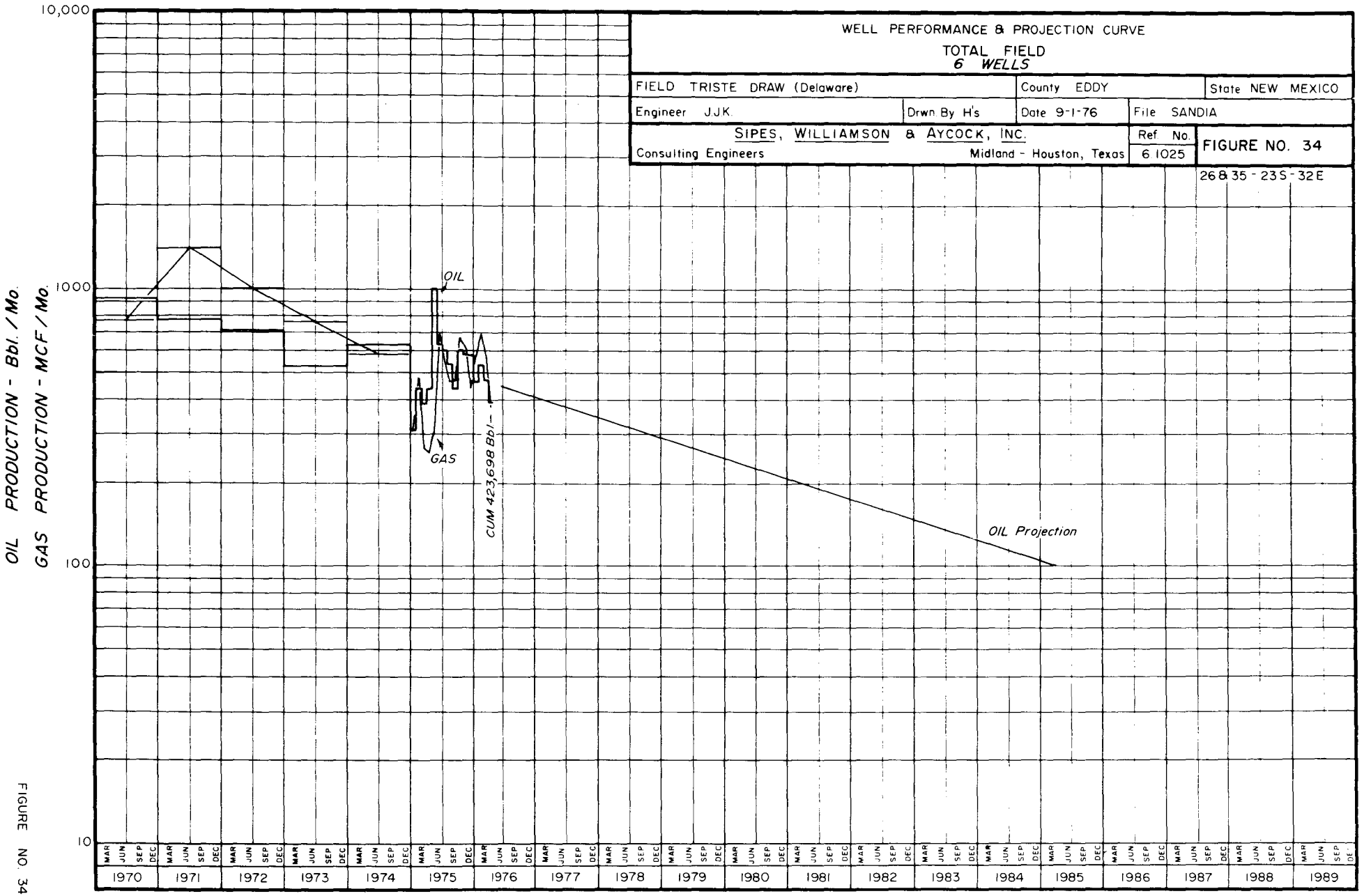
WELL PERFORMANCE & PROJECTION CURVE
TOTAL FIELD
6 WELLS
FIELD TRISTE DRAW (Delaware)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6 1025
FIGURE NO. 34
26 & 35 - 23S - 32E
OIL PRODUCTION - Bbl. / Mo.
GAS PRODUCTION - MCF / Mo.
10,000
1000
100
10
OIL
GAS
CUM 423,698 Bbl.
OIL Projection
MAR JUN SEP DEC
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

FIGURE NO. 34

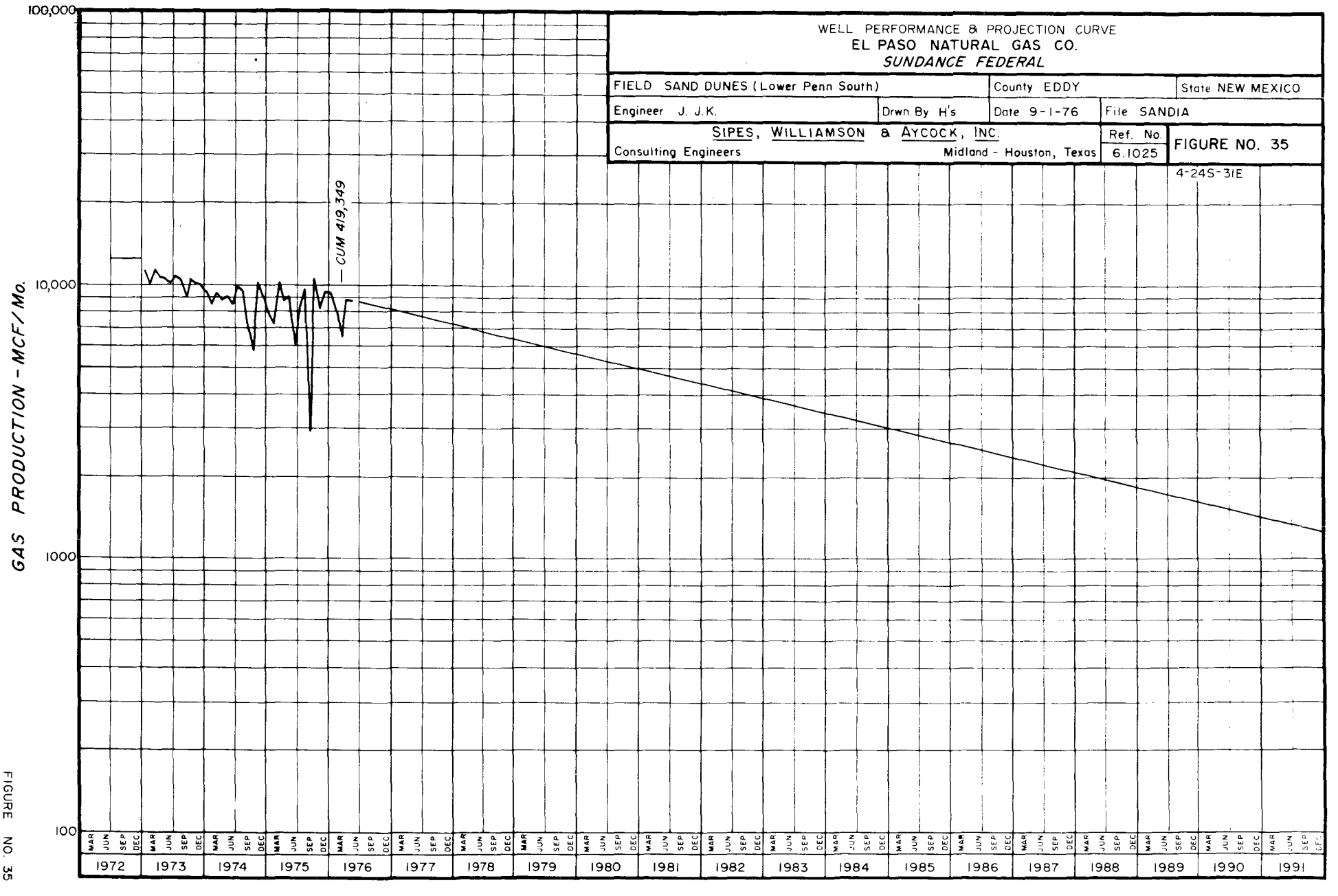
WELL PERFORMANCE & PROJECTION CURVE
EL PASO NATURAL GAS CO.
SUNDANCE FEDERAL
FIELD SAND DUNES (Lower Penn South)
County EDDY
State NEW MEXICO
Engineer J. J. K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 35
4-24S-31E
CUM 419,349
GAS PRODUCTION - MCF/Mo.
100,000
10,000
1000
100
MAR JUN SEP DEC
1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991

FIGURE NO. 35

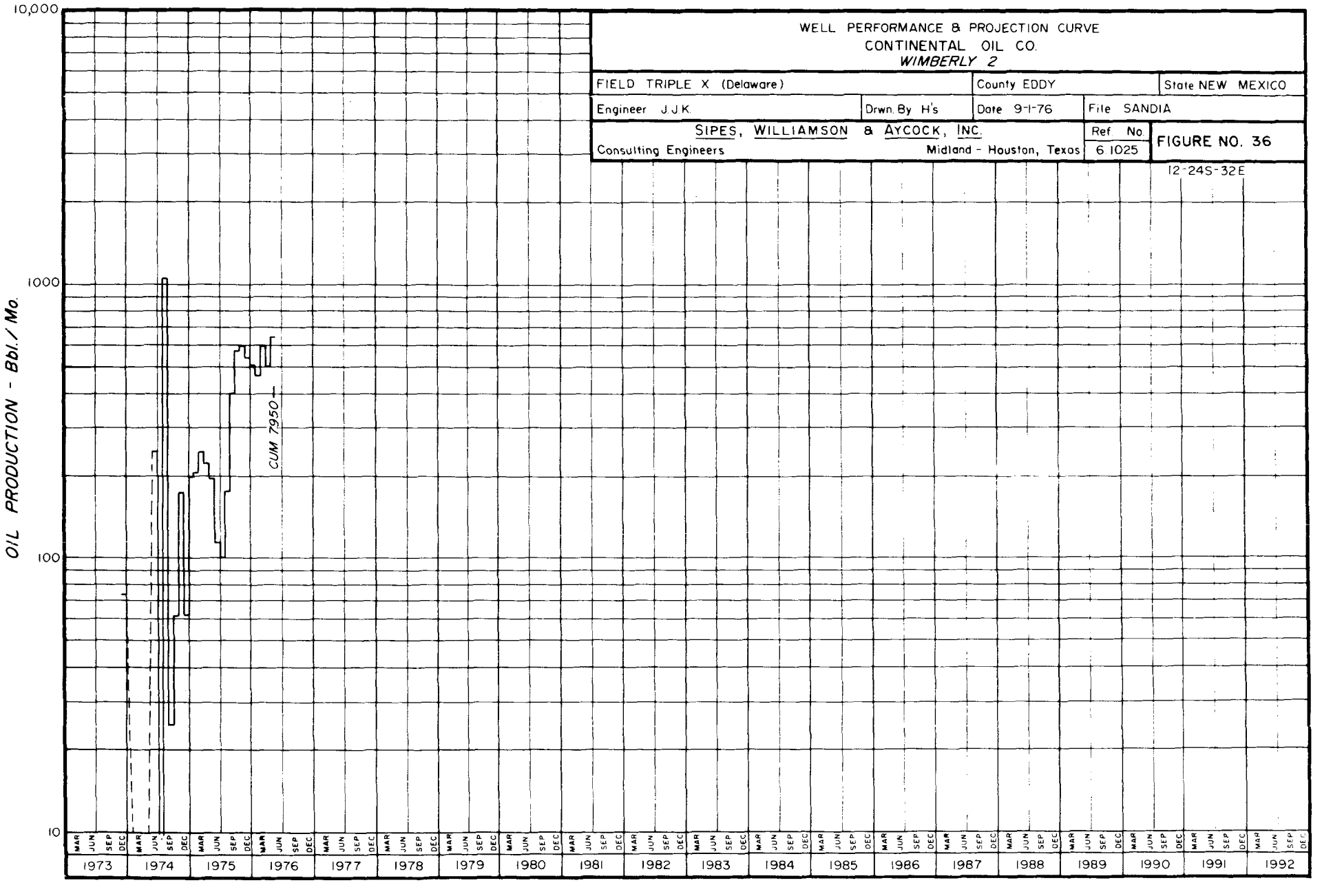
WELL PERFORMANCE & PROJECTION CURVE
CONTINENTAL OIL CO.
WIMBERLY 2
FIELD TRIPLE X (Delaware)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 36
12-24S-32E
OIL PRODUCTION - Bbl./Mo.
10,000
1000
100
10
CUM 7950
MAR
JUN
SEP
DEC
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992

FIGURE NO 36

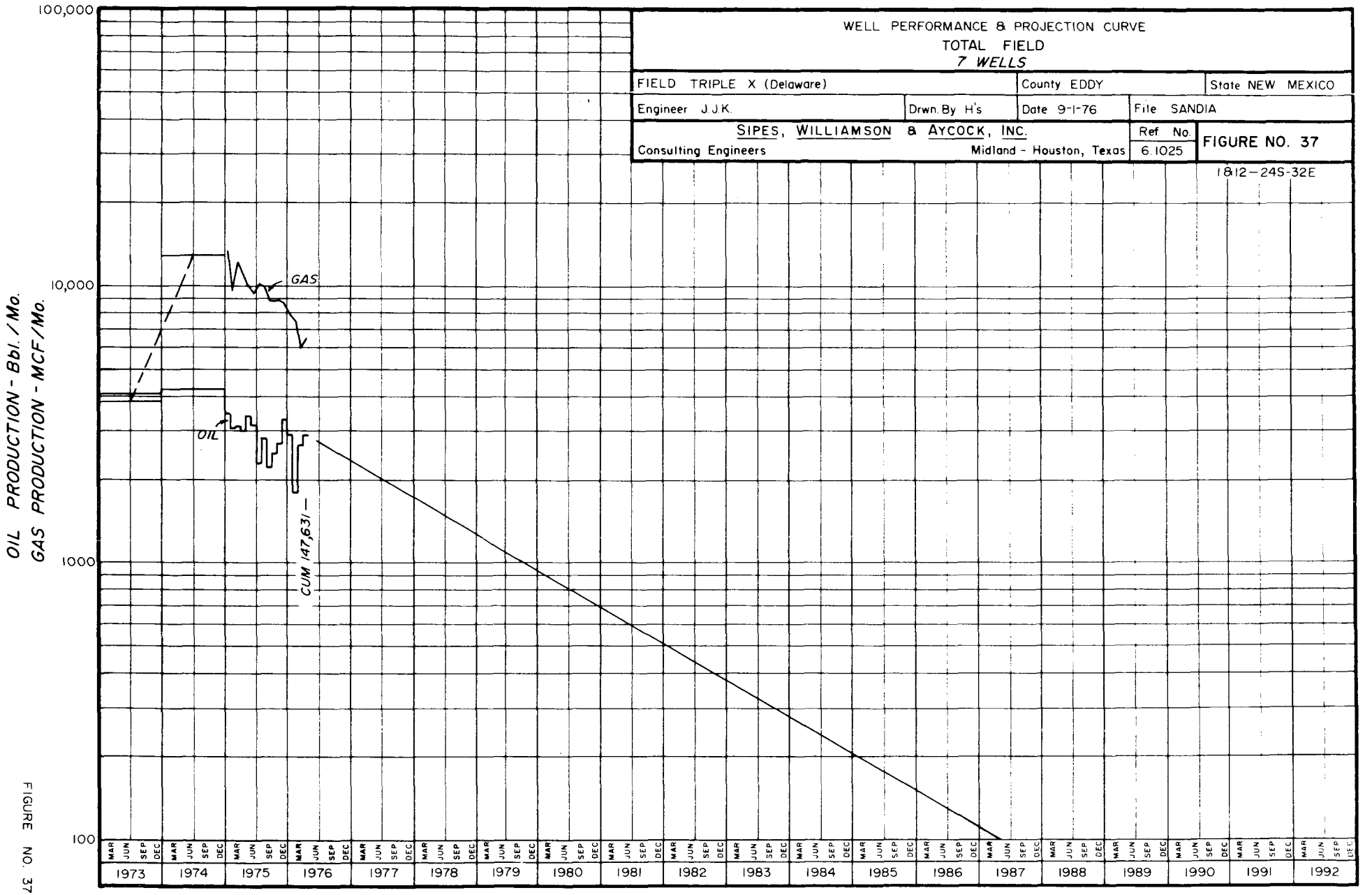
WELL PERFORMANCE & PROJECTION CURVE
TOTAL FIELD
7 WELLS
FIELD TRIPLE X (Delaware)
County EDDY
State NEW MEXICO
Engineer J.J.K.
Drwn. By H's
Date 9-1-76
File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.
Consulting Engineers
Midland - Houston, Texas
Ref. No. 6.1025
FIGURE NO. 37
1&12-24S-32E
OIL PRODUCTION - Bbl./Mo.
GAS PRODUCTION - MCF/Mo.
100,000
10,000
1000
100
GAS
OIL
CUM 147,631
MAR
JUN
SEP
DEC
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992

FIGURE NO. 37