

HISTORIC AMERICAN ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

HAER
SD
41-LEAD.V,
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BALD MOUNTAIN GOLD MILL
Nevada Gulch at the head of False Bottom Creek
Lead Vicinity
Lawrence County
South Dakota

HAER No. SD-2

INDEX TO BLACK AND WHITE PHOTOGRAPHS

HISTORIC VIEWS

Note - If reproduced for publication, credit should be given to HAER, plus the following sources as indicated:

Credit JW - Historic photographs found in the collection of Joel Waterland (Lead, SD) and copied by HAER.

Credit WR - Historic photographs found in the collection of Wharf Resources (Lead, SD) and copied by HAER.

- SD-2-1 EAGLE MILL EXTERIOR FROM NORTHWEST, c. 1907. SHOWS INITIAL MILL CONFIGURATION WITH FULLY EXPOSED CRUDE ORE BIN CONCRETE RETAINING WALL, SINGLE (SOUTH) CRUDE ORE BIN, AND EXPOSED CRUSHER HOUSE. NOTE THE LACK OF MACHINE SHOP OR SNOW SHEDS. CREDIT JW.
- SD-2-2 EAGLE MILL EXTERIOR FROM NORTHWEST, c. 1907. VIEW SIMILAR TO SD-2-1. CREDIT JW.
- SD-2-3 EAGLE MILL, DETAIL OF CRUDE ORE BIN FROM NORTH, c. 1908-10. SHOWS EXPOSED CRUSHER HOUSE IN FRONT OF (SOUTH) CRUDE ORE BIN AND SNOW SHED ADDED OVER TRAM TRACKS. NOTE LACK OF EAST OR WEST CRUDE ORE BINS. CREDIT JW.
- SD-2-4 TROJAN MILL, DETAIL OF CRUDE ORE BINS FROM NORTH, c. 1912. SHOWS TIMBER FRAMING UNDER CONSTRUCTION FOR EAST AND WEST CRUDE ORE BINS AT PREVIOUS LOCATION OF CRUSHER HOUSE, AND SNOW SHED PRESENT OVER SOUTH CRUDE ORE BIN WITH PHASE CHANGE IN SNOW SHED CONSTRUCTION INDICATED AT EAST END OF EAST CRUDE ORE BIN. THIS PHOTOGRAPH IS THE FIRST IMAGE OF THE MACHINE SHOP, UPPER LEFT CORNER. CREDIT JW.

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- SD-2-5 TROJAN MILL, PRIMARY THICKENER No. 1 FROM WEST, c. 1914. TANK BARREL IS COMPLETE, BUT ADDITION ENCLOSURE NOT YET BEGUN. SAMPLING ADDITION SOUTH OF CRUSHED ORE BIN (CHANGE OF SIDING COLOR SHOWN AS COMPLETE. ROCK BIN VISIBLE ON FAR RIGHT. CREDIT WR.
- SD-2-6 TROJAN MILL, PRIMARY THICKENER No. 1 FROM WEST, c. 1914. TANK COMPLETED PRIOR TO ADDITION OF ENCLOSURE. ADDITION FOR BARREN SOLUTION TANK JUST VISIBLE BETWEEN THICKENER AND CRUSHED ORE BIN. CREDIT WR.
- SD-2-7 TROJAN MILL, EXTERIOR FROM NORTHWEST, c. 1918-28. ADDITIONS FOR PRIMARY THICKENERS No. 1 AND No. 2, SECONDARY THICKENERS No. 1, No. 2, AND No. 3, AGITATORS, AIR COMPRESSOR, AND PORTLAND FILTERS ARE SHOWN COMPLETE. STAIR ON NORTH SIDE OF CRUDE ORE BINS IS PRESENT AS IS THE LIME BIN ADJACENT TO THE WEST CRUDE ORE BIN, AND THE SNOW SHED ADDED OVER THE TRAMLINE SERVING THE EAST AND WEST CRUDE ORE BINS. ALSO PRESENT IS THE BABBITT HOUSE AND ROCK BIN. CREDIT JW.
- SD-2-8 TROJAN MILL, EXTERIOR FROM WEST, c. 1918-28. SHOWS SITE WITH ALL SUPPORTING BUILDINGS. CREDIT JW.
- SD-2-9 TROJAN MILL, EXTERIOR FROM NORTHWEST, c. 1918-28. WINTER SNOW SHOWS LINE OF CRUDE ORE BIN STAIR. CREDIT JW.
- SD-2-10 TROJAN MILL, EXTERIOR FROM EAST, c. 1919-28. ADDITION TO THE EAST END OF MILLING FLOOR VISIBLE WITH TRAM ENTRY DOOR. ALSO SEEN ARE THE ADDITIONS FOR MILL SOLUTION TANKS AND THE EAST SIDE OF SAMPLING ROOMS. CREDIT JW.
- SD-2-11 BALD MOUNTAIN MILL, EXTERIOR FROM NORTHEAST, c. 1940-59. ROASTER AND OTHER UNOXIDIZED ORE CIRCUIT ADDITIONS PRESENT, ALONG WITH SECONDARY THICKENER No. 7 AND ADDITIONS TO MACHINE SHOP. CREDIT JW.
- SD-2-12 TROJAN MILL, INTERIOR SHOWING PRIMARY MILL No. 1 (MONADNOCK CHILEAN) FROM EAST, c. 1912. ELEVATOR No. 1

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ADJACENT TO MILL. CREDIT WR.

- SD-2-13 TROJAN MILL, INTERIOR SHOWING PRIMARY MILL No. 1 (ALLIS CHALMERS BALL MILL) FROM EAST, c. 1919. ELECTRIC MOTOR AND DRIVE SHAFT CLEARLY VISIBLE. CREDIT WR.
- SD-2-14 BALD MOUNTAIN MILL, INTERIOR SHOWING GOLD TANKS FROM WEST, c. 1937. DATE BASED ON USE IN PUBLICATION. CREDIT WR.
- SD-2-15 BALD MOUNTAIN MILL, INTERIOR SHOWING PRECIPITATION AREA FROM NORTH, c. 1934. SHOWS PRECIPITATION TANK No. 1 (NOTE LOCKS), ZINC FEEDER WITH MIXING CONE, VACUUM RECEIVER AND PIPING. CREDIT WR.
- SD-2-16 INTERIOR, PORTLAND FILTER FROM SOUTHEAST, PRE-1934. FILTERS WERE IN USE FROM 1918 TO 1934. CREDIT WR.
- SD-2-17 BALD MOUNTAIN MILL, REFINERY INTERIOR, c. 1937. CRUCIBLE AND DRYING OVENS SHOWN. CREDIT WR.

DOCUMENTATION PHOTOGRAPHS

Joseph E. B. Elliott, Photographer, July, 1992.

EXTERIOR:

- SD-2-18 VIEW OF CRUDE ORE BINS FROM WEST. WEST CRUDE ORE BIN AND TRESTLE FROM TWO JOHNS TRAMLINE TO SOUTH, CRUDE ORE BIN IN FOREGROUND. MACHINE SHOP IN BACKGROUND. THE TRAM TO PORTLAND PASSED TO NORTH OF MACHINE SHOP.
- SD-2-19 VIEW OF CRUDE ORE BINS FROM EAST. EAST CRUDE ORE BIN IN FOREGROUND WITH DISCHARGE TO GRIZZLY AT BOTTOM OF VIEW. CONCRETE RETAINING WALL TO LEFT (SOUTH) AND BOTTOM (EAST EDGE OF EAST BIN).
- SD-2-20 VIEW NORTH TO MILL FROM SOUTH CRUDE ORE BIN. END OF CONCRETE RETAINING WALL VISIBLE AT RIGHT.

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- SD-2-21 VIEW FROM EAST, TRAM TRESTLE FROM TWO JOHNS LINE TO SOUTH CRUDE ORE BIN.
- SD-2-22 GENERAL VIEW OF MILL FROM SOUTHEAST. PROMINENT ARE THE 100-TON STEEL CRUSHED UNOXIDIZED ORE BIN, CENTER LEFT; STEPHENS-ADAMSON 15 TON/HR INCLINED BUCKET ELEVATOR IN FRONT OF THE STEEL ORE BIN; AND THE BAKER COOLER, LOWER RIGHT. THESE MACHINES AND OTHERS IN THE AREA WERE PART OF THE UNOXIDIZED ORE CIRCUIT. THE ROASTER IS OUT OF THE PICTURE TO THE RIGHT (EAST).
- SD-2-23 VIEW OF EAST END OF MILL. THE FOUR GENERAL LEVELS OF THE MILL ARE SHOWN STEPPING DOWN THE HILLSIDE FROM SOUTH TO NORTH. THE 100-TON STEEL ORE BIN AND STEPHENS-ADAMSON 15-TON INCLINED BUCKET ELEVATOR ARE ON THE CRUSHING LEVEL AT RIGHT. FROM LEFT TO RIGHT THE OTHER LEVELS ARE MILLING, LEACHING AND PRECIPITATION.
- SD-2-24 VIEW OF MILL FROM UPPER TAILINGS POND (NORTH). ROASTER ON LEFT WITH ELEVATOR/CRUSHED ORE BIN TOWER TO RIGHT. MAIN MILL BUILDING IN CENTER WITH THICKENER ADDITION TO RIGHT. MACHINE SHOP ON CRUDE ORE BIN TERRACE ABOVE ROASTER. THE LOCATION OF THE 100,000 GALLON MILL WATER TANK CAN BE SEEN AT THE CENTER RIGHT NEAR THE TOP OF THE MOUNTAIN.
- SD-2-25 VIEW OF MILL FROM UPPER TAILINGS POND. SHOWS ROASTER ON LEFT EDGE OF VIEW. THE SECONDARY THICKENER No. 7 IS OFF VIEW TO THE RIGHT.
- SD-2-26 VIEW OF MILL FROM NORTHEAST. SUMP LEVEL UNDER PRECIPITATION FLOOR VISIBLE IN CENTER.
- SD-2-27 VIEW OF CENTRAL SECTION OF MILL FROM NORTHEAST. LEVELS OF MILL VISIBLE IN ROOF LINES INCLUDE CRUSHED OXIDIZED ORE BIN (OPEN FRAMING, TOP CENTER), MILLING FLOOR (FIRST ROOF DOWN FROM ORE BIN), LEACHING/OLD SAND TANK LEVEL (SHALLOWER SECOND ROOF DOWN), GOLD TANK/AGITATOR LEVEL (CENTER), AND PRECIPITATION LEVEL WITH SUMP LEVEL BELOW (LOWER RIGHT). ROOF BREAKS ALLOWED FOR CLERESTORY WINDOWS

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WHICH ILLUMINATED THE INTERIORS, ALONG WITH DORMERS.

- SD-2-28 VIEW OF CENTRAL SECTION OF MILL FROM NORTH. COMPRESSOR ROOM BELOW PRECIPITATION FLOOR IS VISIBLE AT LOWER LEFT; THE SECONDARY THICKENER ADDITION IS TO THE RIGHT WITH SECONDARY THICKENER No. 7 OFF VIEW TO RIGHT.
- SD-2-29 VIEW OF MILL FROM WEST. SHOWS SECONDARY THICKENER No. 7 TANK FLOOR FRAMING AND CENTRAL MECHANISM AT CENTER.
- SD-2-30 VIEW OF MILL FROM WEST. SECONDARY THICKENER No. 7 JOISTS AND CENTRAL MECHANISM IN FOREGROUND.
- SD-2-31 VIEW FROM SOUTHWEST TO CORNER WHERE SAMPLING/CRUSHING ADDITIONS ABUT CRUSHED OXIDIZED ORE BIN. INTACT BARREN SOLUTION TANK VISIBLE IN FRONT OF CRUSHED ORE BIN.
- SD-2-32 DETAIL OF WALL SHOWN IN SD-2-31. BEHIND WALL FRAMING IS SAMPLING ROOM WITH WOOD SAMPLING ELEVATOR. CRUSHED OXIDIZED ORE BIN ON LEFT (SOUTH).
- SD-2-33 VIEW OF WEST WALL OF CRUSHING ADDITION FROM SOUTHWEST. STEPHENS-ADAMSON 25 TON/HR BUCKET ELEVATOR IN CENTER. TEAM SUPERVISOR ROBERT W. GRZYWACZ ON LOWER LEVEL (LOCATION OF STEARNS-ROGER DRYER).
- SD-2-34 VIEW FROM CRUSHED OXIDIZED ORE BIN WEST TO THICKENER ADDITIONS. SHAFT OF PRIMARY THICKENER No. 1 AT CENTER, WITH PRIMARY THICKENER No. 2 ABOVE AND TO THE LEFT. INTACT THICKENER SURGE TANK IS JUST ABOVE AND TO THE RIGHT (NORTH). ALL FRAMING ABOVE SECONDARY THICKENERS No. 2, No. 3, AND No. 7 HAS COLLAPSED.
- SD-2-35 VIEW OF SOUTH WALL OF THICKENER ADDITIONS. BARREN SOLUTION TANK IN FOREGROUND.
- SD-2-36 VIEW OF FRAMING BENT BETWEEN SECONDARY THICKENER No. 3 AND PRIMARY THICKENER No. 2 FROM WEST. NOTE MECHANISM ON PRIMARY No. 2 ON LEFT, BARREN SOLUTION FEED PIPE AT LOWER

RIGHT.

DOCUMENTATION PHOTOGRAPHS - CRUSHING

- SD-2-37 VIEW NORTH FROM EAST CRUDE ORE BIN TO CRUSHER ADDITION AND CRUSHED OXIDIZED ORE BIN. VISIBLE ARE DINGS MAGNETIC PULLEY (CENTER), THE 100-TON STEEL CRUSHED UNOXIDIZED ORE BIN, AND UPPER PORTION OF THE STEPHENS-ADAMSON 25 TON/HR BUCKET ELEVATOR. THE UPPER TAILINGS POND LIES BEYOND THE MILL WITH THE UPPER TAILINGS DAM UNDER THE GRAVEL ROAD IN THE UPPER RIGHT CORNER.
- SD-2-38 VIEW OF CRUSHER ROOM FROM NORTH. THE CRUSHER IS MISSING, BUT THREE GRIZZLIES AND THE FEED GATE FROM THE SOUTH ORE BIN ARE STILL VISIBLE. PULLEY AT BOTTOM OF THE VIEW IS THE BEGINNING OF THE 24 INCH BELT CONVEYOR. NOTE SOUTH BIN DIAGONAL SHEATHING MATCHES THAT IN VIEW SD-2-3.
- SD-2-39 VIEW OF CRUSHER ROOM FROM NORTH. NOTE CRUDE ORE BIN FRAMING.
- SD-2-40 VIEW NORTH FROM EAST CRUDE ORE BIN TO CRUSHER ADDITION.
- SD-2-41 VIEW NORTH OF UPPER LEVEL OF CRUSHER ADDITION. DINGS MAGNETIC PULLEY AT CENTER. ALSO SHOWS 100-TON CRUSHED UNOXIDIZED ORE BIN (RIGHT), PULLEY FORM 18 INCH BELT CONVEYOR CRUSHED OXIDIZED ORE BIN FEED AND STEPHENS-ADAMSON 25 TON/HR BUCKET ELEVATOR (UPPER CENTER). THE UPPER PORTION OF THE SAMPLING ELEVATOR IS ABOVE THE MAGNETIC PULLEY (CENTER LEFT) WITH THE ROUTE OF THE 16 INCH BELT CONVEYOR FINES FEED TO CRUSHED OXIDIZED ORE BIN TO ITS LEFT.
- SD-2-42 VIEW OF SYMONS 3 BY 6 FEET VIBRATING SCREEN FROM NORTHWEST. SCREEN IS BELOW AND FED BY DINGS MAGNETIC PULLEY - DRIVE GEAR VISIBLE.
- SD-2-43 INTERIOR VIEW, CRUSHING ADDITION. THE SYMONS VIBRATING SCREEN SITS ON TOP OF THE PLATFORM. OVERSIZE ORE IS FED

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- BY CHUTE TO THE GYRATORY SECONDARY CRUSHER (MISSING) SITTING ON CONCRETE FOUNDATIONS TO LOWER RIGHT. UNDERSIZE ORE WAS FED BY THE LOWER CHUTE (CENTER LEFT) TO THE 24 INCH BELT CONVEYOR UNDER THE SECONDARY CRUSHER. THE DRYER ROOM IS BEYOND.
- SD-2-44 VIEW OF SOUTHWEST CORNER OF DRYER ROOM. DRYER FOUNDATION AT BOTTOM OF VIEW, WITH 18 INCH REVERSIBLE BELT CONVEYOR (UPPER LEFT), AND 16 INCH BELT CONVEYOR FINES FEED TO CRUSHED OXIDIZED ORE BIN (CENTER TO UPPER RIGHT). DRYER EXHAUST IS BELOW FINES FEED BELT.
- SD-2-45 VIEW OF UPPER LEVEL CRUSHER ADDITION FROM CRUSHED OXIDIZED ORE BIN. 18 INCH BELT CONVEYOR BIN FEED, LOWER CENTER, WITH STEPHENS-ADAMSON 25 TON/HR ELEVATOR SPLIT DISCHARGE (OXIDIZED/UNOXIDIZED) IN CENTER. CRUDE ORE BINS AND MACHINE SHOP BEYOND. NOTE TOP OF CRUSHED OXIDIZED ORE BIN IS BELOW TOP OF CRUDE ORE BINS.
- SD-2-46 VIEW OF SAMPLING ROOM FROM SOUTHEAST. TO LEFT, SAMPLING ELEVATOR AND IN CENTER, SAMPLE BINS WITH DISCHARGE CHUTE AND THREE LABELS.
- SD-2-47 VIEW OF FEED LEVEL, CRUSHED OXIDIZED ORE BIN FROM EAST. THE 18 INCH BELT CONVEYOR FEED IS AT CENTER, WITH DRIVE GEAR. THE 16 INCH FINES FEED IS IN THE BACKGROUND AND 18 INCH BELT CONVEYOR DISCHARGE IS SLIGHTLY RIGHT OF CENTER.
- SD-2-48 VIEW OF INTERIOR OF CRUSHED OXIDIZED ORE BIN.
- SD-2-49 VIEW FROM WEST OF DUST COLLECTOR BLOWER LOCATED AT CRUSHED OXIDIZED ORE BIN FEED LEVEL. THE ROASTER IS BEYOND AND THE MACHINE SHOP IS ON THE TRAM TERRACE, UPPER RIGHT.
- SD-2-50 VIEW OF CRUSHER ADDITION FROM EAST. SHOWS 100-TON STEEL UNOXIDIZED ORE BIN, STEPHENS-ADAMSON 15 TON/HR INCLINED BUCKET ELEVATOR, AND DUST COLLECTION BIN IN UPPER RIGHT QUADRANT. THE ROD MILL CIRCUIT STOOD IN FRONT OF THE

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BUCKET ELEVATOR AND BEHIND THE BAKER COOLER (LEFT CENTER). MILL SOLUTION TANKS WERE IN FRONT OF THE CRUSHED OXIDIZED ORE BIN (CENTER), AND THE MILL FLOOR WAS THE NEXT LEVEL DOWN (RIGHT).

- SD-2-51 VIEW OF CRUSHER ADDITION FROM EAST. SHOWS BAKER COOLER AT LOWER LEFT, AND FOUNDATIONS FOR ROD MILL BETWEEN COOLER AND STEPHENS-ADAMSON INCLINED BUCKET ELEVATOR. THE BELT CONVEYOR TO RIGHT OF ELEVATOR FED ELEVATOR FROM ROD MILL. 100-TON ORE BIN AND DUST COLLECTOR IS BEHIND FRAMING BENT. NOTE CONVEYOR EMERGING FROM BOTTOM OF ORE BIN, THIS AND THE INCLINED ELEVATOR FED THE SYMONS SCREEN (MISSING).
- SD-2-52 VIEW OF DUST COLLECTOR AND CRUSHED OXIDIZED ORE BIN FROM EAST. THE DUCTWORK TO TOP OF COLLECTOR (OPEN END, MIDDLE LEFT) CONNECTED TO HOODS OVER SYMONS SCREEN, ROD MILL, AND BAKER COOLER DISCHARGE.
- SD-2-53 VIEW OF CRUSHED OXIDIZED ORE BIN FROM EAST. SHOWS ACCESS STAIR TO FEED LEVEL; DUST COLLECTOR ON LEFT.
- SD-2-54 VIEW OF ROASTER ADDITION FROM SOUTHEAST. SHOWS ELEVATOR/ORE BIN ADDITION ON LEFT WITH BASE OF EXHAUST STACK, PORTION OF TOPPLED STACK ON LOWER RIGHT IN VIEW, AND UPPER TAILINGS POND BEYOND.
- SD-2-55 VIEW OF ROASTER ADDITION FROM NORTH. ELEVATOR/ORE BIN ADDITION TO RIGHT (WEST) WITH BAKER COOLER IN FRONT.
- SD-2-56 VIEW OF ROASTER ADDITION FROM NORTH. ELEVATOR/ORE BIN TOWER WAS FED BY THE 14 INCH BELT CONVEYOR SUPPORTED ON BENT, LOWER RIGHT. THE ROTATING BAKER COOLER IS SUPPORTED BY A CONCRETE FOUNDATION TROUGH.
- SD-2-57 ROASTER ADDITION INTERIOR FROM SOUTHWEST, VIEW OF RABBLE DRIVE SYSTEM.
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- SD-2-59 ROASTER ADDITION INTERIOR, VIEW OF HEARTH DRIVE GEAR FROM NORTHEAST.
- SD-2-60 VIEW OF ROASTER ADDITION FROM WEST, LOCATION OF SYMONS 3 BY 8 FEET VIBRATING SCREEN. SHOWS BAKER COOLER WITH DUST COLLECTOR DUCT AND DISCHARGE CHUTE ON LEFT. THE 14 INCH BELT CONVEYOR WAS SUPPORTED ON TWO BENTS IN CENTER OF VIEW AS IT CONNECTED WITH THE BUCKET ELEVATOR/ORE BIN TOWER, WHICH IN TURN FED THE ROASTER (BEHIND). THE BASE OF THE ROASTER EXHAUST STACK IS AT THE UPPER RIGHT.
- SD-2-61 VIEW FROM NORTHEAST OF LAUNDRER FROM BAKER COOLER TO MILLING. LAUNDRER PIERCES THE SOUTH FOUNDATION WALL BETWEEN MILL SOLUTION TANKS No. 1 AND No. 2.

DOCUMENTATION PHOTOGRAPHS - MILLING

- SD-2-62 VIEW OF MILL SOLUTION TANKS FLOOR FROM WEST. THE BOTTOM OF MILL SOLUTION TANK No. 1 IS IN THE LOWER RIGHT QUADRANT UNDER A PILE OF SOLUTION SEDIMENT. JOISTS OF TANK No. 2 ARE ABOVE AND SLIGHTLY LEFT OF No. 1. THE BOTTOM OF THE MILL SOLUTION SURGE TANK WITH ATTACHED DISCHARGE PIPE IS VISIBLE ON LOWER RIGHT HAND EDGE OF VIEW; TANKS ORIGINALLY SAT ON DIAGONAL BEAM CUTTING ACROSS UPPER LEFT CORNER OF VIEW. DISCHARGE LAUNDRER FROM THE UNOXIDIZED ORE CIRCUIT PIERCES THE FOUNDATION WALL ABOVE TANK No. 1 (FOR DETAIL SEE SD-2-61).
- SD-2-63 DETAIL OF TRAVELING CRANE TRUSS FROM NORTHEAST. TRUSS IS IN FRONT OF CRUSHED OXIDIZED ORE BIN. THE BARREN SOLUTION TANK IS JUST VISIBLE IN RIGHT BACKGROUND.
- SD-2-64 NORTH WALL OF CRUSHED OXIDIZED ORE BIN. THE PRIMARY MILL FEEDS AT BOTTOM. MILL SOLUTION TANKS WERE TO THE LEFT (EAST) AND BARREN SOLUTION TANK TO THE RIGHT (WEST) OR THE CRUSHED ORE BIN.

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- SD-2-65 DETAIL OF CRUSHED OXIDIZED ORE BIN FRAMING, ADJACENT TO
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- SD-2-66 VIEW OF PRIMARY MILL No. 2 CRUSHED ORE FEED AND 18 INCH
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- SD-2-67 PRIMARY CLASSIFIER No. 1 FROM EAST. PRIMARY MILL No. 2 IN
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- SD-2-68 VIEW OF MILLING FLOOR FROM SOUTHEAST. SECONDARY MILL AND
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- SD-2-69 VIEW FROM ABOVE OF PRIMARY MILL AND CLASSIFIER No. 2.
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- SD-2-70 PRIMARY MILL AND CLASSIFIER No. 2 FROM NORTHWEST. MILL
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- SD-2-71 VIEW OF MILL FLOOR FROM WEST. SECONDARY MILL IN LOWER
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- SD-2-72 SECONDARY MILL AND CLASSIFIER FROM NORTHWEST. WOOD FEED
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- SD-2-73 VIEW OF SECONDARY MILL AND MILL FLOOR FROM WEST.
- SD-2-74 VIEW OF SECONDARY MILL FROM WEST. NOTE FOUNDATIONS AND
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- SD-2-75 SECONDARY MILL AND CLASSIFIER FROM NORTHEAST. NOTE STONE/CONCRETE RETAINING WALL TRANSITION AT RIGHT, BARREN SOLUTION PIPE FROM BARREN SOLUTION TANK, TOP CENTER, AND JOISTS FOR PRIMARY THICKENER No. 1, UPPER RIGHT.
- SD-2-76 DETAIL OF BOWL, DRIVE AND FEED LAUNDER IN SECONDARY MILL FROM SOUTHEAST.
- SD-2-77 VIEW FROM NORTHEAST OF SECONDARY CLASSIFIER, UNDERSIDE OF BOWL WITH DISCHARGE PIPE. ALSO NOTE WOOD LAUNDER AND DISCHARGE PIPE CUTTING ACROSS TOP OF VIEW.

DOCUMENTATION PHOTOGRAPHS - LEACHING

- SD-2-78 BARREN SOLUTION TANK, VIEW FROM NORTH. CRUSHED OXIDIZED ORE BIN ON LEFT.
- SD-2-79 LOCATION OF TWIN PRIMARY PULP PUMPS. PUMPS WERE LOCATED AT BASE OF PAIRED PIPE WHICH FED PRIMARY THICKENERS. BOWL OF SECONDARY CLASSIFIER ON LEFT. NOTE MULTIPLE PULP ROUTING POSSIBILITIES CREATED BY LAUNDERS.
- SD-2-80 VIEW FROM NORTHWEST OF SUPPORT FRAMING, PRIMARY THICKENER No. 2. THICKENER DISCHARGE PIPE JUST VISIBLE EXITING AT RIGHT BORDER, 1/4 INCH UP FROM BOTTOM.
- SD-2-81 SECONDARY THICKENER No. 3 FROM SOUTH. ONLY TANK JOISTS AND MECHANISM REMAINING. NOTE FEED PIPE ENTERING VIEW, MIDDLE LEFT, AND DISCHARGING INSIDE FEEDWELL. LAUNDER SUSPENDED AT ANGLE IN BACKGROUND WAS PRIMARY THICKENER FEED FROM AGITATORS.
- SD-2-82 VIEW OF AGITATORS FROM EAST. DRIVE AND STRUCTURAL SUPPORT OF AGITATOR No. 1 IN FOREGROUND. HORIZONTAL AIR LINE PARALLELS AGITATORS IN RIGHT HALF OF VIEW.
- SD-2-83 AGITATORS No. 2, No. 3, AND No. 4 FROM EAST. AIR SUPPLY RUNS THROUGH BENT BRACES ON RIGHT. NOTE AGITATOR RAKE LEANING AGAINST RETAINING WALL BETWEEN AGITATOR No. 2 AND

No. 3.

- SD-2-84 AGITATORS No. 3, No. 4 AND No. 5 FROM SOUTHEAST. OLD PORTLAND FILTER FLOOR IS SEEN THROUGH FRAMING, LOWER RIGHT.
- SD-2-85 AGITATOR No. 3 AND No. 4 FROM SOUTHEAST. OLD PORTLAND FILTER FLOOR BEYOND.
- SD-2-86 AGITATOR No. 3, VIEW FROM NORTH. PIPE ABOVE AGITATOR IS UNDERFLOW FROM SECONDARY THICKENER No. 6.
- SD-2-87 VIEW OF SECONDARY THICKENER No. 6 FROM SOUTHEAST. NOTE PUMP PLATFORM FOR SECONDARY THICKENER No. 5; AGITATOR FLOOR BELOW ON RIGHT.
- SD-2-88 VIEW OF AIR COMPRESSOR ROOM FROM NORTHWEST (ON SUMP LEVEL). COMPRESSOR No. 1 IN FOREGROUND; No. 2 TO REAR.
- SD-2-89 AIR COMPRESSOR No. 2 FROM NORTHWEST.

DOCUMENTATION PHOTOGRAPHS - PRECIPITATION

- SD-2-90 PORTLAND FILTER FLOOR FROM SOUTHEAST. CYANIDE FEED TOWER TO SUMP, LOWER RIGHT QUADRANT. DIAGONAL PIPE IN UPPER RIGHT IS AIR LINE TO AGITATORS. LAUNDER PARALLEL TO LEFT EDGE (FILLED WITH DEBRIS) RUNS FROM PRIMARY THICKENER No. 2 TO GOLD TANK No. 2.
- SD-2-91 VIEW OF PORTLAND FILTER VACUUM RECEIVER FROM NORTHWEST. AGITATORS No. 4 AND No. 5 VISIBLE IN BACKGROUND.
- SD-2-92 VIEW OF PRECIPITATION AREA FROM SOUTHWEST. VACUUM CLARIFIER TANK No. 1 AT LOWER LEFT, UNDER LAUNDER FEED TO GOLD TANK No. 2, AND VACUUM CLARIFIER TANK No. 2, AT MID-RIGHT. VACUUM RECEIVER TANK ON UPPER LEFT. PIPE TO TOP CENTER OF TANK TAKES OUTFLOW FROM CLARIFIER LEAVES.
- SD-2-93 VIEW OF VACUUM CLARIFIER TANK No. 2 FROM WEST.

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RECTANGULAR FILTER CLEANING TANKS IN FOREGROUND.

- SD-2-94 VACUUM CLARIFIER TANK No. 1 FROM NORTHWEST. NOTE FILTER LEAVES.
- SD-2-95 VIEW OF ZINC FEEDER FROM SOUTHEAST. NOTE FEEDER CONE AND PIPING FROM VACUUM RECEIVER ON LEFT. PRECIPITATE PUMP MOTOR MOUNT VISIBLE BELOW FEEDER STAIRS, PUMP AND MOTOR MISSING. SUMPS ARE LOCATED UNDER THIS FLOOR, WITH ACCESS TO HATCH TO THE RIGHT OF FEEDER STAIR.
- SD-2-96 MILL SOLUTION PUMP No. 1 FROM EAST. VERTICAL PIPE ON LEFT IS RETURN LINE TO MILL SOLUTION TANKS.
- SD-2-97 VIEW OF MILL SOLUTION PUMP No. 2 FROM SOUTHEAST. SUMPS ARE UNDER FLOOR, BEYOND. STAIR LEADS TO AGITATOR/GOLD TANK ACCESS PLATFORM.
- SD-2-98 VIEW OF PUMPS FROM NORTH. MILL SOLUTION PUMP No. 2 IN FOREGROUND, ABANDONED BARREN SOLUTION PUMP BEYOND. AGITATOR No. 1 IN BACKGROUND.

DOCUMENTATION PHOTOGRAPHS - SITE BUILDINGS

- SD-2-99 REFINERY FOUNDATIONS FROM NORTHWEST. DRYING OVEN REMAINS ARE OF FIREBRICK.
- SD-2-100 VIEW OF PILOT MILL FROM WEST. CUPOLA IS OVER ROASTER.
- SD-2-101 VIEW OF CORNER OF PILOT MILL FROM NORTHWEST. ROASTER AND ROASTER DRIVE SHAFT UNDER CUPOLA. TANK VISIBLE ON LEVEL ABOVE. THE TOP LEVEL WAS FOR MILLING.
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- SD-2-151 PILE OF SWITCHES EAST OF TRAMLINE, NORTH OF CLINTON MINE.
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- SD-2-163 VIEW OF TWO JOHNS MINE PORTAL FROM EAST. NOTE WATER LINE ON BRIDGE; DEWATERING MINE SUPPLIED A PORTION OF THE MILL'S WATER SUPPLY.
- SD-2-164 HISTORIC AMERICAN ENGINEERING RECORD SUMMER RECORDING TEAM, 1992. LEFT TO RIGHT: JOE ELLIOTT, PHOTOGRAPHER; VIRGINIA BRUMBACK, ARCHITECT; DAVE EVE, HISTORIAN (ICOMOS, IRONBRIDGE INSTITUTE, ENGLAND); BOB ARZYWACZ, PROJECT SUPERVISOR; LEE ANN JACKSON, ARCHITECT; AND ALBERT AFLENZER, ICOMOS ARCHITECT (TECHNICAL UNIVERSITY, VIENNA, AUSTRIA).

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All color xerographic copies were made from a duplicate color transparency.

Joseph E. B. Elliott, Photographer, July, 1992.

- SD-2-165 (CT) VIEW OF MILL FROM UPPER TAILINGS POND (NORTH). ROASTER ON LEFT WITH ELEVATOR/CRUSHED ORE BIN TOWER TO RIGHT. MAIN MILL BUILDING IN CENTER WITH THICKENER ADDITION TO RIGHT. MACHINE SHOP ON CRUDE ORE BIN TERRACE ABOVE ROASTER. THE LOCATION OF THE

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100,000 GALLON MILL WATER TANK CAN BE SEEN AT THE CENTER RIGHT NEAR THE TOP OF THE MOUNTAIN.

- SD-2-166 (CT) VIEW OF MILL FROM WEST. SECONDARY THICKENER No. 7 JOISTS AND CENTRAL MECHANISM IN FOREGROUND.
- SD-2-167 (CT) VIEW OF DUST COLLECTOR AND CRUSHED OXIDIZED ORE BIN FROM EAST. THE DUCTWORK TO TOP OF COLLECTOR (OPEN END, MIDDLE LEFT) CONNECTED TO HOODS OVER SYMONS SCREEN, ROD MILL, AND BAKER COOLER DISCHARGE.
- SD-2-168 (CT) VIEW OF MILLING FLOOR FROM SOUTHEAST. SECONDARY MILL AND CLASSIFIER AT MIDDLE LEFT. PRIMARY MILL SURGE TANK AND LAUNDERS AT MIDDLE BOTTOM. STAIR TO TROJAN CLASSIFIER LEVEL BEHIND CRANE BENT, UPPER RIGHT. PAIRED PIPES FROM PRIMARY PULP PUMPS TO PRIMARY THICKENERS RISE VERTICALLY AT MIDDLE RIGHT AND RUN HORIZONTALLY ACROSS TOP OF VIEW.
- SD-2-169 (CT) PORTLAND FILTER FLOOR FROM SOUTHEAST. CYANIDE FEED TOWER TO SUMP, LOWER RIGHT QUADRANT. DIAGONAL PIPE IN UPPER RIGHT IS AIR LINE TO AGITATORS. LAUNDRER PARALLEL TO LEFT EDGE (FILLED WITH DEBRIS) RUNS FROM PRIMARY THICKENER No. 2 TO GOLD TANK No. 2.
- SD-2-170 (CT) PORTLAND HOISTHOUSE, TRAM SNOWSHED OUTSIDE PORTAL WITH TWIN SIDE CABLE ROLLER.