ANCHOR HILL BOTTLE ROLL TEST
(1990)

ANALYSIS OF ANCHOR BOTTLE ROLL TEST , <.055 OZ/T

| HOLE | INTERVAL | HEAD OZ/TON | TAIL OZ/TON | SOLUTION OZ/TON | RECOVERY (H-T)/H | RECOVERY S/(T+S) |
|---|---|---|---|---|---|---|
| 89-589 | 20-25 | 0.014 | 0.006 | 0.013 | 57.1% | 68.4% |
| 89-590 | 75-80 | 0.022 | 0.008 | 0.018 | 63.6% | 69.2% |
| 89-617 | 555-560 | 0.022 | 0.006 | 0.019 | 72.7% | 76.0% |
| 89-639 | 130-135 | 0.022 | 0.005 | 0.019 | 77.3% | 79.2% |
| 89-590 | 30-35 | 0.030 | 0.013 | 0.013 | 56.7% | 50.0% |
| 89-591 | 275-280 | 0.034 | 0.012 | 0.024 | 64.7% | 66.7% |
| 89-270 | 265-270 | 0.038 | 0.010 | 0.027 | 73.7% | 73.0% |
| 89-597 | 85-90 | 0.043 | 0.014 | 0.026 | 67.4% | 65.0% |
| 89-590 | 125-130 | 0.054 | 0.016 | 0.036 | 70.4% | 69.2% |
| 89-591 | 45-50 | 0.055 | 0.026 | 0.030 | 52.7% | 53.6% |
| TOTAL | | | | | 65.6% | 67.0% |

TESTS WITH CONFLICTING DATA

| | | | | | | |
|---|---|---|---|---|---|---|
| 89-589 | 230-235 | 0.021 | 0.018 | 0.014 | 14.3% | 43.8% |
| 89-590 | 175-180 | 0.033 | 0.014 | 0.030 | 57.6% | 68.2% |
| 89-100 | 95-100 | 0.037 | 0.016 | 0.039 | 56.8% | 70.9% |
| 89-639 | 135-140 | 0.046 | 0.028 | 0.039 | 39.1% | 58.2% |

VJM 10-24-90

See if these changes suit you
-John

# INITIAL 24 SAMPLES FOR BOTTLE ROLL EXTRACTION TESTWORK

Tq+p

- SAMPLES FROM ANCHOR HILL.

Oxide / Mix
.10
.025
.10

| HOLE # | INTERVAL | B-C ASSAY | Oxide / Mix / Sulfide |
|---|---|---|---|
| R89-587 | 265-270 | .033 | Oxide / Tq+p |
| R89-590 | 30-35 | .027 | Oxide / Tq+p |
| | 75-80 | .040 | Oxide / Tq+p |
| | 90-95 | .112 | Oxide / Tq+p |
| | 125-130 | .053 | Oxide / Tq+p |
| | 175-180 | .033 | Oxide / Tq+p |
| R89-591 | 45-50 | .055 | Oxide / Tq+p |
| | 275-280 | .032 | Oxide / Tq+p |
| | 310-315 | .953 | Oxide / Tq+p |
| | ~~*415-420~~ | ~~.075~~ | ~~Mixed / Tq+p~~ |
| in place of 415-420, | 420-425 | .102 | Oxide / Tq+p |
| R89-597 | 70-75 | .095 | Oxide / Tq+p |
| | 85-90 | .043 | Oxide / Tq+p |
| | 95-100 | .034 | Oxide / Tq+p |
| in place of R89-602, | R89-617 555-560 | .023 | Oxide / Tq+p |
| Th+p ~~R89-602~~ | ~~50-55~~ | ~~.022~~ | |
| R89-603 | 35-40 | .060 | Oxide / Tq+p |
| | 265-270 | .038 | Oxide / Tq+p |
| | 315-320 | .061 | Oxide / Tq+p |

| | | | |
|---|---|---|---|
| R89-639 | 40-45 | .028 | oxide / Tq+p |
| | 130-135 | .045 | oxide / Tq+p |
| | 135-140 | .113 | oxide / Tq+p |
| | 235-240 | .257 | oxide / Tq+p |
| R89-589 | 20-25 | .070 | oxide / Tq+p |
| | 230-235 | .050 | oxide / Tq+p |
| | 380-385 | .064 | oxide / Tq+p |

AV. = .063 (Excluding .453 sample)

AV. = .100 (including .453 sample)

Mix

| | | | |
|---|---|---|---|
| R89-591 | 415-420 | .075 | Tq+p |
| R89-590 | 510-515 | .091 | Tq+p |
| R89-590 | 305-310 | .030 | Tq+p |
| ? ~~R89-643~~ | ~~125-130~~ | ~~.046~~ | |
| ? ~~R89-590~~ | ~~185-190~~ | ~~.019~~ | ~~Tq+p~~ |
| R89-591 | 485-490 | .044 | Tq+p |
| R89-631 | 305-310 | .036 | Tq+p |
| | or 310-315 | .024 | Tq+p |
| R89-631 | 470-475 | .038 | Tq+p |
| R89-627 | 390-395 | .187 | Tq+p |
| R89-627 | 570-575 | .029 | Tq+p |
| R89-653 | 290-295 | .028 | Tq+p |
| R89-654 | 645-650 | .062 | Tq+p |

Distribution for Mixed samples is confined to SW end of Anchor, rest is oxide

INITIAL 24 SAMPLES FOR BOTTLE ROLL EXTRACTION TESTWORK

- SAMPLES FROM ANCHOR HILL.

| HOLE # | INTERVAL | B-C ASSAY |
|---|---|---|
| R89-587 | 265-270 | .033 |
| R89-590 | 30-35 | .027 |
| | 75-80 | .040 |
| | 90-95 | .112 |
| | 125-130 | .053 |
| | 175-180 | .033 |
| R89-591 | 45-50 | .055 |
| | 275-280 | .032 |
| | 310-315 | .953 |
| | 415-420 | .075 |
| R89-597 | 70-75 | .095 |
| | 85-90 | .043 |
| | 95-100 | .034 |
| R89-602 | 50-55 | .022 |
| R89-603 | 35-40 | .060 |
| | 265-270 | .038 |
| | 315-320 | .061 |

| | | |
|---|---|---|
| R89-639 | 40-45 | .028 |
| | 130-135 | .045 |
| | 135-140 | .113 |
| | 235-240 | .257 |
| R89-589 | 20-25 | .070 |
| | 230-235 | .050 |
| | 380-385 | .064 |

# ANCHOR HILL AU & AG LEACHABILITY TESTWORK

## PROCEDURE

1. Uncrushed reject from drill sample dried, as received, in 100 C drying oven.
2. Entire sample blended in riffle splitter.
3. 200 grams split from sample in riffle splitter for head assay.
4. 200 gram split redried and pulverized.
5. Head split run for Au and Ag by fire assay (1-assay ton in duplicate).
6. Head split run for Au by Hot NaCN Shake.
   (20 grams ore; 20 mls-70 C; 10 lb/ton NaCN).
7. Sample re-mixed in riffle splitter.
8. 1200 grams split from sample in riffle splitter for bottle roll leach.
9. Bottle roll sample re-dried in 100 C drying oven.
10. Bottle roll sample put in 1-gallon bottle with equal amount of barren soln.
    (20 C; 0.5 lb/ton NaCN; Au = .003 opt; Ag = nil)
11. 2 grams lime (4 lbs/ton) added to bottle roll sample.
12. Initial pH recorded.
13. Slurry rolled 24 hours.
14. Final pH recorded.
15. Slurry filtered through pressure filter.
16. Filtered solution collected, run on A.A. for Au and Ag.
17. Filter cake dried in 100 C drying oven.
18. Dried cake broken up, mixed and split (200 grams) through riffle splitter for tail assay.
19. 200 gram tail split redried and pulverized.
20. Tail split run for Au and Ag by fire assay (1-assay ton in duplicate).
21. Tail split run for Au by Hot NaCN Shake as above.

"OXIDE ORE"

| Hole Number | Depth | Assay Number | Fire Assay Head Au | Fire Assay Head Ag | Fire Assay Head Mean Au | Fire Assay Head Mean Ag | Calculated Head Leach Soln + Fire Assay Tail Au | Calculated Head Leach Soln + Fire Assay Tail Ag |
|---|---|---|---|---|---|---|---|---|
| R89-587 | 265-270 | 1 | .094 | .14 | .092 | .14 | .100 | .15 |
| | | 2 | .091 | .14 | | | | |
| R89-589 | 20-25 | 1 | .013 | .05 | .014 | .06 | .019 | .11 |
| | | 2 | .015 | .08 | | | | |
| R89-589 | 230-235 | 1 | .022 | .07 | .021 | .07 | .032 | .10 |
| | | 2 | .020 | .07 | | | | |
| R89-589 | 380-385 | 1 | .059 | .55 | .060 | .55 | .073 | .56 |
| | | 2 | .062 | .55 | | | | |
| R89-590 | 30-35 | 1 | .030 | 1.00 | .030 | 1.00 | .028 | .93 |
| | | 2 | .030 | 1.00 | | | | |
| R89-590 | 75-80 | 1 | .022 | .78 | .022 | .78 | .026 | .61 |
| | | 2 | .023 | .78 | | | | |
| R89-590 | 90-95 | 1 | .075 | .92 | .076 | .97 | .071 | .93 |
| | | 2 | .078 | 1.02 | | | | |
| R89-590 | 125-130 | 1 | .054 | .48 | .054 | .48 | .052 | .52 |
| | | 2 | .055 | .48 | | | | |
| R89-590 | 175-180 | 1 | .033 | .59 | .033 | .59 | .044 | .63 |
| | | 2 | .033 | .59 | | | | |
| R89-591 | 45-50 | 1 | .055 | .06 | .055 | .07 | .056 | .12 |
| | | 2 | .055 | .08 | | | | |
| R89-591 | 275-280 | 1 | .035 | .16 | .034 | .16 | .036 | .25 |
| | | 2 | .033 | .15 | | | | |
| R89-591 | 310-315 | 1 | 1.033 | 1.00 | 1.032 | 1.00 | .814 | 1.02 |
| | | 2 | 1.030 | 1.00 | | | | |
| R89-591 | 420-425 | 1 | .108 | 1.77 | .104 | 1.80 | .085 | 1.87 |
| | | 2 | .100 | 1.83 | | | | |
| R89-597 | 70-75 | 1 | .100 | .11 | .098 | .12 | .070 | .19 |
| | | 2 | .097 | .12 | | | | |
| R89-597 | 85-90 | 1 | .043 | .16 | .043 | .17 | .040 | .24 |
| | | 2 | .043 | .18 | | | | |
| R89-597 | 95-100 | 1 | .037 | .32 | .037 | .29 | .055 | .38 |
| | | 2 | .037 | .26 | | | | |
| R89-603 | 35-40 | 1 | .067 | .00 | .068 | .00 | .051 | .08 |
| | | 2 | .068 | .00 | | | | |
| R89-603 | 265-270 | 1 | .038 | .04 | .038 | .02 | .037 | .13 |
| | | 2 | .038 | .00 | | | | |
| R89-603 | 315-320 | 1 | .059 | .05 | .058 | .03 | .053 | .05 |
| | | 2 | .056 | .01 | | | | |
| R89-617 | 555-560 | 1 | .021 | .11 | .022 | .10 | .025 | .12 |
| | | 2 | .023 | .10 | | | | |
| R89-639 | 40-45 | 1 | .022 | .14 | .022 | .10 | .024 | .10 |
| | | 2 | .023 | .07 | | | | |
| R89-639 | 130-135 | 1 | .046 | .02 | .046 | .01 | .067 | .05 |
| | | 2 | .045 | .00 | | | | |
| R89-639 | 135-140 | 1 | .166 | .12 | .164 | .14 | .086 | .11 |
| | | 2 | .162 | .17 | | | | |
| R89-639 | 235-240 | 1 | .284 | .16 | .288 | .18 | .241 | .06 |
| | | 2 | .293 | .21 | | | | |

"OXIDE ORE"

| Hole Number | Depth | Assay Number | Fire Assay Tail | | Fire Assay Tail Mean | | Leach Solution Assay | |
|---|---|---|---|---|---|---|---|---|
| | | | Au | Ag | Au | Ag | Au | Ag |
| R89-587 | 265-270 | 1 | .032 | .10 | .034 | .10 | .066 | .05 |
| | | 2 | .036 | .11 | | | | |
| R89-589 | 20-25 | 1 | .006 | .07 | .006 | .07 | .013 | .04 |
| | | 2 | .006 | .07 | | | | |
| R89-589 | 230-235 | 1 | .018 | .06 | .018 | .08 | .014 | .02 |
| | | 2 | .018 | .11 | | | | |
| R89-589 | 380-385 | 1 | .041 | .50 | .042 | .52 | .031 | .04 |
| | | 2 | .043 | .53 | | | | |
| R89-590 | 30-35 | 1 | .013 | .71 | .013 | .72 | .015 | .21 |
| | | 2 | .013 | .72 | | | | |
| R89-590 | 75-80 | 1 | .007 | .47 | .008 | .48 | .018 | .13 |
| | | 2 | .008 | .49 | | | | |
| R89-590 | 90-95 | 1 | .019 | .60 | .020 | .60 | .051 | .33 |
| | | 2 | .020 | .59 | | | | |
| R89-590 | 125-130 | 1 | .015 | .36 | .016 | .36 | .036 | .16 |
| | | 2 | .018 | .37 | | | | |
| R89-590 | 175-180 | 1 | .014 | .27 | .014 | .27 | .030 | .36 |
| | | 2 | .013 | .27 | | | | |
| R89-591 | 45-50 | 1 | .026 | .09 | .026 | .08 | .030 | .04 |
| | | 2 | .025 | .08 | | | | |
| R89-591 | 275-280 | 1 | .013 | .13 | .012 | .14 | .024 | .11 |
| | | 2 | .012 | .14 | | | | |
| R89-591 | 310-315 | 1 | .394 | .88 | .397 | .88 | .417 | .14 |
| | | 2 | .400 | .87 | | | | |
| R89-591 | 420-425 | 1 | .069 | 1.87 | .069 | 1.86 | .016 | .01 |
| | | 2 | .069 | 1.85 | | | | |
| R89-597 | 70-75 | 1 | .029 | .18 | .030 | .16 | .040 | .03 |
| | | 2 | .030 | .15 | | | | |
| R89-597 | 85-90 | 1 | .013 | .19 | .014 | .21 | .026 | .03 |
| | | 2 | .014 | .23 | | | | |
| R89-597 | 95-100 | 1 | .017 | .33 | .016 | .34 | .039 | .04 |
| | | 2 | .016 | .34 | | | | |
| R89-603 | 35-40 | 1 | .021 | .06 | .022 | .06 | .029 | .02 |
| | | 2 | .023 | .07 | | | | |
| R89-603 | 265-270 | 1 | .009 | .12 | .010 | .11 | .027 | .02 |
| | | 2 | .010 | .10 | | | | |
| R89-603 | 315-320 | 1 | .017 | .04 | .016 | .04 | .037 | .01 |
| | | 2 | .016 | .03 | | | | |
| R89-617 | 555-560 | 1 | .006 | .10 | .006 | .09 | .019 | .03 |
| | | 2 | .005 | .08 | | | | |
| R89-639 | 40-45 | 1 | .004 | .09 | .005 | .09 | .019 | .01 |
| | | 2 | .006 | .09 | | | | |
| R89-639 | 130-135 | 1 | .028 | .05 | .028 | .04 | .039 | .01 |
| | | 2 | .028 | .03 | | | | |
| R89-639 | 135-140 | 1 | .030 | .09 | .030 | .09 | .056 | .02 |
| | | 2 | .029 | .09 | | | | |
| R89-639 | 235-240 | 1 | .071 | .02 | .072 | .04 | .169 | .02 |
| | | 2 | .074 | .05 | | | | |

"OXIDE ORE"

| Hole Number | Depth | Fire Assay Head Mean | | Fire Assay Tail Mean | | Percent Recovery (Head-Tail/Head) | |
|---|---|---|---|---|---|---|---|
| | | Au | Ag | Au | Ag | Au | Ag |
| R89-587 | 265-270 | .092 | .14 | .034 | .10 | 63.04 | 28.57 |
| R89-589 | 20-25 | .014 | .06 | .006 | .07 | 57.14 | -16.67 |
| R89-589 | 230-235 | .021 | .07 | .018 | .08 | 14.29 | -14.29 |
| R89-589 | 380-385 | .060 | .55 | .042 | .52 | 30.00 | 5.45 |
| R89-590 | 30-35 | .030 | 1.00 | .013 | .72 | 56.67 | 28.00 |
| R89-590 | 75-80 | .022 | .78 | .008 | .48 | 63.64 | 38.46 |
| R89-590 | 90-95 | .076 | .97 | .020 | .60 | 73.68 | 38.14 |
| R89-590 | 125-130 | .054 | .48 | .016 | .36 | 70.37 | 25.00 |
| R89-590 | 175-180 | .033 | .59 | .014 | .27 | 57.58 | 54.24 |
| R89-591 | 45-50 | .055 | .07 | .026 | .08 | 52.73 | -14.29 |
| R89-591 | 275-280 | .034 | .16 | .012 | .14 | 64.71 | 12.50 |
| R89-591 | 310-315 | 1.032 | 1.00 | .397 | .88 | 61.53 | 12.00 |
| R89-591 | 420-425 | .104 | 1.80 | .069 | 1.86 | 33.65 | -3.33 |
| R89-597 | 70-75 | .098 | .12 | .030 | .16 | 69.39 | -33.33 |
| R89-597 | 85-90 | .043 | .17 | .014 | .21 | 67.44 | -23.53 |
| R89-597 | 95-100 | .037 | .29 | .016 | .34 | 56.76 | -17.24 |
| R89-603 | 35-40 | .068 | .00 | .022 | .06 | 67.65 | ERROR |
| R89-603 | 265-270 | .038 | .02 | .010 | .11 | 73.68 | -450.00 |
| R89-603 | 315-320 | .058 | .03 | .016 | .04 | 72.41 | -33.33 |
| R89-617 | 555-560 | .022 | .10 | .006 | .09 | 72.73 | 10.00 |
| R89-639 | 40-45 | .022 | .10 | .005 | .09 | 77.27 | 10.00 |
| R89-639 | 130-135 | .046 | .01 | .028 | .04 | 39.13 | -300.00 |
| R89-639 | 135-140 | .164 | .14 | .030 | .09 | 81.71 | 35.71 |
| R89-639 | 235-240 | .288 | .18 | .072 | .04 | 75.00 | 77.78 |

$\bar{x} \approx 60\%$

"OXIDE ORE"

| Hole Number | Depth | F.A. Head Mean Au | NaCN Shake Head Au | NaCN Shake Tail Au | F.A. Tail Mean Au | pH Before Roll | pH After Roll |
|---|---|---|---|---|---|---|---|
| 89-587 | 265-270 | .092 | .084 | .030 | .034 | 11.5 | 10.6 |
| 89-589 | 20-25 | .014 | .015 | .006 | .006 | 11.8 | 10.9 |
| 89-589 | 230-235 | .021 | .015 | .009 | .018 | 11.6 | 10.4 |
| 89-589 | 380-385 | .060 | .052 | .019 | .042 | 11.0 | 9.7 |
| 89-590 | 30-35 | .030 | .031 | .011 | .013 | 11.7 | 10.2 |
| 89-590 | 75-80 | .022 | .025 | .005 | .008 | 11.6 | 10.9 |
| 89-590 | 90-95 | .076 | .088 | .017 | .020 | 11.6 | 11.1 |
| 89-590 | 125-130 | .054 | .058 | .014 | .016 | 11.7 | 10.8 |
| 89-590 | 175-180 | .033 | .035 | .012 | .014 | 9.9 | 9.3 |
| 89-591 | 45-50 | .055 | .056 | .021 | .026 | 10.8 | 10.1 |
| 89-591 | 275-280 | .034 | .034 | .009 | .012 | 11.3 | 10.8 |
| 89-591 | 310-315 | 1.032 | .986 | .370 | .397 | 11.3 | 9.6 |
| 89-591 | 420-425 | .104 | .069 | .040 | .069 | 10.9 | 9.4 |
| 89-597 | 70-75 | .098 | .106 | .026 | .030 | 10.9 | 10.2 |
| 89-597 | 85-90 | .043 | .043 | .009 | .014 | 11.5 | 10.7 |
| 89-597 | 95-100 | .037 | .037 | .014 | .016 | 10.7 | 9.6 |
| 89-603 | 35-40 | .068 | .066 | .022 | .022 | 10.4 | 9.4 |
| 89-603 | 265-270 | .038 | .038 | .008 | .010 | 11.5 | 10.9 |
| 89-603 | 315-320 | .058 | .063 | .016 | .016 | 10.6 | 9.8 |
| 89-617 | 555-560 | .022 | .022 | .013 | .006 | 11.5 | 10.8 |
| 89-639 | 40-45 | .022 | .023 | .005 | .005 | 11.1 | 10.5 |
| 89-639 | 130-135 | .046 | .042 | .013 | .028 | 11.6 | 11.0 |
| 89-639 | 135-140 | .164 | .073 | .016 | .030 | 11.1 | 10.4 |
| 89-639 | 235-240 | .288 | .25 | .064 | .072 | 10.7 | 10.3 |