**Table S1. Summary of CALMIM 5.4 inputs. To model emissions from the daytime open face, we assumed a final cover profile (as underlying waste was fully methanogenic) overlain by 6” sand. Nighttime daily cover emissions as shown in table.**

1. CLF, Shelby County (Footprint: 80 acres)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cover Type | % Area | % Gas Recovery | % Vegetation Present | Organic Matter Content | Material & Thickness |
| Daily | 0.2 | 0 | 0 | Low | 6” clay |
| Intermediate | 48.8 | 0 | 80 | Medium  | 36’ clay |
| Final | 50 | 0 | 95 | Medium | 6” top soil over 48” clay |

1. NCLF, Newton County (Footprint: 196.4 acres)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cover Type | % Area | % Gas Recovery | % Vegetation Present | Organic Matter Content | Material & Thickness |
| Daily | 15 | 25 | 0 | Low | 6” clay |
| Intermediate | 60 | 90 | 50 | Medium | 36” clay |
| Final | 25 | 100 | 100 | Medium | Multi-layered\* |

\* 6” top soil + 2.5’ clay + 8 oz double-sided geocomposite + 40 mil LLDPE geomembrane + 12” compacted clay liner + 12” clay structural fill

1. RFLF, Randolph County (Footprint: 112.4 acres)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cover Type | % Area | % Gas Recovery | % Vegetation Present | Organic Matter Content | Material & Thickness |
| Daily | 1 | 0 | 0 | Low | 6” clay |
| Intermediate | 66 | 75 | 80 | Medium | 36” clay |
| Final | 33 | 100 | 100 | Medium | 6” top soil over 48” clay  |

1. SSLF, Marion County (Footprint: 228 acres)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cover Type | % Area | % Gas Recovery | % Vegetation Present | Organic Matter Content | Material & Thickness |
| Daily | 2 | 0 | 0 | Low | 6” small tire shreds |
| Intermediate | 85 | 90 | 80 | Medium | 36” clay |
| Final | 13 | 100 | 100 | Medium | 6” top soil (loam) over 48” clay  |

1. TBLF, Hendricks County (Footprint: 173 acres)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cover Type | % Area | % Gas Recovery | % Vegetation Present | Organic Matter Content | Material & Thickness |
| Daily | 4 | 0 | 0 | Low | See note below\* |
| Intermediate | 39 | 100 | 0 | Medium | 36” clay |
| Final | 57 | 100 | 100 | Medium | See note below+ |

\* Two Daily covers: 6” clay and “extended daily cover” of 31” loamy sand; each 2% of area

+ Two Final covers: 48” silty clay loam (34% of area) and geomembrane composite cover (23% of area) of 12” loam over HDPE geomembrane over 24” silty clay loam.