

TABLE A-4

MUD SUMMARY - WELL 30/7-6 (PHASE I)

MUD SYSTEM - GEL LIGNOSULFONATE

| Depth m | W.t sp.gr. | Funn. visc. sec. | PV cp | YP lb/100 ft ² | Gelstr. lb/100 ft ² | ph | Filtr. loss | HT-HP filtr. loss | Cake 32nd in. | pm | pf/Mf | Chloride ppm | Calcium ppm | Sand o/o | Solids o/o | Oil o/o | Water o/o | Meth. blue |
|------------|---------------|------------------------|----------|------------------------------|-----------------------------------|-----|----------------|-------------------------|------------------|----|--------|-----------------|----------------|-------------|---------------|------------|--------------|---------------|
| 188 | 1,09 | 38 | 10 | 6 | 3/7 | 10 | 21 | - | 2 | - | 0,4/- | 5500 | 60 | - | 5 | 0 | 95 | - |
| 380 | 1,09 | 60 | 11 | 17 | 5/15 | 9 | 12,5 | - | 2 | - | 0,21/- | 8900 | 100 | 0 | 5 | 0 | 95 | - |
| 770 | 1,10 | 78 | 14 | 27 | 11/20 | 9,5 | 13 | - | 2 | - | 0,21/- | 3500 | 60 | 0,5 | 5 | 0 | 95 | - |
| 985 | 1,07 | 49 | 9 | 23 | 7/22 | 8,5 | 22 | - | 2 | - | 0,11/- | 8800 | 120 | 0,75 | 4 | 0 | 96 | - |
| 1108 | 1,07 | 51 | 10 | 26 | 7/23 | 8,5 | 21,4 | - | 2 | - | 0,11/- | 11500 | 100 | 1 | 4 | 0 | 96 | 27 |
| 1297 | 1,07 | 39 | 8 | 11 | 2/20 | 8,5 | 19 | - | 2 | - | - | 14500 | 300 | TR | 4 | 0 | 96 | - |
| 1489 | 1,09 | 38 | 8 | 8 | 1/9 | 8,5 | 14 | - | 2 | - | 0,11/- | 12500 | 280 | TR | 4 | 0 | 96 | 30 |
| 1771 | 1,09 | 40 | 12 | 17 | 8/25 | 8,5 | 10,4 | - | 2 | - | - | 7500 | 80 | TR | 6 | 0 | 94 | - |
| 1876 | 1,08 | 45 | 11 | 18 | 7/26 | 8,5 | 10,6 | - | 2 | - | 0,11/- | 5500 | 80 | TR | 6 | 0 | 94 | - |
| 1988 | 1,10 | 48 | 14 | 16 | 6/19 | 8,5 | 12 | - | 2 | - | - | 7000 | 160 | 0,25 | 6 | 0 | 94 | - |
| 2056 | 1,09 | 51 | 11 | 22 | 6/25 | 8,5 | 14,4 | - | 2 | - | - | 9100 | 200 | TR | 6 | 0 | 94 | 28 |
| 2098 | 1,10 | 49 | 13 | 14 | 6/21 | 8,5 | 12 | - | - | - | - | 7200 | 120 | TR | 6 | 0 | 94 | 33 |
| 2190 | 1,12 | 53 | 21 | 17 | 3/23 | 9 | 10,5 | - | 2 | - | - | 6500 | 80 | - | 6 | 0 | 94 | 43 |
| 2262 | 1,12 | 44 | 18 | 18 | 3/22 | 9 | 8 | - | 1 | - | - | 5300 | 40 | 1 | 6 | 0 | 94 | 45 |

TABLE A.4 (cont.)

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| Depth m | W.t sp.gr. | Funn. visc. sec. | PV cp | YP lb/100 ft ² | Gelstr. lb/100 ft ² | ph | Filtr. loss | HT-HP filtr. loss | Cake 32nd in. | pm | pf/Mf | Chloride ppm | Calcium ppm | Sand o/o | Solids o/o | Oil o/o | Water o/o | Meth. blue |
|------------|---------------|------------------------|----------|------------------------------|-----------------------------------|------|----------------|-------------------------|------------------|----|-------|-----------------|----------------|-------------|---------------|------------|--------------|---------------|
| 2344 | 1,12 | 50 | 18 | 25 | 3/22 | 9,5 | 8 | - | 1 | - | 0,2/- | 4500 | 40 | - | 6 | 1 | 93 | 40 |
| 2421 | 1,14 | 55 | 21 | 24 | 3/23 | 9,5 | 6 | - | 1 | - | 0,1/- | 4500 | 40 | - | 6 | 2 | 92 | - |
| 2528 | 1,16 | 57 | 25 | 23 | 4/17 | 9,5 | 6,8 | - | 1 | - | - | 3800 | 40 | - | 7 | 1 | 92 | 45 |
| 2550 | 1,20 | 73 | 27 | 26 | 4/27 | 9,5 | 6,4 | - | 1 | - | - | 3600 | 60 | - | 7 | 1 | 92 | - |
| 2582 | 1,25 | 39 | 15 | 7 | 0/4 | 12 | 8,5 | - | 2 | 55 | 32/48 | 5000 | 40 | TR | 11 | 0 | 89 | - |
| 2680 | 1,53 | 44 | 29 | 8 | 0/7 | 12 | 6,7 | - | 2 | 51 | 31/52 | 5000 | 60 | TR | 22 | 0 | 78 | 30 |
| 2718 | 1,56 | 49 | 37 | 13 | 0/12 | 11,5 | 7,1 | - | 2 | 58 | 29/43 | 5100 | 80 | TR | 21 | 0 | 79 | - |
| 2790 | 1,68 | 55 | 40 | 12 | 0/7 | 11,5 | 6 | 21 | 2 | - | 22/34 | 5300 | 80 | TR | 23 | 0 | 77 | 26 |
| 2842 | 1,71 | 57 | 44 | 13 | 0/7 | 11,5 | 6,2 | - | 2 | - | 22/32 | 5500 | 80 | TR | 24 | 0 | 76 | 24 |
| 2938 | 1,71 | 54 | 41 | 10 | 0/4 | 11,5 | 5,7 | 19 | 2 | - | 2/- | 6000 | 40 | TR | 25 | 0 | 75 | 26 |
| 3020 | 1,71 | 52 | 39 | 12 | 0/5 | 11,5 | 5,3 | 14,5 | 2 | - | 23/- | 5700 | 40 | 025 | 25 | 0 | 75 | 28 |
| 3094 | 1,71 | 49 | 36 | 11 | 0/2 | 11,5 | 4,7 | 14,6 | 2 | 5 | 2/- | 5300 | 40 | TR | 25 | 0 | 75 | 28 |
| 3185 | 1,71 | 52 | 41 | 9 | 0/3 | 10,5 | 4,4 | 14 | 2 | 4 | 1,3/- | 4800 | 80 | 025 | 25 | 0 | 75 | 27 |
| 3247 | 1,71 | 55 | 47 | 10 | 0/4 | 11 | 4 | 14,2 | 2 | 35 | 2/- | 4700 | 60 | 025 | 26 | 0 | 74 | 27 |

TABLE A.4 (cont.)

MUD SUMMARY - WELL 30/7-6 (PHASE I)

MUD SYSTEM - GEL LIGNOSULFONATE

| Depth m | W.t sp.gr. | Funn. visc. sec. | PV cp | YP lb/100 ft ² | Gelstr. lb/100 ft ² | ph | Filtr. loss | HT-HP filtr. loss | Cake 32nd in. | pm | pf/Mf | Chloride ppm | Calcium ppm | Sand % | Solids % | Oil % | Water % | Meth. blue |
|---------------|---------------|------------------------|----------|------------------------------|-----------------------------------|------|----------------|-------------------------|------------------|----|--------|-----------------|----------------|-----------|-------------|----------|------------|---------------|
| 3340 | 1,71 | 61 | 56 | 17 | 3/6 | 9,5 | 4 | 14,5 | 2 | 23 | 15/25 | 4000 | 40 | - | 25 | 0 | 75 | 30 |
| 3384 | 1,71 | 62 | 54 | 20 | 2/4 | 10 | 4,2 | 13 | 2 | 23 | 12/22 | 3600 | 40 | - | 25 | - | 75 | 32,5 |
| 3464 | 1,71 | 59 | 49 | 13 | 1/2 | 9,5 | 4,2 | - | 2 | 2 | 1/15 | 3600 | 40 | - | 25 | - | 75 | 30 |
| 3547 | 1,71 | 55 | 43 | 17 | 1/2 | 9 | 4,8 | 12 | 1 | 14 | 09/19 | 3800 | 60 | - | 27 | 1 | 72 | - |
| 3591 | 1,70 | 53 | 39 | 12 | 1/2 | 9 | 4,4 | - | 1 | 14 | 08/25 | 3800 | 50 | - | 26 | - | 74 | 28 |
| 3613 | 1,70 | 50 | 33 | 9 | 1/2 | 9,5 | 4,8 | 11 | 1 | 14 | 08/26 | 3900 | 60 | - | 25 | - | 75 | - |
| 3690 | 1,76 | 52 | 38 | 12 | 1/8 | 9 | 5 | 13,5 | 2 | - | 0,41/- | 3800 | 40 | 0,75 | 27 | 0 | 73 | 27 |
| 3746 | 1,76 | 46 | 30 | 9 | 1/12 | 9,5 | 4,4 | 13,5 | 2 | - | 0,71/- | 3800 | 20 | 0,5 | 27 | 0 | 73 | 28 |
| 3763 | 1,76 | 46 | 28 | 9 | 1/12 | 9 | 4,7 | - | 2 | - | 0,41/- | 4000 | 80 | 0,5 | 27 | 0 | 73 | - |
| 3779 | 1,76 | 49 | 33 | 12 | 1/13 | 9 | 4,6 | - | 2 | - | 0,41/- | 3900 | 40 | 0,5 | - | - | - | - |
| 3784 | 1,76 | 60 | 40 | 13 | 1/21 | 9,5 | 6,2 | 21 | 2 | - | 0,81/- | 4100 | 80 | 0,25 | 29 | 0 | 71 | 27 |
| 30/7- 6.. (I) | | | | | | | | | | | | | | | | | | |
| 2627 | 1,76 | 52 | 41 | 20 | 2/24 | 11,5 | 9,8 | - | 2 | 9 | 5,3/- | 4400 | 80 | 1,25 | 25 | 0 | 75 | 24 |
| 2684 | 1,76 | 55 | 45 | 15 | 1/5 | 12 | 6,5 | - | 2 | 6 | 3,6/- | 4800 | 80 | 0,75 | 25 | 0 | 75 | 26 |

TABLE A.4 (cont.)

MUD SUMMARY - WELL 30/7-6 PHASE I
MUD SYSTEM - GEL LIGNOSULFONATE

(4)

| Depth m | W.t sp.gr. | Funn. visc. sec. | PV cp | YP lb/100 ft ² | Gelstr. lb/100 ft ² | ph | Filtr. loss | HT-HP filtr. loss | Cake 32nd in. | pm | pf/Mf | Chloride ppm | Calcium ppm | Sand % | Solids % | Oil % | Water % | Meth. blue |
|------------|---------------|------------------------|----------|------------------------------|-----------------------------------|------|----------------|-------------------------|------------------|-----|---------|-----------------|----------------|-----------|-------------|----------|------------|---------------|
| 2747 | 1,76 | 61 | 54 | 15 | 2/5 | 11,5 | 5,2 | - | 2 | 5,5 | 3,2/- | 5200 | 80 | 0,75 | 24 | 0 | 76 | 26 |
| 2834 | 1,76 | 58 | 49 | 14 | 1/4 | 11 | 5,2 | 16 | 2 | 4,4 | 3/- | 5000 | 120 | 0,75 | 26 | 0 | 74 | 26 |
| 2884 | 1,76 | 57 | 54 | 15 | 1/5 | 10,5 | 4,9 | 14,8 | 2 | 3,6 | 2,4/- | 4800 | 120 | 0,5 | 27 | 0 | 73 | 27 |
| 2955 | 1,76 | 63 | 61 | 14 | 2/5 | 10,5 | 5 | - | 2 | 3 | 2/- | 4700 | 140 | 0,5 | 27 | 0 | 73 | 24 |
| 3020 | 1,76 | 69 | 63 | 15 | 1/5 | 10,5 | 4,7 | 14,5 | 2 | 1,5 | 0,6/- | 4900 | 140 | 0,75 | 27 | 0 | 73 | 28 |
| 3098 | 1,76 | 54 | 48 | 10 | 1/2 | 10 | 4,8 | 14 | 1 | 3 | 1,8/4,2 | 4500 | 120 | - | 27 | - | 73 | 30 |
| 3158 | 1,76 | 83 | 60 | 20 | 1/4 | 10 | 4,8 | 13,2 | 2 | 2,8 | 1,4/3,4 | 6000 | 260 | - | 29 | - | 71 | 25 |
| 3205 | 1,76 | 58 | 47 | 14 | 1/4 | 10,5 | 4,7 | 14 | 2 | 1,8 | 1/- | 5600 | 120 | 0,5 | 28 | 0 | 72 | 26 |
| 3262 | 1,76 | 56 | 47 | 13 | 1/4 | 10 | 4,8 | 13 | 2 | 1,6 | 0,8/- | 5400 | 80 | 0,25 | 27 | 0 | 73 | 26 |
| 3278 | 1,86 | 57 | 51 | 13 | 2/5 | 10,5 | 6,5 | 18 | 2 | 2,4 | 2/4 | 600 | 160 | 0,25 | 27 | 0 | 73 | 20 |
| 3332 | 1,86 | 64 | 53 | 18 | 2/4 | 10,5 | 6 | 17 | 2 | 2,2 | 1,8/3,6 | 6000 | 150 | 0,25 | 29 | 0 | 71 | 20 |
| 3424 | 1,86 | 63 | 56 | 18 | 2/4 | 10,5 | 6 | 17 | 2 | 2 | 1,2/3,1 | 6000 | 150 | 0,25 | 28 | 0 | 72 | 22 |
| 3500 | 1,86 | 55 | 33 | 14 | 2/4 | 10,5 | 6 | - | 2 | 1,6 | 0,8/2,6 | 6000 | 180 | 0,25 | 28 | 0 | 72 | 22 |
| 3567 | 1,86 | 63 | 35 | 13 | 1/7 | 9,5 | 5,3 | - | 2 | 1,5 | 0,8/2,4 | 5700 | 120 | 0,25 | 28 | 0 | 72 | 25 |

TABLE A.4 (cont.)

MUD SUMMARY - WELL 30/7-6 PHASE I
MUD SYSTEM - GEL LIGNOSULFONATE

| Depth m | W.t sp.gr. | Funn. visc. sec. | PV cp | YP lb/100 ft ² | Gelstr. lb/100 ft ² | ph | Filtr. loss | HT-HP filtr. loss | Cake 32nd in. | pm | pf/Mf | Chloride ppm | Calcium ppm | Sand % | Solids % | Oil % | Water % | Meth. blue |
|------------|---------------|------------------------|----------|------------------------------|-----------------------------------|----|----------------|-------------------------|------------------|-----|-------|-----------------|----------------|-----------|-------------|----------|------------|---------------|
| 3615 | 1,86 | 60 | 34 | 11 | 2/8 | 95 | 4,9 | 16 | 2 | 1,4 | 05/2 | 5700 | 100 | 0,25 | 28 | 0 | 72 | 24 |
| 3661 | 1,86 | 55 | 44 | 15 | 1/7 | 10 | 5,8 | - | 2 | 1,9 | 13/- | 5600 | 80 | 0,25 | 29 | 0 | 71 | - |
| 3691 | 1,86 | 56 | 47 | 9 | 1/8 | 10 | 4,8 | 15,5 | 2 | 1,8 | 11/- | 5400 | 80 | 0,25 | 29 | 0 | 71 | 23 |
| 3711 | 1,92 | 50 | 38 | 7 | 0/5 | 10 | 2,9 | 13,6 | 2 | 1,9 | 12/- | 5500 | 80 | TR | 29 | - | 71 | 29 |