

COE 2012 Warner Park Vegetation and Soil Residue Study

James P. Bennett

January 22, 2013

Factors

1. 2 Dates of sampling: June 22 (before R&B) and July 23 (after), 2012
2. 3 Sites: launch mound (1), island south of mound (2), spectator area east of mound (3)
3. 16 Plant species: bulk leaf samples, 5 species of which were at all sites and dates
4. 2 Plant types: herbaceous and woody
5. 1 Soil sample at each site and date

Results

1. 67 plant samples analyzed
2. 9 soil samples analyzed
3. 11 tissue and soil concentrations:

Al: 8 BDL values

Ba: 0 BDL values

Chloride: 0 BDL values

Co: 12 BDL values

Cr: 62 BDL values

Fe: 0 BDL values

K: 0 BDL values

Mg: 0 BDL values

S: 0 BDL values

Sr: 0 BDL values

Perchlorate: 66 BDL values

Total number of data points = 688

Discussion

Questions for COE to discuss:

1. Are there differences in concentrations before and after the fireworks?
2. Are there differences in concentrations among the 3 sites?
3. Are there differences among species in concentrations?
4. Are there correlations among the elements that mean anything?
5. How high are the concentrations?