

DATE IN <u>12-10-09</u>	SUSPENSE	ENGINEER <u>W. L.</u>	LOGGED IN <u>12/10/09</u>	TYPE <u>DHC</u> <u>424</u>	APP NO. <u>093445.3662</u>
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



RECEIVED  
 CD  
 AB Baker #8  
 30-025-35135

## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
- [D] Other: Specify \_\_\_\_\_
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Amber Cooke		Engineering Tech	12/08/2009
Print or Type Name	Signature	Title	Date
		amber.cooke@apachecorp.com	
		c-mail Address	



December 8, 2009

William Jones  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Application for Downhole Commingle  
A B Baker #8  
Unit 1, Sec 10, T-22S, R-37E  
Penrose Skelly; Grayburg and Eunice; San Andres, South  
Lea County, New Mexico

Dear Mr. Jones,

Enclosed please find an administrative application form (C-107A) and attachments for downhole commingling the Grayburg and San Andres in the A B Baker #8. Apache intends to produce both zones together with an expected rate of 3 BOPD, 7 BWPD, and 170 MCFPD. The ownership (WI, NRI and ORRI) of these pools are identical in this wellbore. Downhole commingling in this manner will offer an economic method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. This is a Private well.

This well is currently completed in the San Andres. Apache proposes to complete and downhole commingle the Grayburg zone with the existing San Andres production. The allocation method was determined by analyzing cumulative oil and gas production in a nine section area surrounding this well. Supporting documentation is shown on the attached spreadsheets.

If you need additional information or have any questions, please give me a call at (918) 491-4968.

Sincerely,

A handwritten signature in black ink that reads "Amber Cooke".

Amber Cooke  
Engineering Technician

**District I**  
1625 N. French Drive, Hobbs, NM 88240

**District II**  
1301 W. Grand Avenue, Artesia, NM 88210

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

**Oil Conservation Division**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

APPLICATION TYPE  
 Single Well  
 Establish Pre-Approved Pools  
EXISTING WELLBORE  
 Yes  No

**APPLICATION FOR DOWNHOLE COMMINGLING**

**DHC-4241**

Apache Corporation 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136  
Operator Address

A B Baker 8 I 10 22S 37E Lea  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 873 Property Code 26464 API No. 30-025-35135 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Penrose Skelly; Grayburg		Eunice; San Andres South
Pool Code	50350		24170
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3633'-3754' (Est Perf)		3780'-4146' (Perf)
Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	NA		NA
Oil Gravity or Gas BTU (Degree API or Gas BTU)	34.9 API		34.1 API
Producing, Shut-In or New Zone	New Zone		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates: 2 BOPD 2 BWPD 90 MCFPD	Date: Rates:	Date: 11/3/2009 Rates: 1 BOPD 5 BWPD 80 MCFPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 67 % Gas 54 %	Oil % Gas %	Oil 33 % Gas 46 %

**ADDITIONAL DATA**

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes  No   
 If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes  No   
 Are all produced fluids from all commingled zones compatible with each other? Yes  No   
 Will commingling decrease the value of production? Yes  No   
 If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes  No   
 NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:  
 C-102 for each zone to be commingled showing its spacing unit and acreage dedication.  
 Production curve for each zone for at least one year. (If not available, attach explanation.)  
 For zones with no production history, estimated production rates and supporting data.  
 Data to support allocation method or formula.  
 Notification list of working, royalty and overriding royalty interests for uncommon interest cases.  
 Any additional statements, data or documents required to support commingling.

**PRE-APPROVED POOLS**

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools  
 List of all operators within the proposed Pre-Approved Pools  
 Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.  
 Bottomhole pressure data.

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

SIGNATURE Amber Cooke TITLE Engineering Tech DATE 12/8/2009

TYPE OR PRINT NAME Amber Cooke TELEPHONE NO. (918) 491.4968

E-MAIL ADDRESS amber.cooke@apachecorp.com

District I  
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District IV  
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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
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

<sup>1</sup> API Number 30-025-35135		<sup>2</sup> Pool Code 24170	<sup>3</sup> Pool Name Eunice; San Andres, South
<sup>4</sup> Property Code 26464	<sup>5</sup> Property Name A B Baker		<sup>6</sup> Well Number 8
<sup>7</sup> OGRID No. 873	<sup>8</sup> Operator Name Apache Corporation		<sup>9</sup> Elevation 3381'

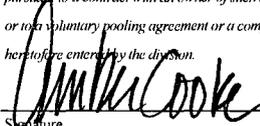
<sup>10</sup> Surface Location

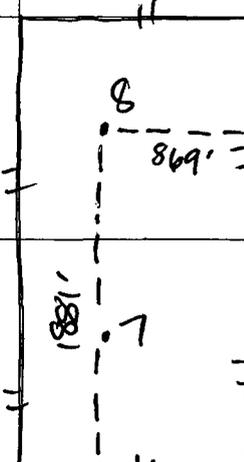
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	10	22S	37E		1881	South	869	East	Lea

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 80	<sup>13</sup> Joint or Infill	<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.

16				<sup>17</sup> 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>  12/08/2009 Signature Date Amber Cooke Printed Name		
				<sup>18</sup> 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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State of New Mexico  
Energy, Minerals & Natural Resources Department  
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Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
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AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-35135	<sup>2</sup> Pool Code 50350	<sup>3</sup> Pool Name Penrose Skelly; Grayburg
<sup>4</sup> Property Code 26464	<sup>5</sup> Property Name A B Baker	<sup>6</sup> Well Number 8
<sup>7</sup> OGRID No. 873	<sup>8</sup> Operator Name Apache Corporation	<sup>9</sup> Elevation 3381'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	10	22S	37E	1881	South	869	East	Lea	

<sup>11</sup> Bottom Hole Location If Different From Surface

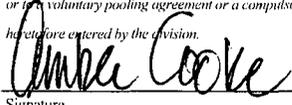
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres: 40 <sup>13</sup> Joint or Infill: <sup>14</sup> Consolidation Code: <sup>15</sup> Order No.:									

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.

16									

**<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, 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.*

 12/08/2009  
 Signature Date  
 Amber Cooke  
 Printed Name

---

**<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 belief.*

Date of Survey: \_\_\_\_\_  
 Signature and Seal of Professional Surveyor: \_\_\_\_\_

Certificate Number: \_\_\_\_\_

8 --- 869'

--- 1881'

Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)		Cum Gas (MCF)		Cum Water (BBL)	
				Grayburg	San Andres	Grayburg	San Andres	Grayburg	San Andres
NEW MEXICO S STATE	104	3002509954	2O 22S 37E		38935		98581		546928
NEW MEXICO S	4	3002509959	2M 22S 37E		86877		57074		3350047
STATE C	1	3002509972	2M 22S 37E	13722					
R L BRUNSON TR 2	5	3002509974	3K 22S 37E NE SW	150346		1033994		785461	
MARK	1	3002509979	3 22S 37E	81805		688343		189149	
BRUNSON	2	3002509983	3L 22S 37E	98182		829351		44657	
MARK	2	3002509991	3G 22S 37E	6802		15627		64549	
OWEN A	2	3002509992	3F 22S 37E	93578		527343		384744	
MARK	3	3002509995	3H 22S 37E C SW NE	11756		174483		162789	
MARK	4	3002509996	3H 22S 37E	11056		58332		28314	
EVA OWEN	1	3002509999	3 22S 37E C NW NW	29984		48905		12595	
OWEN	2	3002510000	3C 22S 37E	12684				0	
EVA OWEN	3	3002510001	3 22S 37E NE NE NW	7186		72176		19157	
R L BRUNSON TR 2	3	3002510002	3M 22S 37E SW SW	119547		924288		130214	
R L BRUNSON TR 2	4	3002510003	3N 22S 37E SE SW	67661		3366985		14287	
OWEN A	1	3002510005	3E 22S 37E SW NW	57334				0	
H CORRIGAN	4	3002510006	4A 22S 37E	56623				0	
SKELLY UNIT	119	3002510008	4H 22S 37E	137030		300354		116	
SKELLY UNIT	118	3002510010	4G 22S 37E C SW NE	99347		338317		2	
SKELLY UNIT	101	3002510013	4B 22S 37E	81327		68154		138	
BRUNSON	3	3002510018	4O 22S 37E	67356		168753		1260	
CLIFTON	1	3002510020	4M 22S 37E	62836		90878		15758	
E A STICHER	1	3002510024	4N 22S 37E	93984		145041		357	
WM RINEWALT	2	3002510026	4E 22S 37E NE SW NW	114144		65623		100	
R L BRUNSON TR 1	1	3002510028	4P 22S 37E SE SE	105924		5487732		51840	
R L BRUNSON TR 2	2	3002510029	4I 22S 37E SW NE SE	174433		1351739		523955	
BRUNSON	1	3002510030	4J 22S 37E	117307		1150079		587988	
RINEWALT	1	3002510034	4F 22S 37E SE SE NW	61118	4407		368837		227878
RINEWALT	2	3002510035	4C 22S 37E	62476					
E A STICHER	1	3002510038	4K 22S 37E	39482					
TEXACO E A STICHER	2	3002510039	4L 22S 37E NW SW	60810		753372		288513	
TEXACO E A STICHER	3	3002510040	4K 22S 37E SW NE SW	13127		557590		236262	
TEXACO E A STICHER	4	3002510041	4L 22S 37E		2171		365995		985136
RINEWALT	1	3002510042	4 22S 37E	145834		668244		14515	
R L CLIFTON	2	3002510046	4M 22S 37E SE SW SW	8940		196998		46168	
R L BRUNSON TR 1	2	3002510047	4P 22S 37E C SE SE	10609		531802		207976	
ELLIOTT B 9	1	3002510121	9E 22S 37E	14396					
J L GREENWOOD	1	3002510122	9P 22S 37E	63362					
GREENWOOD	2	3002510123	9L 22S 37E	110093		166963		19655	
J L GREENWOOD	3	3002510124	9M 22S 37E	53471					
GREENWOOD	4	3002510125	9N 22S 37E	102476		238928		29856	
SKELLY UNIT	172	3002510126	9I 22S 37E	36996					
J L GREENWOOD	6	3002510127	9O 22S 37E	39935					
GREENWOOD	7	3002510128	9J 22S 37E	92557		283110		62866	
SKELLY UNIT	144	3002510138	9A 22S 37E	90862		195871		4960	
SKELLY UNIT	163	3002510139	9H 22S 37E	52235		170533		3483	
BRUNSON ARGO A	8	3002510140	9G 22S 37E	38573		63928		15320	
PENROSE	2	3002510146	9E 22S 37E SE SW NW		11248		850548		204196
ELLIOTT B 9	1	3002510149	9C 22S 37E	31049		2374	360735		43675
ELLIOTT B 9	2	3002510153	9D 22S 37E	22107	8350		316239		45901
ROLLON BRUNSON	5	3002510156	10G 22S 37E NE SW NE		16373		658590		403921
ROLLON BRUNSON	1	3002510159	10B 22S 37E	69368		61829		1691	
ROLLON BRUNSON	6	3002510162	10B 22S 37E NW NW NE	14499	1973	450691	2982	136216	2459
EAVES	1	3002510163	10A 22S 37E C NE NE		14822		521192		72175
SKELLY UNIT	167	3002510164	10H 22S 37E	75851		703412		745	
EAVES	4	3002510167	10H 22S 37E		63442		2141522		699542
EAVES	1	3002510169	10A 22S 37E	131154		484068		10353	
BRUNSON ARGO B	3	3002510170	10D 22S 37E	145494		847114		25334	
SKELLY UNIT	166	3002510171	10G 22S 37E	31615					
BRUNSON ARGO B	4	3002510172	10C 22S 37E	110531		703217		22237	
BRUNSON ARGO	5	3002510173	10F 22S 37E	36680					
BRUNSON ARGO	6	3002510174	10E 22S 37E	37625					
BAKER B	1	3002510182	10M 22S 37E	61880		173466		16376	
BAKER B	2	3002510183	10K 22S 37E	58198		211443		17383	
BAKER B	3	3002510184	10L 22S 37E	47312		168875		1670	
BAKER B	4	3002510185	10O 22S 37E C SW SE		6088		367740		61424
BAKER B	10	3002510190	10J 22S 37E		23273		492461		607882
BAKER B	12	3002510192	10K 22S 37E NE SW		11334		686990		322363
BAKER B	14	3002510194	10M 22S 37E		5369		296013		111084
LOU WORTHAM	1	3002510196	11D 22S 37E W2 NW NW	195088		1315270		201631	
LOU WORTHAM	3	3002510197	11C 22S 37E W2 NE NW	194307		1594080		552849	
LOU WORTHAM	4	3002510198	11F 22S 37E NE SE NW	140794		1514902		285183	
LOU WORTHAM	2	3002510200	11E 22S 37E NE SW NW	202428		1703397		214319	

Lease Name	Well Number	10DIGITAP#	Location	Cum Oil (BBL)		Cum Gas (MCF)		Cum Water (BBL)	
				Grayburg	San Andres	Grayburg	San Andres	Grayburg	San Andres
S E LONG	2	3002510202	11J 22S 37E	13375		24704		49777	
LOU WORTHAM A	1	3002510210	11A 22S 37E	22578		107998		46939	
LOU WORTHAM C	4	3002510211	11H 22S 37E C SE NE		157480		859989		1301414
LOU WORTHAM	20	3002510216	11D 22S 37E NW NW		96696		720063		1251983
THOMAS LONG	1	3002510226	11L 22S 37E	86851		426183		2185	
THOMAS LONG	5	3002510229	11N 22S 37E C SE SW	1790		11076		17858	
HUGH	1	3002510257	14D 22S 37E	2207		5224		11017	
HUGH	3	3002510259	14B 22S 37E	12885		283930		409400	
E W WALDEN	6	3002510275	15N 22S 37E	75293		131150		15	
ELLIOTT A 15	1	3002510276	15P 22S 37E	89639		128067		751	
ELLIOTT A 15	2	3002510278	15O 22S 37E	129125		333187		218092	
E W WALDEN	1	3002510285	15E 22S 37E	68666		445297		35635	
E W WALDEN	5	3002510286	15M 22S 37E	74162		206164		18919	
E W WALDEN	4	3002510287	15K 22S 37E C NE SW	76445		46847			
E W WALDEN	6	3002510288	15N 22S 37E C SE SW	75293		131150			
ELLIOTT FEDERAL	1	3002510289	15G 22S 37E C SW NE	52554		101691		1828	
E W WALDEN	2	3002510292	15F 22S 37E	56433		109196			
E W WALDEN	2	3002510295	15C 22S 37E	114145		960826		198097	
E W WALDEN	3	3002510297	15L 22S 37E	57540		119404			
ELLIOTT A 15	1	3002510298	15J 22S 37E	113627		677149		455956	
ELLIOTT B 15	2	3002510299	15A 22S 37E	109922		630253		181401	
ELLIOTT B 15	3	3002510300	15B 22S 37E	108853		1154476		165112	
E W WALDEN	1	3002510303	15D 22S 37E	160091		1005927		63865	
R E COLE	1	3002510310	16O 22S 37E SW SE	77646		392119		414766	
R E COLE	2	3002510311	16N 22S 37E SE SW	59977		301546		1014242	
R E COLE	3	3002510312	16M 22S 37E SW SW					3278	
R E COLE NCT A	1	3002510313	16P 22S 37E	201481		391930		67813	
R E COLE NCT A	2	3002510314	16L 22S 37E	49863		64403		6289	
R E COLE NCT A	3	3002510315	16I 22S 37E	147185		445647		269307	
R E COLE NCT A	5	3002510318	16I 22S 37E NE NE SE	20266	2405	208976	95263	125361	28424
R E COLE NCT A	6	3002510319	16B 22S 37E		2778		350594		155803
COLE STATE	1	3002510321	16A 22S 37E	117840	18762	367935	1042968	5260	146645
COLE STATE	2	3002510322	16D 22S 37E	107089		320575		226	
COLE STATE	3	3002510323	16C 22S 37E	105960		445041		7842	
COLE STATE	4	3002510324	16E 22S 37E	79397		496640		12182	
COLE STATE	5	3002510325	16H 22S 37E	74464		523230		5363	
R E COLE B STATE	6	3002510326	16B 22S 37E	33962					
SKELLY UNIT	168	3002512574	10I 22S 37E	27933		190869		8744	
THOMAS LONG	6	3002520147	11K 22S 37E	71665		446859		279186	
NEW MEXICO S	25	3002520283	2N 22S 37E	8630		41646		21126	
NEW MEXICO S STATE	24	3002520390	2J 22S 37E S2 NW NE	2629		16467		12428	
R E COLE A	20	3002521238	16K 22S 37E	31243		249082		39352	
HUGH	10	3002521625	14E 22S 37E SW SW NW	68824		513485		363667	
LOU WORTHAM B	1	3002521785	11B 22S 37E	63283		317454		175297	
LOU WORTHAM C	3	3002522070	11A 22S 37E NE NE		167780		849094		1005468
R E COLE NCT A	8	3002522109	16K 22S 37E	39313	1777	325228	154594	84823	16725
LOU WORTHAM A	2	3002522134	11H 22S 37E W2 SE NE	15878		90665		80016	
LOU WORTHAM B	2	3002522135	11G 22S 37E W2 SW NE	44745		681535		191375	
COLE STATE	10	3002522163	16E 22S 37E		6559		605366		197273
E W WALDEN	7	3002522185	15L 22S 37E N2 NW SW	83449		1254879		597788	
R E COLE NCT A	11	3002522382	16J 22S 37E C NW SE	53526	6331	606199	295670	63836	131072
HUGH	9	3002522393	14D 22S 37E NW NW	35368		216773		74723	
COLE STATE	12	3002522486	16D 22S 37E SW NW NW		4211		618602		136132
HUGH	11	3002522625	14F 22S 37E SE NW	62869		560924		448658	
ELLIOTT B 15 2	2	3002522634	15H 22S 37E	52989		935425		83696	
ELLIOTT 16 FEDERAL	2	3002522755	15G 22S 37E SW NE	41375		894549		591752	
HUGH	12	3002522910	14C 22S 37E NE NW	40230		317848		412403	
E W WALDEN	8	3002522983	15K 22S 37E N2 NE SW	68297		1030360		698866	
E W WALDEN	9	3002523165	15F 22S 37E NW SE NW	53390		1355281		454852	
E W WALDEN	10	3002523166	15E 22S 37E SW NW	57225		1536110		1041964	
NEW MEXICO S STATE	26	3002523211	2L 22S 37E		153				
HUGH	13	3002523275	14D 22S 37E NW NW		116799		885879		2077140
LOU WORTHAM C	1	3002523422	11B 22S 37E NE NW NE		292102		912097		1527460
BRUNSON C	9	3002523425	3J 22S 37E	95596		343480		103087	
LOU WORTHAM C	2	3002523473	11G 22S 37E NW SW NE		152117		567900		1093693
BRUNSON C	10	3002523486	3O 22S 37E	75803		346476		74548	
BRUNSON C	11	3002523523	3P 22S 37E	110326		407270		101145	
BRUNSON C	12	3002523549	3I 22S 37E	83131		365427		136331	
LOU WORTHAM	5	3002523606	11C 22S 37E SW NE NW		306556		1057729		408889
GREENWOOD	18	3002523691	9M 22S 37E		3903		629495		733086
LOU WORTHAM	6	3002523756	11E 22S 37E SW SW NW		56790		1854709		180461
COLE STATE	14	3002523828	16F 22S 37E		6345		792175		436213
MARK	9	3002524584	3G 22S 37E	86726		1288886		245224	

Lease Name	Well Number	10DIGITAP	Location	Cum Oil (BBL)		Cum Gas (MCF)		Cum Water (BBL)	
				Grayburg	San Andres	Grayburg	San Andres	Grayburg	San Andres
E W WALDEN	11	3002524603	15M 22S 37E N2 SW SW	91494		1740076		1615598	
R E COLE NCT A	15	3002524763	16L 22S 37E E2 NW SW	1325	8660	27622	336749	18206	169538
S E LONG	9	3002525322	11J 22S 37E NW SE		5945		223843		285885
R E COLE NCT A	17	3002525356	16P 22S 37E SW SE SE	25363	11966	48713	212082	68359	81448
R E COLE	3	3002525689	16M 22S 37E NE SW SW	12156		190106		1465	
MARK	10	3002525785	3H 22S 37E NE SE NE	74303		702451		217959	
MARK	11	3002526051	3 22S 37E NW NE NE	36575		188391		68397	
EAVES	7	3002526212	10H 22S 37E SE SE NE	6302		46689		15173	
R E COLE NCT A	21	3002526474	16B 22S 37E	3103		100901		8095	
E W WALDEN	12	3002527756	15F 22S 37E SW SE NW	21422	6724	449313	174694	202253	184025
E W WALDEN	13	3002527956	15K 22S 37E SW NE SW	54623		1127931		217802	
E W WALDEN	14	3002528204	15N 22S 37E SE SE SW	48542		1043650		492469	
HUGH	16Y	3002528595	14E 22S 37E NE SW NW	16305	5731	188048	128865	91400	78015
LOU WORTHAM	19	3002528617	11F 22S 37E S2 SE NW	4228	19920	64976	111516	10318	97277
BRUNSON	4	3002529125	4J 22S 37E	19074		2342421		1141304	
LONG	1	3002530432	11L 22S 37E NW SW		48255		1620710		2512207
LONG	2	3002530530	11M 22S 37E NW SW SW		17028		697638		1096550
COLE STATE	7	3002533681	16H 22S 37E		9226		753221		20661
BRUNSON ARGO	25	3002533964	10F 22S 37E		3297		354219		443806
BRUNSON	5	3002534083	4O 22S 37E	15021		993269		442517	
RINEWALT	5	3002534582	4 22S 37E N2 NE NW	25052		387446		224595	
COLE STATE	8	3002534856	16G 22S 37E SW SW NE		13181		656213		99678
A B BAKER	7	3002535134	10P 22S 37E NW SE SE	22633		445010		284660	
A B BAKER	8	3002535135	10I 22S 37E SW NE SE		13105		413345		117010
H CORRIGAN	12	3002535136	4 22S 37E SE NE NE	8176	6371	219684	116014	100027	78182
H CORRIGAN	13	3002535137	4 22S 37E SW NW NE	8599	2746	229020	192840	186651	69850
COLE STATE	15	3002536024	16C 22S 37E W2 NE NW		3359		378750		76241
WM RINEWALT	4	3002536106	4E 22S 37E NW SW NW		253		132949		309791
R L BRUNSON TR 2	6	3002536316	3M 22S 37E NE SW SW	7313		150628		7795	
LOU WORTHAM	7	3002536329	11E 22S 37E NE SW NW		17124		176016		55945
LOU WORTHAM	8	3002536330	11D 22S 37E NE NW NW		62872		67331		515208
E A STICHER	4	3002536399	4N 22S 37E NW SE SW	10809		151652		1586	
LOU WORTHAM	9	3002536536	11C 22S 37E NE NE NW		23421		137928		314849
LOU WORTHAM	10	3002536537	11F 22S 37E NE SE NW		15015		128689		113812
GREENWOOD	19	3002536759	9L 22S 37E NW NW SW		3524		528748		120412
GREENWOOD	20	3002536760	9N 22S 37E SE SE SW		3674		523258		127662
GREENWOOD	21	3002536761	9K 22S 37E NE NE SW		3101		513715		443541
R L BRUNSON TR 2	7	3002536925	3K 22S 37E SE NE SW	7885		104208		19974	
GREENWOOD	22	3002537147	9O 22S 37E SE SW SE		3252		437773		143915
GREENWOOD	23	3002537148	9P 22S 37E SE SE SE		8322		521980		257418
GREENWOOD	25	3002537164	9I 22S 37E NE NE SE		2925		343529		774114
GREENWOOD	24	3002537224	9J 22S 37E NE NW SE		1728		272365		1399369
NEW MEXICO S STATE	42	3002537245	2 22S 37E SW NW NW		119284		170251		210617
H CORRIGAN	15	3002537264	4H 22S 37E NW SE NE	12698	3430	317249	124853	568305	246464
NEW MEXICO S STATE	44	3002537324	2J 22S 37E NW NW SE	23078		78940		1207468	
RINEWALT	6	3002537325	4F 22S 37E SW SE NW	10734		265489		243277	
H CORRIGAN	14	3002537326	4 22S 37E NW NE NE	20663		243998		80325	
NEW MEXICO S STATE	43	3002537335	2L 22S 37E NE NW SW	31758	12844	168429	62317	193637	107556
NEW MEXICO S STATE	45	3002537336	2N 22S 37E SW SE SW	1258		31823		257401	
MARK	13	3002537385	3C 22S 37E NW SE NE	16334		172139		62769	
COLE STATE	17	3002537399	16F 22S 37E NE SE NW		3585		300452		75668
COLE STATE	19	3002537400	16G 22S 37E NE SW NE		12065		277267		44301
BRUNSON	7	3002537401	3L 22S 37E SE NW SW		68437		396978		212420
R E COLE	4	3002537489	16N 22S 37E SE SE SW	7150		92042		65191	
E W WALDEN	15	3002537509	15D 22S 37E SE NW NW		2048		87701		8994
BRUNSON	6	3002537539	3L 22S 37E NW NW SW	26025	1543	299113	54035	87459	174795
NEW MEXICO S STATE	46	3002537603	2 22S 37E NE NW NW	6310	5408	38472	41529	26599	48255
NEW MEXICO S STATE	47	3002537607	2E 22S 37E NW SW NW		4504		127832		36536
NEW MEXICO S STATE	48	3002537608	2F 22S 37E NW SE NW		11527		79463		81350
NEW MEXICO S STATE	49	3002537609	2F 22S 37E SE SE NW		13310		14604		217352
H CORRIGAN	16	3002537654	4 22S 37E NW NW NE	9509		274449		76233	
NEW MEXICO S STATE	50	3002537668	2E 22S 37E SE SW NW		33431		21427		152622
NEW MEXICO S STATE	51	3002537669	2K 22S 37E NW NE SW		8411		55961		8132
NEW MEXICO S STATE	52	3002537670	2K 22S 37E SE NE SW	5451		33666		3871	
NEW MEXICO S STATE	53	3002537671	2L 22S 37E SW NW SW		21875		19153		113435
COLE STATE	16	3002537721	16D 22S 37E NE NW NW	7165	1236	164197	247626	102844	11161
COLE STATE	20	3002537722	16H 22S 37E NE SE NE	5339	754	68220	62118	31123	-4072
H CORRIGAN	17	3002537747	4G 22S 37E NW SW NE	9757		243032		69748	
RINEWALT	7	3002537750	4 22S 37E SW NE NW	7167		272938		161365	
COLE STATE	18	3002537827	16A 22S 37E NW NE NE		6922		239109		46142
COLE STATE	23	3002537828	16E 22S 37E NE SW NW	3821	2610	116949	171931	9475	82025
HUGH	17	3002537855	14D 22S 37E SW NW NW	2273	922	48771	53073	62705	56929
GREENWOOD	28	3002537871	9J 22S 37E SE NW SE		2652		209301		54747

Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)		Cum Gas (MCF)		Cum Water (BBL)	
				Grayburg	San Andres	Grayburg	San Andres	Grayburg	San Andres
GREENWOOD	29	3002537872	9K 22S 37E SE NE SW		10577		374171		98864
ELLIOTT B 15	8	3002537889	15H 22S 37E SE SE NE	4798		83752		28472	
BRUNSON	9	3002538005	4O 22S 37E NE SW SE		2036		241630		258713
NEW MEXICO S STATE	54	3002538119	2M 22S 37E NE SW SW		8409		15839		108079
NEW MEXICO S STATE	56	3002538120	2 22S 37E SW NE NW		7425		9357		531482
BRUNSON	8	3002538132	4J 22S 37E NE NW SE		1713		203803		437508
R L BRUNSON 4	1	3002538213	4I 22S 37E NE NE SE	842	6221	15651	65149	1292	12479
LOU WORTHAM 11	1	3002538218	11G 22S 37E SE SW NE	3548		89628		21535	
LOU WORTHAM 11	3	3002538236	11B 22S 37E SE NW NE	6287		54514		18583	
PENROSE	6	3002538260	9E 22S 37E NW SW NW		5292		341822		155803
ROLLON BRUNSON	7	3002538335	10G 22S 37E NE SW NE	7671		190973		32091	
TEXACO E A STICHER	5	3002538340	4L 22S 37E NE NW SW	13702		210263		97672	
EAVES	8	3002538384	10A 22S 37E NW NE NE	6669		131461		12197	
ROLLON BRUNSON	8	3002538385	10G 22S 37E SE SW NE	9247		153373		17420	
EAVES	9	3002538851	10H 22S 37E NE SE NE	2852		58621		7133	
<b>TOTALS</b>				<b>9,308,742</b>	<b>2,395,776</b>	<b>70,857,075</b>	<b>34,101,418</b>	<b>24,609,447</b>	<b>32,095,402</b>
<b>AVERAGES</b>				<b>55,081</b>	<b>27,225</b>	<b>469,252</b>	<b>391,970</b>	<b>162,976</b>	<b>368,913</b>

Proposed Allocations	Oil	Gas	Water
Grayburg	67%	54%	31%
San Andres	33%	46%	69%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101  
June 16, 2008

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Office

AMENDED REPORT

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

<sup>1</sup> Operator Name and Address Apache Corporation 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136		<sup>2</sup> OGRID Number 873
		<sup>3</sup> API Number 30 - 025-35135
<sup>5</sup> Property Code 26464	<sup>4</sup> Property Name A B Baker	<sup>6</sup> Well No. 8
<sup>9</sup> Proposed Pool 1 Penrose Skelly; Grayburg		<sup>10</sup> Proposed Pool 2

<sup>7</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	10	22S	37E		1881	South	869	East	Lea

<sup>8</sup> Proposed 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

Additional Well Information

<sup>11</sup> Work Type Code A	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type Code P	<sup>15</sup> Ground Level Elevation 3381'
<sup>16</sup> Multiple Yes	<sup>17</sup> Proposed Depth 4215'	<sup>18</sup> Formation Grayburg/San Andres	<sup>19</sup> Contractor Open	<sup>20</sup> Spud Date Open

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
NC					

<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.

This well is currently producing from the San Andres zone. Apache requests to recomplete to Grayburg and downhole commingle both zones.

- MIRU PU. POH w/prod equipment.
- Set CBP @ -3,790'.
- Perf Penrose Skelly; Grayburg from +/- 3,633' - 3,754' with 2 JSPF.
- Acidize and fracture stimulate.
- CO wellbore to CBP. DO CBP & CO wellbore to PBTD.
- TIH w/prod equipment.
- DHC both the San Andres and Grayburg completions per the approved NMOCD DHC permit.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: 

Printed name: Amber Cooke

Title: Engineering Tech

E-mail Address: amber.cooke@apachecorp.com

Date: 12/08/2009

Phone: 918.491.4968

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval Attached

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

State of New Mexico  
Energy Minerals and Natural Resources  
Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144 CLEZ  
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOCD District Office.

**Closed-Loop System Permit or Closure Plan Application**

*(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

Type of action:  Permit  Closure

**Instructions:** Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1. Operator: Apache Corporation OGRID #: 873  
Address: 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136  
Facility or well name: A B Baker #8  
API Number: 30-025-35135 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr I Section 11 Township 22S Range 37E County: Lea  
Center of Proposed Design: Latitude +32.4040900 Longitude -103.1448300 NAD:  1927  1983  
Surface Owner:  Federal  State  Private  Tribal Trust or Indian Allotment

2.  **Closed-loop System:** Subsection H of 19.15.17.11 NMAC  
Operation:  Drilling a new well  Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)  P&A  
 Above Ground Steel Tanks or  Haul-off Bins

3. **Signs:** Subsection C of 19.15.17.11 NMAC  
 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  
 Signed in compliance with 19.15.3.103 NMAC

4. **Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC  
**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  
 Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
 Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
 Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  
 Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_  
 Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_

5. **Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)  
**Instructions:** Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.  
Disposal Facility Name: Sundance Disposal Facility Permit Number: NM-01-0003  
Disposal Facility Name: Controlled Recovery inc Disposal Facility Permit Number: NM-01-0006  
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?  
 Yes (If yes, please provide the information below)  No  
Required for impacted areas which will not be used for future service and operations:  
 Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6. **Operator Application Certification:**  
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.  
Name (Print): Amber Cooke Title: Engineering Tech  
Signature: Amber Cooke Date: 12/08/2009  
e-mail address: amber.cooke@apachecorp.com Telephone: 918.491.4968

7. **OCD Approval:**  Permit Application (including closure plan)  Closure Plan (only)

OCD Representative Signature: \_\_\_\_\_ Approval Date: \_\_\_\_\_

Title: \_\_\_\_\_ OCD Permit Number: \_\_\_\_\_

8. **Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

Closure Completion Date: \_\_\_\_\_

9. **Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

*Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

Yes (If yes, please demonstrate compliance to the items below)  No

*Required for impacted areas which will not be used for future service and operations:*

Site Reclamation (Photo Documentation)

Soil Backfilling and Cover Installation

Re-vegetation Application Rates and Seeding Technique

10. **Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_



## Closed-Loop System Design, Operation, Maintenance, and Closure Plan for Completion/Workover Operations

This document is intended to provide design requirements as well as operating, maintenance and closure instructions for closed-loop (completion/workover fluid) systems, ensuring compliance with New Mexico Title 19, Chapter 15, Part 17 rules and regulations. Completion/workover units operating for Apache Corporation in New Mexico should be rigged up with a closed-loop system consistent with this design and should be operated, maintained, and closed in a manner consistent with this document.

### **Design**

The closed-loop system shall be designed and constructed to ensure the confinement of oil, gas, or water and to prevent uncontrolled releases. We will utilize cuttings bins to contain drilled solids for transport and disposal off site at a New Mexico licensed disposal facility. **Figure 1** is attached for reference when reviewing the following design specifications.

The minimum solids removal equipment includes an above ground steel tank. The steel tank(s) shall be a minimum of 90 barrels and constructed and in a condition such that no leaks or uncontrolled releases would be expected. The tank(s) shall be placed to receive all of the fluid and cuttings as they return from the well bore and entry from the flow line shall be such that splash is minimized. The tank is divided into two sections such that the drilled solids will be separated from the liquid by gravity and the solids will be removed from the steel tank using a vacuum truck and disposed of at a licensed and approved disposal facility. The first section is used to collect the drilled solids and the clean drilling fluids are then carried over to the second section of the steel tank which is used as a suction tank for the pump.

The steel tanks(s) shall comply with any applicable requirements specified in 19.15.17 NMAC. Additionally, the appropriate well signs shall be in place to comply with 19.15.17 NMAC.

### **Operation and Maintenance**

The closed-loop system shall be operated and maintained at all times in such a manner as to prevent contamination of fresh water and protect the public health and the environment. While Apache Corporation relies on various third party vendors to provide, operate and maintain the closed-loop system, in the end it is the Apache Corp on-site representative who must take responsibility for the effective operation of the system. At the end of the well, all drilling fluids and drilled solids should be disposed of in a licensed disposal facility in New Mexico.

Know which licensed and approved disposal facility is closest to your location and verify that they are capable and prepared to receive the cuttings and fluids from your well. Track all loads sent during the drilling of the well and up to the time the rig is moved off of the location.

Current approved facilities are;

- Controlled Recovery Inc. (877) 505-4274
- Sundance Incorporated (575) 394-2511

Ensure that the closed-loop system meets the design criteria listed above and is properly installed and fully functional prior to commencing any operations which require circulation.

Inspect the active system tanks at least every tour to ensure no drilling fluid is leaking onto the location. Check any dump valves and interconnecting pipes for leaks. Correct any leaks as soon as possible upon detection.

Monitor and know/plan the fluid level in the steel fluid containment pits. Call for vacuum trucks with enough lead time to allow for possible delays.

Make every effort to operate and maintain the closed-loop system in a manner that puts no drilling fluid or well bore discharge/cuttings in contact with the location or surrounding area.

In the event of an oil spill that reaches water, or an oil spill to land over five (5) barrels take immediate action to contain the spill and make to following notifications;

- EHS Apache Hotline (800) 874-3262
- NMOCD

In the event of oil reaching water include the following notification;

- Environmental Protection Agency (EPA) National Response Center

### **Closure**

The "closure" of the closed-loop system must be completed within six months of the date the completion/workover is released from the location. A Closure Report must be filed with the New Mexico Oil Conservation Division within 60 days of completing the closure. "Closure" of a closed-loop system begins with the proper disposal of all liquid mud and cuttings that are on location upon rig release. The cuttings and liquid should be transported to an approved disposal facility. See operating instructions above. Next all of the equipment associated with the closed-loop system must be removed. Ensure that equipment being removed and transported to the next location or other facility is clean and in such a state that no waste will be discharged during transportation.

If there is evidence of a release of mud or cuttings to the surface collect individual grab samples from the potentially contaminated area and analyze for benzene, total BTEX,

THP, the GRO and DRO combined fraction and chlorides to demonstrate that benzene, as determined by EPA SW-846 method 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021B or 8260B or other EPA methods that the division approves, does not exceed 50 mg/kg; TPH, as determined by EPA SW-846 method 418.1 or other EPA method that the division approves does not exceed 2500 mg/kg; the GRO and DRO combined fraction determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; and chlorides as determined by EPA method 300.1 do not exceed 500 mg/kg or the background concentration, whichever is greater.

When closure is completed a closure report must be filed with the NMOCD within 60 days. The filing consists of printing a copy of the C-144 that was approved previously, completing the Closure Report on page 4 and submitting it to the NMOCD.

For our closed-loop systems in the Closure Report area of the form we will provide the closure completion date and check the "Closure Completion Date" box found approx. 2/3 of the way down the page. In the Closure Method area, check the "Waste Excavation and Removal" box. In the Closure Report Attachment Checklist put a check mark in the "Disposal Facilities Name and Permit Number". In the space to the right of the checklist write in the name(s) of the disposal facility or facilities used during both the drilling and the closure phase of the closed-loop operation.

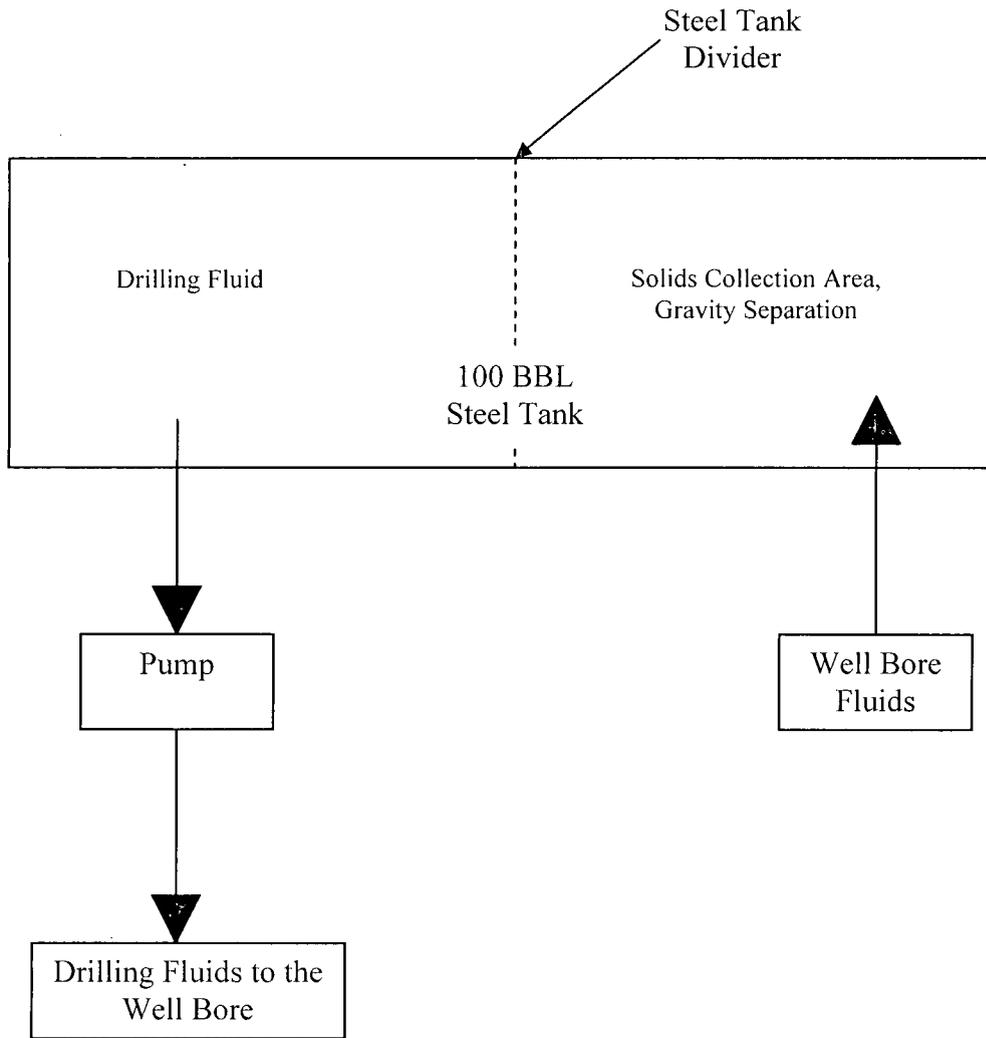
If there was evidence of leakage requiring samples and analysis, in addition to the instructions for completing Form C-144 listed above, check the "Confirmation Sampling Analytical Results" box in the Closure Report Attachment Checklist and attach a copy of the soil analysis report.

Prepared by

  
\_\_\_\_\_  
Jeff Frederick, P.E.  
Production Engineer

September 2, 2008

Attachment: Figure 1 – New Mexico Typical Closed-Loop System for Completion/Workover Operations



**Figure 1** – New Mexico Typical Closed-Loop System for Completion/Workover Operations