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MODEL FORM OPERATING AGREEMENT



JAMES BUCHANAN 33 STATE No. 1

OPERATING AGREEMENT

DATED

<u>July 2</u> , 19<u>97</u> ,

OPERATOR	MARATHON OIL C	OMPANY	
	E/2 Section 33,	T-18-S, R-28-E, N	М.Р.М.,
			
COUNTY OR PARTS	d OF Edd	STATE OF	Nov. Movdoo

COPYRIGHT 1982 — ALL RIGHTS RESERVED AMERICAN ASSOCIATION OF PETROLEUM LANDMEN, 2408 CONTINENTAL LIFE BUILDING, FORT WORTH, TEXAS, 76102, APPROVED FORM. A.A.P.L. NO. 610 - 1982 REVISED

OIL CONSERVATION COMMISSION

Case No.11835 Exhibit No.—

Marathon Date: August 21, 1997

Hearing Date: August 21, 1997

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1982

ARTICLE VI continued

and the well shall then be turned over to Operator and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, reworking, deepening or plugging back of any such well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold, (after deducting production taxes, excise taxes, royalty, overriding royalty and other interests not excepted by Article III.D. payable out of or measured by the production from such well accruing with respect to such interest until it reverts) shall equal the total of the following:

(a) 100% of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including, but not limited to, stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to such Non-Consenting Party had W participated in the well from the beginning of the operations; and

 (b) 300 % of that portion of the costs and expenses of drilling, reworking, deepening, plugging back, testing and completing, after deducting any cash contributions received under Article VIII.C., and 300 % of that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if 20/had participated therein.

An election not to participate in the drilling or the deepening of a well shall be deemed an election not to participate in any reworking or plugging back operation proposed in such a well, or portion thereof, to which the initial Non-Consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment account. Any such reworking or plugging back operation conducted during the recoupment period shall be deemed part of the cost of operation of said well and there shall be added to the sums to be recouped by the Consenting Parties one hundred percent (100%) of that portion of the costs of the reworking or plugging back operation which would have been chargeable to such Non-Consenting Party had it participated therein. If such a reworking or plugging back operation is proposed during such recoupment period, the previsions of this Article VI.B. shall be applicable as between said Consenting Parties in said well.

During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of all production, severance, excise, gathering and other taxes, and all royalty, overriding royalty and other burdens applicable to Non-Consenting Party's share of production not excepted by Article III.D.

In the case of any reworking, plugging back or deeper drilling operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged; and upon abandonment of a well after such reworking, plugging back or deeper drilling, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value, less cost of salvage.

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Within sixty (60) days after the completion of any operation under this Article, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, deepening, plugging back, testing, completing, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the party conducting the operations for the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of oil and gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. In determining the quantity of oil and gas produced during any month, Consenting Parties shall use industry accepted methods such as, but not limited to, metering or periodic well tests. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unreturned costs of the work done and of the equipment purchased in determining when the interest of such Non-Consenting Party shall revert to it as above provided; and if there is a credit balance, it shall be paid to such Non-Consenting Party.

12. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Worker's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

13. Abandonment and Reclamation

Costs incurred for abandonment of the Joint Property, including costs required by governmental or other regulatory authority.

14. Communications

Cost of acquiring, leasing, installing, operating, repairing and maintaining communication systems, including radio and microwave facilities directly serving the Joint Property. In the event communication facilities/systems serving the Joint Property are Operator owned, charges to the Joint Account shall be made as provided in Paragraph 8 of this Section II.

15. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III and which is of direct benefit to the Joint Property and is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD

1. Overhead - Drilling and Producing Operations

) Percentage Basis, Paragraph 1B

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	drilling and produ	cing	g operations on e	ither:								
1.2 1874-1	umiji Albaria.											
	(X) Fixed Rate F	asis	, Paragraph 1A	, or								

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 3A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property:

() shall	be covered by the overhead rates, or	
(X)) shall	not be covered by the overhead rates.	

iii. The salaries, wages and Personal Expenses of Technical Employees and/or costs of professional consultant services and contract services of technical personnel either temporarily or permanently assigned to and directly employed in the operation of the Joint Property:

() shall be covered by the overhead rates, or	
(X	() shall not be covered by the overhead rates.	

A. Overhead - Fixed Rate Basis

(1) Operator shall charge the Joint Account at the following rates per well per month:

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Orilling Well Rate $ 5.400.00 (Prorated for less than a full month)

Producing Well Rate $ 540.00
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- (2) Application of Overhead Fixed Rate Basis shall be as follows:
 - (a) Drilling Well Rate
 - (1) Charges for drilling wells shall begin on the date the well is spudded and terminate on the date the drilling rig, completion rig, or other units used in completion of the well is released, whichever

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1982

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	l		ARTICLE Y	KVI.
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• •	•			
, ,	, 5	lanal	This agreement shall be binding upon and shall inure to the bene	fit of the parties hereto and to their respective heirs, devisees,
	, ,	iegai	representatives, successors and assigns.	
	,		This instrument may be executed in any number of counterparts.	each of which shall be considered as a sixt 1 in a
	} ;		the checated in any numer of counterparts.	each of which shall be considered an original for all purposes.
, ,)		IN WITNESS WHEREOF, this agreement shall be effective as of _	2nd day of July 10 07
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13			OPERAT	
14				MARATHON OIL COMPANY
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	÷.			E. C. Potter
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18		٠.		E. C. Potter, Attorney-in-Fact
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23			NON-OPERA	
24	١			YATES PETROLEUM CORPORATION
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Roy G. Barton, Jr., Trustee of the Roy G. Barton, Sr., and Opal Barton

Revocable Trust.

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ARTICLE XVI.

: 1	《學》期 對	MISCELLANEO	OUS (A CONTRACT)
	greement shall be binding upon and entatives, successors and assigns.	I shall inure to the benefit	t of the parties hereto and to their respective heirs, devisees,
This in	istrument may be executed in any r	number of counterparts, ea	each of which shall be considered an original for all purposes.
IN WI	TNESS WHEREOF, this agreement	shall be effective as of2	2nd day of July 19 97.
i .		O P E R A T O	R MARATHON OIL COMPANY
			P. C. Potter
			E. C. Potter, Attorney-in-Fact
		NON-OPERAT	TORS
			YATES PETROLEUM CORPORATION
		; ;	By: Its:
· · · · · · · · · · · · · · · · · · ·			ATLANTIC RICHFIELD COMPANY
			By: Its:
		·	LOUIS DREYFUS NATURAL GAS CORP.
			By: Its:
			ENRON OIL & GAS COMPANY
			By: Its:
			READ & STEVENS, INC.
			By: Pusident Charles B. Read Its:

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Roy G. Barton, Jr., Trustee of the Roy G. Barton, Sr., and Opal Barton Revocable Trust.

EXECUTED on the date set out below beside each party's name.

OPERATOR:

Date Executed:	
****	E. C. Potta
	E. C. Potter, Attorney-in-Fact MARATHON OIL COMPANY
Date Executed:	NON-OPERATORS:
	By:
	Its: YATES PETROLEUM CORPORATION
일 사용하는 사용이다. 실제, 경험을 기능하는	
Date Executed:	
	By: Its:
	ATLANTIC RICHFIELD COMPANY
Date Executed:	
	By: Its:
	LOUIS DREYFUS NATURAL GAS CORPORATION
Date Executed:	Santanan daripatan d
	By: Its:
	ENRON OIL & GAS COMPANY
Date Executed:	
	By: Its:
	READ & STEVENS, INC.
Det E	
Date Executed:	1/1/18 -1
	Pay O Parton In Tracks of the Police Parton Service Constitution
	Roy G. Barton, Jr., Trustee of the Roy G. Barton, Sr. and Opal Barton Revocable Trust

A A T H O N O I L C O M P A N Y HORITY FOR EXPENDITURE ALL OF ESTIMATED WELL COSTS Ton Mid-Continent Region

Barton

AFE NO.657697

DATE June 16, 1997

ld/Prospect <u>Travis/Empire M</u>		•	
se/Facility <u>James Buchanan :</u> ation <u>SE/4. S33-T18S-R28E:</u>			ECOMPLETION ORKOVER
Section 25/41 233-1102-4505.	Cody Country, Min	PICINI EXPL	URRUYER
. Total Depth11,200'		t. Completion Days	
Synaphysica (Allendaria)	######################################	*****************	C
RCE QUANTITY	DESCRIPTION	ACCT. CAT.	O ESTIMATED
	SCP 東海は	FEATURE	N COST
		NO.	D
;de=u=qe;aede==u=u===============================	DRILLING COSTS	TANCTULE TANCTULE	
	Drive Pipe	81-7	
	Conductor Pipe	81-8	
chase 575	Surface Pipe - 13-3/8", 48#, H-40, 8rd, STC	81-9	9,000
chase 2.700	Casing, Intermediate String No. 1 - 9-5/8"	81-11	30,000
	Casing, Intermediate String No. 2 Drilling Liner	81-12 81-19	
	Orilling Liner Hanger and Tieback Equipment	81-22	
chase	Drilling Wellhead Equipment	81-80	4,500
chase	Miscellaneous Materials	81-217	1,000
ТОТ	TAL DRILLING COSTS - TANGIBLE		\$44,500
DRI	CLLING COSTS - INTANGIBLE		
itract	Surveying, Location & Access	81-2	500
itract	Well Location & Access Daywork Drilling - \$5,650/24 hr. day inc. Fuel	81-5 81-36	15,000
ntract 11,200	Footage Basis Drilling - Dry Hole Drilling	81-37	27,500 230,000
	Turnkey Drilling	81-38	
	Drilling Rig Mob/Demob	81-39	
	Blowout Prevention Equipment	81-41	~-~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	Drill Pipe & Collars Drilling & Service Tools	81-44 81-45	
	Drilling Services	81-50	
	Snubbing Units, Company	81-62	
	Snubbing Units, Contract	81-68	4 000
ntract ntract	Mud System/Solids Control Mud and Mud Services	81-40 81-71	4,000 25,000
	Bits	81-69	
	Stabilizers, Hole Openers, Underreamers	81-70	
	011	81-72	
	Grease Fuel, Diesel (Not furnished by Contractor)	81-72 81-74	
ntract	Water Water	81-336	12,000
ntract	Casing Tools and Services	81-90	9,000
ntract	Cement and Cementing Service	81-91	25,000
ntract	Logging Services, Open Hole Logging Services, Cased Hole	81-93 81-94	30,000
ntract	Mud Logging Mud Logging	81-95	10,000
itract	Inspection, Pipe & Casing	81-97	3,500
	Directional Services	81-101	
	Coring Formation Testing, Open Hole	81-102 81-104	4,500
itract	Formation Testing, Cased Hole	81-105	4,300
	Well Control Services	81-120	
itract	Trucking/Transportation, Other	81-126	5,500
itract	Well Test Equipment Fishing Tools and Services	81- <u>127</u> 81-133	2,500
	Abandoning Tools and Services	81-136	
	Sidetracking, Milling Sections, Whipstocks	81-185	
tract	Miscellaneous Materials	81-217	3.500
tract	Contract Labor, Welding Contract Labor, Other - \$400/24 Hr. Day	81-233 81-237	1,000
tract	Contract Services, Living Quarters - \$100/Day	81-243	3,500
	Contract Services, Other	81-266	
tract	Hydrogen Sulfide Testing - \$150/Day	81-320	4,000
	Spill Control Equipment Computer Hardware - \$25/Day	81-454 81-568	800
tract	Computer hardware - 323/Day Communications, Field - \$50/Day	81-368 81-658	1,800
	Regulatory Compliance	81-685	
	Company Labor & Burden - \$375/Day	81-750	13,000
	Overhead Tridinary Evpense	81-770	
and the second second	Indirect Expense	81-779	
π	DTAL DRILLING COSTS - INTANGIBLE		\$446,600
1000 Part 1000	艾尔尔克 阿贝尔 医抗抗发素性坏疽 机环烷 经保证 医电阻性 医电阻性 医电阻性 医血栓性 医生物 医生物 医生物 医自己性性性		
π	DTAL DRILLING COSTS		\$ 491,100

A.R.A.T.H.O.N.O.I.L.C.O.M.P.A.N.Y HORITY FOR EXPENDITURE (AIL OF ESTIMATED WELL COSTS

AFE NO.657697 DATE <u>June 16, 1997</u>

ion Mid-Continent	
ald/Prospect <u>Travis/Empire Morrow Text</u>	
se/Facility James Buchanan 33 State No. 1	

RCE Q	UANTITY	DESCRIPTION	ACCT. CAT FEATURE NO.	C O N D	ESTIMATED COST
		**************************************	· 2007年11月4日日12月20年12日日15日	126 2 04648	
	COMPLETIO	N COSTS - TANGIBLE			
chase 11	L,200	Production Casing	82-15	···········	91,000
		Production Liner	82-18		
		Production Liner Hanger & Tieback Equipment	82-21		
hase 10	0.600	Tubing - 2-3/8" O.D., 4.7#, L-80	82-23		36,000
		Wellhead Equipment (Drilling)	82-80	·	4.500
hase		Christmas Tree	82-87		9,000
hase		Packers Rod Pump	82-137 82-143		6,000
		Electric Submersible Pump	82-149		
		Completion Wellhead Equipment	82-167		
		MPLETION COSTS - TANGIBLE		\$_	146.500
	COMPLETIO	ON COSTS - INTANGIBLE			
tract		Location and Access	82-1		1.500
		Drilling Rig During Completion	82-34		11.000
ract		Blowout Preventer Tools - Drilling & Service	82-41 82-45	·	1.500
		Rig. Completion	82-48		
·		Workover Units, Company	82-55	······································	
ract		Workover Units, Contract	82-56		7,500
		Snubbing Units, Company	82-62		
		Coiled Tubing Service Units, Contract	82-67	 	
		Snubbing Units, Contract	82-68		
		Underreamers, Stabilizers, Hole Openers	82-70		
	·	Lubricants	82-72		
	·	Fuel, Diesel	82-74		
	·	Casing Tools and Services	82-90		9.00
		Cement and Cementing Services	82-91		28,00
		Logging Services, Open Hole Wells	82-93		
tract	···	Logging Services. Cased Hole Wells	82-94		3,50
CPACE		Tubular Inspection. Testing & Cleaning Formation Testing	82-96 82-103		7.000 3.000
tract tract		Formation Treating	82-113		4,00
tract		Transportation, Other	82-126		3,50
tract		Test Equipment - Well Testing	82-127		7,50
		Fishing Tools and Services	82-133		
tract		Completion and Packer Fluids	82-180		1,00
tract		Perforating	82-182		16.00
tract		Wireline Services	82-183		1,50
<u></u>	·	Sidetracking, Milling Sections, Whipstocks	82-185		
tract		Miscellaneous Materials	82-217		3,50
tract		Miscellaneous Services	82-218		7.00
tract	State of the state	Contract Labor, Laborer	82-234		3.00
EL WE E	*\$0.79 pt	Contract Services, Other	52-240		7.40
tract		Treating Chemicals. Other	82-291		1.00
TACL	New Arts	Salt Water Disposall & Trans Fees	82-371		1.00
tract		Rental Tools & Equip.	82-585		4,30
		Communications - Field Regulatory Compliance	82-658 82-685		
·		Company Labor & Burden	82-663 82-750		3,80
*		Overhead Overhead	82-770		
·		Indirect Expense	82-779		3.80
	TOTAL C	OMPLETION COSTS - INTANGIBLE			

	TOTAL C	OMPLETION COSTS			286

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ARAITEON OIL COMPA	N	Y	
THORITY FOR EXPENDITURE	•	•	
TATE OF FETTHATED WELL COURS			

gion Mid-Continent

AFE NO.657697

DATE June 16, 1997

eld/Prospect <u>Travis/Empire Mor</u> ase/Facility <u>James Buchanan 33</u>				
ise/Pacility <u>James Buchanan 33</u>	STATE NO. 1			
	***************************************	**************		
URCE QUANTITY	DESCRIPTION	ACCT, CAT	ō	ESTIMATE
			N	COST
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CIII	RFACE EQUIPMENT - TANGIBLE			
rchase	Line Pipe	83-27		1,50
rchase	Transportation, Other	83-126	·	2.50
million of the freeze attraction of	Pumping Unit	83-141	****	
	Pumping Equipment - Rod Pump	83-143		
7 4 1 2 2 2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1	Flowing/Plunger Lift Equipment	83-146	· · · · · · · · · · · · · · · · · · ·	
	Submersible Pump - Electric	83-149		
	Submersible Pump - Hydraulic	83-152		
	Gas Lift Equipment	83-155		
Service Matternative	Pumps	83-158		
rchase The Control of	Tanks	83-170		10.00
rchase	Metering Equipment	83-190		4.0
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e i de de de la companya de la comp	Electrical Equipment, Other	83-201		
ırchase	Valves	83-205		2.5
rchase	Miscellaneous Materials	83-217		10.0
	Contract Labor, Electrical	83-229		
ntract	Contract Labor, Welding	83-233		1.0
ntract ***	Contract Labor. Other	83-237		4.0
entract	Contract Services. Other	83-240		2,0
i geografia (personal)	Compressor Installation	83-365		
ırchase	Dehydration	83-376		10,0
ा । १८ व्यक्ति क्षित्रीकृतिका <u>ल</u> ्या । १	Crude 011 Treaters	83-378		:
urchase Santia in the same	Separator	83-380	<u></u>	10.0
The set of the street of the set	Vapor Recovery Units	83-386		
e de la companya del companya de la companya del companya de la co	Free Water Knockouts	83-388		
	Regulatory Compliance (Includes Permitting)	83-685		
xc	Company Labor & Burden	83-750	·	2.0
ТОТА	AL SURFACE EQUIPMENT - TANGIBLE		*==#=+#=	\$59.5
NVIRON. COSTS	SUMMARY OF ESTIMATED DRILLING WELL COSTS			(
pill Cleanup 41 %	Total Drilling Cost	\$	491.100	
emediation 42%	Total Completion Cost	· \$	286,000	<u> </u>
ater 44X olid Waste 45X	Total Surface Equipment	. \$	59,500	\$
ther 47X on-ENV X	Grand Total Cost	. \$	836,600	
	Marathon's Share of Grand Total Cost to be Bo	ooked This Year	S	
otal <u>100</u> %	If Wildcat Well, Give Marathon's Share of Dry	y Hole Cost	s	···
		10年27年明月在董书院还英雄可可好和特拉3	क मार्च जिला सुक्त कुछ तेतीने माना पुनी वेदने के	**********

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AUG - 5 1997

Sr.

& Opal

Date:

PARTICIPANT'S APPROVAL

Roy G. Barton,

Barton Revocab

ARATHON OIL COMPANY THORITY FOR EXPENDITURE TAIL OF ESTIMATED WELL COSTS

Rès

AFE NO.<u>657697</u>
DATE <u>June 16, 1997</u>

ld/Prospect <u>Travis/Empire Morr</u>			IDI ETTON
e/Facility <u>lames Buchanan 33</u> htion <u>SE/4, S33-T18S-R28E; Edd</u>			MPLETION
Cion <u>36741 333-1163-R2661 Edd</u>	Y COUNTY: IN-	PRIENT EXPL WORK	JVER
Total Depth	Est. Drilling Days 35 Es	st. Completion Days	10
	+	***************	
CE QUANTITY	DESCRIPTION	ACCT. CAT.~	C ESTIMATED
CL QUANTITY	- PARCE DESCRIPTION	FEATURE	N COST
		NO.	n C031
			J
	DRILLING COSTS -	- TANGIBLE	
	Orive Pipe	<u>81-7</u>	
	Conductor Pipe	81-8	
thase 575	Surface Pipe - 13-3/8", 48#, H-40, 8rd, STC	81-9	9,000
hase 2.700	Casing, Intermediate String No. 1 - 9-5/8"	81-11	30.000
	Casing, Intermediate String No. 2	81-12	
	Orilling Liner Drilling Liner Hanger and Tieback Equipment	51-19 81-22	
hase	Drilling Wellhead Equipment	81-80	4,500
hase	Miscellaneous Materials	81-217	1,000
TOTAL	DRILLING COSTS - TANGIBLE		\$ 44.500
	2		
	ING COSTS - INTANGIBLE		
ract	Surveying, Location & Access	81-2	500
tract	Well Location & Access	81-5	15,000
tract`.	Daywork Drilling - \$5,650/24 hr. day inc. Fuel	81-36	27,500
tract 11.200	Footage Basis Drilling - Dry Hole Drilling	81-37	230,000
terior	Turnkey Drilling	81-38	
	Drilling Rig Mob/Demob	81-39	
and the second s	Blowout Prevention Equipment	81-41	<u> </u>
	Drill Pipe & Collars	81-44	
	Drilling & Service Tools	81-45 81-50	
	Drilling Services Snubbing Units, Company	81-62	· · · · · · · · · · · · · · · · · · ·
	Snubbing Units, Contract	81-68	
tract	Mud System/Solids Control	81-40	4.00
tract	Mud and Mud Services	81-71	25,00
<u> </u>	Bits	81-69	
·	Stabilizers, Hole Openers, Underreamers	81-70	
	01)	81-72	
	Grease	81-72	
**************************************	Fuel, Diesel (Not furnished by Contractor) Water	81-74 81-336	12,00
tract	Casing Tools and Services	81-90	9.00
tract	Cement and Cementing Service	81-91	25.00
tract	Logging Services, Open Hole	81-93	30,00
	Logging Services, Cased Hole	81-94	
tract	Mud Logging	81-95	10.00
tract	Inspection, Pipe & Casing	81-97	3,50
VII.	Directional Services	81-101	
	Coring Constant Constant	81-102	4 50
tract	Formation Testing, Open Hole Formation Testing, Cased Hole	81-104 81-105	4.50
2 288 1 28 3 4 3 5 4	Well Control Services	81-120	
tract	Trucking/Transportation, Other	81-126	5.50
tract	Well Test Equipment	81-127	2,50
	Fishing Tools and Services	81-133	
	Abandoning Tools and Services	81-136	
	Sidetracking, Milling Sections, Whipstocks	81-185	
<u>itract</u>	Miscellaneous Materials	81-217	3,50
ntract	Contract Labor, Welding	81-233	1,00
itract	Contract Labor, Other - \$400/24 Hr. Day	81-237	15,00
itract	Contract Services, Living Quarters - \$100/Day Contract Services, Other	81-243	3,50
tract	Hydrogen Sulfide Testing - \$150/Day	<u>81-266</u> 81-320	4.00
*	Spill Control Equipment	81-454	
ntract	Computer Hardware - \$25/Day	81-568	8(
ntract	Communications, Field - \$50/Day	81-658	1,80
	Regulatory Compliance	81-685	
<u> </u>	Company Labor & Burden - \$375/Day	81-750	13,00
	Overhead	81-770	
	Indirect Expense	81-779	
TOTA	L DRILLING COSTS - INTANGIBLE		\$ 446,60
	======================================		
TOTA			\$ 491,10

ARATHON OIL COMPANY THORITY FOR EXPENDITURE TAIL OF ESTIMATED WELL COSTS Ur ESIL...

eld/Prospect Travis/Empire Morrow Text

gion <u>Mid-Continent</u>

AFE NO.657697 DATE <u>June 16. 1997</u>

ase/Facility <u>lames Buchanan 33 State No. 1</u> C URCE QUANTITY DESCRIPTION ACCT. CAT,-0 **ESTIMATED** FEATURE N COST NO. D 。海镇往外 COMPLETION COSTS - TANGIBLE <u>rchase</u> 11,200 Production Casing 82-15 91,000 Production Liner 82-18 Production Liner Hanger & Tieback Equipment 82-21 Tubing - 2-3/8" O.D., 4.7#, L-80 10,600 rchase 36.000 82-23 Wellhead Equipment (Drilling) 92-80 4,500 rchase Christmas Tree 82-87 9,000 rchase **Packers** 82-137 6,000 Rod Pump 82-143 Electric Submersible Pump 82-149 Completion Wellhead Equipment 82-167 TOTAL COMPLETION COSTS - TANGIBLE \$ 146,500 COMPLETION COSTS - INTANGIBLE Location and Access ntract 82-1 1,500 Drilling Rig During Completion 82-34 11,000 Blowout Preventer 82-41 1,500 Tools - Drilling & Service 82-45 Rig. Completion 82-48 Workover Units, Company 82-55 7.500 ontract Workover Units, Contract 82-56 Snubbing Units, Company 82-62 Coiled Tubing Service Units, Contract 82-67 Snubbing Units, Contract 82-68 Underreamers, Stabilizers, Hole Openers 82-70 Lubricants 82-72 Fuel. Diesel 82-74 Casing Tools and Services 9,000 82-90 Cement and Cementing Services 82-91 28,000 Logging Services, Open Hole Wells 82-93 ontract Logging Services, Cased Hole Wells 82-94 3,500 <u>ontract</u> Tubular Inspection, Testing & Cleaning 82-96 7.000 Formation Testing ontract 82-103 3,000 Formation Treating ontract 82-113 4,000 ontract Transportation, Other 82-126 3.500 <u> Test Equipment - Well Testing</u> **intract** 82-127 7,500 Fishing Tools and Services 82-133 Completion and Packer Fluids 1,000 Intract 82-180 Perforating 16,000 Intract 82-182 ntract Wireline Services 82-183 1,500 Sidetracking, Milling Sections, Whipstocks 82-185 Miscellaneous Materials 3,500 ntract 82-217 ntract Miscellaneous Services 82-218 7,000 ntract Contract Labor. Laborer 82-234 3.000 7,400 Contract Services, Other ntract 82-240 ntract Treating Chemicals, Other 1.000 82-291 Salt Water Disposall & Trans Fees 1,000 intract 82-371 Rental Tools & Equip. 4,300 ntract 82-585 Communications - Field 82-658 Regulatory Compliance 82-685 Company Labor & Burden 82-750 3,800 Overhead 82-770 3.800 Indirect Expense 82-779 TOTAL COMPLETION COSTS - INTANGIBLE 139,500 TOTAL COMPLETION COSTS 286,000 A.R.A. HON OIL COMPANY THORITY FOR EXPENDITURE TAIL OF ESTIMATED WELL COSTS

eld/Prospect <u>Travis/Empire Morrow Test</u>

gion <u>Mid-Continent</u>

AFE NO.657697 DATE June 16. 1997

sse/Facility <u>James Buchana</u>	an 33 State No. 1				
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			C		
URCE QUANTITY	DESCRIPTION	ACCT. CAT	0	EST	IMATED
		FEATURE NO.	N	C	OST
	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	NO.	D		
					•
	SURFACE EQUIPMENT - TANGIBLE			,	
rchase	Line Pipe	83-27			1,500
rchase	Transportation, Other	83-126			2,500
	Pumping Unit	83-141			
A PARAMAN AND A SECOND	Pumping Equipment - Rod Pump	83-143			
	Flowing/Plunger Lift Equipment	83-146			
	Submersible Pump - Electric	83-149			
	Submersible Pump - Hydraulic	83-152			
	Gas Lift Equipment	83-155			
	Pumps Pumps	83-158			
rchase	Tanks	83-170			10,000
rchase	Metering Equipment	83-190			4,000
	Instrumentation	83-194			
	Electrical Equipment, Other	83-201			
ircnase	Valves	83-205			2.500
ırchase	Miscellaneous Materials	83-217	 		10,000
	Contract Labor, Electrical	83-229			
ntract	Contract Labor, Welding	83-233			1,000
ontract	Contract Labor, Other	83-237			4,000
ontract	Contract Services, Other	83-240			2,000
	Compressor Installation	83-365			
ırchase	Dehydration	83-376			10,000
	Crude Oil Treaters	83-378			·
ırchase	Separator	83-380	· · · · · · · · · · · · · · · · · · ·		10,000
	Vapor Recovery Units	83-386		11	
	Free Water Knockouts	83-388			
	Regulatory Compliance (Includes Permitting)	83-685	 .	<u> </u>	:
<u>x</u>	Company Labor & Burden	83-750			2,000
	TOTAL SURFACE EQUIPMENT - TANGIBLE			s	59.500
			********	:29222	
NVIRON. COSTS	SUMMARY OF ESTIMATED DRILLING WELL COSTS	4 - 4		• .	;
	Total Drilling Cost	<u>. </u>	491,100		
pill Cleanup 41X					
emediation 42%	Total Completion Cost	<u> 1</u>	286.000		
Ir 43X					
ater	Total Surface Equipment	<u>\$</u>	59.500		
olid Waste 45X					
ther 47X	Grand Total Cost	<u>\$</u>	836,600		
on-ENVX					
	Marathon's Share of Grand Total Cost to be Bo	ooked This Year	\$		
otal 100%			~_		
	If Wildcat Well, Give Marathon's Share of Dry	v Hole Cost	\$		
	/	,	~ <u></u>		

PARTICIPANT'S APPROVAL

Read & Stevens, Inc.

By: Charles B. Read Providers

A Language Date: