

Order Number
DHC
40B-0351

API Number
30-025-39490

Operator
Apache Corp

County
Lea / Fee

Order Date
11/25/09

Well Name
Arnold A

Number
2

Location
UL F 11 203 38E
T (+Dir) R (+Dir)

Pool 1
33230

House Blinberry

Oil %
32

Gas %
40

WTR

Pool 2
78760

House Tabb

Oil %
8

Gas %
17

10%

Pool 3
33250

House Drinkard

Oil %
60

Gas %
43

41%

Pool 4

Comments: Posted RBDMs 11/30/09 dm

DOWNHOLE COMMINGLE CALCULATIONS:

Api # 30-025-39490

DHC-HOB-0351

OPERATOR: Apache Corp

PROPERTY NAME: Arnold A

WNULSTR: #2-F, 11-205-38e

SECTION I:

ALLOWABLE AMOUNT

POOL NO. 1 House Blinberry 142 284 MCF 2000

POOL NO. 2 House Tubbs 142 284 MCF

POOL NO. 3 House Drinkard 142 284 MCF

POOL NO. 4 _____ MCF

POOL TOTALS 426 852

SECTION II:

POOL NO. 1 House Blinberry 32%

POOL NO. 2 House Tubbs 8%

POOL NO. 3 House Drinkard 60% $\times 426 = 255.6$
<256>

POOL NO. 4 _____

GAS
40%
17%
43%

OIL

GAS

SECTION III:

60% ÷ 142 = 236.6 <237>

SECTION IV:

32% × 237 = 75.84 <76>

8% × 237 = 18.96 <19>

60% × 237 = 142.2 <142>

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Energy, Minerals and Natural Resources

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OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

HOBBSDO Santa Fe, NM 87505

WELL API NO. 30-025-39490
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No. NA
7. Lease Name or Unit Agreement Name Arnold A
8. Well Number 002
9. OGRID Number 873
10. Pool name or Wildcat House: Blinebry/Tubb/Drinkard

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other:

2. Name of Operator
Apache Corporation

3. Address of Operator
6120 S Yale Avenue, Suite 1500, Tulsa, OK 74136-4224

4. Well Location
Unit Letter F : 2190 feet from the North line and 1650 feet from the West line
Section 11 Township 20S Range 38E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3583' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion. R-11363

Pool Names:

House; Blinebry 33230
House; Tubb 78760
House; Drinkard 33250

Proposed Perforations:

Blinebry 6032' - 6480'
Tubb 6542' - 6820'
Drinkard 6920' - 7110'

The allocation method will be as follows based on offset production (See attached application for exception to Rule 303-C).

	OIL	GAS	Water
Blinebry	32%	40%	49%
Tubb	8%	17%	10%
Drinkard	60%	43%	41%

DHC-HOB-0351

Downhole commingling will not reduce the value of these pools. Ownership is the same for each of these pools.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Sophie Mackay TITLE Engineering Technician DATE 11/23/2009

Type or print name Sophie Mackay E-mail address: sophie.mackay@apachecorp.com PHONE: 918-491-4864

For State Use Only

APPROVED BY: Mark Whitaker TITLE Compliance Officer DATE 11-25-09

Conditions of Approval (if any):

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State of New Mexico

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Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
NOV 24 2009
HOBBSOCD Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-39490		² Pool Code 33230	³ Pool Name House; Blinebry
⁴ Property Code 37779	⁵ Property Name Arnold A		⁶ Well Number 002
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation		⁹ Elevation 3583'

¹⁰ Surface Location

UL or lot no. F	Section 11	Township 20S	Range 38E	Lot Idn	Feet from the 2190	North/South line North	Feet from the 1650	East/West line West	County Lea
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40									
¹³ Joint or Infill									
¹⁴ Consolidation Code									
¹⁵ Order No.									

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</i> 11/23/2009 Signature Date Sophie Mackay Printed Name
	¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</i>
	Date of Survey Signature and Seal of Professional Surveyor
	Certificate Number

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Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-39490	² Pool Code 78760	³ Pool Name House; Tubb
⁴ Property Code 37779	⁵ Property Name Arnold A	⁶ Well Number 002
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation	⁹ Elevation 3583'

¹⁰ Surface Location

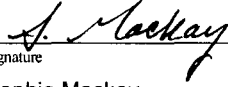
UL or lot no. F	Section 11	Township 20S	Range 38E	Lot Idn	Feet from the 2190	North/South line North	Feet from the 1650	East/West line West	County Lea
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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CONSERVATION DIVISION
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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-39490		² Pool Code 33250	³ Pool Name House; Drinkard
⁴ Property Code 37779	⁵ Property Name Arnold A		⁶ Well Number 002
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation		⁹ Elevation 3583'

¹⁰ Surface Location

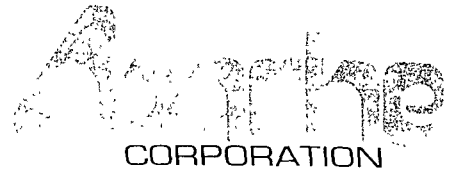
UL or lot no. F	Section 11	Township 20S	Range 38E	Lot Idn	Feet from the 2190	North/South line North	Feet from the 1650	East/West line West	County Lea
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40									
¹³ Joint or Infill									
¹⁴ Consolidation Code									
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¹⁶ 	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</i> Signature Sophie Mackay Printed Name 11/23/2009 Date	
	¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</i>	
	Date of Survey Signature and Seal of Professional Surveyor	
	Certificate Number	



November 23, 2009

Mr. Paul Kautz
New Mexico Oil Conservation Division
1625 N. French Dr.
Hobbs, New Mexico 88240

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NOV 24 2009

HOBBSOCD

RE: Application for Exception for Downhole Commingling
Arnold A #2 - House Field - API 30-025-39490
Unit F, Section 11, T-20-S, R-38-E
Blinebry, Tubb, and Drinkard Pools
Lea County, New Mexico

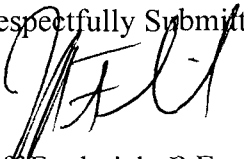
Mr. Kautz:

I am proposing to use offset production allocation data to determine the allocation percentages used when downhole commingling the Blinebry, Tubb, and Drinkard Oil & Gas pools. I have enclosed the administrative application form (C-103) and attachments used to determine the new allocation method proposed for the Arnold A #2 completion. The ownership (WI, NRI, and ORRI) of these pools are identical in this well. The fluids from each of these three zones are compatible as seen in other surrounding commingled wells in this area. Commingling these fluids together will not damage the wellbore nor have any impact on the value of the total remaining production. The wells in this area are operated by a production lift system which maximizes production by keeping the well pumped off. This system can easily handle cross flow without encountering any problems. Overall, commingling will improve the efficiency of our present and future recovery operations.

This allocation method was found by calculating the cumulative and average production data for each individual zone in a nine section area surrounding the Arnold A #2. By analyzing the average oil, gas, and water production for the Blinebry, Tubb, and Drinkard pools, I was able to calculate the percentage production allocation for each zone. Please refer to the attached spreadsheets for my calculations. It is also noted that you approved the same allocation method for three other nearby offsets.

Thank you. If you have any questions or comments please contact me at (918) 491-4982 or e-mail at jeff.frederick@apachecorp.com.

Respectfully Submitted,



Jeff Frederick, P.E.
Production Engineer

Enclosures

Arnold A #2 LTD DHC Allocations.xlsx

Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)			Cum Gas (MCF)			Cum Water (BBL)		
				Blinbry	Tubb	Drinkard	Blinbry	Tubb	Drinkard	Blinbry	Tubb	Drinkard
L D JONES	1	3002507722	1H 20S 38E SE NE	3476	0	0	186180	0	0	5043	0	0
PHILLIPS HOUSE STATE	1	3002507725	2O 20S 38E	0	0	101022	0	0	472015	0	0	25019
STATE U	1	3002507727	2P 20S 38E	0	0	157611	0	0	97687	0	0	184324
ARNOLD A	1	3002507761	11F 20S 38E	0	27203	670	0	1355259	0	0	4442	0
HOUSE B	1	3002507764	11P 20S 38E	0	9855	0	0	118752	0	0	0	0
BLANKENSHIP	1	3002507766	12E 20S 38E	0	0	54657	0	0	16638	0	0	7010
BLANKENSHIP	2	3002507767	12L 20S 38E	3821	0	134312	9274	0	1177187	2256	0	37126
BLANKENSHIP	3	3002507768	12M 20S 38E NE SW SW	4354	8567	39616	27228	45611	2435461	3109	14720	22235
CONE A	1	3002507770	12F 20S 38E	0	16653	206383	0	65582	236084	0	56289	83804
CONE B	1	3002507771	12J 20S 38E	0	0	239833	0	0	591551	0	0	69199
HESTER 12	3	3002507772	12O 20S 38E	0	0	150171	0	0	853402	0	0	32702
HESTER 12	2	3002507773	12N 20S 38E	0	0	82932	0	0	540453	0	0	17896
HESTER 12	1	3002512549	12K 20S 38E	0	0	97448	0	0	457760	0	0	16669
CROWN	1	3002520195	13B 20S 38E NW NW NE	0	7517	57149	0	36870	687081	0	0	11360
HOWSE C	1	3002522165	11H 20S 38E SE NE	0	0	26370	0	0	143078	0	0	6340
CONE B	2	3002525921	12G 20S 38E	0	0	398	0	0	86772	0	0	1460
L & M	1	3002528287	2L 20S 38E C S2 SW	0	9277	0	0	128311	0	0	0	0
HOUSE	1	3002531006	13D 20S 38E NW NW	32766	126	35865	762830	6678	515800	15436	0	13278
SHARPS	1	3002534060	13M 20S 38E	37417	0	0	196877	0	0	35874	0	0
SHARPS	2	3002534061	13N 20S 38E	31752	0	0	133711	0	0	28709	0	0
JOE CAMEL	1	3002534160	13K 20S 38E NE SW	36806	0	0	63475	0	0	59704	0	0
BULL DURHAM	1	3002534187	14P 20S 38E S2 SE SE	46327	5072	0	1054715	0	0	40971	1277	0
JOE CAMEL	2	3002534211	13F 20S 38E SW SE NW	18119	961	0	59203	2224	0	37223	353	0
DIAMONDBACK	1	3002534274	14J 20S 38E NW SE	28983	0	0	192879	0	0	31289	0	0
PEARL	1	3002534275	13J 20S 38E NW SE	11006	0	0	33921	0	0	26123	0	0
LUCKY STRIKE	1	3002534285	14I 20S 38E NE SE	76389	0	0	1042620	0	0	68515	0	0
CAPPS FEDERAL	2	3002534289	13O 20S 38E SW SE	32406	6820	0	140901	41519	0	25108	9290	0
BULL DURHAM	2	3002534363	14O 20S 38E SW SE	35686	39	0	316053	289	157	53971	0	0
CHESTERFIELD	1	3002534420	14H 20S 38E SE NE	26209	0	0	734711	39133	3857	36636	0	0
BUGLER	1	3002534506	13L 20S 38E NW NW SW	72217	434	0	428854	59037	0	38228	343	0
MOONEY	1	3002534569	13I 20S 38E NE SE	0	0	21316	0	0	31111	0	0	91751
PAIGE	1	3002534570	13P 20S 38E SE SE	7176	0	18672	14496	0	28773	16145	0	26466
VICEROY	1	3002534625	13E 20S 38E SW NW	29814	0	0	499588	0	0	75010	0	0
PALL MALL	1	3002534634	14A 20S 38E NE NE	0	0	29967	0	0	337481	0	0	73482
KOOL	1	3002534642	14B 20S 38E NW NE	36016	417	2497	327638	1897	3037	34773	0	0
PICAYUNE	1	3002534734	11J 20S 38E C NW SE	0	12976	24231	292	64046	370173	0	0	17895
ROITAN	1	3002534735	14G 20S 38E SW NE	23698	4001	0	567995	87183	0	53256	0	0
DREESSEN	1	3002534857	1G 20S 38E C SW NE	2199	0	0	7175	0	0	23039	0	0
MARLBORO	1	3002534968	14C 20S 38E S2 NE NW	649	0	0	7332	0	0	0	0	0
HOWSER	1	3002534970	1J 20S 38E C NW SE	1371	0	0	28097	0	0	35934	0	0
MERIT	1	3002535240	11O 20S 38E E2 SW SE	0	9058	0	0	567182	0	0	7350	0
BEECHNUT	1	3002535241	14E 20S 38E SE SW NW	540	0	0	2239	0	0	0	0	0
REDTAP	1	3002535333	2J 20S 38E NW NW SE	23683	3936	406	61804	9314	4169	3480	0	0
MERIT II	1	3002535448	11G 20S 38E C SW NE	1647	15964	21816	7445	24992	150650	0	11887	19464
DUKES	1	3002535614	11K 20S 38E E2 NE SW	0	7818	29211	0	38544	121873	0	8390	26341
REDTAP	2	3002535630	2K 20S 38E NE NE SW	13849	0	0	831373	0	0	2484	0	0
DIXIE QUEEN	1	3002536421	11P 20S 38E S2 SE SE	0	6916	0	0	485625	0	0	0	0
WHITE OWL	1	3002536689	2 20S 38E NW NW NW	29837	0	0	110860	0	0	9450	0	0
BIG KICK	1	3002536745	13C 20S 38E W2 NE NW	13611	670	9229	203845	10538	63062	2410	0	2526
HESTER 12	6	3002536795	12N 20S 38E SW SE SW	23909	7394	8583	298534	165595	50736	20937	4951	4318
HESTER 12	4	3002536800	12O 20S 38E SW SW SE	14419	3761	3343	249610	93860	85126	31255	0	1865
SALEM	1	3002537316	3A 20S 38E SE NE NE	1753	0	8292	5712	0	24814	2949	0	1090
JOE CAMEL	3	3002538033	13F 20S 38E NW SE NW	3291	1475	907	161812	135397	33021	4848	1317	762
HESTER 12	8	3002538076	12K 20S 38E SW NE SW	10944	3023	2897	111005	71484	45333	8060	9094	3515
HESTER 12	5	3002538211	12P 20S 38E NW SE SE	16816	4710	8866	160032	67220	63034	32371	4884	0
HESTER 12	7	3002538369	12N 20S 38E NE SE SW	4876	5669	2139	42386	40180	22743	13412	6771	7832
MELOT	1	3002538370	11C 20S 38E SW NE NW	3346	4302	1911	33782	26274	15016	16550	16079	14662
BULL DURHAM	3	3002538379	14P 20S 38E NE SE SE	5109	5523	0	53276	38210	0	613	0	0
BLANKENSHIP	4	3002538397	12L 20S 38E NE NW SW	2088	2245	4936	9537	16024	17599	7339	3035	2278
BLANKENSHIP	5	3002538399	12M 20S 38E SW SW SW	9475	3418	4183	35637	62266	186862	14452	3211	2410
BLANKENSHIP	6	3002538400	12L 20S 38E SW NW SW	5451	3838	858	23033	1178	42403	5120	376	6990
KOOL	2	3002538439	14B 20S 38E SW NW NE	5920	917	487	10805	18142	0	0	0	0
RHINO	2	3002538484	11N 20S 38E SE NE SW	6826	1814	3628	18613	12319	0	0	0	0
MAGNOLIA	1	3002538660	11E 20S 38E NE SW NW	3932	3415	2403	53774	10235	10199	13851	1873	22533
DIXIE QUEEN	2	3002538661	11P 20S 38E NE SE SE	7110	1883	2031	30019	13152	19145	0	0	0
HESTER 12	10	3002538662	12O 20S 38E NE SW SE	2971	91	722	18538	1898	5067	18005	1023	2660
HESTER 12	11	3002538663	12P 20S 38E SW SE SE	1041	857	1537	56849	55392	5201	4588	5793	3089
BIG KICK	2	3002538664	13C 20S 38E SE NE NW	5509	894	2197	15563	0	39133	26201	10405	3466
HOUSE	2	3002538665	13D 20S 38E SE NW NW	3427	1478	0	21373	1798	0	0	0	0
LUCKY STRIKE	2	3002538688	14I 20S 38E SW NE SE	2529	402	0	13364	1844	0	0	0	0
BUGLER	2	3002538689	13L 20S 38E SW NW SW	3629	350	0	31069	4914	0	9490	1308	0
MELOT	2	3002538700	11C 20S 38E NW NE NW	10360	2841	1116	25444	3782	11030	12247	11994	8994
HESTER 12	9	3002538791	12K 20S 38E NE NE SW	1246	810	2582	27530	3972	2963	14280	4314	7378
MAGNOLIA	2	3002539090	11D 20S 38E NE NW NW	656	210	1762	29801	16255	44252	7756	1662	1662
TOTALS				838,457	215,600	1,607,162	9,590,709	4,049,977	10,148,989	1,028,500	202,431	881,851
AVERAGES				11,331	2,914	21,718	129,604	54,729	137,149	13,899	2,736	11,917

Proposed Allocations	Oil	Gas	Water
Blinbry	32%	40%	49%
Tubb	8%	17%	10%
Drinkard	60%	43%	42%
TOTAL	100%	100%	100%