| Submit 1 Copy<br>Office<br><u>District 1</u> – (575 | To Appropriate Dis  |                            |   | e of New Me<br>erals and Natu                        | Form C-103<br>Revised July 18, 2013    |                   |                            |                 |                              |         |
|---|---|----------------------------|---|--|--|-------------------|----------------------------|-----------------|------------------------------|---------|
|   | Dr., Hobbs, NM 88   | 3240                       |   |  |  |                   | WELL API 30-025-3585       |                 |                              |         |
| District III - (50                                  |   |                            |   | ERVATION South St. Fra                               | 5. Indicate Type of Lease<br>STATE FEE |                   |                            | 7               |                              |         |
| District IV – (50                                   | s Rd., Aztec, NM 8<br>05) 476-3460<br>ncis Dr., Santa Fe, N |                            |   | ta Fe, NM 8  | 6. State Oil & Gas Lease No.           |                   |                            | <u></u>         |                              |         |
| (DO NOT USE<br>DIFFERENT R                          | THIS FORM FOR<br>ESERVOIR. USE                              |                            |   | <b>FS ON WELLS</b><br>DEEPEN OR PL<br>(FORM C-101) F |  | BBS OC            | 7. Lease Na<br>Mae F Curry | nme or Un<br>(3 | it Agreemen<br>09145)        | it Name |
| PROPOSALS.)<br>1. Type of V                         |   | Gas V                      | Vell 🗌 Othe                                       | er   | A 110                                  | 952               | 8. Well Nu                 | mber 005        |                              |         |
| 2. Name of<br>Apache Corp                           |   |                            |   |  | AUG                                    | 1 2 3 4           | 9. OGRID<br>873            | Number          |                              |         |
| 3. Address c  |   |                            |   |  |  |                   | 40. Pool na                | me or Wil       | dcat                         |         |
|   | Airpark Lane, S   | Suite 1000 N               | lidland, TX 79                                    | 705  | R                                      | ECEIVI            | Hardy; Bli (2              | 9710)/Haro      | dy; Tu-Drkd                  | (29760) |
| 4. Well Loca<br>Unit                                | ation<br>t LetterB  | . 660                      | feet from   | the North  | line a                                 | nd 1780           | fe                         | et from the     | e East                       | line    |
| Sect  | tion 7  |                            | Townshi   | ip 21S R   | ange 37E                               |                   | NMPM                       | Co              | ounty Lea                    |         |
|   |   | 5 <b>11.</b> ]             | Elevation (She                                    | ow whether DR<br>3509' GL                            | , <i>RKB, RT,</i> C                    | GR, etc.)         |                            |                 | a internet                   |         |
| ·   |   | <u></u>                    |   | 0000 02  |  |                   |                            |                 | <u></u>                      |         |
|   | 12. Ch  | neck Appro                 | priate Box  | to Indicate N  | lature of N                            | otice, F          | Report or C                | ther Dat        | a                            |         |
| TEMPORAR<br>PULL OR AL                              | NOTICE C<br>REMEDIAL WOR<br>ILY ABANDON<br>.TER CASING      | RK 🗌 PLU<br>🗌 CHA<br>🗌 MUL | TION TO:<br>G AND ABAN<br>NGE PLANS<br>TIPLE COMP |  | REMEDIA<br>COMMEN<br>CASING/C          | L WORK<br>CE DRIL | LING OPNS                  |                 | RT OF:<br>FERING CAS<br>ND A | SING 🗌  |
|   | E COMMINGLE   |                            |   |  |  |                   |                            |                 |                              |         |
| OTHER:  |   |                            |   |  | OTHER:                                 | - 11              |                            | . 1             | 1 1'                         |         |
| of sta  | ribe proposed or<br>arting any propo<br>osed completion     | sed work). S               | EE RULE 19.                                       |  |  |                   |                            |                 |                              |         |
|   | ike to DHC the f  |                            | ~   | R- ord   | ler                                    | 1122              | ব                          |                 |                              |         |
| ·<br>Pool Names:<br>Hardy; Blinebi<br>Hardy; Tubb-I | ry 21   | 9710<br>9760               | Perforations:<br>Blinebry<br>Tubb/Drinka          | 5762'-61   | 48' (propose<br>31' (existing)         |                   |                            |                 |                              |         |
| The allocation n                                    | nethod will be as   | s follows base             | ed on offset pr                                   | oduction. (See                                       | attached app                           | plication         | for exception              | to Rule 30      | 03-C.)                       |         |
| Blinebry<br>Tubb/Drinkard                           | OIL<br>93%<br>7%  | GAS W<br>99%<br>1%         | /ATER<br>99%<br>1%                                |  |  |                   |                            |                 |                              |         |
| Downhole comr                                       | ningling will not   | reduce the va              | alue of these p                                   | ools. Ownerst  | nip is the sam                         | ne for ea         | ch of these p              | ools.           |                              |         |
| Spud Date:  | 6/25/2002   |                            |   | Rig Release Da                                       | ate: 7/11/2                            | 2002              |                            |                 |                              |         |
| l   |   |                            | n   | DI   | A- 11                                  | nR.               | 579                        |                 |                              |         |
| I hereby certif                                     | y that the inform   | nation above               | is true and co                                    | mplete to the b                                      | est of my kno                          | owledge           | and belief.                |                 |                              |         |
|   | $\bigcap$   | 1.1                        |   |  |  |                   |                            |                 |                              |         |
| SIGNATURE   | Keesa   | Hsher                      | -   | TITLE Sr. Sta  | ff Reg Analy                           | st                |                            | DATE_           | 8/21/2014                    |         |
| Type or print r<br>For State Use                    | name_Reesa Fis<br>Only                                      | sher                       |   | E-mail address                                       | s: Reesa.Fist                          | ner@apac          | hecorp.com                 | _ PHONE         | E: (432) 818                 | 8-1062  |
| APPROVED I  |   | NI:                        | <u> </u>  | TITLE  |  |                   |                            | _DATE_          | 07/04                        | 14      |
|   |   |                            |   |  |  |                   |                            |                 |                              |         |

# Mae F. Curry #5 (API: 30-025-35855)

## **Downhole Commingle Application Discussion**

#### Summary

The Mae F. Curry #5 (API: 30-025-35855) is located at 660' FNL & 1780' FEL of Section 7, Township 21S & Range 37E, Lea County, NM. The well was drilled in June 2002, and completed and placed on production from the Hardy Tubb-Drinkard in September 2002. It is now planned to complete the Mae F. Curry #5 in the Hardy Blinebry pool, and we request approval to downhole commingle the Hardy Tubb-Drinkard and Hardy Blinebry pools in this well.

#### Discussion

The Hardy-Tubb Drinkard has been producing in the Mae F. Curry F #5 since September 2002 and is currently producing at a rate of approximately 4.9 BOPD, 8.9 MCFD, and 4.8 BWPD. Estimated remaining recoverable reserves from the Hardy-Tubb Drinkard are estimated to be 2.4 MBO, 3.6 MMCF, along with 2.6 MBW (see attachments). Remaining oil reserves were determined using decline curve analysis, with remaining gas reserves forecast using a gas-oil ratio of 1.5 MMCF/MB (average over the last 12-months) and remaining water production forecast at a water-oil ratio of 1.1 MBW/MBO (average over the last 12-months).

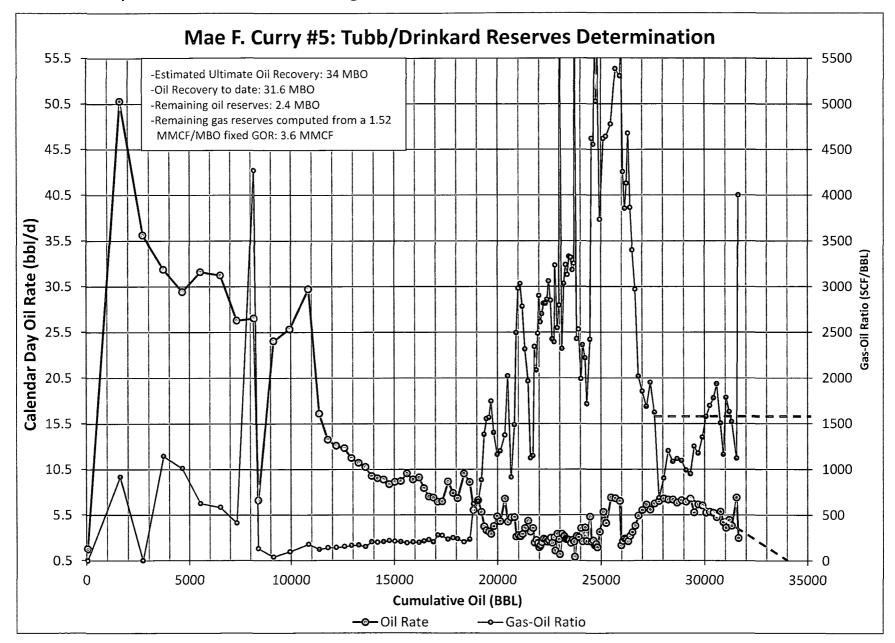
The Hardy Blinebry has not been completed in the Mae F. Curry #5, however it has been completed and produced commercially from several offset wells, with the average ultimate reserve recovery from the Hardy Blinebry for six of these offset wells estimated to be 32 MBO, 276.1 MMCF, along with 178.6 MBW. These offsets were chosen for evaluation due to their proximity and to the Mae F. Curry #5 and availability of quality production data for the Hardy Blinebry. Based on well logs, the performance of the Hardy Blinebry in the Mae F. Curry #5 is expected to be comparable to these offsets.

Using the estimated remaining reserve recovery for the Hardy Tubb-Drinkard in the Mae F. Curry #5, and the expected reserve recovery for completing the Hardy Blinebry in the Mae F. Curry #5, a fixed allocation percentage allocation is recommended for the Mae F. Curry #5 as follows:

| Mae F. Curry #5: Proposed Allocation Percentages |       |                          |                    |  |  |  |  |  |  |  |
|--|-------|--------------------------|--------------------|--|--|--|--|--|--|--|
| Pool   | Fluid | <b>Expected Recovery</b> | Percent Allocation |  |  |  |  |  |  |  |
| Hardy Blinebry                                   | Oil   | 32.0 MBO                 | 93.1%              |  |  |  |  |  |  |  |
|  | Gas   | 276.1 MMCF               | 98.7%              |  |  |  |  |  |  |  |
|  | Water | 178.6 MBW                | 98.6%              |  |  |  |  |  |  |  |
| Hardy Tubb-Drinkard                              | Oil   | 2.4 MBO                  | 6.9%               |  |  |  |  |  |  |  |
|  | Gas   | 3.6 MMCF                 | 1.3%               |  |  |  |  |  |  |  |
| · ·  | Water | 2.6 MBW                  | 1.4%               |  |  |  |  |  |  |  |

## Attachments

- A1. Mae F. Curry #5 Production Plot and Remaining Reserve Determination
- A2. Hardy Blinebry Reserve Determination for Offset Wells
- A3. Mae F. Curry #5 Area Map



A1. Mae F. Curry #5 Production Plot and Remaining Reserve Determination

| Lease              | Well   | ΑΡΙ          | -       | linebry<br>on Dates | -         | Blinebry Cu<br>roduction to |             | Hardy B   | linebry Estin | inebry Estimated EUR* |        | Blinebry<br>IP30 |
|--------------------|--------|--------------|---------|---------------------|-----------|-----------------------------|-------------|-----------|---------------|-----------------------|--------|------------------|
|                    | No.    |              | Start   | End                 | Oil (BBL) | Gas (MCF)                   | Water (BBL) | Oil (BBL) | Gas (MCF)     | Water (BBL)           | (BOPD) | (MCFD)           |
| State F-1          | 1      | 30-025-35176 | May-03  | Mar-14              | 22,292    | 176,549                     | 203,788     | 33,000    | 310,000       | 400,815               | 21.2   | 105.6            |
| State F-1          | 10     | 30-025-27034 | Sep-86  | Nov-96              | 34,999    | 213,861                     | 35,987      | 40,500    | 444,500       | 39,288                | 32.2   | 151.5            |
| State F-1          | 11     | 30-025-35466 | Jan-04  | Mar-14              | 23,807    | 113,016                     | 168,201     | 38,000    | 160,000       | 199,426               | 18.4   | 44.2             |
| State F-1          | 15     | 30-025-35771 | Jan-04  | Mar-14              | 23,526    | 176,395                     | 57,162      | 32,000    | 330,000       | 98,685                | 11.6   | 59.6             |
| Deck Estate 7      | 1      | 30-025-33677 | Apr-05  | Mar-14              | 40,654    | 134,624                     | 35,459      | 105,000   | 320,000       | 86,936                | 23.6   | 64.6             |
| WBDU               | 25     | 30-025-26265 | Jul-80  | Feb-07              | 21,939    | 186,114                     | 24,738      | 25,000    | 280,000       | 30,554                | 19.9   | 79.7             |
| H.T. Mattern NCT-C | 12     | 30-025-25547 | Mar-78  | Sep-87              | 20,679    | 131,604                     | 194,812     | 23,500    | 132,000       | 302,856               | 18.8   | 156.7            |
|                    | Mean** | 24,540       | 166,257 | 114,115             | 32,000    | 276,083                     | 178,604     | 20.4      | 99.6          |                       |        |                  |
|                    |        |              |         | P50**               | 22,909    | 176,472                     | 112,682     | 32,500    | 295,000       | 149,055               | 19.4   | 92.7             |

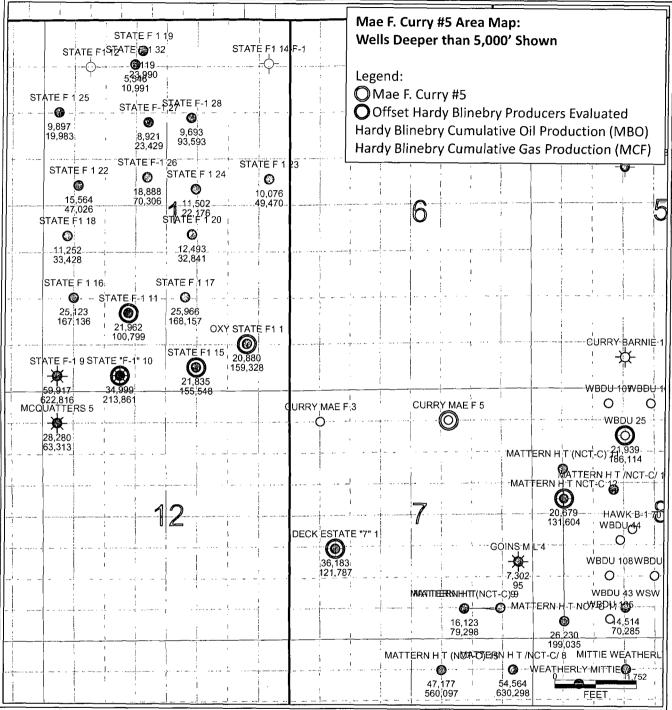
### A2. Hardy Blinebry Reserve Determination for Offset Wells

\*Oil and gas EUR forecast using decline curve analysis. Water forecast using last 12 months average WOR

\*\*Deck Estate 7 #1 excluded from mean and P50 calculations

| Lease              | Well<br>No. | API          | Notes  |
|--------------------|-------------|--------------|--|
| State F-1          | 1           | 30-025-35176 | Blinebry placed on production DHC with Tubb/Drinkard May 2003  |
| State F-1          | 10          | 30-025-27034 | Well produced from the Blinebry only from September 1986 to November 1996  |
| State F-1          | 11          | 30-025-35466 | Blinebry completed and zone tested to determine allocation. Placed on production DHC with Tubb/Drinkard January 2004 |
| State F-1          | 15          | 30-025-35771 | Blinebry completed and zone tested to determine allocation. Placed on production DHC with Tubb/Drinkard January 2004 |
| Deck Estate 7      | 1           | 30-025-33677 | Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard April 2005        |
| WBDU               | 25          | 30-025-26265 | Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard February 1981     |
| H.T. Mattern NCT-C | 12          | 30-025-25547 | Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard January 1979      |

#### A1. Mae F. Curry #5 Area Map



PETRA 7/31/2014 3:36:45 PM

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

## State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

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Form C-102 HOBBS OCD Revised October 12, 2005 Submit to Appropriate District Office AUG 2 5 2014 State Lease - 4 Copies Fee Lease - 3 Copies

RECEIVED AMENDED REPORT

|  | <u>ll loca ii</u>   | 0111110   |  |  | <u>ATION PLA</u>   |   |  |   |  |  |
|--|---|---|--|--|--|---|--|---|--|--|
|  | ² Pool C  | Code  | <sup>1</sup> Pool Name   |  |  |   |  |   |  |  |
| ļ  | 29710   |   | Hardy; Blinebry  |  |  |   |  |   |  |  |
|  |   | <sup>5</sup> Pre  | operty Name  |  |  |   | <sup>6</sup> Well Number   |   |  |  |
| Mae F Curry  |   |   |  |  |  | 005   | 005  |   |  |  |
|  |   | * Op  | erator Name  |  |  | -   | <sup>°</sup> Elevation   |   |  |  |
| Apache Corp  | poration: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705 |   |  |  |  |   | 3509' GL   |   |  |  |
| <sup>10</sup> Surface Location                               |   |   |  |  |  |   |  |   |  |  |
| Township   | Range Lot l   | idn Feet fr   | om the No  | rth/South line   | Feet from the  | East/West   | line   | County  |  |  |
| 21S 37   | 7E  | 660   |  |  | 1780   | East  | Lea  |   |  |  |
| <sup>II</sup> Bottom Hole Location If Different From Surface |   |   |  |  |  |   |  |   |  |  |
| Township   |   |   |  |  | Feet from the  | East/West   | ast/West line 0  |   |  |  |
|  |   |   |  |  |  |   |  |   |  |  |
| Infill <sup>14</sup> Conse                                   | olidation Code  |   |  |  |  |   |  |   |  |  |
|  |   | ĩ   | NHC-   | HOR  | - 678  |   |  |   |  |  |
|  | Aae F Curry<br>Apache Corp<br>Fownship<br>21S 3<br>Fownship       | 29710   Mae F Curry   Apache Corporation: 303 Veres   Township Range   21S 37E   II Bottom H   Fownship   Range   Lot I   Fownship   Range   Lot I   Fownship   Range   Lot I | Apache Corporation: 303 Veterans Airpa<br>Apache Corporation: 303 Veterans Airpa<br>10 Sur<br>10 Sur | 29710 Hardy; Bline   *Property Name   *Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Surface   10 Surface Locati   Township   Range Lot Idn   Feet from the   No   21S 37E   11 Bottom Hole Location If Diffe   Fownship Range   Lot Idn Feet from the   No No   11 Bottom Hole Location If Diffe   Fownship Range   Lot Idn Feet from the   No | 29710 Hardy; Blinebry   'Property Name   'Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 M   10 Surface Location   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 M   10 Surface Location   Fownship   Range   Lot Idn   Feet from the   North/South line   Township   Range   Lot Idn   Feet from the   North/South line   Township   Range Lot Idn   Feet from the   North/South line   Infiil | 29710 Hardy; Blinebry   * Property Name   * Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 797   10 Surface Location   Feet from the   North/South line   Feet from the | 29710 Hardy; Blinebry   *Property Name 005   *Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705 3509   10 Surface Location   Fownship Range Lot Idn Feet from the North/South line Feet from the East/West   11 Bottom Hole Location If Different From Surface   Fownship Range Lot Idn Feet from the North/South line Feet from the East/West   Infill * Consolidation Code * Order No. | 29710   Hardy; Blinebry     * Property Name   005     * Operator Name   * Elevation     * Operator No   * Elevation     * The Dit |  |  |

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.

|    |   | <u> </u>  |  |
|----|---|-----------|--|
| 16 |   | <br>1780` | <sup>17</sup> OPERATOR CERTIFICATION<br>I hereby certify: that the information contained herein is true and complete to<br>the best of my-knowledge and belief, and that this organization either owns a<br>working interest or unleased mineral interest in the land including the<br>proposed bottom hole location or has a right to drill this well at this location<br>pursuant to a contract with an owner of such a mineral or working interest,<br>or to a voluntary pooling agreement or a compulsory pooling order<br>herefore entered by the division. |
|    |   | 3         | Reesa Fisher 08/21/2014<br>Signature Date<br>Reesa Fisher<br>Printed Name  |
|    |   | <br>      |  |
|    | - |           | <sup>18</sup> SURVEYOR CERTIFICATION<br>I hereby certify that the well location shown on this plat<br>was plotted from field notes of actual surveys made by<br>me or under my supervision, and that the same is true<br>and correct to the best of my belief.   |
|    |   |           | Date of Survey<br>Signature and Seal of Professional Surveyor:   |
|    |   |           |  |
|    |   |           | Certificate Number   |

|         |                               |                |                             |                    |                   | State        | of Ne            | w Mexico                  |  |  |  |
|---------|-------------------------------|----------------|-----------------------------|--------------------|-------------------|--------------|------------------|---------------------------|--|--|--|
|         |                               |                |                             |                    | Energy.           | Minerals and | d Natural        | Resources Department      |  |  |  |
|         | STRICT I<br>Bax 1980, Hobbe   | , NM 88241-10  | <b>36</b> 0                 |                    |                   |              |                  |                           | HOBBS OCD  | Fo<br>Revised Februs   | orm C-102<br>ary 10, 1994                    |
|         | STRICT II<br>Drawer DD. Artes | ain, NM 88211  | -0719                       | OIL                | CON               | SERV         | ATI<br>Box 2     | ON DIVIS                  | 1ADE 2 5 2012  | to Appropriate Di<br>State Lease                                   |  |
|         | STRICT III<br>O Rio Braxos R  | id., Axtec, NI | <b>H 874</b> 10             |                    |                   |              | DOX N            | o 87504-2088              | RECEIVED   |  |  |
|         | STRICT IV<br>BOX 2088, SANTA  | A 78, N.M. 670 | 504-2088 V                  | VELL LO            | CATION            | AND          | ACREA            | GE DEDICATI               | -  | 🗆 AMENDE   | D REPORT                                     |
| 2       | <b>,</b>                      | Number<br>5.35 | 855                         |                    | Pool Code<br>9760 | )            |                  | Hûrdy (Tu                 | Pool Name<br>ob - Drinkar  | (d)  |  |
|         | Property (<br>2.9.4           | Code           |                             |                    | ae F              | Prop         | erty Nam<br>JRRY |                           | <u>, , , , , , , , , , , , , , , , , , , </u>  | Well Num   | aber   |
| F       |                               | o.             |                             |                    | ·····             | Opera        | etor Nam         | roduction l               | " ompany   | Elevatio<br>3509   |  |
| L       | 000 1                         |                | L                           |                    |                   |              | ca i             |                           |  |  |  |
| បា      | L or lot No.<br>B             | Section<br>7   | Township<br>21-S            | Range<br>37-E      | Lot Idn           | Feet fro     | om the<br>60     | North/South line<br>NORTH | Feet from the<br>1780  | East/West line<br>EAST   | County<br>LEA                                |
| L       |                               |                | 11                          | Bottom             | Hole Loo          | cation I     | f Diffe          | erent From Sur            | face   |  | <u>.                                    </u> |
| U       | L or lot No.                  | Section        | Township                    | Range              | Lot Idn           | Feet fro     | om the           | North/South line          | Feet from the  | East/West line   | County                                       |
| ī       | edicated Acres                | Joint o        | r Infill Cor                | nsolidation (      | Code Or           | der No.      | $\sim$           |                           | DD = Eas   | 7  | L  |
| L_      |                               | WABLE W        |                             |                    |                   |              |                  | $H \subseteq -H$          |  | CEN CONSOLIDA  | TED  |
| <b></b> |                               |                | OR A N                      | ON-STAN            | DARD UN           | IT HAS       | BEEN             | APPROVED BY               | THE DIVISION   |  |  |
|         | LOT                           | 1              |                             |                    |                   | 660'-        |                  |                           |  | R CERTIFICAT   |  |
|         |                               |                |                             |                    | 1                 |              |                  | - 1780'                   | contained hereis   | y certify the the inj<br>1 is true and comple<br>ledge and belief. |  |
|         |                               | 1              |                             |                    | 1                 | •            | 1                | 1700                      | 12.  | 71   |  |
|         | 36.63                         | AC             |                             |                    |                   |              |                  |                           |  | 1.Spaing   |  |
|         | LOT                           | 2              | GEOGRAP:HC<br>NAD<br>Y= 547 | 27                 |                   |              |                  |                           | Amy<br>Printed Name  | Spang  |  |
|         |                               |                | X= 849<br>LAT. 32'29'5      | 729.7              |                   |              |                  |                           | Tille Regu   | latory Ana   | lyst   |
|         |                               | 1              | LONG 10311                  | 1'56.41 <b>°</b> W | 1                 |              | 1                |                           | Date 3/  | 4/02   |  |
|         | 36.65                         |                |                             |                    |                   |              |                  |                           | SURVEYO  | R CERTIFICAT   | ION  |
|         | LOT                           | ·              |                             |                    |                   |              |                  |                           | on this plat we  | that the well locations plotted from field                         | i notes of                                   |
|         |                               |                |                             |                    |                   |              |                  |                           | supervison, an   | made by me or<br>d that the eame is<br>e best of my belie;         | true and                                     |
|         |                               | 1              |                             |                    | 1                 |              | 1                |                           | FEBRA  | JARY 20, 2002  | 2  |
|         | 36.67 LOT                     |                |                             |                    |                   |              |                  |                           | Date Surveye<br>Signature &  | Seal of  | AWB  |
|         |                               |                |                             |                    |                   |              |                  |                           | Professional   | Surveyor   |  |
|         |                               |                |                             |                    | 1                 |              | ĺ                |                           | Honuld &   | ulan) 2/22   | 102  |
|         |                               | .              |                             |                    | 1                 |              | l                |                           | Certificate N  | . RONALD J. EDS<br>GARY EDSON                                      | ON 3239<br>12641                             |
|         | 36.69 A                       | AC             |                             |                    |                   |              |                  |                           | un din the second secon | GARY EDSON   | 16031  |

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