

## APPENDIX C: DAM DEMOLITION MATERIAL VOLUME CALCULATIONS

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### CALCULATION COVER SHEET

Calculation No.: 1	Date: 5-15-2015
Calculation Title: Concrete Quantity Calculations	
Project No. and Title: 100-CLE-T33987 Gorge Dam Removal	
Design Verification Required: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Calculation Type: <input type="checkbox"/> Preliminary <input type="checkbox"/> Final	
<input type="checkbox"/> Superseded by Calculation No: _____	

#### ORIGINAL AND REVISED CALCULATIONS/ANALYSIS APPROVAL

	ORIG. date Printed Name/ Signature/Date	Rev. 1 Printed Name/ Signature/Date	Rev. ____ Printed Name/ Signature/Date
Originator:	<i>KKT / 5-8-15</i>	<i>AMW / 5-15-15</i>	
Checked By:	<i>AMW / 5-15-15</i>	<i>KKT / 5-15-15</i>	
Approved By:			
Other:			

#### AFFECTED DOCUMENTS

Document Number	Document Title	Rev. Number	Responsible Project Manager Initials

#### RECORD OF REVISION

Rev.	Reason for Revision
1	Addition of Spillway basin in Calculations

#### ATTACHMENTS

Attachment #	Title	Total Pages
1	As Built Plans and Cross-sections	2

TOTAL CALCULATION PAGE COUNT: 3

Concrete Volume Quantity Estimate

BULKHEAD LEFT						
MONOLITH NUMBER	LENGTH, L (FT)	HEIGHT, H (FT)	AREA, A = 0.5*L*H (SQ. FT.)	Width, W (FT)	VOLUME = A*W (CU. FT.)	VOLUME (CU. YD.)
AA	9.75	6.00	29.25	21.75	636.19	23.56
A	19.50	13.50	131.63	24.00	3159.00	117.00
B	27.00	22.50	303.75	24.00	7290.00	270.00
C	36.00	30.00	540.00	23.23	12544.20	464.60
D	42.00	39.00	819.00	24.75	20270.25	750.75
E	48.75	48.00	1170.00	24.00	28080.00	1040.00
F	54.75	51.00	1396.13	24.75	34554.09	1279.78
G	60.00	51.75	1552.50	24.00	37260.00	1380.00
H	63.00	52.50	1653.75	24.00	39690.00	1470.00
I	63.00	53.23	1676.75	21.75	36469.20	1350.71
<b>SUBTOTAL</b>					<b>219952.94</b>	<b>8146.41</b>

SPILLWAY						
MONOLITH NUMBER	LENGTH, L (FT)	HEIGHT, H (FT)	AREA, A = 0.5*L*H (SQ. FT.)	Width, W (FT)	VOLUME = A*W (CU. FT.)	VOLUME (CU. YD.)
WALL 1	21.00	53.25	559.13	1.50	838.69	31.06
SPILLWAY	AREA MEASURED IN CAD=		2366.00	121.00	286286.00	10603.19
WALL 2	21.00	57.00	598.50	1.50	897.75	33.25
STILLING BASIN	50.00	10.50	525.00	121.00	63525.00	2352.78
<b>SUBTOTAL</b>					<b>351547.44</b>	<b>13020.28</b>

BULKHEAD RIGHT						
MONOLITH NUMBER	LENGTH, L (FT)	HEIGHT, H (FT)	AREA, A = 0.5*L*H (SQ. FT.)	Width, W (FT)	VOLUME = A*W (CU. FT.)	VOLUME (CU. YD.)
J	63.75	57.00	1816.88	23.25	42242.34	1564.53
K	50.25	51.00	1281.38	24.00	30753.00	1139.00
28	39.00	31.50	614.25	12.00	7371.00	273.00
L	39.00	21.00	409.50	12.00	4914.00	182.00
LL	13.50	9.75	65.81	16.50	1085.91	40.22
<b>SUBTOTAL</b>					<b>86366.25</b>	<b>3198.75</b>

	VOLUME (CU. FT.)	VOLUME (CU. YD.)
<b>TOTAL</b>	<b>657,867</b>	<b>24,365</b>
<b>10% CONTINGENCY</b>	<b>723,653</b>	<b>26,802</b>



