THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Pat Apple, Chair
Shari Feist Albrecht
Jay Scott Emler

In the Matter of the Application of Norstar Petroleum Inc., for authorization to impose a Vacuum on its Hume Bros Lease located in The NW/4 of Section 34, Township 29 South, Range 41 West, Stanton County, Kansas.	))))))	DOCKET NO. 17-CONS-3403-CVAC CONSERVATION DIVISION License No.: 31652

NOTICE OF FILING OF PREFILED TESTIMONY
OF BRADY PFEIFFER ON BEHALF OF NORSTAR PETROLEUM INC.

Norstar Petroleum Inc. ("Norstar") hereby provides notice on this 18th day of April 2017, of the filing of the Prefiled Testimony of Brady Pfeiffer on Behalf of Norstar Petroleum Inc. dated April 18, 2017, a copy of which is attached hereto.

Respectfully submitted,

/s/ Steven D. Gough
Steven D. Gough, #09016
WITHERS, GOUGH, PIKE & PFAFF, LLC
O.W. Garvey Bldg., Suite 1010
200 W. Douglas
Wichita, KS 67202
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(316) 266-5021 (telephone)
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Attorney for Norstar Petroleum Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 18th day of April 2017, I have caused to be served electronically, a true and accurate copy of the foregoing ***Notice of Filing of Prefiled Testimony of Brady Pfeiffer on Behalf of Norstar Petroleum Inc.*** and of the ***Prefiled Testimony of Brady Pfeiffer on Behalf of Norstar Petroleum Inc.*** to:

Brady Pfeiffer
NORSTAR PETROLEUM INC.
88 Inverness Circle E, Unit F104
Englewood, Colorado 80112

David E. Bengtson
STINSON LEONARD STREET LLP
1625 North Waterfront Parkway, Suite 300
Wichita, Kansas 67206-6620
Telephone: (316) 265-8800
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Attorneys for White Exploration, Inc.

Jon Meyers
KCC CONSERVATION DIVISION
266 N. Main, Suite 220
Wichita, KS 67202
Email: j.myers@kcc.ks.gov

AND VIA U.S. Postal Service, Postage Prepaid to:

Michael Duenes
ASSISTANT GENERAL COUNSEL
1500 SW Arrowhead Rd.
Topeka, KS 66604

/s/ Steven D. Gough
Steven D. Gough

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PREFILED TESTIMONY OF BRADY PFEIFFER ON BEHALF OF NORSTAR PETROLEUM INC.

Q: Would you please state your name, position, employer, and office address?

A: My name is Brady Pfeiffer. I am employed by Norstar Petroleum Inc. ("Norstar") with a business office address of 88 Inverness Cir. E, Unit F104, Englewood, CO 80112-5514. I am a Petroleum Engineer for Norstar.

Q: Would you please relate your educational background?

A: I attended the Colorado School of Mines in Golden, CO. I received an undergraduate degree of Bachelors of Science in Petroleum Engineering with a double minor in Geology and Economics. I graduated in May 2011.

Q: Would you please relate your work history?

A: I started my petroleum engineering career with Devon Energy Corporation in Oklahoma City in the summer of 2010. Prior to graduation I had an internship in the drilling engineering department for the Permian basin group. After graduation I spent a year as a field engineer in Riverton, WY where I supervised operations of the Beaver Creek field. In July 2012 I began working for Norstar as a Petroleum Engineer. My duties at Norstar cover the entire spectrum of petroleum engineering, including daily management of all

production and operations of Norstar operated oil and gas wells, reservoir engineering and case by case reserve analysis, waterflood installation and monitoring, drilling supervision, regulatory compliance, investor relations, exploration strategy, and various other tasks.

Q: Would you generally describe the operations of Norstar?

A: Norstar is an exploration and production operator of oil and gas wells almost exclusively in Kansas. Norstar operates over 180 oil and gas wells in 17 counties in Kansas. Norstar is active in drilling new wells, acquiring existing production, and installing and monitoring waterfloods. Norstar also holds non-operated working interest in over 100 other wells in Kansas and Oklahoma.

Q: Why did Norstar file this Application?

A: Norstar operates a lease covering the NW/4 of Section 34, Township 29 South, Range 41 West, Stanton County, Kansas ("Hume Bros Lease"). Norstar operates three (3) wells on the Hume Bros Lease that all produce out of the Lower Morrow Keyes Sand formation. The names of the wells and their locations are as follows: BFC Hume Bros #1-34, API# 15-187-20904,660' FNL 660' FWL; CHT Hume Bros #2-34, API# 15-187-21209, 1980' FNL, 660' FWL; and CHT Hume Bros #3-34, API# 15-187-21235, 1485' FNL, 1543' FWL. These wells have declined to the point where they will become uneconomic in the near future. In order to protect Norstar's correlative rights and to prevent hydrocarbon waste, Norstar believes that it is necessary to install compression to extend the life of the wells and to remain competitive with off-set operators.

Q: What facts support Norstar's statement that the wells on the Hume Bros Lease "have declined to the point where they will become uneconomic in the near future" as alleged in Paragraph 5 of the Application?

A: The data is contained in Exhibit A, attached hereto. Exhibit A shows that without use of compression to induce a vacuum on the three (3) wells on the Hume Bros Lease, the Hume Bros Lease will make 300 barrels of oil per month (BOPM) with a decline rate of 4.5% per month. Exhibit A shows that the Hume Bros Lease will become uneconomic within the next twelve (12) months.

Q: K.A.R.82-3-131(a) provides that the installation and use of vacuum pumps may be permitted in a field that is "nearly depleted." Is this field "nearly depleted" as required by K.A.R. 82-3-131(a) to authorize the use of vacuum pumps?

A: Yes. Without the use of vacuum pumps, the Hume Bros Lease will become uneconomic within the next twelve (12) months which satisfies the requirement that the field under the Hume Bros Lease is "nearly depleted" as required by K.A.R. 82-3-131(a).

Q: What has been the production, revenue, and expenses incurred by Norstar with respect to the three (3) wells on the Hume Bros Lease?

A: This information is contained in Exhibit B, attached hereto. Norstar took over operations of the Hume Bros Lease from C.H. Todd, Inc., effective December 1, 2014. The oil purchaser pays 100% of the revenue from the sale of oil from the Hume Bros Lease to the Hume Bros #1-34 well. Norstar then allocates that revenue between the wells.

Q: Is there any experience in the area that shows that operating wells under a vacuum or under compression from the Lower Morrow Keyes Sand formation has increased production and recoverable reserves?

A: Yes. Anadarko Petroleum Corporation filed an application for vacuum operations of its Pro Farms 27-1W well (Docket No. 13-CONS-213-CVAC) located in the SE/4 of Section 27-T29S-R41W (which is directly north and offsets Norstar's Hume Bros Lease) in order

to increase the oil production for that well. Attached hereto as Exhibit C is a copy of Anadarko's Application with respect to the Pro Farms 27-1W oil well. The Commission approved Anadarko's application. Anadarko has since sold the lease in Exhibit C, along with their other leases in the field, to Berexco LLC. In addition, White Exploration, Inc. operates the Carr lease in the SW/4 of Section 34-T29S-R41W and the Black Stone "D" lease in the SE/4 of Section 28-T29S-R41W on compression in order to increase the oil and gas production from these wells to increase the recovery of reserves.

Q: Based on field experience with these two operators, does Norstar believe that compression and the introduction of a vacuum with respect to Norstar's three (3) wells on the Hume Bros Lease will increase production and recoverable reserves?

A: Yes.

Q: Has Norstar conducted any tests on any of the wells on the Hume Bros Lease to determine how they would respond under vacuum conditions?

A: Yes. In September and October 2016, Norstar rented a compressor to test the effective gas rate that would be produced by vacuum operations on the Hume Bros #1-34 and #3-34 wells. Attached as Exhibit D is a summary of the results.

Q. Has Norstar estimated the maximum daily production that would result from the imposition of a vacuum on the three (3) wells located on the Hume Bros Lease?

A. Yes. Based on the information contained in Exhibit D, Norstar estimates that the imposition of a vacuum on the subject wells on the Hume Bros Lease would result in the following production:

Gas: 40 MCFPD

Oil: 15 BOPD

Water: 6WPD.

Norstar used the data on Exhibit D to estimate the maximum daily production resulting from the imposition of a vacuum in arriving at the above production figures which were set forth in Paragraph 6 of the Application.

Q: Has Norstar provided calculations to estimate the remaining recoverable hydrocarbon reserves for the Hume Bros Lease?

A: Yes. Norstar estimates that the remaining recoverable hydrocarbon reserves on the Hume Bros Lease are 28 MMCF of gas and 10.4 MBBL of oil. This estimate is based on the information set forth in Exhibit E, attached hereto.

Q: White Exploration, Inc. has protested Norstar's Application because it denies that the field from which Norstar's wells on the Hume Bros Lease are producing is "nearly depleted" as required by K.A.R.82-3-131(a). Do you agree?

A: No. Norstar's evaluation of the Hume Bros Lease is that without the introduction of vacuum operations, the Hume Bros Lease will cease to produce in paying quantities within the next twelve (12) months as shown by Exhibit A, attached hereto.

Q: Does Norstar need to operate its wells on the Hume Bros Lease under vacuum conditions to protect Norstar's correlative rights?

A: Yes. Norstar believes that it needs to introduce vacuum conditions on the subject wells in order to protect its correlative rights and to recover the reserves underlying the Hume Bros Lease. The adjoining operator, Berexco LLC, has already received authorization from the Commission to use a vacuum on its Pro Farms 27-1 well located in the SE/4 of Section 27-T29S-R41W (*see*, Exhibit C). It is also important to note that Berexco LLC chose not to protest this application, and they know the benefits of approved vacuum operations. In

addition, White Exploration, Inc. has added compression on the Carr lease and the Black Stone "D" lease to increase oil and gas production and recovery of reserves on acreage near the Hume Bros Lease. Norstar needs to add compression to its wells on the Hume Bros Lease to protect its correlative rights.

Q: White Exploration, Inc. has also objected to Norstar's Application because it believes that the installation and use of vacuum pumps on Norstar's wells located on the Hume Bros Lease will violate the correlative rights of White Exploration, Inc. Do you agree?

A: No. Norstar does not believe that introduction of vacuum operations on the Hume Bros Lease will violate the correlative rights of White Exploration, Inc., because there is nothing to prevent White Exploration, Inc. from filing an Application to introduce vacuum conditions on its leases to protect its correlative rights.

Q: If Norstar is allowed to use a vacuum on the three (3) wells located on the Hume Bros Lease, will waste be prevented?

A: Yes. The introduction of a vacuum will allow for the recovery of more oil and gas from the Hume Bros Lease and will extend the date before abandonment must take place over what would occur without the use of a vacuum on these wells. For example, oil production is currently about 300 barrels of oil per month. With vacuum on the subject wells, Norstar estimates that oil production will increase to 450 barrels of oil per month (*see,* Exhibit D).

Q: Does Norstar request that the Commission grant its Application?

A: Yes.

Q: Does this conclude your testimony?

A: Yes.

EXHIBIT A - Hume Bros Lease Short-Term Economic Forecast

Lease NRI 0.7983547

Month	Lease Production	Hume 1 LOE	Hume 2 LOE	Hume 3 LOE	Lease LOE	Lease 8/8 Net Revenue	Lease WI Net Revenue	Monthly Cash Flow
Jan-16	415.83	$1,714.71	$1,830.32	$1,830.37	$5,375.40	$12,689.51	$10,130.73	$4,755.33
Feb-16	387.44	$1,409.68	$1,451.14	$1,469.44	$4,330.26	$7,704.13	$6,150.63	$1,820.37
Mar-16	395.79	$1,723.72	$1,749.07	$1,787.34	$5,260.13	$10,378.33	$8,285.59	$3,025.46
Apr-16	405.77	$1,614.92	$1,432.57	$1,693.65	$4,741.14	$16,897.68	$13,490.34	$8,749.20
May-16	420.8	$1,421.94	$1,738.28	$3,973.94	$7,134.16	$12,866.68	$10,272.17	$3,138.01
Jun-16	377.38	$2,582.26	$1,658.51	$1,649.84	$5,890.61	$20,040.20	$15,999.19	$10,108.58
Jul-16	354.04	$1,528.08	$1,548.80	$1,723.73	$4,800.61	$12,605.14	$10,063.37	$5,262.76
Aug-16	344.02	$1,594.77	$1,594.77	$9,699.98	$12,889.52	$12,592.48	$10,053.27	-$2,836.25
Sep-16	273.88	$4,926.37	$4,151.22	$832.87	$9,910.46	$6,206.42	$4,954.92	-$4,955.54
Oct-16	183.7	$15,750.09	$2,014.89	$4,966.19	$22,731.17	$14,167.41	$11,310.62	-$11,420.55
Nov-16	100.19	$2,314.34	$4,344.59	$3,012.88	$9,671.81	$0.00	$0.00	-$9,671.81
Dec-16	66.79	$1,371.50	$1,601.95	$1,421.55	$4,395.00	$7,463.45	$5,958.48	$1,563.48
TOTAL	**3725.63**	**$37,952.38**	**$25,116.11**	**$34,061.78**	**$97,130.27**	**$133,611.43**	**$106,669.31**	**$9,539.04**

Resumed Monthly Production 300
Monthly Decline Rate 0.045

Month	Forecasted Production	Oil Price	8/8 Gross Revenue	Net WI Revenue	Average Monthly LOE	Monthly Cash Flow
0	300	$48	$14,400	$10,967.48	$6,324.72	$4,642.75
1	287	$48	$13,766	$10,484.88	$6,324.72	$4,160.16
2	274	$48	$13,161	$10,023.52	$6,324.72	$3,698.80
3	262	$48	$12,582	$9,582.46	$6,324.72	$3,257.74
4	251	$48	$12,028	$9,160.81	$6,324.72	$2,836.08
5	240	$48	$11,499	$8,757.71	$6,324.72	$2,432.99
6	229	$48	$10,993	$8,372.35	$6,324.72	$2,047.62
7	219	$48	$10,509	$8,003.94	$6,324.72	$1,679.22
8	209	$48	$10,047	$7,651.75	$6,324.72	$1,327.03
9	200	$48	$9,604	$7,315.05	$6,324.72	$990.33
10	191	$48	$9,182	$6,993.17	$6,324.72	$668.45
11	183	$48	$8,778	$6,685.46	$6,324.72	$360.73
12	175	$48	$8,392	$6,391.28	$6,324.72	$66.55
13	167	$48	$8,022	$6,110.05	$6,324.72	($214.68)
14	160	$48	$7,669	$5,841.19	$6,324.72	($483.53)
15	153	$48	$7,332	$5,584.16	$6,324.72	($740.56)
16	146	$48	$7,009	$5,338.44	$6,324.72	($986.28)
17	140	$48	$6,701	$5,103.54	$6,324.72	($1,221.18)
18	133	$48	$6,406	$4,878.97	$6,324.72	($1,445.75)

FOOTNOTES AND ASSUMPTIONS:

*Lease 8/8 Net Revenue is post-tax

*Resumed monthly production is assumed to be 300 BOPM which is the rate prior to the pumping issues arising in August 2016.

*Monthly decline rate of 4.5% is determined from the monthly production for the time period of 3/1/2014 through 8/31/2016

*Oil Price is assumed at $48/bbl

*New WI Revenue is 8/8 Gross Revenue discounted 4.6% for tax and then reduced by the Lease NRI of 79.83547%

*Monthly LOE is the average monthly lease operating cost for 2016 minus the abnormally high cost of Hume #1 in October and #3 in September

NORSTAR PETROLEUM INC.
DJ215

JIB BILLED ITEMS HISTORY BY MONTH

PROPERTY	PROPERTY NAME	TRAN DATE	OPERATING EXPENSE	LEASEHOLD COSTS	INTANGIBLE EXPENSE	EQUIPMENT	DELAY RENTALS	OTHER	PROPERTY TOTAL
16355-011	HUME BROS 1-34	Dec	8,161.01	0.00	0.00	0.00	0.00	0.00	8,161.01
		2014 * **	**8,161.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8,161.01**
		Jan	1,621.53	0.00	0.00	0.00	0.00	0.00	1,621.53
		Feb	1,502.63	0.00	0.00	0.00	0.00	0.00	1,502.63
		Mar	1,571.76	0.00	0.00	0.00	0.00	0.00	1,571.76
		Apr	2,484.45	0.00	0.00	0.00	0.00	0.00	2,484.45
		May	1,481.90	0.00	0.00	0.00	0.00	0.00	1,481.90
		Jun	1,548.70	0.00	0.00	0.00	0.00	0.00	1,548.70
		Jul	2,231.64	0.00	0.00	0.00	0.00	0.00	2,231.64
		Aug	1,482.24	0.00	0.00	0.00	0.00	0.00	1,482.24
		Sep	1,503.29	0.00	0.00	0.00	0.00	0.00	1,503.29
		Oct	4,370.64	0.00	0.00	0.00	0.00	0.00	4,370.64
		Nov	2,636.61	0.00	0.00	0.00	0.00	0.00	2,636.61
		Dec	1,448.40	0.00	0.00	0.00	0.00	0.00	1,448.40
		2015 * **	**23,883.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**23,883.79**
		Jan	1,714.71	0.00	0.00	0.00	0.00	0.00	1,714.71
		Feb	1,409.68	0.00	0.00	0.00	0.00	0.00	1,409.68
		Mar	1,723.72	0.00	0.00	0.00	0.00	0.00	1,723.72
		Apr	1,614.92	0.00	0.00	0.00	0.00	0.00	1,614.92
		May	1,421.94	0.00	0.00	0.00	0.00	0.00	1,421.94
		Jun	2,582.26	0.00	0.00	0.00	0.00	0.00	2,582.26
		Jul	1,528.08	0.00	0.00	0.00	0.00	0.00	1,528.08
		Aug	1,594.77	0.00	0.00	0.00	0.00	0.00	1,594.77
		Sep	2,708.17	0.00	0.00	2,218.20	0.00	0.00	4,926.37
		Oct	15,750.09	0.00	0.00	0.00	0.00	0.00	15,750.09
		Nov	2,314.34	0.00	0.00	0.00	0.00	0.00	2,314.34
		Dec	1,371.35	0.00	0.00	0.00	0.00	0.00	1,371.35
		2016 * **	**35,734.03**	**0.00**	**0.00**	**2,218.20**	**0.00**	**0.00**	**37,952.23**
		Jan	1,234.05	0.00	0.00	0.00	0.00	0.00	1,234.05
		2017 * **	**1,234.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1,234.05**
	PROPERTY TOTAL		**69,012.88**	**0.00**	**0.00**	**2,218.20**	**0.00**	**0.00**	**71,231.08**
16355-012	HUME BROS 2-34	Dec	8,350.08	0.00	0.00	0.00	0.00	0.00	8,350.08
		2014 * **	**8,350.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8,350.08**
		Jan	1,609.50	0.00	0.00	0.00	0.00	0.00	1,609.50
		Feb	1,432.42	0.00	0.00	0.00	0.00	0.00	1,432.42
		Mar	1,512.67	0.00	0.00	0.00	0.00	0.00	1,512.67
		Apr	1,460.12	0.00	0.00	0.00	0.00	0.00	1,460.12
		May	1,383.49	0.00	0.00	0.00	0.00	0.00	1,383.49
		Jun	1,488.97	0.00	0.00	0.00	0.00	0.00	1,488.97
		Jul	2,231.64	0.00	0.00	0.00	0.00	0.00	2,231.64
		Aug	2,262.00	0.00	0.00	0.00	0.00	0.00	2,262.00
		Sep	1,566.71	0.00	0.00	0.00	0.00	0.00	1,566.71

PROPERTY	PROPERTY NAME	TRAN DATE	OPERATING EXPENSE	LEASEHOLD COSTS	INTANGIBLE EXPENSE	EQUIPMENT	DELAY RENTALS	OTHER	PROPERTY TOTAL
16355-012	HUME BROS 2-34	Oct	1,674.65	0.00	0.00	0.00	0.00	0.00	1,674.65
		Nov	2,677.60	0.00	0.00	0.00	0.00	0.00	2,677.60
		Dec	1,474.19	0.00	0.00	0.00	0.00	0.00	1,474.19
		2015 * **	**20,773.96**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**20,773.96**
		Jan	1,830.32	0.00	0.00	0.00	0.00	0.00	1,830.32
		Feb	1,451.14	0.00	0.00	0.00	0.00	0.00	1,451.14
		Mar	1,749.07	0.00	0.00	0.00	0.00	0.00	1,749.07
		Apr	1,432.57	0.00	0.00	0.00	0.00	0.00	1,432.57
		May	1,738.28	0.00	0.00	0.00	0.00	0.00	1,738.28
		Jun	1,658.51	0.00	0.00	0.00	0.00	0.00	1,658.51
		Jul	1,548.80	0.00	0.00	0.00	0.00	0.00	1,548.80
		Aug	1,594.77	0.00	0.00	0.00	0.00	0.00	1,594.77
		Sep	4,151.22	0.00	0.00	0.00	0.00	0.00	4,151.22
		Oct	2,014.89	0.00	0.00	0.00	0.00	0.00	2,014.89
		Nov	4,344.59	0.00	0.00	0.00	0.00	0.00	4,344.59
		Dec	1,601.95	0.00	0.00	0.00	0.00	0.00	1,601.95
		2016 * **	**25,116.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**25,116.11**
		Jan	1,234.05	0.00	0.00	0.00	0.00	0.00	1,234.05
		2017 * **	**1,234.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1,234.05**
	PROPERTY TOTAL		**55,474.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**55,474.20**
16355-013	HUME BROS 3-34	Dec	9,354.71	0.00	0.00	0.00	0.00	0.00	9,354.71
		2014 * **	**9,354.71**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**9,354.71**
		Jan	4,620.82	0.00	0.00	0.00	0.00	0.00	4,620.82
		Feb	1,597.88	0.00	0.00	0.00	0.00	0.00	1,597.88
		Mar	1,666.87	0.00	0.00	0.00	0.00	0.00	1,666.87
		Apr	1,635.60	0.00	0.00	0.00	0.00	0.00	1,635.60
		May	1,504.36	0.00	0.00	0.00	0.00	0.00	1,504.36
		Jun	1,615.00	0.00	0.00	0.00	0.00	0.00	1,615.00
		Jul	10,068.88	0.00	0.00	0.00	0.00	0.00	10,068.88
		Aug	1,456.38	0.00	0.00	0.00	0.00	0.00	1,456.38
		Sep	1,545.55	0.00	0.00	0.00	0.00	0.00	1,545.55
		Oct	1,522.89	0.00	0.00	0.00	0.00	0.00	1,522.89
		Nov	2,765.33	0.00	0.00	0.00	0.00	0.00	2,765.33
		Dec	7,635.03	0.00	0.00	2,280.95	0.00	0.00	9,915.98
		2015 * **	**37,634.59**	**0.00**	**0.00**	**2,280.95**	**0.00**	**0.00**	**39,915.54**
		Jan	1,830.37	0.00	0.00	0.00	0.00	0.00	1,830.37
		Feb	1,469.44	0.00	0.00	0.00	0.00	0.00	1,469.44
		Mar	1,787.34	0.00	0.00	0.00	0.00	0.00	1,787.34
		Apr	1,693.65	0.00	0.00	0.00	0.00	0.00	1,693.65
		May	3,973.94	0.00	0.00	0.00	0.00	0.00	3,973.94
		Jun	1,649.84	0.00	0.00	0.00	0.00	0.00	1,649.84
		Jul	1,723.73	0.00	0.00	0.00	0.00	0.00	1,723.73

PROPERTY	PROPERTY NAME	TRAN DATE	OPERATING EXPENSE	LEASEHOLD COSTS	INTANGIBLE EXPENSE	EQUIPMENT	DELAY RENTALS	OTHER	PROPERTY TOTAL
16355-013	HUME BROS 3-34	Aug	5,341.84	0.00	0.00	4,358.14	0.00	0.00	9,699.98
		Sep	3,051.07	0.00	0.00	-2,218.20	0.00	0.00	832.87
		Oct	4,966.19	0.00	0.00	0.00	0.00	0.00	4,966.19
		Nov	3,012.88	0.00	0.00	0.00	0.00	0.00	3,012.88
		Dec	1,421.55	0.00	0.00	0.00	0.00	0.00	1,421.55
		2016 ***	31,921.84	0.00	0.00	2,139.94	0.00	0.00	34,061.78
		Jan	1,234.03	0.00	0.00	0.00	0.00	0.00	1,234.03
		2017 ***	1,234.03	0.00	0.00	0.00	0.00	0.00	1,234.03
	PROPERTY TOTAL		80,145.17	0.00	0.00	4,420.89	0.00	0.00	84,566.06
	REPORT TOTAL		204,632.25	0.00	0.00	6,639.09	0.00	0.00	211,271.34

100% SALES REPORT

FOR REVENUE PRODUCTION FROM 12/2014 THRU 12/2017
(DETAIL)

PROPERTY	D K	P C	PROD DATE	DIST DATE	100% INFORMATION VOLUME	GROSS	PROD TAX	OTHER CHGS	WINDFALL TAX	NET VALUE
16355-011	CHT HUME BROS 1-34									
	O		1214	0115	674.41	35,426.08	1,595.32	17.71	0.00	33,813.05
	O		1214	0115	150.89	7,925.88	356.92	3.96	0.00	7,565.00
	O		1214	0115	-674.41	-35,426.08	-1,595.32	-17.71	0.00	-33,813.05
	O		0115	0215	704.63	29,194.43	1,328.24	14.60	0.00	27,851.59
	O		0115	0215	162.61	6,737.20	306.52	3.37	0.00	6,427.31
	O		0115	0215	-704.63	-29,194.43	-1,328.24	-14.60	0.00	-27,851.59
	O		0215	0315	514.17	22,769.45	1,032.71	11.38	0.00	21,725.36
	O		0215	0315	116.86	5,175.04	234.71	2.59	0.00	4,937.74
	O		0215	0315	-514.17	-22,769.45	-1,032.71	-11.38	0.00	-21,725.36
	O		0315	0415	682.20	28,067.00	1,277.38	14.03	0.00	26,775.59
	O		0315	0415	-682.20	-28,067.00	-1,277.38	-14.03	0.00	-26,775.59
	O		0315	0315	682.20	28,067.00	1,277.38	14.03	0.00	26,775.59
	O		0315	0415	97.45	4,009.37	182.47	2.00	0.00	3,824.90
	O		0315	0415	-682.20	-28,067.00	-1,277.38	-14.03	0.00	-26,775.59
	O		0415	0515	357.69	17,017.11	769.39	8.51	0.00	16,239.21
	O		0415	0515	59.61	2,836.07	128.22	1.42	0.00	2,706.43
	O		0415	0515	-357.69	-17,017.11	-769.39	-8.51	0.00	-16,239.21
	O		0515	0615	114.32	6,049.30	272.34	3.02	0.00	5,773.94
	O		0515	0615	-685.94	-36,297.28	-1,634.09	-18.15	0.00	-34,645.04
	O		0515	0615	685.94	36,297.28	1,634.09	18.15	0.00	34,645.04
	O		0615	0715	490.55	26,097.26	1,174.65	13.05	0.00	24,909.56
	O		0615	0715	116.80	6,213.50	279.67	3.11	0.00	5,930.72
	O		0615	0715	-490.55	-26,097.26	-1,174.65	-13.05	0.00	-24,909.56
	O		0715	0815	681.26	30,643.47	1,388.85	15.32	0.00	29,239.30
	O		0715	0815	186.05	8,368.43	379.27	4.18	0.00	7,984.98
	O		0715	0815	-681.26	-30,643.47	-1,388.85	-15.32	0.00	-29,239.30
	O		0815	0915	348.23	12,821.62	586.87	6.41	0.00	12,228.34
	O		0815	0915	87.06	3,205.40	146.72	1.60	0.00	3,057.08
	O		0815	0915	-348.23	-12,821.62	-586.87	-6.41	0.00	-12,228.34
	O		0915	1015	501.39	19,675.38	897.57	9.84	0.00	18,767.97
	O		0915	1015	131.95	5,177.77	236.20	2.59	0.00	4,938.98
	O		0915	1015	-501.39	-19,675.38	-897.57	-9.84	0.00	-18,767.97
	O		1015	1115	105.45	4,251.25	193.68	2.13	0.00	4,055.44
	O		1015	1115	-492.10	-19,838.78	-903.80	-9.92	0.00	-18,925.06
	O		1015	1115	492.10	19,838.78	903.80	9.92	0.00	18,925.06
	O		1115	1215	352.51	12,957.68	593.15	6.48	0.00	12,358.05
	O		1115	1215	85.48	3,142.11	143.83	1.57	0.00	2,996.71
	O		1115	1215	-352.51	-12,957.68	-593.15	-6.48	0.00	-12,358.05
	O		1215	0116	502.74	15,718.73	726.37	7.86	0.00	14,984.50
	O		1215	0116	176.29	5,512.24	254.72	2.76	0.00	5,254.76
	O		1215	0116	-502.74	-15,718.73	-726.37	-7.86	0.00	-14,984.50
	O		0116	0216	506.30	13,318.95	622.78	6.66	0.00	12,689.51
	O		0116	0216	144.80	3,809.22	178.12	1.90	0.00	3,629.20
	O		0116	0216	-506.30	-13,318.95	-622.78	-6.66	0.00	-12,689.51

PROPERTY	D K	P C	PROD DATE	DIST DATE	100% INFORMATION VOLUME	GROSS	PROD TAX	OTHER CHGS	WINDFALL TAX	NET VALUE
16355-011	CHT HUME BROS 1-34									
		O	0216	0316	63.51	1,564.27	73.51	0.78	0.00	1,489.98
		O	0216	0316	-328.40	-8,088.27	-380.10	-4.04	0.00	-7,704.13
		O	0216	0316	328.40	8,088.27	380.10	4.04	0.00	7,704.13
		O	0316	0416	338.82	10,885.96	502.19	5.44	0.00	10,378.33
		O	0316	0416	-338.82	-10,885.96	-502.19	-5.44	0.00	-10,378.33
		O	0316	0316	338.82	10,885.96	502.19	5.44	0.00	10,378.33
		O	0316	0416	61.60	1,979.29	91.31	0.99	0.00	1,886.99
		O	0316	0416	-338.82	-10,885.96	-502.19	-5.44	0.00	-10,378.33
		O	0416	0516	505.92	17,719.85	813.31	8.86	0.00	16,897.68
		O	0416	0516	93.88	3,288.10	150.92	1.64	0.00	3,135.54
		O	0416	0516	-505.92	-17,719.85	-813.31	-8.86	0.00	-16,897.68
		O	0516	0616	329.74	13,487.44	614.02	6.74	0.00	12,866.68
		O	0516	0616	62.73	2,565.85	116.81	1.28	0.00	2,447.76
		O	0516	0616	-329.74	-13,487.44	-614.02	-6.74	0.00	-12,866.68
		O	0616	0716	491.92	21,004.98	954.28	10.50	0.00	20,040.20
		O	0616	0716	113.52	4,847.32	220.22	2.42	0.00	4,624.68
		O	0616	0716	-491.92	-21,004.98	-954.28	-10.50	0.00	-20,040.20
		O	0716	0816	337.93	13,214.70	602.95	6.61	0.00	12,605.14
		O	0716	0816	77.54	3,032.11	138.35	1.52	0.00	2,892.24
		O	0716	0816	-337.93	-13,214.70	-602.95	-6.61	0.00	-12,605.14
		O	0816	0916	338.50	13,201.50	602.42	6.60	0.00	12,592.48
		O	0816	0916	84.62	3,300.37	150.60	1.65	0.00	3,148.12
		O	0816	0916	-338.50	-13,201.50	-602.42	-6.60	0.00	-12,592.48
		O	0916	1016	41.70	1,626.65	74.23	0.81	0.00	1,551.61
		O	0916	1016	-166.80	-6,506.59	-296.92	-3.25	0.00	-6,206.42
		O	0916	1016	166.80	6,506.59	296.92	3.25	0.00	6,206.42
		O	1016	1116	112.99	4,949.49	224.60	2.47	0.00	4,722.42
		O	1016	1116	-338.96	-14,848.63	-673.80	-7.42	0.00	-14,167.41
		O	1016	1116	338.96	14,848.63	673.80	7.42	0.00	14,167.41
		O	1216	0117	169.23	7,821.43	354.07	3.91	0.00	7,463.45
		O	1216	0117	56.41	2,607.12	118.02	1.30	0.00	2,487.80
		O	1216	0117	-169.23	-7,821.43	-354.07	-3.91	0.00	-7,463.45
	OIL				**2504.12**	**102173.35**	**4651.96**	**51.06**	**0.00**	**97470.33**
	PROPERTY				**2504.12**	**102173.35**	**4651.96**	**51.06**	**0.00**	**97470.33**
16355-012	CHT HUME BROS 2-34									
		1 O	1214	0215	523.52	27,500.20	1,238.40	13.75	0.00	26,248.05
		1 O	0115	0315	542.02	22,457.23	1,021.72	11.23	0.00	21,424.28
		1 O	0215	0415	397.31	17,594.41	798.00	8.79	0.00	16,787.62
		1 O	0315	0515	584.75	24,057.63	1,094.91	12.03	0.00	22,950.69
		1 O	0415	0615	298.08	14,181.04	641.16	7.09	0.00	13,532.79
		1 O	0515	0715	571.62	30,247.98	1,361.75	15.13	0.00	28,871.10
		1 O	0615	0815	373.75	19,883.76	894.98	9.94	0.00	18,978.84

100% SALES REPORT

FOR REVENUE PRODUCTION FROM 12/2014 THRU 12/2017
(DETAIL)

PROPERTY	D K	P C	PROD DATE	DIST DATE	100% INFORMATION VOLUME	GROSS	PROD TAX	OTHER CHGS	WINDFALL TAX	NET VALUE
16355-012	CHT HUME BROS 2-34									
	1	O	0715	0915	495.21	22,275.04	1,009.58	11.14	0.00	21,254.32
	1	O	0815	1015	261.17	9,616.22	440.15	4.81	0.00	9,171.26
	1	O	0915	1115	369.44	14,497.61	661.37	7.25	0.00	13,828.99
	1	O	1015	1215	386.65	15,587.53	710.12	7.79	0.00	14,869.62
	1	O	1115	0116	267.03	9,815.57	449.32	4.91	0.00	9,361.34
	1	O	1215	0216	326.45	10,206.49	471.65	5.10	0.00	9,729.74
	1	O	0116	0316	361.50	9,509.73	444.66	4.76	0.00	9,060.31
	1	O	0216	0416	264.89	6,524.00	306.59	3.26	0.00	6,214.15
	1	O	0316	0516	277.22	8,906.67	410.88	4.45	0.00	8,491.34
	1	O	0416	0616	412.04	14,431.75	662.39	7.22	0.00	13,762.14
	1	O	0516	0716	267.01	10,921.59	497.21	5.46	0.00	10,418.92
	1	O	0616	0816	378.40	16,157.66	734.06	8.08	0.00	15,415.52
	1	O	0716	0916	260.39	10,182.59	464.60	5.09	0.00	9,712.90
	1	O	0816	1016	253.88	9,901.13	451.82	4.95	0.00	9,444.36
	1	O	0916	1116	125.10	4,879.94	222.69	2.44	0.00	4,654.81
	1	O	1016	1216	225.97	9,899.14	449.20	4.95	0.00	9,444.99
	1	O	1216	0217	112.82	5,214.31	236.05	2.61	0.00	4,975.65
			OIL		8336.22	344449.22	15673.26	172.23	0.00	328603.73
			PROPERTY		8336.22	344449.22	15673.26	172.23	0.00	328603.73
	REPORT TOTAL OIL				10840.34	446622.57	20325.22	223.29	0.00	426074.06
	REPORT TOTAL GAS				0.00	0.00	0.00	0.00	0.00	0.00
	REPORT TOTAL COND				0.00	0.00	0.00	0.00	0.00	0.00
	REPORT TOTAL PROD				0.00	0.00	0.00	0.00	0.00	0.00
	REPORT TOTAL OTHER				0.00	0.00	0.00	0.00	0.00	0.00
	REPORT TOTAL				10840.34	446622.57	20325.22	223.29	0.00	426074.06

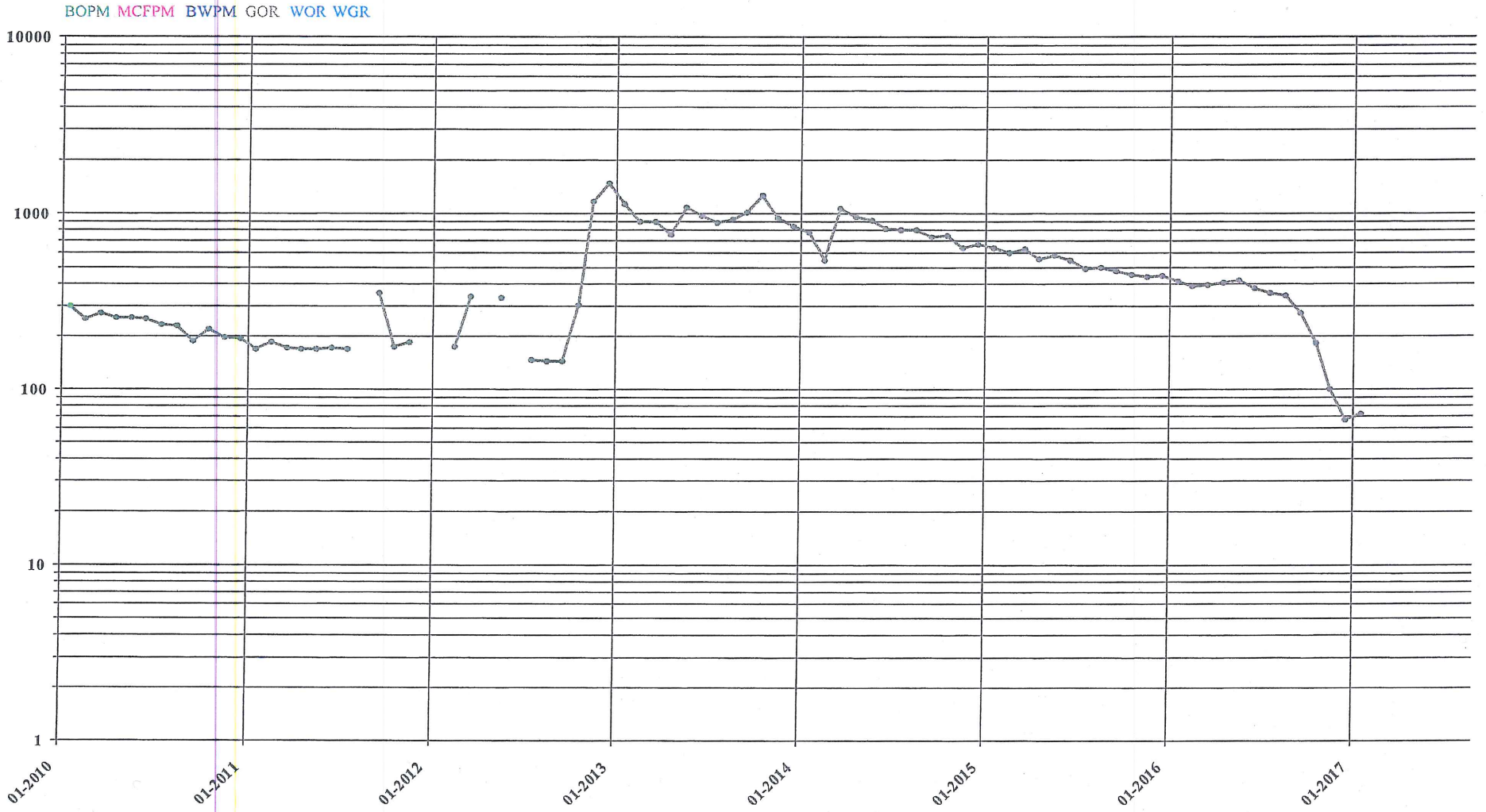
Hume Bros Monthly Oil Production

Lease	Date	BOPM
Hume Bros	12/15/2014	671.34
Hume Bros	1/15/2015	637.94
Hume Bros	2/15/2015	602.87
Hume Bros	3/15/2015	627.92
Hume Bros	4/15/2015	557.78
Hume Bros	5/15/2015	582.83
Hume Bros	6/15/2015	546.09
Hume Bros	7/15/2015	490.98
Hume Bros	8/15/2015	501.00
Hume Bros	9/15/2015	472.61
Hume Bros	10/15/2015	452.57
Hume Bros	11/15/2015	437.54
Hume Bros	12/15/2015	449.23
Hume Bros	1/15/2016	415.83
Hume Bros	2/15/2016	387.44
Hume Bros	3/15/2016	395.79
Hume Bros	4/15/2016	405.77
Hume Bros	5/15/2016	420.80
Hume Bros	6/15/2016	377.38
Hume Bros	7/15/2016	354.04
Hume Bros	8/15/2016	344.02
Hume Bros	9/15/2016	273.88
Hume Bros	10/15/2016	183.70
Hume Bros	11/15/2016	100.19
Hume Bros	12/15/2016	66.79

Hume Bros, Arroyo Field NW/4 Section 34-29S-41W, Stanton, County

Production Criteria→»

01/99-01/17	*MBO*	*MMCF*	*MBW*
Prod. Vol.	163.5	0.0	3.8



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BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

BEFORE COMMISSIONERS: MARK SIEVERS, CHAIR
THOMAS E. WRIGHT, COMMISSIONER
SHARI FEIST ALBRECHT, COMMISSIONER

IN THE MATTER OF THE APPLICATION OF ANADARKO PETROLEUM CORPORATION FOR AUTHORIZATION TO IMPOSE A VACUUM ON ITS PRO FARMS 27-1 WELL LOCATED IN THE SE/4 OF SECTION 27, TOWNSHIP 29 SOUTH, RANGE 41 WEST, STANTON COUNTY, KANSAS	DKT. NO. 13-CONS-213-CVAC LICENSE NO. 4549 CONSERVATION DIVISION

APPLICATION

COMES NOW Anadarko Petroleum Corporation ("Anadarko") and for its application in the captioned matter states as follows:

1. Anadarko is a corporation authorized to do business in the State of Kansas with its correct address in this matter being P.O. Box 1330, Houston, TX 77251-1330.

2. Anadarko has been issued by the Kansas Corporation Commission Operator's License Number 4549, which license at the present time is in full force and effect.

3. Anadarko is the owner and operator of the Pro Farms 27-1 oil well, API #15-187-20466 ("the subject well"), which produces from the Lower Morrow formation and is located 2290 feet North from the South line (FSL) and 3630 feet West from the East line (FEL) of Section 27, Township 29 South, Range 41 West, Stanton County, Kansas. The subject well is not located within any field which has been unitized for secondary recovery operations pursuant

to K.S.A. 55-1301, *et seq.*, or other lawful means, or in which the Lower Morrow formation is subject to spacing or production requirements of any proration order issued by the Commission.

4. Attached hereto, marked Exhibit "A" and made a part hereof, is a plat map showing the subject well, the location of all oil and gas wells on the lease, and the location of all offset wells within one-half (½) mile radius of the subject well and their operators' names.

5. The subject well is no longer able to produce its assigned allowable at a wellhead flowing pressure above 14.4 psia. If the subject well is not permitted to produce its assigned allowable through the imposition of vacuum, waste will occur and the correlative rights of the interest owners in the oil and gas lease(s) upon which the subject well is located will be violated. Anadarko is seeking permission to impose a vacuum on the subject well in order to produce the allowable assigned to it pursuant to the Commission's rules and regulations. Anadarko is not seeking permission to install a high-volume pump, as defined in K.A.R. 82-3-131, on the subject well.

6. The estimated maximum daily production resulting from the imposition of a vacuum on the subject well is as follows:

Gas: 0 mcfd
Oil: 6 bopd
Water: 1 bwpd

7. The estimated remaining recoverable hydrocarbon reserves of the oil and gas lease(s) upon which the subject well is located are 0 mmcf of gas and 24.42 mbbl of oil.

8. The subject well will be operated, produced and tested in compliance with the Commission's General Rules and Regulations For the Conservation of Crude Oil and Natural

Gas (K.A.R. 82-3-100, *et seq.*), thereby not violating the rights of others. Anadarko will take reasonable safeguards and precautions applicable to the imposition of pressures less than zero.

9. To the extent known or reasonably ascertainable by Anadarko, listed in Exhibit "B," attached hereto, are the names and addresses of the following persons:

A. Each operator of each oil and gas lease covering lands within one-half (½) mile radius of the subject well; and

B. Each person who owns any mineral interest of record in and under any lands located within one-half (½) mile radius of the subject well (provided that such mineral interest is not covered by any oil and gas lease).

10. Notice of the Application will be provided to all persons entitled thereto under K.A.R. 82-3-135a(b) and (d) and is, therefore, lawful and proper in all respects. In these regards, notice of the Application, by mailing a copy of the Notice of Pending Application with a copy of this Application by first class mail to each person listed on Exhibit "B," has been accomplished contemporaneously with the filing of this Application, and the Notice of Pending Application will be published pursuant to K.A.R. 82-3-135a.

WHEREFORE, Anadarko prays that if no written protest is received by the Conservation Division within fifteen (15) days after notice of this Application has been duly served, that this

Commission grant Anadarko's request to impose a vacuum on the subject well in accordance with the laws of the State of Kansas and the rules, regulations, and orders of this Commission.

Respectfully submitted,

David Christian
Project Reservoir Engineer Advisor
Southern Oil & Gas Commission Affairs
Anadarko Petroleum Corporation
P. O. Box 1330
Houston, Texas 77251-1330

DEPEW GILLEN RATHBUN & McINTEER, LC
8301 East 21st St. North, Suite 450
Wichita, KS 67206-2936
Office (316) 262-4000
Fax (316) 265-3819

By David W. Nickel

David W. Nickel #11170
Attorneys for Anadarko Petroleum Corporation, Applicant

VERIFICATION

STATE OF KANSAS)
) ss:
COUNTY OF SEDGWICK)

David W. Nickel, of lawful age, being first duly sworn, upon oath states:

That he is one of the attorneys for Anadarko Petroleum Corporation, the applicant herein; that he has read the above and foregoing Application of Anadarko Petroleum Corporation, knows the contents thereof, and knows that all the statements made therein are true and correct.

David W. Nickel

David W. Nickel #11170

SUBSCRIBED and sworn to before me this 1st day of February, 2013.

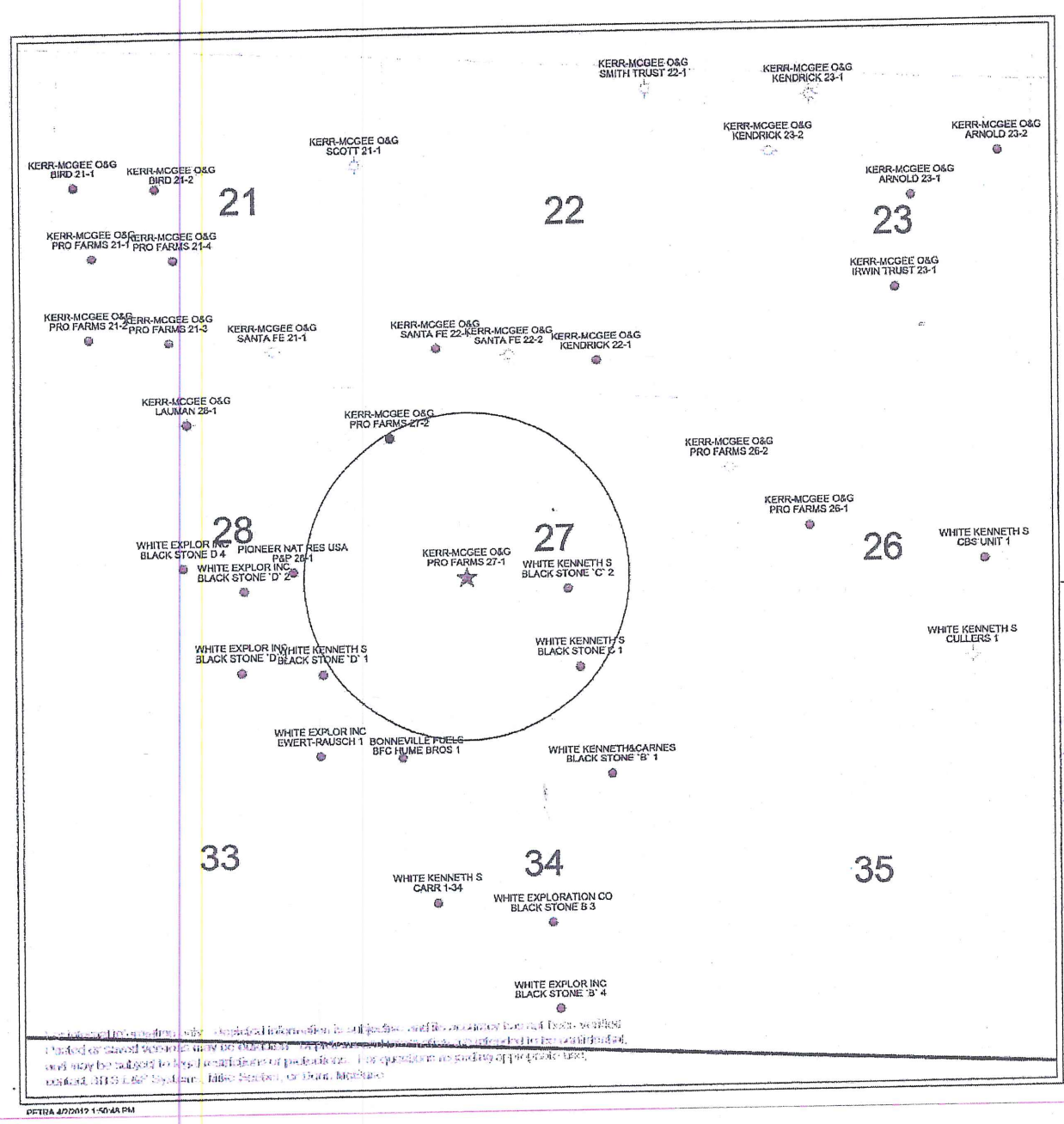
Angela E. Millslagle

Notary Public

My appointment expires:

ANGELA E. MILLSLAGLE
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 9-13-14

EXHIBIT "A"



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PRO FARMS 27-1

27-29S-41W

Stanton County, Kansas

POSTED WELL DATA

Operator
Well Label

WELL SYMBOLS

Gas Well
Oil Well
PLUGGED & ABANDONED OIL WELL

0 2,081 4,162

FEET

April 2, 2012

EXHIBIT "B"

White Exploration, Inc.
2400 N. Woodlawn, Suite 115
Wichita, KS 67220

Deena Painter
P.O. Box 772
Johnson, KS 67855-0772

Kenny Tilley & T&P Farms, Inc.
8708 S. State Road 27
Johnson, KS 67855-9012

C.H. Todd, Inc.
1000 N. Tyler, Suite 100
Wichita, KS 67212

Manuel Corporation
2020 N. Bramblewood
Wichita, KS 67208

Pro Farms, Inc.
Archie Nairn
Box 504
Johnson, KS 67855-0504

CERTIFICATE OF SERVICE

I hereby certify that on this 1st day of February 2013, true and correct copies of the above and foregoing Application and the Notice of Pending Application of Anadarko Petroleum Corporation were served by depositing copies of the same in the United States Mail, postage prepaid, and properly addressed to each of the parties set forth in Exhibit "B" attached to said Application, and the original and seven (7) copies of each were hand delivered to the Kansas Corporation Commission.

David W. Nickel

David W. Nickel #11170

EXHIBIT D - Hume Bros Lease Rental Compressor Data

Day	Oil Gauge	Meter MCFPD	Wellhead Pressure	Comments
9/1/2016	10.02	-	-	
9/2/2016	10.02	-	-	
9/3/2016	10.02	-	-	
9/4/2016	10.02	-	-	
9/5/2016	10.02	-	-	
9/6/2016	8.35	-	-	
9/7/2016	8.35	-	-	
9/8/2016	8.35	-	-	
9/9/2016	15.03	-	-	
9/10/2016	8.35	-	-	
9/11/2016	8.35	-	-	
9/12/2016	8.35	-	-	
9/13/2016	8.35	-	-	
9/14/2016	6.68			comp hooked up - pulling only #1 and #3
9/15/2016	6.68	1.2	-6	meter not working correctly
9/16/2016	5.01	0.1	-6	meter not working correctly
9/17/2016	10.02	4.8	-6	comp s/d
9/18/2016	10.02	0		comp s/d
9/19/2016	11.69	Reset	-6	meter replaced comp d/r
9/20/2016	10.02	45.6	-6	
9/21/2016	11.69	41.5	-6	pulley swap on comp
9/22/2016	8.35	40.6	-9	
9/23/2016	10.02	45.2	-11	
9/24/2016	10.02	42.6	-10	
9/25/2016	8.35	46.8	-10	
9/26/2016	8.35	41.2	-11	pulling on #3 only
9/27/2016	10.02	4.9	2	comp d/r #3 only
9/28/2016	10.02	7.1	-20	#3 only
9/29/2016	6.68	7	-20	#3 only
9/30/2016	6.68	6.2	-18	pulling on #1 only
10/1/2016	6.68	30.3	-18	Comp s/d
10/2/2016	5.01	0 -		Comp s/d
10/3/2016	6.68	0 -		Comp s/d
10/4/2016	8.35	0 -		Comp d/r
10/5/2016	5.01	34	-10	
10/6/2016	10.02	28.9	-10	#1 well worked over
10/7/2016	6.68	0 -		#3 well worked over
10/8/2016	6.68	26.5 -		#1 well stopped pumping, shut down
10/9/2016	1.67	6.3	-20	#3 well stopped pumping, shook up well started pumping again
10/10/2016	5.01	4.9	2	
10/11/2016	3.34	0 -		#3 well stopped pumping, shook up well started pumping again
10/12/2016	0	0 -		#1 well replaced bad tubing,loaded well, #1 d/r
10/13/2016	5.01	0 -		
10/14/2016	11.69	16.2	-15	
10/15/2016	8.35	19.5	-8	
10/16/2016	8.35	21.5	-10	Bbl Test: #1 2 BOPD, 1 BWPD; #2 2 BOPD, 1 BWPD; #3 2 BOPD, 3 BWPD
10/17/2016	8.35	21.5	-10	
10/18/2016	10.02	20.8	-10	
10/19/2016	8.35	22.5	-12	
10/20/2016	8.35	19.2	-12	
10/21/2016	0	6.5	-20	#3 well stopped pumping, shook up well started pumping again

Exhibit E - Hume Bros Lease Vacuum Reserve Estimates

	Decline Rate	
	0.04	0.03
Month	Oil Rate	Gas Rate
0	450	900
1	432	873
2	415	848
3	399	823
4	383	798
5	368	775
6	354	752
7	340	730
8	327	708
9	314	687
10	302	667
11	290	647
12	278	628
13	268	609
14	257	591
15	247	574
16	237	557
17	228	540
18	219	524
19	210	509
20	202	494
21	194	479
22	187	465
23	179	451
24	172	438
25	166	425
26	159	413
27	153	400
28	147	389
29	141	377
30	136	366
31	130	355
32	125	345
33	120	334
34	115	325
35	111	315
36	107	306
37	102	297
38	98	288
39	95	279
40	91	271
41	87	263

42	84	255
43	81	248
44	77	240
45	74	233
46	71	226
47	69	220
48	66	213
49	63	207
50	61	201
51	59	195
52	56	189
53	54	184
54	52	178
55	50	173
56	48	168
57	46	163
58	44	158
59		153
60		149
61		144
62		140
63		136
64		132
65		128
66		124
67		121
68		117
69		114
70		110
71		107
72		104
73		101
74		98
75		95
76		92
77		89
TOTAL	10393	27519