Mining District File Summary Sheet 6000242

| | |
|---|---|
| DISTRICT | Manhatton |
| DIST_NO | 2960 |
| COUNTY<br>If different from written on document | Nye |
| TITLE<br>If not obvious | Hughes Tool Co. Metallurgy - Flow Sheets |
| AUTHOR | |
| DATE OF DOC(S) | 1976 |
| MULTI_DIST Y / N<br>Additional Dist_Nos: | |
| QUAD_NAME | Manhatton 7½' |
| P_M_C_NAME<br>(mine, claim & company names) | Hughes Tool Co. |
| COMMODITY<br>If not obvious | |
| NOTES | Flow sheets; leach plant; recovery plant<br><br>NOTE: See Folder front<br><br>2p |

Keep docs at about 250 pages if no oversized maps attached (for every 1 oversized page (>11x17) with text reduce the amount of pages by ~25)

| | Initials | Date |
|---|---|---|
| SS: | DD | 12/22/08 |
| DB: | | |
| SCANNED: | MT | 1/12/10 |

Revised: 1/22/08

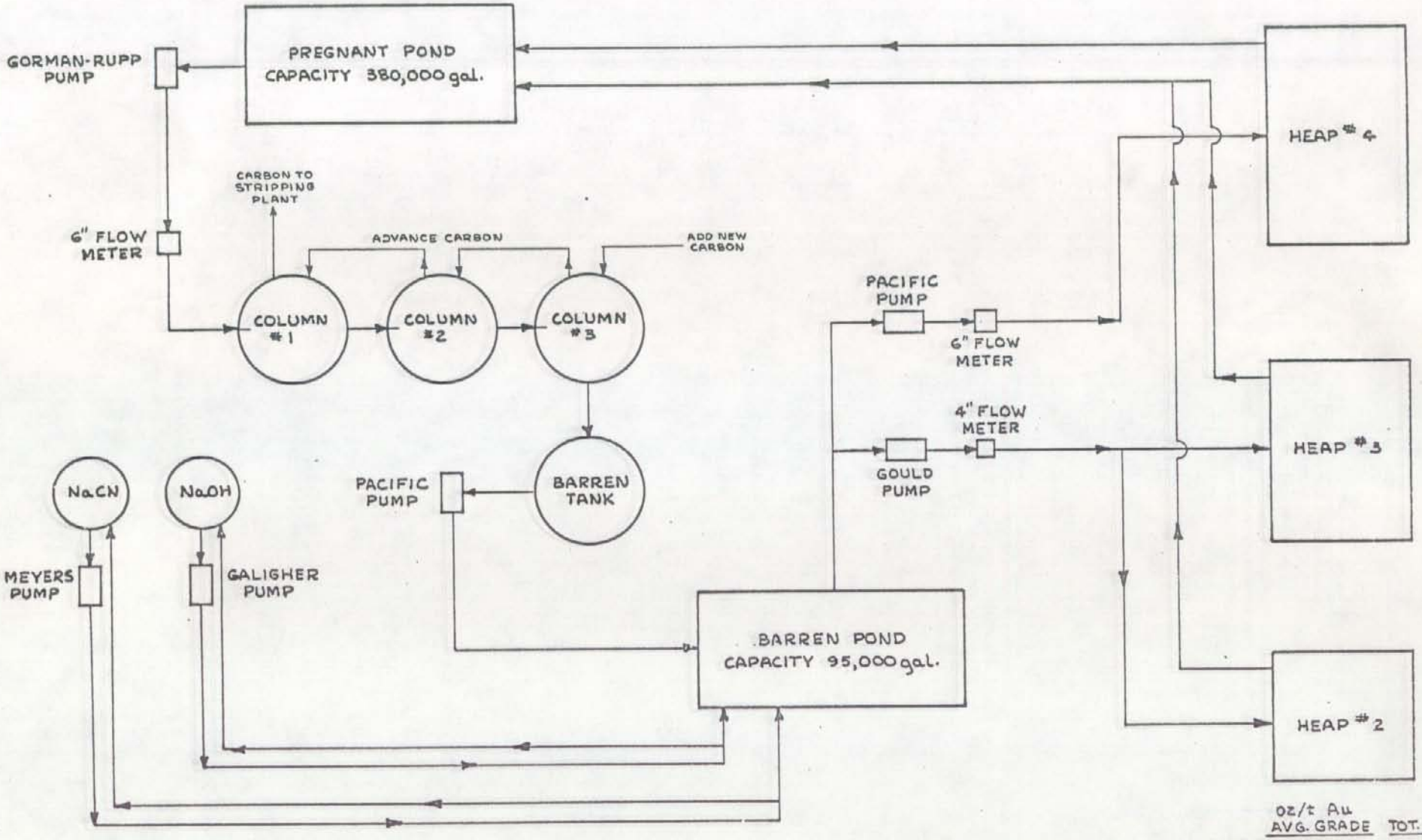
Met.
General - Flow Sheets 28

HUGHES TOOL CO. 128
METALLURGY
METALLURGY - FLOW SHEETS

6000 2480 2960

6000248 2960

# MANHATTAN LEACH PLANT FLOW SHEET

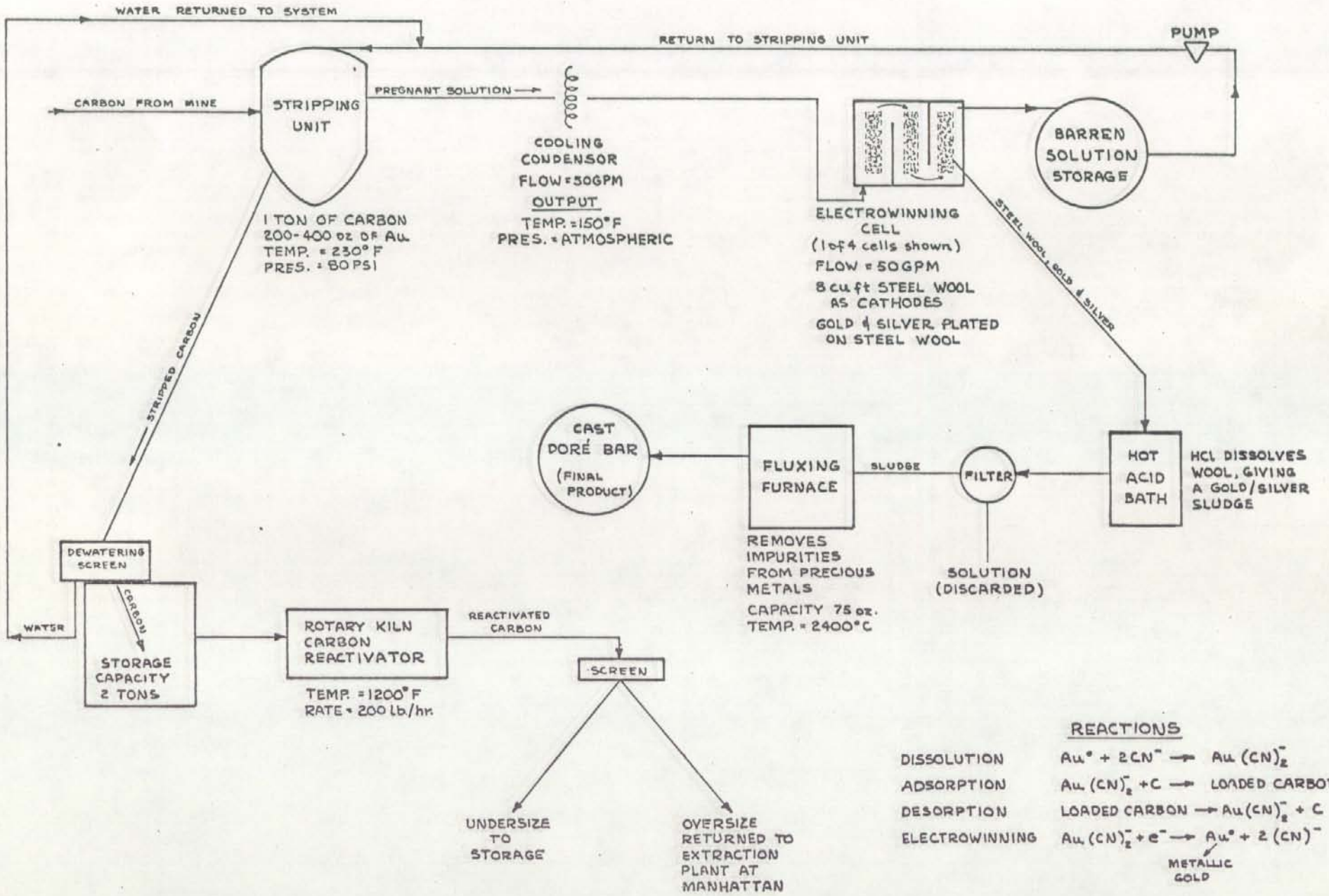



SOLUTION NaCN .3lb./TON
PH CONTROL 10.2

| | | | oz/t Au AVG. GRADE | TOT. oz Au. |
|---|---|---|---|---|
| HEAP #2 = | 40,623 Tons | 37,500 ft.² | .091 | 3697 |
| HEAP # 3 = | 71,910 Tons | 77,250 ft.² | .077 | 5537 |
| HEAP # 4 = | 101,873 Tons | 140,000 ft.² | .084 | 8557 |
| TOTALS = | 214,406 Tons | 254,750 ft.² | .083 avg. gr. | 17,790 oz |

C.D.S. & W.R.S. 8/13/76

# RECOVERY PLANT FLOW SHEET




## REACTIONS

| | |
|---|---|
| DISSOLUTION | $Au^{\circ} + 2CN^{-} \rightarrow Au(CN)_2^{-}$ |
| ADSORPTION | $Au(CN)_2^{-} + C \rightarrow$ LOADED CARBON |
| DESORPTION | LOADED CARBON $\rightarrow Au(CN)_2^{-} + C$ |
| ELECTROWINNING | $Au(CN)_2^{-} + e^{-} \rightarrow Au^{\circ} + 2(CN)^{-}$ |

METALLIC GOLD

D.K.H. 3/15/76