

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88211-0719

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Form C-101

Revised February 10, 1999

Instructions on back

Submit to Appropriate District Office

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Fee Lease - 5 Copies

☐ AMENDED REPORT

## APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

<sup>1</sup> Operator Name and Address CHEVRON USA INC 15 SMITH RD, MIDLAND, TX 79705		<sup>2</sup> OGRID Number 4323
		<sup>3</sup> API Number 30-025-24084
<sup>4</sup> Property Code 2683	<sup>5</sup> Property Name H.T. MATTERN (NCT-B)	<sup>6</sup> Well No. 15

<sup>7</sup> Surface Location									
UI or lot no. N	Section 30	Township 21-S	Range 37-E	Lot.Idn	Feet From The 660'	North/South Line SOUTH	Feet From The 1820'	East/West Line WEST	County LEA

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface									
UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
<sup>9</sup> Proposed Pool 1 PENROSE SKELLY GRAYBURG					<sup>10</sup> Proposed Pool 2				

<sup>11</sup> Work Type Code P	<sup>12</sup> WellType Code O	<sup>13</sup> Rotary or C.T. ROTARY	<sup>14</sup> Lease Type Code P	<sup>15</sup> Ground Level Elevation 3507' GL
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 6820'	<sup>18</sup> Formation GRAYBURG	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 1/15/2006

<sup>21</sup> Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U.S.A. INC. INTENDS TO RECOMPLETE THE SUBJECT WELL FROM THE BLINEBRY OIL AND GAS TO THE PENROSE SKELLY GRAYBURG.

A PIT WILL NOT BE USED FOR THIS PLUGBACK. A STEEL FRAC TANK WILL BE UTILIZED.

THE CURRENT AND PROPOSED WELLBORE DIAGRAMS, AND THE INTENDED PROCEDURE ARE ATTACHED FOR YOUR APPROVAL.

THIS WELL IS ON THE INACTIVE WELL LIST.

Permit Expires 1 Year From Approval.  
Data Unless Drilling Underway  
Plugback

<sup>23</sup> I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature <i>Denise Pinkerton</i>		Approved By: <i>Chris Williams</i>	
Printed Name Denise Pinkerton		Title: OC DISTRICT SUPERVISOR/GENERAL MANAGER	
Title Regulatory Specialist		Approval Date: DEC 30 2005 Expiration Date:	
Date 12/20/2005	Telephone 432-687-7375	Conditions of Approval: Attached <input type="checkbox"/>	

Well: **H. T. Mattern (NCT-B) #15**

Field: **Blinebry O&G**

Reservoir: **Blinebry**

**Current**  
**Wellbore Diagram**

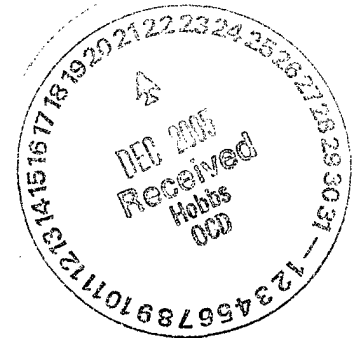
**Location:**  
660' FSL & 1820' FWL  
Section: 30  
Township: 21S  
Range: 37E Unit: N  
County: Lea State: NM

**Elevations:**  
GL: 3507'  
KB: 3518'  
DF: 3507'

**Well ID Info:**  
Chevno: FG9728  
API No: 30-025-24084  
L5/L6: U463000  
Spud Date: 4/10/72  
Compl. Date: 5/1/72

**Surf. Csg:** 8-5/8", 24#, K-55  
**Set:** @ 1240' w/400 sx cmt  
**Size of hole:** 11"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulated

**Tbg Detail:**  
None



DV Tool @ 3935'

**CIBP @ 5435'**  
(No cmt on top)

**CIBP @ 5701'**  
(No cmt on top)

**COTD:** 5435'  
**PBTD:** 5435'  
**TD:** 6820'

**Updated:** 11/28/05

**By:** A. M. Howell

Perfs	Status
5514-16'	Blinebry Oil - Below CIBP
5540-42'	Blinebry Oil - Below CIBP
5564-66'	Blinebry Oil - Below CIBP
5606-08'	Blinebry Oil - Below CIBP
5637-39'	Blinebry Oil - Below CIBP
5688-90'	Blinebry Oil - Below CIBP

**Prod. Csg:** 5-1/2", 14# & 17#, K-55  
**Set:** @ 5870' w/630 sx cmt  
**Size of hole:** 7-7/8"  
**Circ:** No **TOC:** 1560'  
**TOC By:** Temperature Survey

Perfs	Status
6491-94'	Drinkard - Below CIBP
6540-43'	Drinkard - Below CIBP
6601-04'	Drinkard - Below CIBP
6643-46'	Drinkard - Below CIBP
6693-96'	Drinkard - Below CIBP

**Liner:** 4", OD 11.34# K-55  
**Set:** f/ 5749-6819' in 4-3/4" hole  
**Circ w/75** sx cmt to 5830'

Well: **H. T. Mattern (NCT-B) #15**Field: **Penrose Skelly**Reservoir: **Grayburg****Proposed  
Wellbore Diagram**

**Location:**  
660' FSL & 1820' FWL  
Section: 30  
Township: 21S  
Range: 37E Unit: N  
County: Lea State: NM

**Elevations:**

GL: 3507'

KB: 3518'

DF: 3507'

**Well ID Info:**

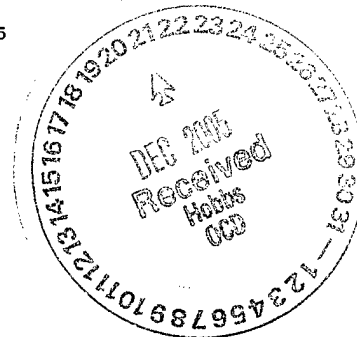
Chevno: FG9728

API No: 30-025-24084

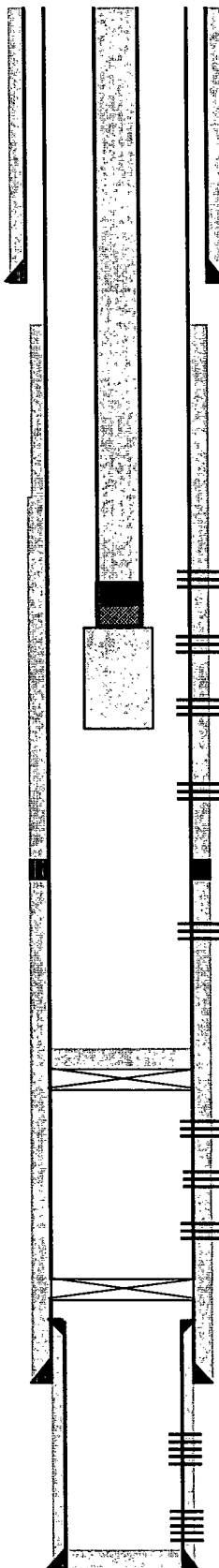
L5/L6: U490300

Spud Date: 4/10/72

Compl. Date: 5/1/72

**Surf. Csg:** 8-5/8", 24#, K-55**Set:** @ 1240' w/400 sx cmt**Size of hole:** 11"**Circ:** Yes **TOC:** Surface**TOC By:** Circulated**Tubing Detail:**

#Jts:	Size:	Footage
	KB Correction	14.00
121	Jts. 2 7/8" J-55 Cl. 'B'	3751.00
	2 7/8" x 6" Tbg Sub	6
	Drain Valve	0.55
	2 7/8" x 2 3/8" X-Over	0.60
	Centriflgt Sub Pump	35.41
121	Bottom Of Mtr >>	3807.56



Perfs	Status
3678-86'	Grayburg - Open
3718-24'	Grayburg - Open
3732-40'	Grayburg - Open
3748-54'	Grayburg - Open
3758-64'	Grayburg - Open
3770-76'	Grayburg - Open
3790-98'	Grayburg - Open
3806-10'	Grayburg - Open
3832-40'	Grayburg - Open
3846-50'	Grayburg - Open
3855-63'	Grayburg - Open
3870-73'	Grayburg - Open
3876-84'	Grayburg - Open
3889-93'	Grayburg - Open
3898-3904'	Grayburg - Open
3914-22'	Grayburg - Open
3930-38'	Grayburg - Open
3958-66'	Grayburg - Open
3974-82'	Grayburg - Open

DV Tool @ 3935'

CIBP @ 5435'  
(No cmt on top)CIBP @ 5701'  
(No cmt on top)

Perfs	Status
5514-16'	Blinbry Oil - Below CIBP
5540-42'	Blinbry Oil - Below CIBP
5564-66'	Blinbry Oil - Below CIBP
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**Prod. Csg:** 5-1/2", 14# & 17#, K-55**Set:** @ 5870' w/630 sx cmt**Size of hole:** 7-7/8"**Circ:** No **TOC:** 1560'**TOC By:** Temperature Survey

Perfs	Status
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**Liner:** 4", OD 11.34# K-55**Set:** fl 5749-6819' in 4-3/4" hole**Circ** w/75 sx cmt to 5830'

COTD: 5435'

PBSD: 5435'

TD: 6820'

Updated: 11/28/05

By: A. M. Howell

**H. T. Mattern (NCT-B) # 15**  
**Penrose Skelly Field**  
**T21S, R37E, Section 30**  
**Job: PB To Grayburg Formation, Acidize, And Frac**



**Procedure:**

1. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. Buried fiberglass lines will be tested with 300 psi. All polypipe (SDR7 and SDR11) will be tested w/100 psi. All steel lines will be tested w/500 psi. If a leak is found, contact Donnie Ives for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.
2. MI & RU workover unit. Bleed pressure from well, if any. Pump down csg with 8.6 PPG cut brine water, if necessary to kill well. Remove WH. Install BOP's and test to 1000 psi. POH LD tbg string, if present.
3. PU and GIH with 4 3/4" MT bit and 2 7/8" work string to 5435'. Reverse circulate well clean from 5435' using 8.6 PPG cut brine water. POH with work string and bit. LD bit.
4. PU and GIH with 5 1/2" pkr to 100'. Pressure test csg to 500 psi. Use pkr to pinpoint source of recent MIT failure. **Note: Discuss repair options with Engineering after locating leak and determining severity.** POH with 2 7/8" work string and pkr. LD pkr.
5. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/CBL/CCL log from 5435' up to 100' above cement top. POH. Inspect logs for good cement bond from approximately 4100' up to 3500'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding. Cmt squeeze as necessary to obtain good cmt across completion interval. GIH with 3 1/8" DP slick casing gun and perforate from 3678-86', 3718-24', 3732-40', 3748-54', 3758-64', 3770-76', 3790-98', 3806-10', 3832-40', 3846-50', 3855-63', 3870-73', 3876-84', 3889-93', 3898-3904', 3914-22', 3930-38', 3958-66', and 3974-82' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. GIH and dump bail 35' cement on top of CIBP at 5435'. POH. RD & release electric line unit. **Note: Use Schlumberger Compensated Sonic Log dated 4/23/72 for depth correlation.**
6. PU and GIH w/ 5 1/2" PPI pkr (with 10' element spacing) and SCV on 2 7/8" work string to approximately 3650'. Test tbg to 5500 psi while GIH.
7. MI & RU DS Services. Acidize perfs 3678-3982' with 3,800 gals anti-sludge 15% HCl acid \* at a maximum rate **as shown below** and a maximum surface pressure of **3500 psi**. Spot acid across perfs at beginning of each stage and let soak to lower breakdown pressure and prevent communication. Pump job as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3974-82'	200 gals	½ BPM	3973-83'
3958-66'	200 gals	½ BPM	3957-67'
3930-38'	200 gals	½ BPM	3929-39'
3914-22'	200 gals	½ BPM	3913-23'
3898-3904'	200 gals	½ BPM	3897-3907'
3889-93'	200 gals	½ BPM	3886-96'
3876-84'	200 gals	½ BPM	3875-85'
3870-73'	200 gals	½ BPM	3865-75'
3855-63'	200 gals	½ BPM	3854-64'
3846-50'	200 gals	½ BPM	3842-52'
3832-40'	200 gals	½ BPM	3831-41'
3806-10'	200 gals	½ BPM	3804-14'
3790-98'	200 gals	½ BPM	3789-99'
3770-76'	200 gals	½ BPM	3768-78'
3758-64'	200 gals	½ BPM	3756-66'
3748-54'	200 gals	½ BPM	3746-56'
3732-40'	200 gals	½ BPM	3731-41'
3718-24'	200 gals	½ BPM	3716-26'
3678-86'	200 gals	½ BPM	3677-87'



Displace acid with 8.6 PPG cut brine water -- do not overdisplace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services. **Note:** Pickle tubing in 1 run of 500 gals acid, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal A264 and 1 gal W53. Also, if communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 500 psi csg pressure. If cannot, then move PPI to next setting depth and combine treatment volumes of the intervals.

* Acid system is to contain:	1 GPT A264	Corrosion Inhibitor
	8 GPT L63	Iron Control Agent
	2 PPT A179	Iron Control Aid
	20 GPT U66	Mutual Solvent
	2 GPT W53	Non-Emulsifier

8. Release PPI pkr and PUH to approximately 3650'. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered fluid volumes, pressures, and/or swabbing fluid levels. **Note:** Selectively swab perfs as directed by Engineering if excessive water is produced.
9. Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.
10. PU and GIH w/ 5 ½" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 117 jts. of 3 ½" EUE 8R L-80 work string, testing to 8500 psi. Set pkr at approximately 3550'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.

11. MI & RU DS Services and Tracer-Tech Services (Mike Mathis (866) 595-3115). Frac well down 3 ½" tubing at **40 BPM** with 88,000 gals of YF130, 176,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR1630 proppant. Observe a maximum surface treating pressure of **7500 psi**. Tag frac with 3 radioactive isotopes (1 in ½ PPG pad stage, 1 in main proppant stages, and 1 in resin-coated proppant stage). Pump job as follows:

Pump 2,000 gals 2% KCL water containing 55 gals Baker RE 4777-SCW Scale Inhibitor  
Pump 1,000 gals 2% KCL water spacer  
Pump 14,000 gals YF130 pad containing 5 GPT J451 Fluid Loss Additive  
Pump 14,000 gals YF130 containing 0.5 PPG 16/30 mesh Jordan Sand & 5 GPT J451 FL Additive  
Pump 12,000 gals YF130 containing 1.5 PPG 16/30 mesh Jordan Sand  
Pump 12,000 gals YF130 containing 2.5 PPG 16/30 mesh Jordan Sand  
Pump 14,000 gals YF130 containing 3.5 PPG 16/30 mesh Jordan Sand  
Pump 16,000 gals YF130 containing 4.5 PPG 16/30 mesh Jordan Sand  
Pump 6,000 gals YF130 containing 5 PPG **resin-coated** 16/30 mesh CR1630 proppant.

Flush to 3617' with 1,365 gals WF130. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services and Tracer-Tech Services. **Leave well SI overnight.**

12. Open well. PU and GIH with 4 ¾" MT bit on 2 7/8" work string to 4500'. Reverse circulate well clean from 4500' using 8.6 PPG cut brine water. POH with 2 7/8" work string and bit. LD bit.
13. PU & GIH with 5 ½" pkr on 2 7/8" work string to 3550'. Set pkr at 3550'. Open well. GIH and swab well until there is no sand inflow. Swab well for at least 3 hours before logging. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct after-frac PRISM GR/Temp/CCL log from 4200' up to 3000'. POH. RD & release electric line unit. **Note: Correlate logs and run flat with Baker Atlas GR/CBL/CCL Log conducted in Step # 5.**
14. PU and GIH w/ Centrilift sub pump assembly, drain sub, 2 7/8" x 6' tbg sub, SN, and 121 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Suspend tbg with bottom of sub pump assembly at approximately 3808'.
15. Remove BOP's and install WH. RD & release workover unit.
16. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH  
12/19/2005



## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88211-0719

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

**State of New Mexico**  
**Energy, Minerals and Natural Resources Department**

**OIL CONSERVATION DIVISION**

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Form C-102

Revised February 10, 1999

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-24084	<sup>2</sup> Pool Code 50350	<sup>3</sup> Pool Name PENROSE SKELLY GRAYBURG
<sup>4</sup> Property Code 2683	<sup>5</sup> Property Name H.T. MATTERN (NCT-B)	<sup>6</sup> Well No. 15
<sup>7</sup> OGRID Number 4323	<sup>8</sup> Operator Name CHEVRON USA INC	<sup>9</sup> Elevation 3507' GL

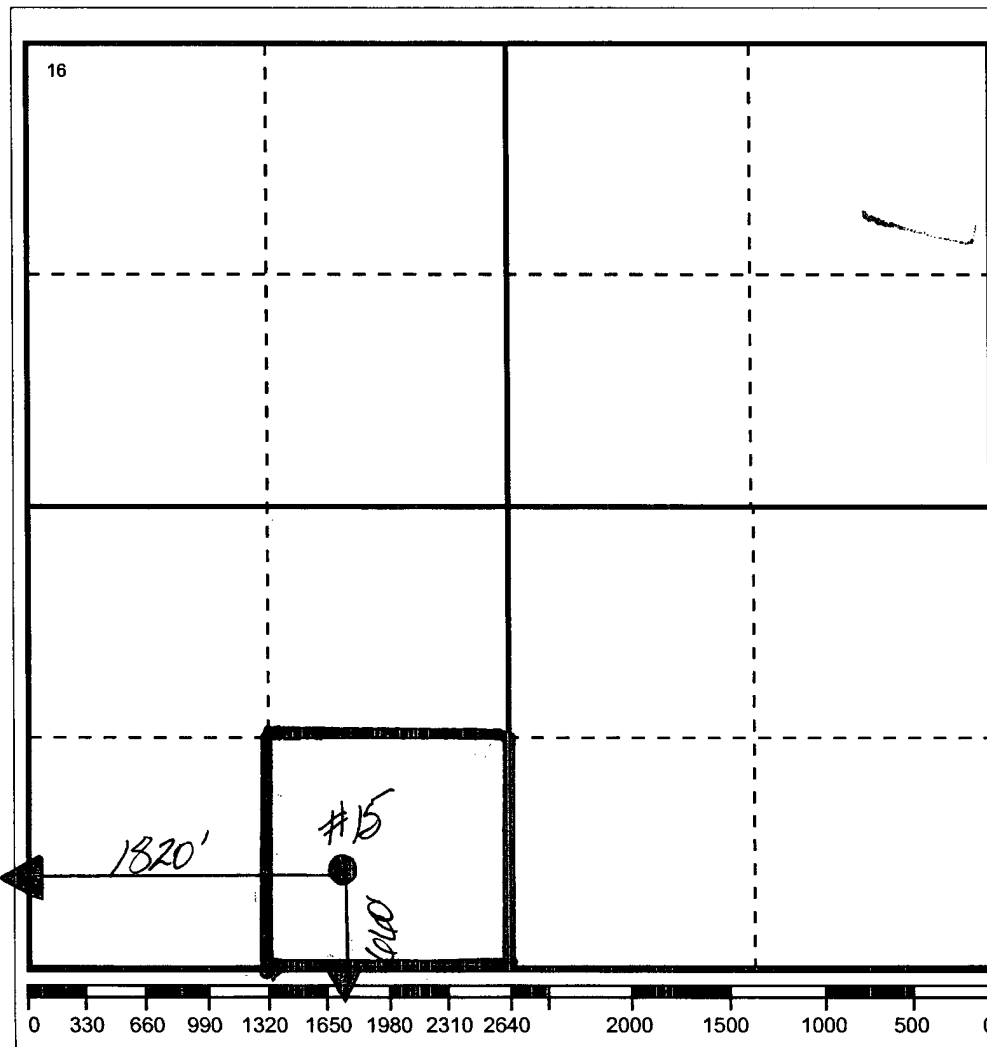
<sup>10</sup> Surface Location

UI or lot no N	Section 30	Township 21-S	Range 37-E	Lot.Idn	Feet From The 660'	North/South Line SOUTH	Feet From The 1820'	East/West Line WEST	County LEA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
<sup>12</sup> Dedicated Acre 40	<sup>13</sup> Joint or Infill No	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



<sup>17</sup> OPERATOR CERTIFICATION

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

Signature

Printed Name

Denise Pinkerton

Positio

Regulatory Specialist

Date

12/20/2005

<sup>18</sup> SURVEYOR CERTIFICATION

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 knowledge and belief.

Date Surveyed

Signature &amp; Seal of

Professional Surveyor

Certificate No.