APPENDIX E

Soil Excavation Volume Calculations

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Job no. DRUM PROCESSING AREA (DPA) Page No 1 of 5

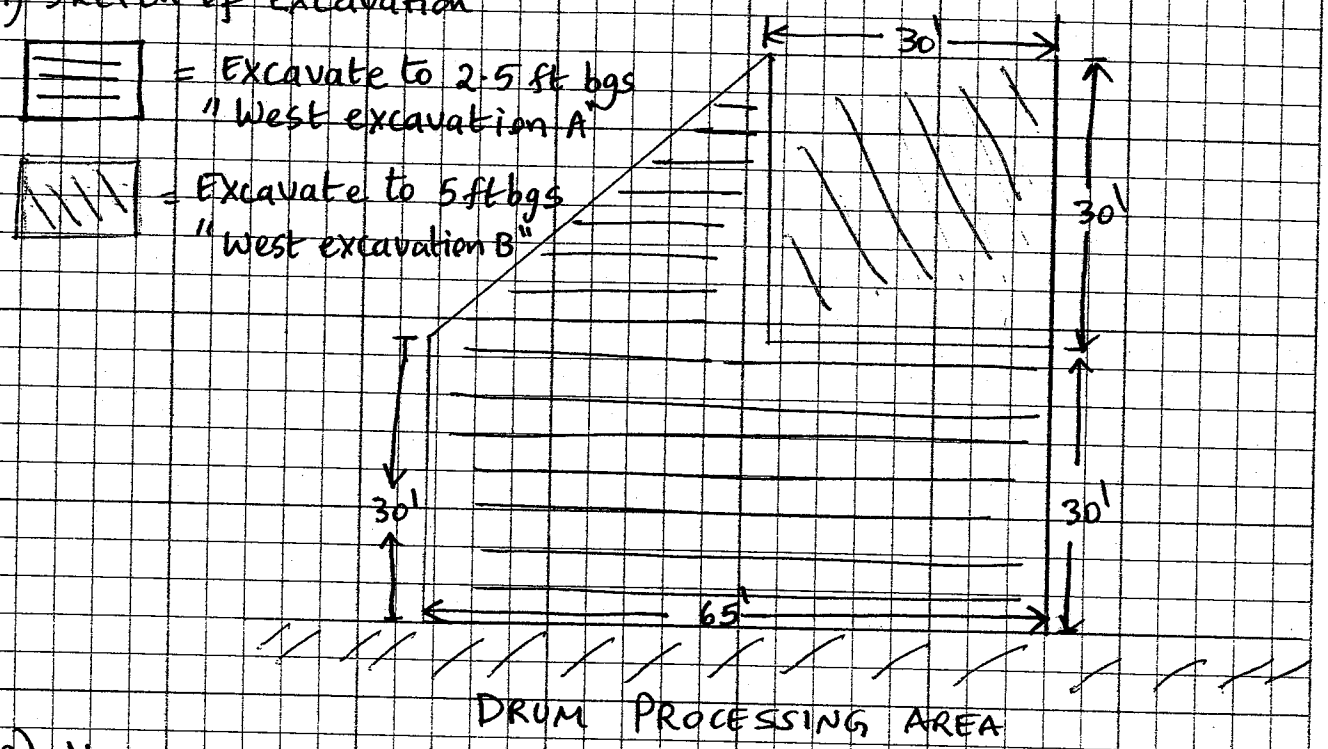
Client Rev. No.

By JN Date 10/26/06

Subject COOPER DRUM – SOIL REMOVAL ACTION Chk'd EJ Date 11/15/06

A. WEST EXCAVATION (VOLUME CALCULATIONS)

1) Sketch of Excavation



2) VOLUME CALCULATIONS

a) West excavation #1

Surface area $= (65')(30') + \frac{1}{2}(35')(30')$

$= 1950\ ft^2 + 525\ ft^2$

$= 2{,}475\ ft^2$

Volume $= \frac{(2475\ ft^2)(2.5\ ft)}{27} = \boxed{229.2\ yd^3}$

b) West excavation #2:

Surface area $= 30' \times 30' = 900\ ft^2$

Volume $= \frac{900\ ft^2 \times 5\ ft}{27} = \boxed{166.66\ yd^3}$

TOTAL VOLUME FOR DPA $= 229.3\ yd^3 + 166.66\ yd^3$

$= \boxed{395.86\ yd^3}$

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Page No 2 of 5

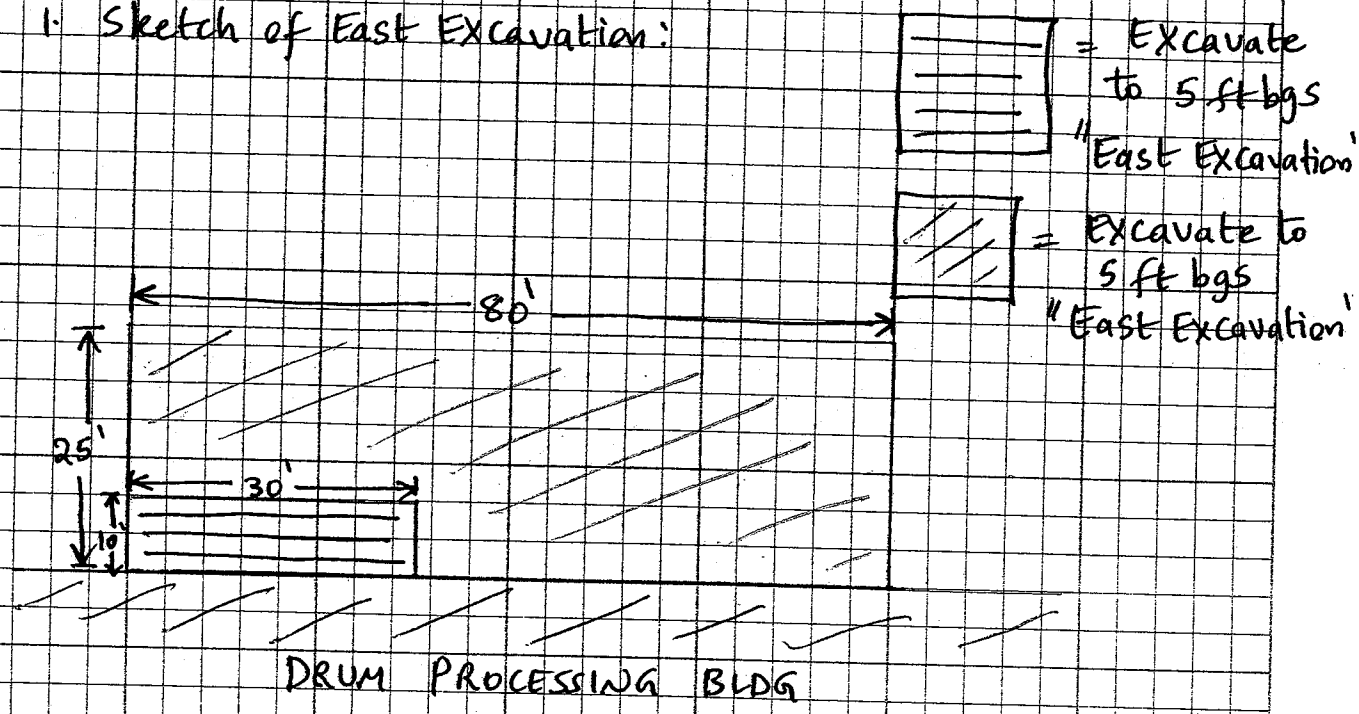
Job no. _____ Job _____ Rev. No. _____

Client _____ By JN Date 10/26/06

Subject _____ Chk'd EF Date 11/15/06

B) EAST EXCAVATION

1. Sketch of East Excavation:



2. VOLUME CALCULATIONS

a. East Excavation #1:

Surface Area = 30' x 10' = 300 ft²

Volume = (300 ft² x 5 ft)/27 = **55.55 yd³**

b. East Excavation #2:

Surface Area = (80')(25') - (30')(10') = **1700 ft²**

$$\text{Volume} = \frac{1700\ ft^2 \times 5\ ft}{27} = \boxed{314.81\ yd^3}$$

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Job no. HARD WASH AREA (HWA)

Client

Subject

Page No 3 of 5

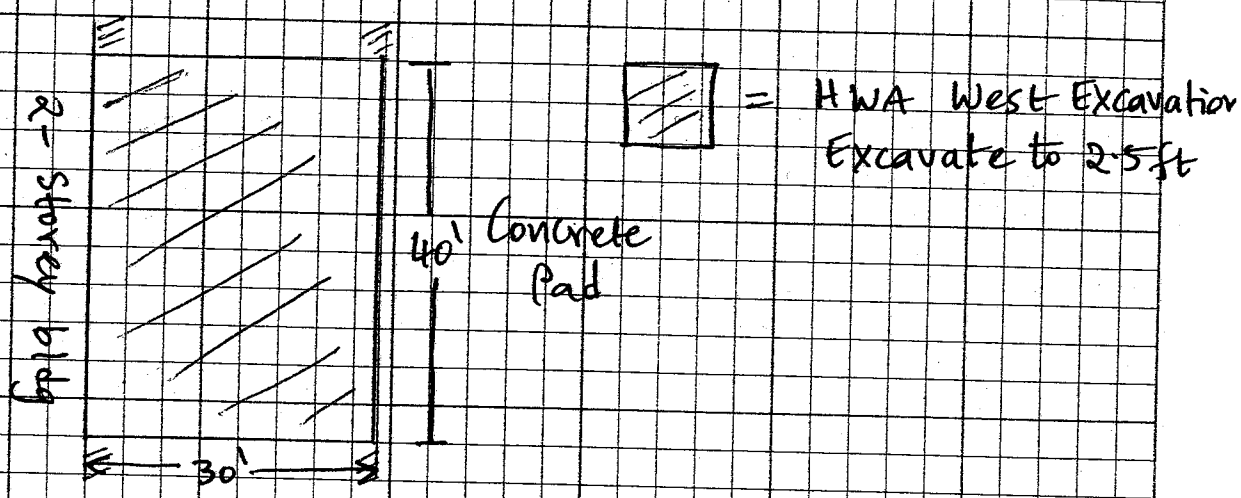
Rev. No.

By JN Date 10/26/06

Chk'd ET Date 11/15/06

A. West Excavation

1. Sketch of West Excavation



2. Volume Calculation

a) Surface area $= 30' \times 40' = 1200\,ft^2$

$$\text{Volume} = \frac{1200\,ft^2 \times 2.5\,ft}{27} = \boxed{111.1\,yd^3}$$

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Page No 4 of 5

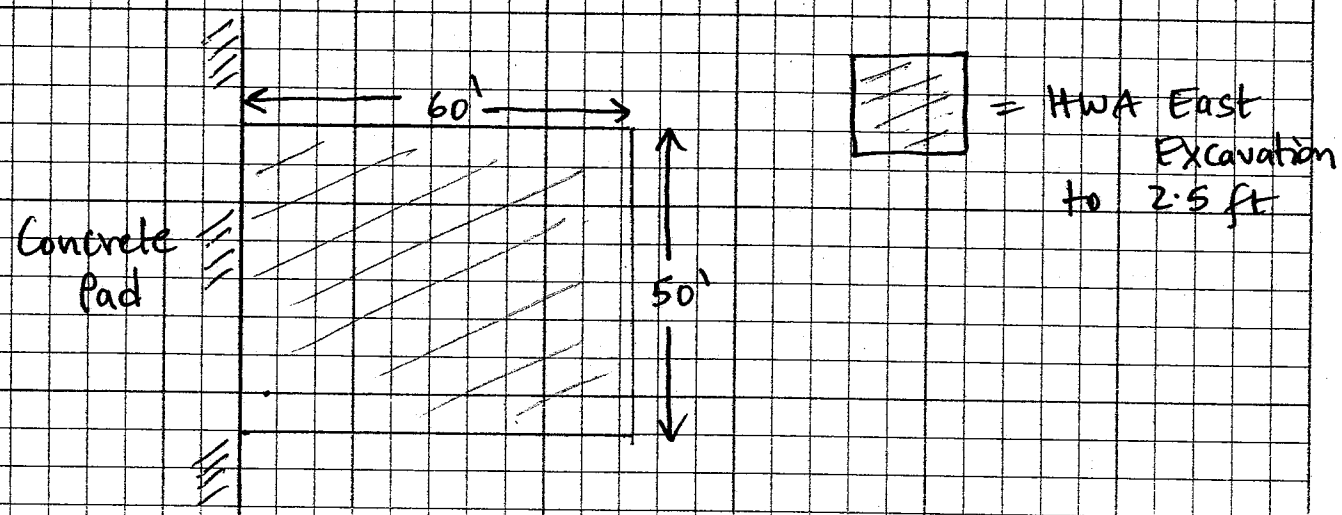
Job no. _____ Job _____ Rev. No. _____

Client _____ By JN Date 10/26/06

Subject _____ Chk'd EF Date 11/15/06

B. East Excavation

1. Sketch of East Excavation



2. Volume Calculation

a) Surface area = 60' x 50' = 3000 ft²

$$\text{Volume} = \frac{3000\ ft^2 \times 2.5\ ft}{27}$$

$$= \boxed{277.8\ yd^3}$$

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Job no. _____ Job _____ Rev. No. _____

Client _____ By JN Date 10/26/06

Subject Summary of Excavation Volume Chk'd EF Date 11/15/06

Location		Surface Area (ft^2)	Depth (ft)	Vol (ft^3) ($yard^3$)
DPA	West #1	2,475	2.5	229.2
DPA	West #2	900	5	166.66
DPA	East #1	300	5	55.55
DPA	East #2	1,700	5	314.81
HWA	West	1,200	2.5	111.1
HWA	East	3,000	2.5	277.8