

Project Name: FORT VANCOUVER NATIONAL PARK
 Project Number: WA PRA FVNP 100(1)
 Item No. **25105-4000 Keyed Rip Rap, Class 4**
 Field Measurements and Calculations by: John Smith 5/01/2012

Criss-Cross average end area method using elevations and distance

Station									0.0		
1005	0.0 End section										
	0.0								Area	Volume	215.0
1015	100.0	100.0	95.0	95.0	93.0	93.0	100.0	100.0			
	15.0	19.0	28.0	35.0	34.0	26.0	15.0	19.0			
		1300.0	1520.0	570.0	-837.0	-1767.0	-700.0		43.0		
									Area		
									Volume	729.3	
1030	98.9	99.0	94.0	93.8	91.7	91.5	98.9	99.0			
	15.0	19.0	29.0	34.8	33.5	25.0	15.0	19.0			
		1386.0	1485.2	422.1	-898.7	-1692.8	-593.4		54.2		
									Area		
									Volume	789.3	
1045	100.0	100.0	95.0	95.0	93.0	93.0	100.0	100.0			
	15.5	20.0	28.0	36.0	35.0	24.5	15.5	20.0			
		1250.0	1520.0	665.0	-1069.5	-1813.5	-450.0		51.0		
									Area		
									Volume	695.3	
1060	101.3	101.7	96.2	96.2	94.5	94.5	101.3	101.7			
	15.0	19.0	28.0	35.0	34.0	26.0	15.0	19.0			
		1322.1	1539.2	577.2	-850.5	-1795.5	-709.1		41.7		
									Area		
									Volume	208.5	
1070	0.0 End section								0.0		
	0.0								Area		
									Total	2637.4 CUYD	

