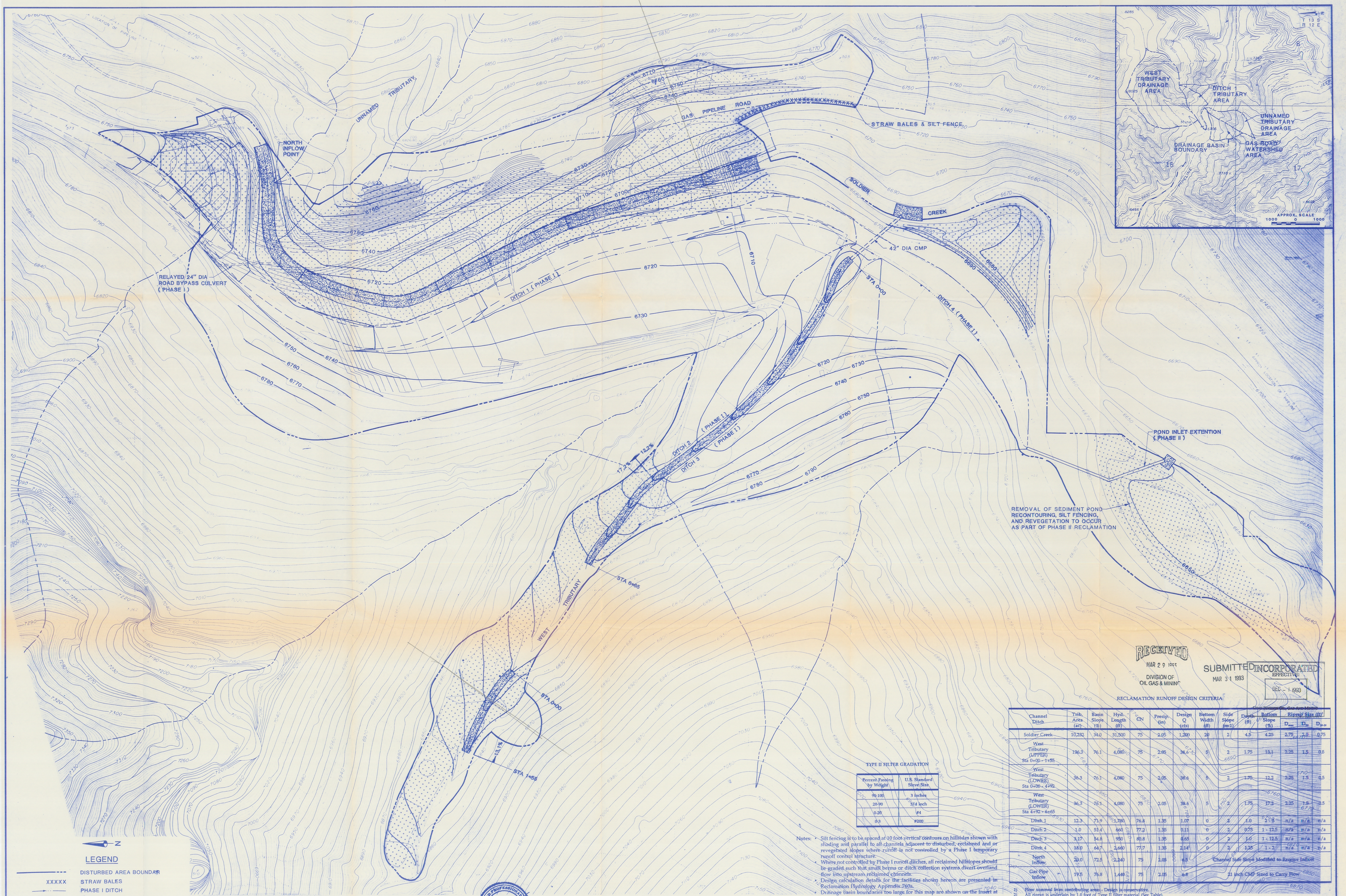

RECLAMATION RUNOFF DESIGN CRITERIA

Channel Ditch	Trib. Area (ac)	Basin Slope (%)	Hyd. Length (ft)	CN	Precip. (in)	Design Q (cfs)	Bottom Width (ft)	Side Slope (m:1)	Depth (ft)	Bottom Slope (%)	Riprap Size (ft) D_{max}	D_{50}	D_{30}
Soldier Creek	10,232	34.0	31,500	75	2.05	1,200	20	2	4.5	4.25	2.75	2.0	0.75
West Tributary (UPPER) Sta 0+00 - 1+55	136.3	76.1	4,080	75	2.05	38.6	5	2	1.75	13.1	2.25	1.5	0.5
West Tributary (LOWER) Sta 0+00 - 4+92	36.3	76.1	4,080	75	2.05	38.6	5	2	1.75	12.2	2.25	1.5	0.5
West Tributary (LOWER) Sta 4+92 - 6+65	36.3	76.1	4,080	75	2.05	38.6	5	2	1.75	17.2	2.25	1.5	0.5
Ditch 1	12.3	71.9	1,780	76.8	1.35	1.07	0	2	1.0	12.8	n/a	n/a	n/a
Ditch 2	1.0	51.4	660	77.2	1.35	0.11	0	2	0.75	1 - 12.5	n/a	n/a	n/a
Ditch 3	3.17	54.8	950	80.8	1.35	0.65	0	2	1.0	1 - 12.5	n/a	n/a	n/a
Ditch 4	18.0	64.7	2,660	77.7	1.35	2.14	0	2	1.25	1 - 2	n/a	n/a	n/a
North Inflow	20.0	72.5	2,240	75	2.05	6.5	Channel Side Slope Modified to Receive Inflow						
Gas Pipe Inflow	19.5	76.8	1,440	75	2.05	6.8	21 inch CMP Sized to Carry Flow						

1) Flow summed from contributing areas - Design is conservative.
2) All riprap is underlain by 1.0 foot of Type II filter material (See Table).

TYPE II FILTER GRADATION

Percent Passing by Weight	U.S. Standard Sieve Size
90-100	3 inches
20-90	3/4 inch
0-20	#4
0-3	#200

Notes:
- Silt fencing is to be spaced at 10 foot vertical contours on hillsides shown with shading and parallel to all channels adjacent to disturbed, reclaimed and or revegetated slopes where runoff is not controlled by a Phase I temporary runoff control structure.
- Where not controlled by Phase I runoff ditches, all reclaimed hillslopes should be graded such that small berms or ditch collection systems divert overland flow into upstream reclaimed channels.
- Design calculation details for the facilities shown hereon are presented in Reclamation Hydrology Appendix 760a.
- Drainage basin boundaries too large for this map are shown on the insert at a smaller scale.

CERTIFICATION STATEMENT

I, being a professional engineer hereby certify that this map was prepared by me or under my direct supervision and that all hydrologic information dealing with reclamation contained thereon is true and correct to the best of my knowledge and information.

#7888 DAVID W. HANSEN UTAH

HANSEN ALLEN & LUCE
CONSULTANTS ENGINEERS
Salt Lake City Utah

PROJECT ENGINEER

DESIGNED	DEH	3		
DRAFTED	DRB	2		
CHECKED		1	1/1992	ADDED STRAW BALES AND BOUNDARY SHOWING DISTURBED AREA.
DATE	SEPT., 1991	NO.	DATE	

BY: WJH BJB
APVD.

SCALE 1"=50'

VERIFY SCALE
0" 1"
BAR IS ONE INCH ON ORIGINAL DRAWING. IF THIS IS NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

Soldier Creek Coal Company
SOLDIER CANYON MINE

CHANNEL RECLAMATION DETAILS

MAP NO. 760a
95-02=100

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