



INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

### OIL OR GAS SANDS OR ZONES

No. 3, from.....to.....

No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 2, from.....to.....feet.....

No. 3, from.....to.....feet.....

| From | To   | Thickness<br>In Feet | Lithology        |
|------|------|----------------------|------------------|
| 150  | 2585 | 2435                 | Salt & Anhydrite |
| 2585 | 6206 | 3621                 | SS, SLTST, & SH  |
| 6206 | 6284 | 78                   | LS & SH          |

OPERATOR RANGE PRODUCTION CO.  
WELL/LEASE SCB 23-17  
COUNTY EDDY

141-0084

STATE OF NEW MEXICO  
DEVIATION REPORT

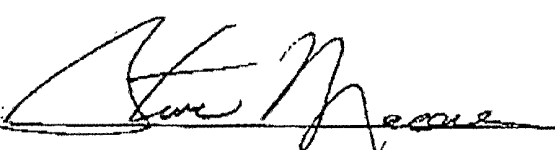
|       |      |
|-------|------|
| 257   | 0.75 |
| 495   | 0.50 |
| 995   | 0.75 |
| 1,441 | 0.75 |
| 1,923 | 1.00 |
| 2,398 | 1.50 |
| 2,873 | 1.00 |
| 3,349 | 1.00 |
| 3,827 | 0.75 |
| 4,017 | 0.75 |
| 4,524 | 0.75 |
| 4,969 | 0.50 |
| 5,506 | 0.50 |
| 5,983 | 0.75 |
| 6,332 | 0.50 |

AUG 30 2007

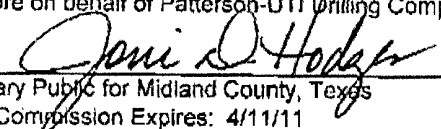
OCD-ARTESIA

STATE OF TEXAS

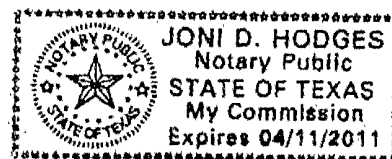
COUNTY OF MIDLAND

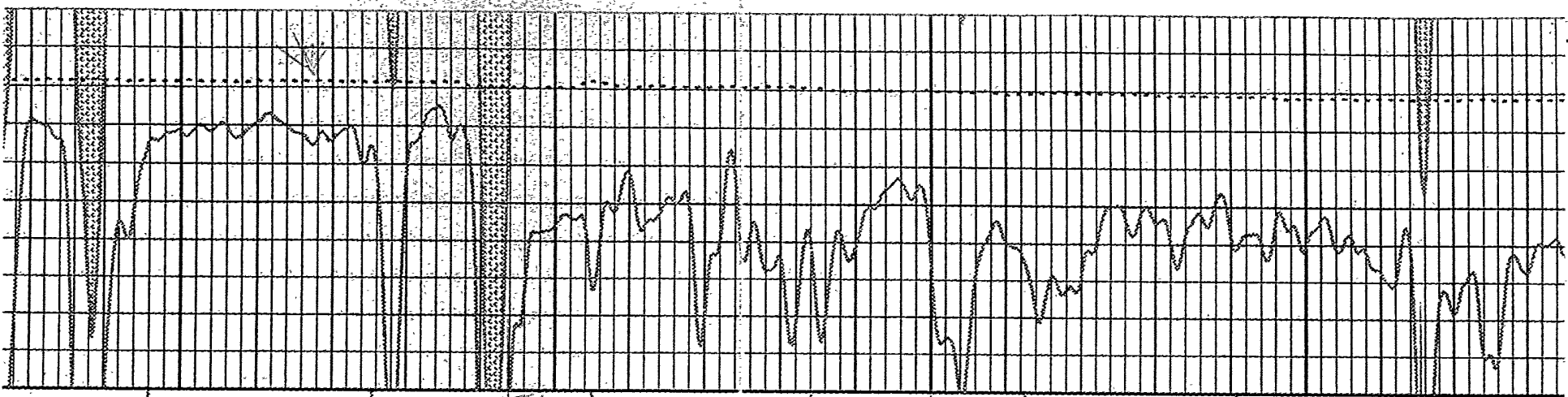
BY: 

The foregoing instrument was acknowledged before me on  
Moore on behalf of Patterson-UTI Drilling Company LLC.

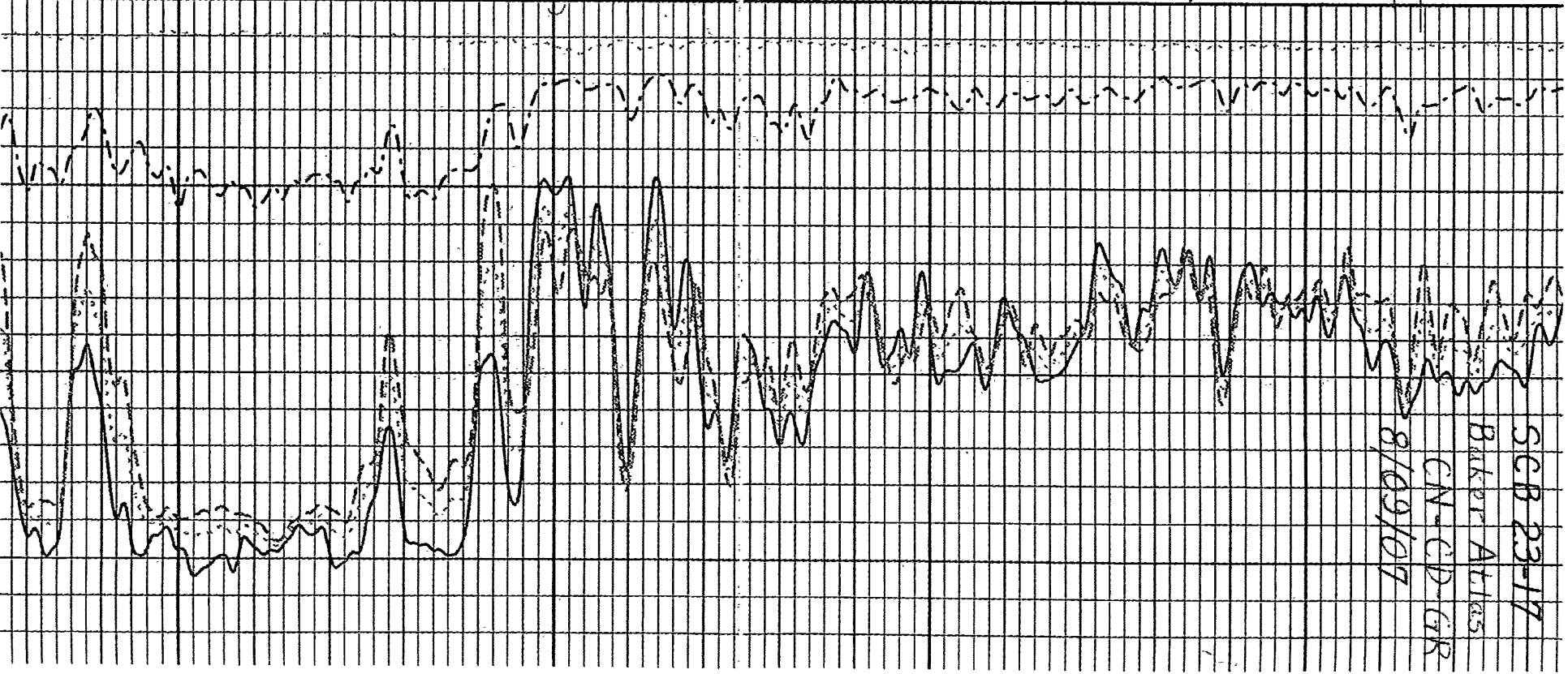
  
Notary Public for Midland County, Texas  
My Commission Expires: 4/11/11

August 23, 2007, by Steve





6085  
6100  
6200  
6300  
6400  
6500  
6600  
6700  
6800  
6900  
7000  
7100  
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9900  
10000



SCB 23-17  
Baker Atlas  
CN-CD-GP  
8/09/07

**BAKER  
HUGHES**

**COMPENSATED Z-DENSITY  
COMPENSATED NEUTRON  
GAMMA RAY LOG**

**Baker Atlas**

|                                 |                                           |                                                                          |
|---------------------------------|-------------------------------------------|--------------------------------------------------------------------------|
| <b>FILE NO:</b><br>MD7029       | <b>COMPANY</b><br>WELL                    | <b>RANGE OPERATING NM. INC</b>                                           |
| <b>API NO:</b><br>30-015-35510  | <b>FIELD</b>                              | <b>SCB 23 NO.17</b>                                                      |
|                                 | <b>COUNTY</b>                             | <b>LOVING EAST (BRUSHY CANYON)</b>                                       |
|                                 |                                           | <b>EDDY STATE NEW MEX</b>                                                |
| <b>Ver. 3.87</b><br>FINAL PRINT | <b>LOCATION:</b><br>1883' FNL & 2440' FSL | <b>OTHER :</b><br>DLL/MLL/GR                                             |
|                                 | <b>SEC 23 TWP 235 RGE 28E</b>             |                                                                          |
| <b>PERMANENT DATUM</b>          | <b>G.L.</b>                               | <b>ELEVATION 3001.5 FT</b>                                               |
| <b>LOG MEASURED FROM</b>        | <b>K.B.</b>                               | <b>17.5 FT ABOVE P.D.</b>                                                |
| <b>DRILL. MEAS. FROM</b>        | <b>K.B.</b>                               |                                                                          |
|                                 |                                           | <b>ELEVA</b><br><b>KB 3019 F</b><br><b>DF 3018 F</b><br><b>GL 3001.5</b> |

|                               |                   |           |             |
|-------------------------------|-------------------|-----------|-------------|
| <b>DATE</b>                   | 09-AUG-2007       |           |             |
| <b>RUN</b>                    | <b>TRIP</b>       | 1         | 1           |
| <b>SERVICE ORDER</b>          | 536929            |           |             |
| <b>DEPTH DRILLER</b>          | 6350 FT           |           |             |
| <b>DEPTH LOGGER</b>           | 6340 FT           |           |             |
| <b>BOTTOM LOGGED INTERVAL</b> | 6300 FT           |           |             |
| <b>TOP LOGGED INTERVAL</b>    | 200 FT            |           |             |
| <b>CASING DRILLER</b>         | 8.625 IN          | 372 FT    |             |
| <b>CASING LOGGER</b>          | 342 FT            |           |             |
| <b>BIT SIZE</b>               | 7.875 IN          |           |             |
| <b>TYPE OF FLUID IN HOLE</b>  | XANVIS/STARCH     |           |             |
| <b>DENSITY</b>                | <b>VISCOSITY</b>  | 10.1 LB/G | 33 S        |
| <b>PH</b>                     | <b>FLUID LOSS</b> | 9         | 10 C3       |
| <b>SOURCE OF SAMPLE</b>       | CIRCULATION TANK  |           |             |
| <b>RM AT MEAS. TEMP.</b>      | 0.034 OHMM        | 75 DEGF   |             |
| <b>RMF AT MEAS. TEMP.</b>     | 0.034 OHMM        | 75 DEGF   |             |
| <b>RMC AT MEAS. TEMP.</b>     | ---               | ---       |             |
| <b>SOURCE OF RMF</b>          | <b>RMC</b>        | MEASURED  | ---         |
| <b>RM AT BHT</b>              | 0.023 OHMM        | 115 DEGF  |             |
| <b>TIME SINCE CIRCULATION</b> | 5 HRS             |           |             |
| <b>MAX. RECORDED TEMP.</b>    | 115 DEGF          |           |             |
| <b>EQUIP. NO.</b>             | <b>LOCATION</b>   | HL6611    | MIDLAND, TX |
| <b>RECORDED BY</b>            | A.CROSBY, J.HUNT  |           |             |
| <b>WITNESSED BY</b>           | MIKE METCALF      |           |             |



**Baker Atlas**

**DUAL LATEROLOG  
MICRO LATEROLOG  
GAMMA RAY LOG**

|                          |                                                                  |                                                        |
|--------------------------|------------------------------------------------------------------|--------------------------------------------------------|
| FILE NO:<br>MD7029       | COMPANY<br>WELL                                                  | RANGE OPERATING NM. INC.<br>SCB 23 NO.17               |
| API NO:<br>30-015-35510  | FIELD<br>COUNTY                                                  | LOVING EAST (BRUSHY CANYON)<br>EDDY STATE NEW MEXICO   |
| Ver. 3.07<br>FINAL PRINT | LOCATION:<br>1883' FNL & 2440' FSL<br><br>SEC 23 TWP 23S RGE 28E | OTHER SERVICE<br>ZDL/CN/GR                             |
| PERMANENT DATUM          | G.L.                                                             | ELEVATION 3001.5 FT                                    |
| LOG MEASURED FROM        | K.B.                                                             | 17.5 FT ABOVE P.D.                                     |
| DRILL. MEAS. FROM        | K.B.                                                             |                                                        |
|                          |                                                                  | ELEVATIONS<br>KB 3019 FT<br>DF 3018 FT<br>GL 3001.5 FT |

|                        |                  |           |             |
|------------------------|------------------|-----------|-------------|
| DATE                   | 09-AUG-2007      |           |             |
| RUN                    | TRIP             | 1         | 1           |
| SERVICE ORDER          | 536929           |           |             |
| DEPTH DRILLER          | 6350 FT          |           |             |
| DEPTH LOGGER           | 6340 FT          |           |             |
| BOTTOM LOGGED INTERVAL | 6337 FT          |           |             |
| TOP LOGGED INTERVAL    | 4350 FT          |           |             |
| CASING DRILLER         | 8.625 IN         | 372 FT    |             |
| CASING LOGGER          | 342 FT           |           |             |
| BIT SIZE               | 7.875 IN         |           |             |
| TYPE OF FLUID IN HOLE  | XANUIS/STARCH    |           |             |
| DENSITY                | VISCOSITY        | 10.1 LB/G | 33 S        |
| PH                     | FLUID LOSS       | 9         | 10 C3       |
| SOURCE OF SAMPLE       | CIRCULATION TANK |           |             |
| RM AT MEAS. TEMP.      | 0.034 OHMM       | 75 DEGF   |             |
| RMF AT MEAS. TEMP.     | 0.034 OHMM       | 75 DEGF   |             |
| RMC AT MEAS. TEMP.     | ---              | ---       |             |
| SOURCE OF RMF          | RMC              | MEASURED  | ---         |
| RM AT BHT              | 0.023 OHMM       | 115 DEGF  |             |
| TIME SINCE CIRCULATION | 5 HRS            |           |             |
| MAX. RECORDED TEMP.    | 115 DEGF         |           |             |
| EQUIP. NO.             | LOCATION         | HL6611    | MIDLAND, TX |
| RECORDED BY            | A.CROSBY, J.HUNT |           |             |
| WITNESSED BY           | MIKE METCALF     |           |             |

## CASING DETAIL AND CEMENTING REPORT

|              |           |           |             |                |       |         |     |
|--------------|-----------|-----------|-------------|----------------|-------|---------|-----|
| Well:        | SCB 23-17 | Field     | East Loving | County         | Eddy  | State:  | NM  |
| Total depth: | 348       | Bit Size: | 12.25       | Avg Hole size: | 12.25 | Mud wt: | 8.7 |

| String detail (list each item in order run) |            |               |       |                  |     |    |       |         |      |
|---------------------------------------------|------------|---------------|-------|------------------|-----|----|-------|---------|------|
| Length                                      | Cum Length | No Jts        | OD    | Description      | Mfg | Wt | Grade | Threads | Cond |
| 0.95                                        | 0.95       |               |       | Texas Guide Shoe | BJ  |    |       | ST&C    | New  |
| 43.39                                       | 44.34      | 1             | 8.675 |                  |     | 24 | J-55  | ST&C    | New  |
| 1.49                                        | 45.83      |               | 8.675 | Float Collar     | BJ  |    |       | ST&C    | New  |
| 301.67                                      | 347.5      | 7             | 8.675 |                  |     | 24 | J-55  | ST&C    | New  |
|                                             | 347.5      |               |       |                  |     |    |       |         |      |
|                                             | 347.5      |               |       |                  |     |    |       |         |      |
|                                             | 347.5      |               |       |                  |     |    |       |         |      |
|                                             | 347.5      |               |       |                  |     |    |       |         |      |
|                                             | 347.5      |               |       |                  |     |    |       |         |      |
|                                             | 347.5      | Total length  |       |                  |     |    |       |         |      |
| MINUS                                       | 20         | Cut-off       |       |                  |     |    |       |         |      |
| PLUS                                        | 17.44      | RIG KB        |       |                  |     |    |       |         |      |
|                                             | 344.94     | Setting depth |       |                  |     |    |       |         |      |
| Wt of csg string in mud:                    |            | 14000         |       |                  |     |    |       |         |      |
| Wt of csg set on slips:                     |            | N/A           |       |                  |     |    |       |         |      |

| Cement used  |               | Cementing company:        |  |      |       |      |     |        |  |
|--------------|---------------|---------------------------|--|------|-------|------|-----|--------|--|
| Stage        | No. sacks     | Cement type and additives |  | PPG  | YIELD | BBLs | BPM | Design |  |
|              |               |                           |  |      |       |      |     | TOC    |  |
| SPACER       |               | Fresh water               |  | 8.3  |       | 10   |     |        |  |
| Lead         | 350           | Class C+2%CACL-2          |  | 14.8 | 1.32  | 82   | 4.5 |        |  |
|              |               |                           |  |      |       | 0    |     |        |  |
| Displacement |               |                           |  |      |       |      |     |        |  |
| STAGE 2      | IF APPLICABLE |                           |  |      |       | 0    |     |        |  |
|              |               |                           |  |      |       | 0    |     |        |  |
|              |               |                           |  |      |       | 0    |     |        |  |
| Displacement |               |                           |  |      |       |      |     |        |  |

|                   |   |                    |   |
|-------------------|---|--------------------|---|
| Full circ (Y/N)   | Y | Pipe reciprocated? | Y |
| Cement to Surface | N | Pipe rotated?      | N |
| Bbls to Surface   | 0 | Float held (Y/N):  | Y |
|                   |   | Plug bumped (Y/N): | Y |

**Centralizer and scratcher placement (type, depth and amount):**

Centralizers at - 329', 261', 217', 174', 131', 87', 45' = 7

| Casing on location NOT RUN |        |       |                   |    |       |         |      |
|----------------------------|--------|-------|-------------------|----|-------|---------|------|
| Length                     | No Jts | OD    | Description - Mfg | Wt | Grade | Threads | Cond |
| 129.39                     | 8      | 8 5/8 |                   | 24 | J-55  | STC     | New  |

**Remarks:**

Bumped plug 500 psi. over, release pressure no flow back

Circulating 198 psi., Pressure to 1178 psi. (Ok)

|                              |                |
|------------------------------|----------------|
| Reported by: Kevin W. Carter | Date: 8/1/2007 |
|------------------------------|----------------|

## CASING DETAIL AND CEMENTING REPORT

|              |           |           |             |                |      |         |      |
|--------------|-----------|-----------|-------------|----------------|------|---------|------|
| Well:        | SCB 23-17 | Field     | East Loving | County         | Eddy | State:  | NM   |
| Total depth: | 6350      | Bit Size: | 7.875       | Avg Hole size: |      | Mud wt: | 10.3 |

| String detail (list each item in order run) |            |               |       |              |     |      |       |         |      |
|---------------------------------------------|------------|---------------|-------|--------------|-----|------|-------|---------|------|
| Length                                      | Cum Length | No Jts        | OD    | Description  | Mfg | Wt   | Grade | Threads | Cond |
| 1.65                                        | 1.65       |               | 5.500 | Guide Shoe   | BJ  |      |       | LTC     | New  |
| 84.16                                       | 85.81      | 2             | 5.500 | Casing       |     | 15.5 | J55   | LTC     | New  |
| 1.4                                         | 87.21      |               | 5.500 | Float Collar | BJ  |      |       | LTC     | New  |
| 6255.71                                     | 6342.92    | 148           | 5.500 | Casing       |     | 15.5 | J55   | LTC     | New  |
|                                             | 6342.92    |               |       |              |     |      |       |         |      |
|                                             | 6342.92    |               |       |              |     |      |       |         |      |
|                                             | 6342.92    |               |       |              |     |      |       |         |      |
|                                             | 6342.92    |               |       |              |     |      |       |         |      |
|                                             | 6342.92    |               |       |              |     |      |       |         |      |
|                                             | 6342.92    | Total length  |       |              |     |      |       |         |      |
| MINUS                                       | 19.5       | Cut-off       |       |              |     |      |       |         |      |
| PLUS                                        | 17.44      | RIG KB        |       |              |     |      |       |         |      |
|                                             | 6340.86    | Setting depth |       |              |     |      |       |         |      |
| Wt of csg string in mud:                    |            | 95000         |       |              |     |      |       |         |      |
| Wt of csg set on slips:                     |            | 95000         |       |              |     |      |       |         |      |

| Cement used  |               | Cementing company:                          |  | BJ Cementers |      |       |     |     | Design |
|--------------|---------------|---------------------------------------------|--|--------------|------|-------|-----|-----|--------|
| Stage        | No. sacks     | Cement type and additives                   |  |              | PPG  | YIELD | BBS | BPM | TOC    |
| SPACER       |               | H2O                                         |  |              | 8.3  |       | 10  | 4   |        |
| Lead         | 350           | 35:65:6C+5%Salt+FL-52A+4#LCM                |  |              | 12.4 | 2.1   | 131 | 4   | 4300   |
| Tail         | 100           | 15-61-11-C+6/10%FL-25+6/10%FL-52A+5/10%BA-1 |  |              | 13.2 | 1.43  | 25  | 4   |        |
| Displacement |               |                                             |  |              |      |       |     |     |        |
| STAGE 2      | IF APPLICABLE |                                             |  |              |      |       |     |     |        |
|              |               |                                             |  |              |      |       |     |     |        |
|              |               |                                             |  |              |      |       |     |     |        |
|              |               |                                             |  |              |      |       |     |     |        |
| Displacement |               |                                             |  |              |      |       |     |     |        |

|                   |   |  |                    |   |
|-------------------|---|--|--------------------|---|
| Full circ (Y/N)   | Y |  | Pipe reciprocated? | Y |
| Cement to Surface | N |  | Pipe rotated?      | N |
| Bbls to Surface   | 0 |  | Float held (Y/N):  | Y |
|                   |   |  | Plug bumped (Y/N): | Y |

**Centralizer and scratcher placement (type, depth and amount):**

Centralizers at - 6326', 6264', 6139', 6012', 5886', 5759', 5632', 5507', 5380', 5254', 5128', 5005', 4879', 4752', 4626', 4500', 4373' = 17 Centralizers

| Casing on location NOT RUN |        |     |                   |  |  |      |       |         |      |
|----------------------------|--------|-----|-------------------|--|--|------|-------|---------|------|
| Length                     | No Jts | OD  | Description - Mfg |  |  | Wt   | Grade | Threads | Cond |
| 209.19                     | 5      | 5.5 |                   |  |  | 15.5 | J-55  | LTC     | New  |

**Remarks:**

Bump plug 530 psi. circulating pressure up to 990 psi. hold for 15 minutes (Ok)

|                              |                 |
|------------------------------|-----------------|
| Reported by: Kevin W. Carter | Date: 8/10/2007 |
|------------------------------|-----------------|