



Baroid Drilling Fluids, Inc.



DRILLING MUD REPORT NO. 16

|                  |                                                                   |
|------------------|-------------------------------------------------------------------|
| DATE 3-17 1996   | DEPTH 6607 <input type="checkbox"/> ft <input type="checkbox"/> m |
| SPUD DATE 3-2-96 | PRESENT ACTIVITY Run Survey                                       |

|                                 |                           |                                         |
|---------------------------------|---------------------------|-----------------------------------------|
| OPERATOR Davis Pet              | CONTRACTOR 4 Corners Drly | RIG NO. 14                              |
| REPORT FOR Ken Payne            | REPORT FOR Bowen Vallejos | SECTION, TOWNSHIP, RANGE 19-4N-1E       |
| WELL NAME AND NO. Angel Eyes #1 | FIELD OR BLOCK NO. Belen  | COUNTY, PARISH OR OFFSHORE AREA Socorro |
|                                 |                           | STATE/PROVINCE NM                       |

|                       |            |                           |                    |                                                                                 |          |                                                                                     |                                                                                   |
|-----------------------|------------|---------------------------|--------------------|---------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| DRILLING ASSEMBLY     |            | CASING 123                |                    | MUD VOLUME <input type="checkbox"/> bbl <input type="checkbox"/> m <sup>3</sup> |          | CIRCULATION DATA                                                                    |                                                                                   |
| BIT SIZE 8.75         | TYPE 582 F | JET SIZE 13, 13, 0        | SURFACE SET @ 958  | HOLE 490                                                                        | PITS 250 | PUMP SIZE 6 X 8                                                                     | ANNUAL VEL. DP 123 <input type="checkbox"/> ft/min <input type="checkbox"/> m/min |
| DRILL PIPE SIZE 4.5   | TYPE XH    | LENGTH                    | INTERMEDIATE SET @ | TOTAL CIRCULATING VOLUME 740                                                    |          | PUMP MAKE, MODEL Omega 750                                                          | ASSUMED EFF % 95                                                                  |
| DRILL PIPE SIZE       | TYPE       | LENGTH                    | INTERMEDIATE SET @ | IN STORAGE                                                                      | WEIGHT   | vol/stk .066                                                                        | STK/min 102                                                                       |
| DRILL COLLAR SIZE 6.5 | LENGTH 809 | PRODUCTION OR LINER SET @ |                    | MUD TYPE LSND                                                                   |          | vol/min 6.73                                                                        | 282                                                                               |
|                       |            |                           |                    |                                                                                 |          | CIRCULATION PRESSURE 1800 <input type="checkbox"/> psi <input type="checkbox"/> kPa |                                                                                   |
|                       |            |                           |                    |                                                                                 |          | BOTTOMS UP (min) 73                                                                 |                                                                                   |
|                       |            |                           |                    |                                                                                 |          | TOTAL CIRC. TIME (min) 110 ±                                                        |                                                                                   |

|                                                                                                                                                          |                                                                       |                                                                                                       |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------|
| MUD PROPERTIES                                                                                                                                           |                                                                       | MUD PROPERTY SPECIFICATIONS                                                                           |                 |
| Sample From                                                                                                                                              | <input checked="" type="checkbox"/> F.L. <input type="checkbox"/> PIT | WEIGHT 8.9-9.0                                                                                        | VISCOSITY 45-50 |
| Time Sample Taken 8:00 AM                                                                                                                                |                                                                       | FILTRATE 6-8                                                                                          |                 |
| Flowline Temperature <input type="checkbox"/> °F <input type="checkbox"/> °C 124                                                                         |                                                                       | BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR |                 |
| Depth <input type="checkbox"/> ft <input type="checkbox"/> m 6607                                                                                        |                                                                       | <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER                     |                 |
| Weight <input type="checkbox"/> lb/gal <input type="checkbox"/> lb/cu. ft. <input type="checkbox"/> Sp.G. <input type="checkbox"/> kg/m <sup>3</sup> 8.9 |                                                                       | RECOMMENDED TOUR TREATMENT                                                                            |                 |
| Funnel Viscosity <input type="checkbox"/> sec/qt API @ <input type="checkbox"/> °F <input type="checkbox"/> sec/L @ <input type="checkbox"/> °C 59       |                                                                       | H46-200 - As Needed for 45-50 o/w                                                                     |                 |
| Plastic Viscosity cP @ <input type="checkbox"/> °F <input type="checkbox"/> °C 22                                                                        |                                                                       | Soda Ash - 8 sks per tour                                                                             |                 |
| Yield Point <input type="checkbox"/> lb/100 ft <sup>2</sup> <input type="checkbox"/> Pa 14                                                               |                                                                       | Caustic - 1-2 sks for 9.5-10.0 pH.                                                                    |                 |
| Gel Strength (10 sec/10 min) <input type="checkbox"/> lb/100 ft <sup>2</sup> <input type="checkbox"/> Pa 5                                               |                                                                       | EZ Mud - 1 Bucket per tour                                                                            |                 |
| Filtrate API cm <sup>3</sup> /30 min 7.8                                                                                                                 |                                                                       | Ti. thin - 2 Buckets per tour                                                                         |                 |
| API/HTHP Filtrate cm <sup>3</sup> /30 min @ <input type="checkbox"/> °F @ <input type="checkbox"/> °C                                                    |                                                                       | Rec R - 2 sks per tour for 6-8 cc                                                                     |                 |
| Cake Thickness API/HTHP <input type="checkbox"/> 32nd in. <input type="checkbox"/> mm 2                                                                  |                                                                       | Water 10-15 gal per min.                                                                              |                 |
| Solids Content (% by Vol.) <input checked="" type="checkbox"/> calculated <input type="checkbox"/> retort 4                                              |                                                                       | REMARKS                                                                                               |                 |
| Liquid Content (% by Vol.) Oil/Water 196                                                                                                                 |                                                                       | Run Survey & TOH                                                                                      |                 |
| Sand Content (% by Vol.) Tr                                                                                                                              |                                                                       | After Trip Jet Sand Trap                                                                              |                 |
| Methylene Blue Capacity <input type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm <sup>3</sup> /cm <sup>3</sup> mud                             |                                                                       | Run Solids Equip                                                                                      |                 |
| pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ <input type="checkbox"/> °F <input type="checkbox"/> °C 10.0               |                                                                       |                                                                                                       |                 |
| Alkalinity Mud (P <sub>m</sub> ) ml                                                                                                                      |                                                                       |                                                                                                       |                 |
| Alkalinity Filtrate (P <sub>f</sub> /M <sub>p</sub> ) ml/ml 135.8                                                                                        |                                                                       |                                                                                                       |                 |
| Alternate Alkalinity Filtrate (P <sub>f</sub> /P <sub>2</sub> ) ml/ml                                                                                    |                                                                       |                                                                                                       |                 |
| Chloride, mg/L 2600                                                                                                                                      |                                                                       |                                                                                                       |                 |
| Total Hardness as Calcium, mg/L 120                                                                                                                      |                                                                       |                                                                                                       |                 |

| PRODUCT UNIT COST                                                                  | BAROID (BULK) | BAROID (REG) | SOLIDS CONTROL EQUIPMENT |           |          |            |         |                 |        |       |          |         |         |       |           |          |             |               |     |
|------------------------------------------------------------------------------------|---------------|--------------|--------------------------|-----------|----------|------------|---------|-----------------|--------|-------|----------|---------|---------|-------|-----------|----------|-------------|---------------|-----|
|                                                                                    |               |              | H46-200                  | AQUAGEL   | Soda Ash | Lime       | Caustic | EZ Mud          | Bicarb | Pac R | C. Fiber | M. Seal | T. Thin | Desco | A. Sinter | Engineer | MAKE/ BRAND | SIZE/ SCREENS | HRS |
| STARTING INVENTORY                                                                 |               |              | 280                      | 180       | 1        | 72         | 27      | 10              | 46     | 100   | 120      | 27      | 4       | 0     |           |          | SHKR 1      | Brandt        |     |
| RECEIVED D.T. #                                                                    |               |              |                          |           |          |            |         |                 |        |       |          |         |         |       |           |          | SHKR 2      |               |     |
| USED LAST 24 HR.                                                                   |               |              | 130                      | 14        |          | 3          | 2       |                 | 5      |       |          |         | 3       | 4     |           |          | SHKR 3      |               |     |
| COST LAST 24 HR.                                                                   |               |              | 807                      | 169       |          | 90         | 245     |                 | 1206   |       |          |         | 318     | 257   |           | 325      | SHKR 4      |               |     |
| CUMULATIVE RECEIVED                                                                |               |              | 1052                     | 324       | 5        | 105        | 45      | 10              | 70     | 120   | 120      | 52      | 30      | 1     |           |          | DESAND      |               |     |
| CUMULATIVE USED                                                                    |               |              | 902                      | 158       | 4        | 36         | 20      | -               | 29     | 20    | -        | 28      | 30      | 1     |           |          | DESILT      | Rig           |     |
| CLOSING INVENTORY                                                                  |               |              | 150                      | 166       | 1        | 69         | 25      | 10              | 41     | 100   | 120      | 24      | 0       |       |           |          | M CLNR      |               |     |
| PRODUCT <input type="checkbox"/> lb/bbl <input type="checkbox"/> kg/m <sup>3</sup> |               |              |                          |           |          |            |         |                 |        |       |          |         |         |       |           |          | CENT 1      |               |     |
| Est CONC. <input type="checkbox"/> kg/m <sup>3</sup>                               |               |              |                          |           |          |            |         |                 |        |       |          |         |         |       |           |          | CENT 2      |               |     |
| BAROID REPRESENTATIVE                                                              |               | OFFICE/HOME  |                          | TELEPHONE |          | DAILY COST |         | CUMULATIVE COST |        |       |          |         |         |       |           |          |             |               |     |
| Leon Berg                                                                          |               | Super 8 #200 |                          | 864-8188  |          | \$ 3417.00 |         | \$ 31,686.00    |        |       |          |         |         |       |           |          |             |               |     |
|                                                                                    |               | WAREHOUSE    |                          | 325-1896  |          |            |         |                 |        |       |          |         |         |       |           |          |             |               |     |
|                                                                                    |               | Farmington   |                          |           |          |            |         |                 |        |       |          |         |         |       |           |          |             |               |     |

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY BAROID DRILLING FLUIDS, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.