

# 18 AN 500

| Sample No | Grid Coordinates | Sample No | Coordinates | Sample No | Coordinates |
|-----------|------------------|-----------|-------------|-----------|-------------|
| 1         | Pit # 1          | 30        | N76 / E136  | 59        | N82 / E136  |
| 2         | Pit # 2          | 31        | " / E139    | 60        | " / E139    |
| 3         | " # 3            | 32        | N79 / E100  | 61        | N85 / E97   |
| 4         | " # 4            | 33        | " / E103    | 62        | " / E100    |
| 5         | " # 5            | 34        | " / E106    | 63        | " / E103    |
| 6         | " # 6            | 35        | " / E109    | 64        | " / E106    |
| 7         | " # 7            | 36        | " / E112    | 65        | " / E109    |
| 8         | " # 8            | 37        | " / E115    | 66        | " / E112    |
| 9         | " # 9            | 38        | " / E118    | 67        | " / E115    |
| 10        | " # 10           | 39        | " / E121    | 68        | " / E118    |
| 11        | " # 11           | 40        | " / E124    | 69        | " / E121    |
| 12        | " # 12           | 41        | " / E127    | 70        | " / E124    |
| 13        | " # 13           | 42        | " / E130    | 71        | " / E127    |
| 14        | " # 14           | 43        | " / E133    | 72        | " / E130    |
| 15        | " # 15           | 44        | " / E136    | 73        | " / E133    |
| 16        | " # 16           | 45        | " / E139    | 74        | " / E136    |
| 17        | " # 17           | 46        | N82 / E97   | 75        | " / E139    |
| 18        | N76 / E100       | 47        | " / E100    | 76        | N88 / E97   |
| 19        | " / E103         | 48        | " / E103    | 77        | " / E100    |
| 20        | " / E106         | 49        | " / E106    | 78        | " / E103    |
| 21        | " / E109         | 50        | " / E109    | 79        | " / E106    |
| 22        | " / E112         | 51        | " / E112    | 80        | " / E109    |
| 23        | " / E115         | 52        | " / E115    | 81        | " / E112    |
| 24        | " / E118         | 53        | " / E118    | 82        | " / E115    |
| 25        | " / E121         | 54        | " / E121    | 83        | " / E118    |
| 26        | " / E124         | 55        | " / E124    | 84        | " / E121    |
| 27        | " / E127         | 56        | " / E127    | 85        | " / E124    |
| 28        | " / E130         | 57        | " / E130    | 86        | " / E127    |
| 29        | " / E133         | 58        | " / E133    | 87        | " / E130    |

# 18 AN 500

| Sample No | Grid Coordinates | Sample No | Grid Coordinates | Sample No | Grid Coordinates |
|-----------|------------------|-----------|------------------|-----------|------------------|
| 88        | N88 / E133       | 117       | N94 / E118       | 146       | N100 / E109      |
| 89        | " / E136         | 118       | " / E121         | 147       | " / E112         |
| 90        | " / E139         | 119       | " / E124         | 148       | " / E115         |
| 91        | N91 / E91        | 120       | " / E127         | 149       | " / E118         |
| 92        | " / E94          | 121       | " / E130         | 150       | " / E121         |
| 93        | " / E97          | 122       | " / E133         | 151       | " / E124         |
| 94        | " / E100         | 123       | " / E136         | 152       | " / E127         |
| 95        | " / E103         | 124       | " / E139         | 153       | " / E130         |
| 96        | " / E106         | 125       | N97 / E91        | 154       | " / E133         |
| 97        | " / E109         | 126       | " / E94          | 155       | " / E136         |
| 98        | " / E112         | 127       | " / E97          | 156       | " / E139         |
| 99        | " / E115         | 128       | " / E100         | 157       | " / E142         |
| 100       | " / E118         | 129       | " / E103         | 158       | " / E145         |
| 101       | " / E121         | 130       | " / E106         | 159       | " / E148         |
| 102       | " / E124         | 131       | " / E109         | 160       | " / E151         |
| 103       | " / E127         | 132       | " / E112         | 161       | " / E154         |
| 104       | " / E130         | 133       | " / E115         | 162       | " / E157         |
| 105       | " / E133         | 134       | " / E118         | 163       | " / E160         |
| 106       | " / E136         | 135       | " / E121         | 164       | " / E163         |
| 107       | " / E139         | 136       | " / E124         | 165       | N103 / E82       |
| 108       | N94 / E91        | 137       | " / E127         | 166       | " / E85          |
| 109       | " / E94          | 138       | " / E130         | 167       | " / E88          |
| 110       | " / E97          | 139       | " / E133         | 168       | " / E91          |
| 111       | " / E100         | 140       | " / E136         | 169       | " / E94          |
| 112       | " / E103         | 141       | " / E139         | 170       | " / E97          |
| 113       | " / E106         | 142       | N100 / E91       | 171       | " / E100         |
| 114       | " / E109         | 143       | N100 / E94       | 172       | " / E103         |
| 115       | " / E112         | 144       | " / E103         | 173       | " / E106         |
| 116       | " / E115         | 145       | " / E106         | 174       | " / E109         |

18 AD 500

| Sample No | Grid Coordinates | Sample No | Coordinates | Sample No | Grid Coordinates |
|-----------|------------------|-----------|-------------|-----------|------------------|
| 175       | N103 / E112      | 204       | N106 / E145 | 233       | N112 / E118      |
| 176       | " / E115         | 205       | " / E148    | 234       | " / E121         |
| 177       | " / E118         | 206       | " / E151    | 235       | " / E124         |
| 178       | " / E121         | 207       | " / E154    | 236       | " / E127         |
| 179       | " / E124         | 208       | " / E157    | 237       | " / E130         |
| 180       | " / E127         | 209       | " / E160    | 238       | " / E133         |
| 181       | " / E130         | 210       | " / E163    | 239       | " / E136         |
| 182       | " / E133         | 211       | N109 / E94  | 240       | " / E139         |
| 183       | " / E136         | 212       | " / E97     | 241       | " / E142         |
| 184       | N106 / E82       | 213       | " / E900    | 242       | " / E145         |
| 185       | " / E85          | 214       | " / E103    | 243       | " / E148         |
| 186       | " / E88          | 215       | " / E106    | 244       | " / E151         |
| 187       | " / E91          | 216       | " / E109    | 245       | " / E154         |
| 188       | " / E94          | 217       | " / E112    | 246       | " / E157         |
| 189       | " / E97          | 218       | " / E115    | 247       | " / E160         |
| 190       | " / E100         | 219       | " / E118    | 248       | N115 / E91       |
| 191       | " / E103         | 220       | " / E121    | 249       | " / E94          |
| 192       | " / E106         | 221       | " / E127    | 250       | " / E97          |
| 193       | " / E109         | 222       | " / E130    | 251       | " / E100         |
| 194       | " / E112         | 223       | " / E133    | 252       | " / E103         |
| 195       | " / E115         | 224       | " / E136    | 253       | " / E106         |
| 196       | " / E118         | 225       | N112 / E94  | 254       | " / E109         |
| 197       | " / E121         | 226       | " / E97     | 255       | " / E112         |
| 198       | " / E127         | 227       | " / E100    | 256       | " / E115         |
| 199       | " / E130         | 228       | " / E103    | 257       | " / E118         |
| 200       | " / E133         | 229       | " / E106    | 258       | " / E121         |
| 201       | " / E136         | 230       | " / E109    | 259       | " / E124         |
| 202       | " / E139         | 231       | " / E112    | 260       | " / E127         |
| 203       | " / E142         | 232       | " / E115    | 261       | " / E130         |

## 18 AND 500

| Sample No | Grid Coordinates | Sample No | Coordinates | Sample No | Coordinates |
|-----------|------------------|-----------|-------------|-----------|-------------|
| 262       | N115 / E133      | 291       | N121 / E124 | 320       | N127 / E118 |
| 263       | N118 / E82       | 292       | " / E127    | 321       | " / E121    |
| 264       | " / E88          | 293       | " / E130    | 322       | " / E124    |
| 265       | " / E88          | 294       | " / E133    | 323       | " / E127    |
| 266       | " / E91          | 295       | N124 / E85  | 324       | " / E130    |
| 267       | " / E94          | 296       | " / E88     | 325       | N130 / E94  |
| 268       | " / E97          | 297       | " / E91     | 326       | " / E97     |
| 269       | " / E100         | 298       | " / E94     | 327       | " / E100    |
| 270       | " / E103         | 299       | " / E97     | 328       | " / E103    |
| 271       | " / E106         | 300       | " / E100    | 329       | " / E106    |
| 272       | " / E109         | 301       | " / E103    | 330       | " / E109    |
| 273       | " / E112         | 302       | " / E106    | 331       | " / E112    |
| 274       | " / E115         | 303       | " / E109    | 332       | " / E115    |
| 275       | " / E118         | 304       | " / E112    | 333       | " / E118    |
| 276       | " / E121         | 305       | " / E115    | 334       | " / E121    |
| 277       | " / E124         | 306       | " / E118    | 335       | " / E124    |
| 278       | " / E127         | 307       | " / E121    | 336       | " / E127    |
| 279       | " / E130         | 308       | " / E124    | 337       | " / E130    |
| 280       | " / E133         | 309       | " / E127    | 338       | N133 / E91  |
| 281       | N121 / E94       | 310       | " / E130    | 339       | " / E94     |
| 282       | " / E97          | 311       | " / E133    | 340       | " / E97     |
| 283       | " / E100         | 312       | N127 / E94  | 341       | " / E100    |
| 284       | " / E103         | 313       | " / E97     | 342       | " / E103    |
| 285       | " / E106         | 314       | " / E100    | 343       | " / E106    |
| 286       | " / E109         | 315       | " / E103    | 344       | " / E109    |
| 287       | " / E112         | 316       | " / E106    | 345       | " / E112    |
| 288       | " / E115         | 317       | " / E109    | 346       | " / E115    |
| 289       | " / E118         | 318       | " / E112    | 347       | " / E118    |
| 290       | " / E121         | 319       | " / E115    | 348       | " / E121    |

18 AN 500

| Sample No | Grid Coordinates | Sample No | Coordinates   | Sample No | Coordinates  |
|-----------|------------------|-----------|---------------|-----------|--------------|
| 349       | N 133 / E 124    | 378       | N 142 / E 115 | 407       | N 178 / E 82 |
| 350       | N 136 / E 94     | 379       | N 145 / E 94  | 408       | " / E 85     |
| 351       | " / E 97         | 380       | " / E 97      | 409       | " / E 88     |
| 352       | " / E 100        | 381       | " / E 100     | 410       | " / E 91     |
| 353       | " / E 103        | 382       | " / E 103     | 411       | " / E 94     |
| 354       | " / E 106        | 383       | " / E 106     | 412       | " / E 97     |
| 355       | " / E 109        | 384       | " / E 109     |           |              |
| 356       | " / E 112        | 385       | " / E 112     |           |              |
| 357       | " / E 115        | 386       | " / E 115     |           |              |
| 358       | " / E 118        | 387       | N 148 / E 94  |           |              |
| 359       | " / E 121        | 388       | " / E 97      |           |              |
| 360       | N 139 / E 88     | 389       | " / E 100     |           |              |
| 361       | " / E 91         | 390       | " / E 103     |           |              |
| 362       | " / E 94         | 391       | " / E 106     |           |              |
| 363       | " / E 97         | 392       | " / E 109     |           |              |
| 364       | " / E 100        | 393       | " / E 112     |           |              |
| 365       | " / E 103        | 394       | " / E 115     |           |              |
| 366       | " / E 106        | 395       | N 154 / E 82  |           |              |
| 367       | " / E 109        | 396       | " / E 88      |           |              |
| 368       | " / E 112        | 397       | " / E 94      |           |              |
| 369       | " / E 115        | 398       | " / E 100     |           |              |
| 370       | " / E 118        | 399       | " / E 106     |           |              |
| 371       | N 142 / E 94     | 400       | " / E 112     |           |              |
| 372       | " / E 97         | 401       | N 160 / E 82  |           |              |
| 373       | " / E 100        | 402       | " / E 88      |           |              |
| 374       | " / E 103        | 403       | " / E 94      |           |              |
| 375       | " / E 106        | 404       | " / E 100     |           |              |
| 376       | " / E 109        | 405       | " / E 106     |           |              |
| 377       | " / E 112        | 406       | " / E 112     |           |              |



A & L EASTERN AGRICULTURAL LABORATORIES INC.  
7621 WHITEPINE RD. RICHMOND VA. 23234 804-743-9401

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December 16, 1982

MARYLAND GEOLOGICAL SURVEY  
ATTN: MS. MAUREEN KAVENAUUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 1        | 5278  | 16                    | 20                    | 95 ✓     | 480       | 5.2 |
| 2        | 5279  | 11                    | 13                    | 60 ✓     | 370       | 4.9 |
| 3        | 5281  | 15                    | 19                    | 80 ✓     | 400       | 4.8 |
| 4        | 5282  | 14                    | 16                    | 385      | 410       | 6.5 |
| 5        | 5283  | 4                     | 6                     | 80 ✓     | 420       | 5.1 |
| 6        | 5284  | 7                     | 9                     | 80 ✓     | 220       | 4.5 |
| 7        | 5285  | 6                     | 13                    | 45 ✓     | 1950 ✓    | 7.6 |
| 8        | 5286  | 5                     | 6                     | 130 ✓    | 280       | 4.9 |
| 9        | 5287  | 9                     | 11                    | 40 ✓     | 1300 ✓    | 7.3 |
| 10       | 5288  | 11                    | 13                    | 65 ✓     | 210       | 4.7 |
| 11       | 5289  | 6                     | 8                     | 105 ✓    | 60 ✓      | 4.4 |
| 12       | 5290  | 8                     | 10                    | 80 ✓     | 90 ✓      | 4.2 |
| 13       | 5291  | 4                     | 6                     | 60 ✓     | 250       | 4.4 |
| 14       | 5292  | 13                    | 16                    | 50 ✓     | 120       | 4.3 |
| 15       | 5293  | 8                     | 10                    | 240      | 170       | 4.3 |
| 16       | 5294  | 8                     | 10                    | 80 ✓     | 380       | 4.5 |
| 17       | 5295  | 6                     | 8                     | 55 ✓     | 180       | 4.4 |
| 18       | 5296  | 9                     | 12                    | 500      | 110       | 4.6 |
| 19       | 5297  | 7                     | 11                    | 130      | 140       | 4.3 |

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MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 20       | 5298  | 3                     | 5                     | 100      | 90        | 4.1 |
| 21       | 5300  | 4                     | 6                     | 215      | 100       | 4.5 |
| 22       | 5301  | 2                     | 4                     | 85       | 100       | 4.6 |
| 23       | 5302  | 2                     | 4                     | 75       | 150       | 4.5 |
| 24       | 5303  | 4                     | 6                     | 75       | 140       | 4.7 |
| 25       | 5304  | 3                     | 5                     | 165      | 110       | 4.5 |
| 26       | 5305  | 1                     | 3                     | 60       | 30        | 4.3 |
| 27       | 5306  | 4                     | 6                     | 75       | 210       | 4.1 |
| 28       | 5307  | 4                     | 6                     | 50       | 80        | 4.4 |
| 29       | 5308  | 2                     | 4                     | 100      | 80        | 4.3 |
| 30       | 5309  | 4                     | 6                     | 175      | 80        | 4.7 |
| 31       | 5310  | 2                     | 4                     | 40       | <u>10</u> | 4.2 |
| 32       | 5311  | 3                     | 5                     | 95       | 100       | 4.3 |
| 33       | 5312  | 5                     | 7                     | 85       | 170       | 4.1 |
| 34       | 5313  | 7                     | 10                    | 245      | 230       | 4.2 |
| 35       | 5314  | 7                     | 9                     | 105      | 200       | 4.2 |
| 36       | 5316  | 7                     | 9                     | 175      | 240       | 4.4 |
| 37       | 5317  | 2                     | 4                     | 70       | 310       | 4.8 |
| 38       | 5318  | 2                     | 5                     | 90       | 250       | 4.5 |

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MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 39       | 5319  | 5                     | 8                     | 95       | 340       | 4.5 |
| 40       | 5320  | 4                     | 6                     | 50       | 200       | 4.3 |
| 41       | 5321  | 7                     | 9                     | 80       | 310       | 4.4 |
| 42       | 5322  | 4                     | 6                     | 55       | 70        | 4.2 |
| 43       | 5323  | 6                     | 8                     | 210      | 60        | 4.6 |
| 44       | 5324  | 5                     | 7                     | 45       | 40        | 4.3 |
| 45       | 5325  | 6                     | 8                     | 40       | 20        | 4.3 |
| 46       | 5326  | 5                     | 7                     | 370      | 90        | 5.0 |
| 47       | 5327  | 4                     | 6                     | 115      | 110       | 4.1 |
| 48       | 5328  | 5                     | 8                     | 125      | 310       | 4.3 |
| 49       | 5329  | 6                     | 8                     | 95       | 340       | 4.0 |
| 50       | 5331  | 6                     | 8                     | 60       | 140       | 4.5 |
| 51       | 5332  | 6                     | 8                     | 80       | 80        | 4.1 |
| 52       | 5333  | 6                     | 8                     | 95       | 150       | 4.4 |
| 53       | 5334  | 8                     | 10                    | 70       | 200       | 5.0 |
| 54       | 5335  | 4                     | 6                     | 60       | 160       | 4.5 |
| 55       | 5336  | 5                     | 7                     | 55       | 210       | 4.5 |
| 56       | 5337  | 5                     | 7                     | 75       | 240       | 4.6 |

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**A & L EASTERN AGRICULTURAL LABORATORIES INC.**  
**7621 WHITEPINE RD. RICHMOND VA. 23234 804-743-9401**

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December 16, 1982

MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

**Subject: Soil Sample Analysis Results**

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm  | Ca<br>ppm  | pH  |
|----------|-------|-----------------------|-----------------------|-----------|------------|-----|
| 57       | 5338  | 5                     | 7                     | 110       | 100        | 4.6 |
| 58       | 5339  | 3                     | 5                     | 55        | 70         | 4.3 |
| 59       | 5340  | 4                     | 6                     | 40        | 200        | 4.1 |
| 60       | 5341  | 9                     | <u>11</u>             | 65        | <u>140</u> | 4.3 |
| 61       | 5343  | 3                     | <u>5</u>              | <u>90</u> | 40         | 4.5 |
| 62       | 5344  | 3                     | 5                     | 85        | 40         | 4.2 |
| 63       | 5345  | 1                     | 3                     | 80        | 220        | 4.3 |
| 64       | 5346  | 2                     | 4                     | 55        | 100        | 4.4 |
| 65       | 5347  | 2                     | 4                     | 45        | 90         | 4.5 |
| 66       | 5348  | 3                     | 5                     | 50        | 90         | 4.3 |
| 67       | 5349  | 5                     | 7                     | 95        | 110        | 4.6 |
| 68       | 5351  | 8                     | 10                    | 90        | 130        | 5.1 |
| 69       | 5352  | 10                    | 12                    | 70        | 340        | 4.4 |
| 70       | 5353  | 8                     | 13                    | 60        | 280        | 4.9 |
| 71       | 5354  | 5                     | 7                     | 70        | 260        | 4.9 |
| 72       | 5355  | 3                     | 5                     | 60        | 220        | 4.5 |
| 73       | 5356  | 8                     | 10                    | 60        | 60         | 4.4 |
| 74       | 5357  | 9                     | 11                    | 240       | 40         | 4.9 |

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MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm  | pH  |
|----------|-------|-----------------------|-----------------------|----------|------------|-----|
| 75       | 5358  | 7                     | <u>9</u>              | 50       | <u>130</u> | 4.2 |
| 76       | 5359  | 8                     | 14                    | 100      | 140        | 4.4 |
| 77       | 5360  | 12                    | 18                    | 120      | 200        | 4.3 |
| 78       | 5361  | 6                     | 8                     | 115      | 270        | 4.7 |
| 79       | 5362  | 4                     | 6                     | 60       | 200        | 4.7 |
| 80       | 5363  | 7                     | 9                     | 100      | 210        | 4.5 |
| 81       | 5364  | 5                     | 7                     | 50       | 100        | 4.4 |
| 82       | 5365  | 8                     | 10                    | 145      | 210        | 4.5 |
| 83       | 5366  | 11                    | 13                    | 95       | 380        | 5.1 |
| 84       | 5367  | 8                     | 10                    | 120      | 400        | 5.1 |
| 85       | 5368  | 10                    | 12                    | 90       | 430        | 4.9 |
| 86       | 5369  | 5                     | 7                     | 60       | 380        | 4.2 |
| 87       | 5370  | 4                     | 7                     | 90       | 160        | 4.0 |
| 88       | 5371  | 8                     | 10                    | 50       | 140        | 4.4 |
| 89       | 5372  | 6                     | 8                     | 60       | 90         | 3.8 |
| 90       | 5374  | 11                    | <u>14</u>             | 45       | <u>60</u>  | 3.9 |
| 91       | 5375  | 4                     | 6                     | 135      | 40         | 4.1 |
| 92       | 5376  | 2                     | 4                     | 60       | 40         | 4.3 |

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MARYLAND GEOLOGICAL SURVEY  
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BALTIMORE, MD 21211

## Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 93       | 5377  | 4                     | 6                     | 150      | 30        | 4.3 |
| 94       | 5378  | 4                     | 6                     | 65       | 40        | 4.3 |
| 95       | 5379  | 4                     | 6                     | 115      | 170       | 4.7 |
| 96       | 5380  | 4                     | 6                     | 165      | 80        | 4.7 |
| 97       | 5381  | 9                     | 11                    | 305      | 90        | 4.7 |
| 98       | 5382  | 5                     | 7                     | 95       | 90        | 4.6 |
| 99       | 5383  | 10                    | 17                    | 65       | 320       | 4.8 |
| 100      | 5384  | 9                     | 13                    | 240      | 660       | 5.7 |
| 101      | 5385  | 17                    | 36                    | 150      | 740       | 5.9 |
| 102      | 5386  | 18                    | 57                    | 90       | 750       | 5.9 |
| 103      | 5387  | 13                    | 24                    | 295      | 500       | 5.6 |
| 104      | 5388  | 25                    | 33                    | 60       | 70        | 4.4 |
| 105      | 5389  | 7                     | 9                     | 50       | 150       | 4.5 |
| 106      | 5390  | 6                     | 8                     | 45       | 220       | 4.2 |
| 107      | 5391  | 18                    | 23                    | 55       | 90        | 4.5 |
| 108      | 5392  | 7                     | 9                     | 70       | 120       | 4.4 |
| 109      | 5393  | 4                     | 6                     | 60       | 50        | 4.2 |
| 110      | 5394  | 5                     | 7                     | 70       | 50        | 4.1 |

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ATTN: MS MAUREEN KAVENAUUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 111      | 5396  | 5                     | 7                     | 235      | 60        | 4.5 |
| 112      | 5397  | 3                     | 5                     | 50       | 50        | 4.3 |
| 113      | 5398  | 7                     | 9                     | 75       | 80        | 4.2 |
| 114      | 5399  | 6                     | 8                     | 70       | 80        | 4.4 |
| 115      | 5400  | 5                     | 7                     | 160      | 300       | 4.8 |
| 116      | 5401  | 9                     | 11                    | 305      | 380       | 4.8 |
| 117      | 5402  | 16                    | 52                    | 95       | 790       | 5.9 |
| 118      | 5403  | 20                    | 67                    | 160      | 820       | 5.9 |
| 119      | 5404  | 15                    | 23                    | 110      | 500       | 4.9 |
| 120      | 5405  | 18                    | 23                    | 80       | 300       | 4.3 |
| 121      | 5406  | 9                     | 11                    | 330      | 100       | 4.4 |
| 122      | 5407  | 9                     | 11                    | 120      | 80        | 4.3 |
| 123      | 5408  | 11                    | 13                    | 60       | 200       | 4.0 |
| 124      | 5409  | 16                    | 19                    | 80       | 220       | 4.2 |
| 125      | 5411  | 4                     | 6                     | 80       | 140       | 4.0 |
| 126      | 5412  | 2                     | 4                     | 85       | 30        | 4.2 |
| 127      | 5413  | 3                     | 5                     | 65       | 50        | 4.2 |
| 128      | 5414  | 4                     | 6                     | 115      | 40        | 4.4 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 129      | 5415  | 4                     | 6                     | 135      | 80        | 4.3 |
| 130      | 5416  | 5                     | 7                     | 65       | 160       | 4.0 |
| 131      | 5417  | 7                     | 9                     | 165      | 160       | 4.7 |
| 132      | 5418  | 9                     | 11                    | 230      | 450       | 5.1 |
| 133      | 5419  | 16                    | 26                    | 105      | 590       | 5.2 |
| 134      | 5420  | 22                    | 40                    | 110      | 600       | 5.4 |
| 135      | 5421  | 16                    | 40                    | 70       | 800       | 5.8 |
| 136      | 5422  | 15                    | 22                    | 50       | 420       | 5.1 |
| 137      | 5423  | 17                    | 25                    | 50       | 240       | 4.7 |
| 138      | 5424  | 16                    | 19                    | 60       | 210       | 4.7 |
| 139      | 5425  | 6                     | 8                     | 45       | 90        | 4.3 |
| 140      | 5426  | 7                     | 9                     | 80       | 130       | 4.4 |
| 141      | 5427  | 8                     | 12                    | 220      | 240       | 4.5 |
| 142      | 5428  | 5                     | 7                     | 80       | 100       | 4.1 |
| 143      | 5429  | 6                     | 8                     | 205      | 70        | 4.2 |
| 144      | 5430  | 8                     | 10                    | 65       | 240       | 4.5 |
| 145      | 5431  | 9                     | 13                    | 50       | 130       | 4.5 |
| 146      | 5433  | 6                     | 8                     | 55       | 150       | 4.5 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 147      | 5434  | 16                    | 20                    | 115      | 670       | 5.3 |
| 148      | 5435  | 32                    | 73                    | 100      | 760       | 5.1 |
| 149      | 5436  | 31                    | 47                    | 75       | 510       | 4.7 |
| 150      | 5437  | 16                    | 22                    | 75       | 370       | 4.6 |
| 151      | 5438  | 17                    | 24                    | 105      | 460       | 4.9 |
| 152      | 5439  | 20                    | 27                    | 55       | 140       | 4.5 |
| 153      | 5440  | 22                    | 29                    | 80       | 160       | 4.6 |
| 154      | 5441  | 19                    | 26                    | 80       | 100       | 4.4 |
| 155      | 5442  | 10                    | 12                    | 60       | 260       | 4.2 |
| 156      | 5443  | 20                    | 31                    | 70       | 370       | 4.5 |
| 157      | 5444  | 13                    | 16                    | 75       | 280       | 4.2 |
| 158      | 5445  | 12                    | 14                    | 65       | 90        | 4.2 |
| 159      | 5446  | 3                     | 5                     | 60       | 220       | 4.2 |
| 160      | 5447  | 2                     | 4                     | 50       | 90        | 4.2 |
| 161      | 5449  | 4                     | 6                     | 40       | 30        | 4.5 |
| 162      | 5451  | 5                     | 7                     | 45       | 70        | 4.3 |
| 163      | 5452  | 2                     | 4                     | 50       | 30        | 4.2 |
| 164      | 5453  | 2                     | 4                     | 65       | 30        | 4.4 |

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| Sample # | Lab. # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm   | Ca<br>ppm | pH  |
|----------|--------|-----------------------|-----------------------|------------|-----------|-----|
| 165      | 5454   | 3                     | 5                     | 80         | 120       | 4.3 |
| 166      | 5455   | 1                     | <u>3</u>              | 45         | 110       | 4.4 |
| 167      | 5456   | 2                     | 4                     | 45         | 70        | 4.4 |
| 168      | 5457   | 3                     | 5                     | 90         | 50        | 4.3 |
| 169      | 5458   | 6                     | 8                     | 80         | 130       | 4.4 |
| 170      | 5459   | 3                     | 5                     | 65         | 90        | 4.3 |
| 171      | 5460   | 3                     | 5                     | 60         | 110       | 4.4 |
| 172      | 5461   | 6                     | 8                     | 120        | 60        | 4.3 |
| 173      | 5462   | 3                     | 5                     | 60         | 210       | 4.3 |
| 174      | 5463   | 3                     | 5                     | 70         | 330       | 4.4 |
| 175      | 5464   | 10                    | 14                    | 110        | 570       | 5.3 |
| 176      | 5465   | 24                    | 58                    | 95         | 800       | 5.7 |
| 177      | 5466   | 18                    | 23                    | 65         | 430       | 5.0 |
| 178      | 5467   | 16                    | 26                    | 85         | 520       | 5.3 |
| 179      | 5468   | 29                    | 43                    | 70         | 410       | 4.6 |
| 180      | 5469   | 16                    | 19                    | <u>230</u> | 300       | 5.0 |
| 181      | 5470   | 17                    | 22                    | 50         | 210       | 4.5 |
| 182      | 5471   | 8                     | 10                    | 100        | 100       | 4.4 |

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BALTIMORE, MD 21211

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm  | pH  |
|----------|-------|-----------------------|-----------------------|----------|------------|-----|
| 183      | 5472  | 13                    | <u>16</u>             | 70       | <u>200</u> | 4.5 |
| 184      | 5473  | 6                     | 8                     | 100      | 80         | 4.2 |
| 185      | 5474  | 2                     | 4                     | 50       | 80         | 4.4 |
| 186      | 5476  | 3                     | 5                     | 55       | 30         | 4.6 |
| 187      | 5477  | 11                    | 15                    | 55       | 30         | 4.4 |
| 188      | 5478  | 2                     | 4                     | 65       | 30         | 4.3 |
| 189      | 5479  | 3                     | 5                     | 100      | 40         | 4.4 |
| 190      | 5480  | 4                     | 6                     | 55       | 70         | 4.2 |
| 191      | 5481  | 3                     | 5                     | 50       | 100        | 4.4 |
| 192      | 5482  | 5                     | 7                     | 95       | 110        | 4.6 |
| 193      | 5483  | 6                     | 8                     | 80       | 330        | 4.8 |
| 194      | 5484  | 8                     | 10                    | 95       | 380        | 4.9 |
| 195      | 5485  | 18                    | 21                    | 90       | 380        | 4.8 |
| 196      | 5486  | 10                    | 12                    | 70       | 240        | 4.7 |
| 197      | 5487  | 12                    | 16                    | 60       | 470        | 5.1 |
| 198      | 5488  | 7                     | 9                     | 45       | 730        | 5.5 |
| 199      | 5489  | 7                     | 9                     | 45       | 80         | 4.5 |
| 200      | 5491  | 13                    | 15                    | 70       | 200        | 4.6 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 201      | 5492  | 15                    | 18                    | 125      | 100       | 4.7 |
| 202      | 5493  | 12                    | 14                    | 90       | 120       | 4.5 |
| 203      | 5494  | 10                    | 12                    | 70       | 100       | 4.4 |
| 204      | 5495  | 4                     | 6                     | 60       | 190       | 4.4 |
| 205      | 5496  | 3                     | 5                     | 70       | 160       | 4.0 |
| 206      | 5497  | 3                     | 5                     | 55       | 90        | 4.2 |
| 207      | 5498  | 3                     | 5                     | 55       | 80        | 4.0 |
| 208      | 5499  | 5                     | 7                     | 40       | 50        | 4.1 |
| 209      | 5500  | 3                     | 5                     | 50       | 30        | 4.2 |
| 210      | 5501  | 1                     | 3                     | 60       | <u>30</u> | 4.2 |
| 211      | 5502  | 2                     | <u>4</u>              | 115      | 70        | 4.2 |
| 212      | 5503  | 2                     | 4                     | 50       | 100       | 4.2 |
| 213      | 5504  | 4                     | 7                     | 65       | 140       | 4.1 |
| 214      | 5505  | 2                     | 4                     | 40       | 80        | 4.1 |
| 215      | 5506  | 2                     | 4                     | 50       | 100       | 4.3 |
| 216      | 5507  | 3                     | 5                     | 75       | 260       | 4.6 |
| 217      | 5508  | 6                     | 8                     | 125      | 700       | 5.5 |
| 218      | 5509  | 9                     | 12                    | 120      | 270       | 4.7 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm  | pH  |
|----------|-------|-----------------------|-----------------------|----------|------------|-----|
| 219      | 5510  | 8                     | 10                    | 80       | 190        | 4.5 |
| 220      | 5511  | 8                     | 10                    | 55       | 1950       | 7.3 |
| 221      | 5513  | 8                     | 10                    | 420      | 200        | 5.3 |
| 222      | 5514  | 3                     | 5                     | 50       | 80         | 4.4 |
| 223      | 5515  | 5                     | 7                     | 60       | 130        | 4.4 |
| 224      | 5516  | 8                     | <u>11</u>             | 60       | <u>100</u> | 4.4 |
| 225      | 5517  | 3                     | 5                     | 60       | 90         | 4.1 |
| 226      | 5518  | 3                     | 5                     | 335      | 200        | 4.8 |
| 227      | 5519  | 2                     | 4                     | 60       | 70         | 4.6 |
| 228      | 5520  | 3                     | 5                     | 45       | 120        | 4.4 |
| 229      | 5521  | 5                     | 7                     | 45       | 110        | 4.7 |
| 230      | 5522  | 5                     | 7                     | 55       | 60         | 4.4 |
| 231      | 5523  | 5                     | 7                     | 80       | 130        | 4.7 |
| 232      | 5524  | 6                     | 8                     | 70       | 210        | 4.6 |
| 233      | 5525  | 3                     | 5                     | 115      | 110        | 4.5 |
| 234      | 5526  | 3                     | 5                     | 90       | 60         | 4.5 |
| 235      | 5527  | 8                     | 10                    | 45       | 80         | 4.4 |
| 236      | 5528  | 4                     | 6                     | 40       | 60         | 4.3 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 237      | 5529  | 3                     | 5                     | 70       | 80        | 4.3 |
| 238      | 5530  | 3                     | 5                     | 65       | 90        | 4.3 |
| 239      | 5531  | 8                     | 10                    | 60       | 200       | 4.3 |
| 240      | 5532  | 12                    | 16                    | 60       | 100       | 4.4 |
| 241      | 5534  | 10                    | 13                    | 50       | 100       | 4.4 |
| 242      | 5535  | 6                     | 8                     | 50       | 110       | 4.3 |
| 243      | 5536  | 8                     | 10                    | 55       | 130       | 4.3 |
| 244      | 5537  | 8                     | 10                    | 60       | 100       | 4.1 |
| 245      | 5538  | 4                     | 6                     | 55       | 60        | 4.1 |
| 246      | 5539  | 2                     | 4                     | 40       | 70        | 4.0 |
| 247      | 5540  | 2                     | 4                     | 55       | 60        | 3.9 |
| 248      | 5541  | 3                     | 5                     | 65       | 300       | 4.0 |
| 249      | 5542  | 2                     | 4                     | 70       | 280       | 4.2 |
| 250      | 5543  | 3                     | 5                     | 65       | 140       | 4.2 |
| 251      | 5545  | 6                     | 8                     | 55       | 80        | 4.0 |
| 252      | 5546  | 4                     | 6                     | 55       | 60        | 4.2 |
| 253      | 5547  | 4                     | 6                     | 40       | 20        | 4.4 |
| 254      | 5548  | 11                    | 14                    | 90       | 50        | 4.4 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 255      | 5549  | 6                     | 8                     | 50       | 50        | 4.3 |
| 256      | 5551  | 7                     | 9                     | 65       | 110       | 4.3 |
| 257      | 5552  | 7                     | 9                     | 50       | 120       | 4.1 |
| 258      | 5553  | 4                     | 6                     | 55       | 200       | 4.1 |
| 259      | 5554  | 6                     | 8                     | 45       | 70        | 4.1 |
| 260      | 5555  | 5                     | 7                     | 45       | 80        | 4.0 |
| 261      | 5556  | 3                     | 5                     | 60       | 50        | 4.1 |
| 262      | 5557  | 4                     | 6                     | 50       | 50        | 4.3 |
| 263      | 5558  | 3                     | 5                     | 50       | 120       | 3.8 |
| 264      | 5559  | 2                     | 4                     | 60       | 80        | 4.0 |
| 265      | 5560  | 2                     | 4                     | 85       | 120       | 4.6 |
| 266      | 5561  | 1                     | 2                     | 55       | 30        | 3.7 |
| 267      | 5562  | 2                     | 4                     | 100      | 40        | 3.8 |
| 268      | 5563  | 1                     | 3                     | 65       | 40        | 3.6 |
| 269      | 5564  | 2                     | 4                     | 60       | 60        | 3.9 |
| 270      | 5565  | 2                     | 4                     | 60       | 50        | 4.1 |
| 271      | 5566  | 6                     | 8                     | 60       | 20        | 4.2 |
| 272      | 5567  | 6                     | 8                     | 55       | 30        | 4.1 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 273      | 5568  | 4                     | 6                     | 60       | 40        | 4.1 |
| 274      | 5569  | 2                     | 4                     | 50       | 40        | 4.1 |
| 275      | 5571  | 3                     | 5                     | 40       | 30        | 4.1 |
| 276      | 5572  | 3                     | 5                     | 40       | 50        | 4.1 |
| 277      | 5573  | 4                     | 6                     | 50       | 80        | 4.2 |
| 278      | 5574  | 4                     | 6                     | 130      | 20        | 4.7 |
| 279      | 5575  | 5                     | 7                     | 60       | 80        | 4.1 |
| 280      | 5576  | 3                     | 5                     | 100      | 30        | 4.2 |
| 281      | 5577  | 2                     | 4                     | 60       | 90        | 4.1 |
| 282      | 5578  | 5                     | 7                     | 80       | 250       | 4.1 |
| 283      | 5579  | 5                     | 7                     | 65       | 110       | 4.1 |
| 284      | 5580  | 4                     | 6                     | 55       | 100       | 4.3 |
| 285      | 5581  | 4                     | 6                     | 60       | 80        | 4.4 |
| 286      | 5582  | 10                    | 13                    | 55       | 90        | 4.4 |
| 287      | 5583  | 5                     | 7                     | 50       | 90        | 4.3 |
| 288      | 5584  | 8                     | 10                    | 70       | 100       | 4.2 |
| 289      | 5585  | 4                     | 6                     | 50       | 60        | 4.1 |
| 290      | 5586  | 3                     | 5                     | 65       | 40        | 4.2 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 291      | 5587  | 6                     | 8                     | 50       | 70        | 4.2 |
| 292      | 5588  | 4                     | 6                     | 60       | 100       | 4.0 |
| 293      | 5589  | 6                     | 8                     | 100      | 70        | 3.9 |
| 294      | 5590  | 7                     | 9                     | 65       | 120       | 4.1 |
| 295      | 5591  | 2                     | 4                     | 55       | 80        | 4.4 |
| 296      | 5592  | 1                     | 2                     | 85       | 90        | 4.4 |
| 297      | 5593  | 1                     | 3                     | 60       | 40        | 4.5 |
| 298      | 5594  | 6                     | 8                     | 210      | 40        | 4.7 |
| 299      | 5595  | 2                     | 4                     | 80       | 50        | 4.3 |
| 300      | 5596  | 3                     | 5                     | 120      | 30        | 4.7 |
| 301      | 5598  | 44                    | 53                    | 120      | 70        | 4.7 |
| 302      | 5599  | 8                     | 11                    | 80       | 40        | 4.5 |
| 303      | 5600  | 5                     | 7                     | 55       | 30        | 4.3 |
| 304      | 5601  | 5                     | 7                     | 65       | 50        | 4.3 |
| 305      | 5602  | 6                     | 8                     | 180      | 10        | 4.8 |
| 306      | 5603  | 46                    | 59                    | 50       | 30        | 4.2 |
| 307      | 5604  | 10                    | 13                    | 75       | 30        | 4.5 |
| 308      | 5605  | 6                     | 8                     | 80       | 20        | 4.3 |

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| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 309      | 5606  | 12                    | 14                    | 140      | 10        | 4.3 |
| 310      | 5607  | 20                    | 23                    | 90       | 40        | 4.0 |
| 311      | 5608  | 12                    | 14                    | 65       | 40        | 4.1 |
| 312      | 5609  | 6                     | 8                     | 115      | 90        | 4.4 |
| 313      | 5611  | 9                     | 11                    | 100      | 290       | 4.2 |
| 314      | 5612  | 3                     | 5                     | 125      | 310       | 4.3 |
| 315      | 5613  | 6                     | 8                     | 70       | 110       | 4.3 |
| 316      | 5614  | 5                     | 7                     | 70       | 120       | 4.4 |
| 317      | 5615  | 8                     | 10                    | 55       | 220       | 4.4 |
| 318      | 5616  | 68                    | 78                    | 75       | 130       | 4.3 |
| 319      | 5617  | 79                    | 91                    | 70       | 80        | 4.2 |
| 320      | 5618  | 24                    | 27                    | 75       | 90        | 4.2 |
| 321      | 5619  | 15                    | 18                    | 50       | 50        | 4.3 |
| 322      | 5620  | 6                     | 8                     | 80       | 30        | 4.2 |
| 323      | 5621  | 12                    | 14                    | 135      | 30        | 4.1 |
| 324      | 5622  | 4                     | 6                     | 70       | 200       | 4.0 |
| 325      | 5623  | 1                     | 3                     | 60       | 30        | 4.5 |
| 326      | 5624  | 6                     | 8                     | 70       | 40        | 4.6 |

*C. Norman Jones*  
C. Norman Jones



A & L EASTERN AGRICULTURAL LABORATORIES INC.  
7621 WHITEPINE RD. RICHMOND VA. 23234 804-743-9401

REPORT NUMBER  
R350-104

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December 16, 1982

MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 327      | 5625  | 5                     | 7                     | 60       | 70        | 4.4 |
| 328      | 5626  | 2                     | 4                     | 55       | 10        | 4.4 |
| 329      | 5627  | 3                     | 5                     | 60       | 20        | 4.4 |
| 330      | 5628  | 5                     | 7                     | 55       | 30        | 4.3 |
| 331      | 5629  | 5                     | 7                     | 65       | 10        | 4.1 |
| 332      | 5630  | 26                    | 33                    | 105      | 40        | 4.0 |
| 333      | 5631  | 4                     | 6                     | 70       | 50        | 4.4 |
| 334      | 5633  | 18                    | 20                    | 55       | 30        | 4.5 |
| 335      | 5634  | 6                     | 8                     | 50       | 20        | 4.1 |
| 336      | 5635  | 7                     | 9                     | 40       | 10        | 4.2 |
| 337      | 5636  | 20                    | <u>25</u>             | 70       | <u>50</u> | 4.2 |
| 338      | 5637  | 2                     | 4                     | 50       | 80        | 4.3 |
| 339      | 5638  | 4                     | 6                     | 165      | 80        | 4.1 |
| 340      | 5639  | 3                     | 5                     | 55       | 80        | 4.4 |
| 341      | 5640  | 2                     | 4                     | 80       | 60        | 4.2 |
| 342      | 5641  | 4                     | 6                     | 265      | 200       | 5.5 |
| 343      | 5642  | 6                     | 8                     | 60       | 50        | 4.3 |
| 344      | 5643  | 4                     | 6                     | 80       | 50        | 4.2 |

*Norman Jones*  
C. Norman Jones



A & L EASTERN AGRICULTURAL LABORATORIES INC.  
7621 WHITEPINE RD. RICHMOND VA. 23234 804-743-9401

REPORT NUMBER

R350-104

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December 16, 1982

MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

*stop*

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm  | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|-----------|-----------|-----|
| 345      | 5644  | 6                     | 8                     | 55        | 40        | 4.1 |
| 346      | 5646  | 10                    | 12                    | 85        | 70        | 4.1 |
| 347      | 5647  | 3                     | 5                     | 60        | 30        | 4.2 |
| 348      | 5648  | 8                     | 10                    | 50        | 50        | 4.3 |
| 349      | 5649  | 5                     | <u>7</u>              | <u>50</u> | <u>10</u> | 3.7 |
| 350      | 5651  | 3                     | 5                     | 55        | 60        | 4.4 |
| 351      | 5652  | 3                     | 5                     | 60        | 140       | 4.3 |
| 352      | 5653  | 3                     | 5                     | 70        | 40        | 4.1 |
| 353      | 5654  | 8                     | 10                    | 70        | 70        | 3.9 |
| 354      | 5655  | 3                     | 5                     | 90        | 90        | 3.9 |
| 355      | 5656  | 9                     | 11                    | 60        | 30        | 4.2 |
| 356      | 5657  | 8                     | 10                    | 65        | 90        | 4.0 |
| 357      | 5658  | 4                     | 6                     | 90        | 70        | 3.8 |
| 358      | 5659  | 7                     | 9                     | 60        | 60        | 4.1 |
| 359      | 5660  | 9                     | <u>11</u>             | <u>60</u> | <u>80</u> | 3.9 |
| 360      | 5661  | 1                     | 3                     | 50        | 100       | 4.2 |
| 361      | 5662  | 1                     | 3                     | 185       | 30        | 4.4 |
| 362      | 5663  | 2                     | 4                     | 60        | 20        | 4.0 |

*C. Norman Jones*  
C. Norman Jones



A & L EASTERN AGRICULTURAL LABORATORIES INC.  
7621 WHITEPINE RD. RICHMOND VA. 23234 804-743-9401

REPORT NUMBER

R350-104

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December 16, 1982

MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm  | Ca<br>ppm  | pH  |
|----------|-------|-----------------------|-----------------------|-----------|------------|-----|
| 363      | 5664  | 2                     | 4                     | 60        | 20         | 4.2 |
| 364      | 5665  | 2                     | 4                     | 95        | 20         | 4.1 |
| 365      | 5666  | 2                     | 4                     | 50        | 20         | 4.0 |
| 366      | 5667  | 8                     | 11                    | 125       | 30         | 4.3 |
| 367      | 5668  | 1                     | 3                     | 50        | 20         | 3.9 |
| 368      | 5669  | 4                     | 6                     | 55        | 40         | 3.9 |
| 369      | 5671  | 24                    | 30                    | 90        | 20         | 4.4 |
| 370      | 5672  | 16                    | <u>19</u>             | 150       | <u>150</u> | 3.7 |
| 371      | 5673  | 1                     | 2                     | 55        | 40         | 4.2 |
| 372      | 5674  | 1                     | 3                     | 50        | 30         | 4.3 |
| 373      | 5675  | 1                     | 3                     | 50        | 20         | 4.3 |
| 374      | 5676  | 2                     | 4                     | 50        | 10         | 4.0 |
| 375      | 5677  | 1                     | 3                     | 70        | 20         | 4.0 |
| 376      | 5678  | 10                    | 13                    | 120       | 30         | 3.8 |
| 377      | 5679  | 7                     | 9                     | 50        | 10         | 4.0 |
| 378      | 5680  | 6                     | <u>8</u>              | <u>60</u> | <u>40</u>  | 3.9 |
| 379      | 5681  | 1                     | 2                     | 55        | 30         | 4.4 |
| 380      | 5682  | 4                     | 6                     | 165       | 50         | 4.7 |

*C. Norman Jones*  
C. Norman Jones



A & L EASTERN AGRICULTURAL LABORATORIES INC.  
7621 WHITEPINE RD. RICHMOND VA. 23234 804-743-9401

REPORT NUMBER

R350-104

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December 16, 1982

MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm  | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|-----------|-----------|-----|
| 381      | 5683  | 1                     | 2                     | 55        | 40        | 4.3 |
| 382      | 5684  | 21                    | 25                    | 60        | 20        | 4.5 |
| 383      | 5685  | 4                     | 6                     | 90        | 70        | 4.3 |
| 384      | 5686  | 1                     | 3                     | 50        | 20        | 4.4 |
| 385      | 5687  | 7                     | 9                     | 60        | 20        | 4.5 |
| 386      | 5688  | 3                     | <u>5</u>              | <u>55</u> | <u>10</u> | 4.2 |
| 387      | 5689  | 1                     | 3                     | 50        | 50        | 4.2 |
| 388      | 5690  | 10                    | 3                     | 50        | 70        | 4.3 |
| 389      | 5691  | 1                     | 2                     | <u>50</u> | <u>10</u> | 4.0 |
| 390      | 5692  | 1                     | 3                     | 70        | 60        | 4.3 |
| 391      | 5694  | 3                     | 5                     | 195       | 20        | 4.5 |
| 392      | 5695  | 3                     | 5                     | 60        | 20        | 4.3 |
| 393      | 5696  | 3                     | 5                     | 60        | < 10      | 4.3 |
| 394      | 5697  | 5                     | <u>7</u>              | <u>50</u> | < 10      | 4.3 |
| 395      | 5698  | 1                     | 3                     | 50        | <u>40</u> | 4.4 |
| 396      | 5699  | 2                     | 4                     | 60        | <u>60</u> | 4.3 |
| 397      | 5700  | 1                     | 3                     | 60        | <u>20</u> | 4.1 |
| 398      | 5701  | 1                     | 2                     | 65        | 10        | 4.2 |

*C. Norman Jones*  
C. Norman Jones



A & L EASTERN AGRICULTURAL LABORATORIES INC.  
7621 WHITEPINE RD. RICHMOND VA. 23234 804-743-9401

REPORT NUMBER

R350-104

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December 16, 1982

MARYLAND GEOLOGICAL SURVEY  
ATTN: MS MAUREEN KAVENAUUGH  
711 W. 40TH ST SUITE 440  
BALTIMORE, MD 21211

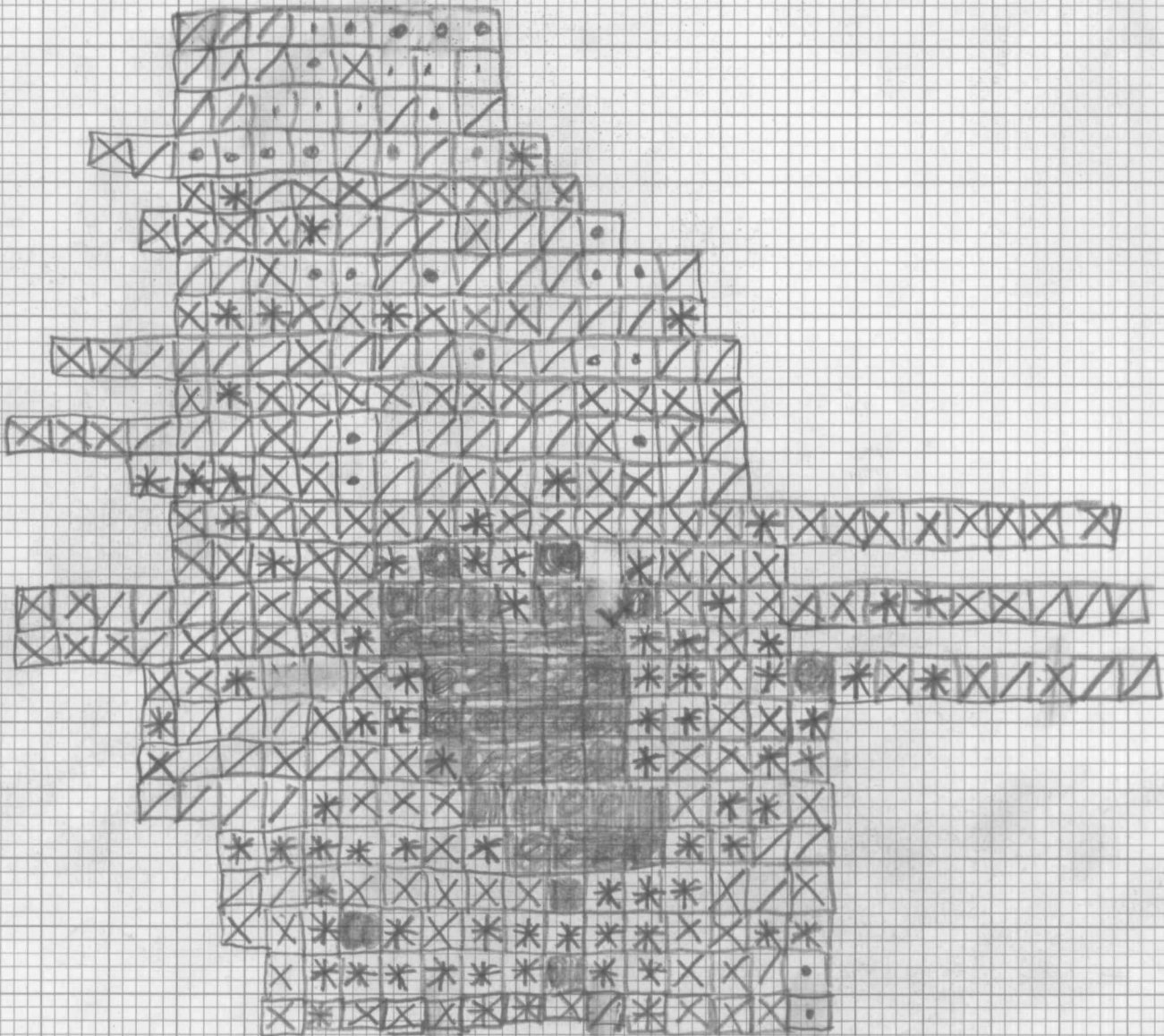
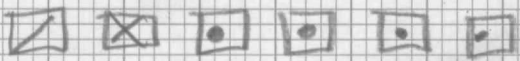
Subject: Soil Sample Analysis Results

| Sample # | Lab # | P <sub>1</sub><br>ppm | P <sub>2</sub><br>ppm | K<br>ppm | Ca<br>ppm | pH  |
|----------|-------|-----------------------|-----------------------|----------|-----------|-----|
| 399      | 5702  | 8                     | 10                    | 55       | 10        | 4.4 |
| 400      | 5703  | 5                     | <u>7</u>              | 300      | <u>10</u> | 4.7 |
| 401      | 5704  | 1                     | 2                     | 55       | 50        | 4.2 |
| 402      | 5705  | 1                     | 2                     | 150      | 20        | 4.3 |
| 403      | 5706  | 1                     | 3                     | 70       | 40        | 4.2 |
| 404      | 5707  | 2                     | 4                     | 155      | 90        | 4.6 |
| 405      | 5708  | 3                     | 5                     | 130      | < 10      | 4.2 |
| 406      | 5709  | 1                     | <u>3</u>              | 55       | <u>30</u> | 4.0 |
| 407      | 5710  | 1                     | 2                     | 40       | 30        | 4.3 |
| 408      | 5711  | 1                     | 2                     | 50       | 10        | 4.4 |
| 409      | 5712  | 1                     | 2                     | 35       | 10        | 4.3 |
| 410      | 5713  | 1                     | 3                     | 40       | 50        | 4.2 |
| 411      | 5714  | 1                     | 2                     | 40       | 30        | 4.0 |
| 412      | 5715  | 1                     | 1                     | 50       | 40        | 4.0 |

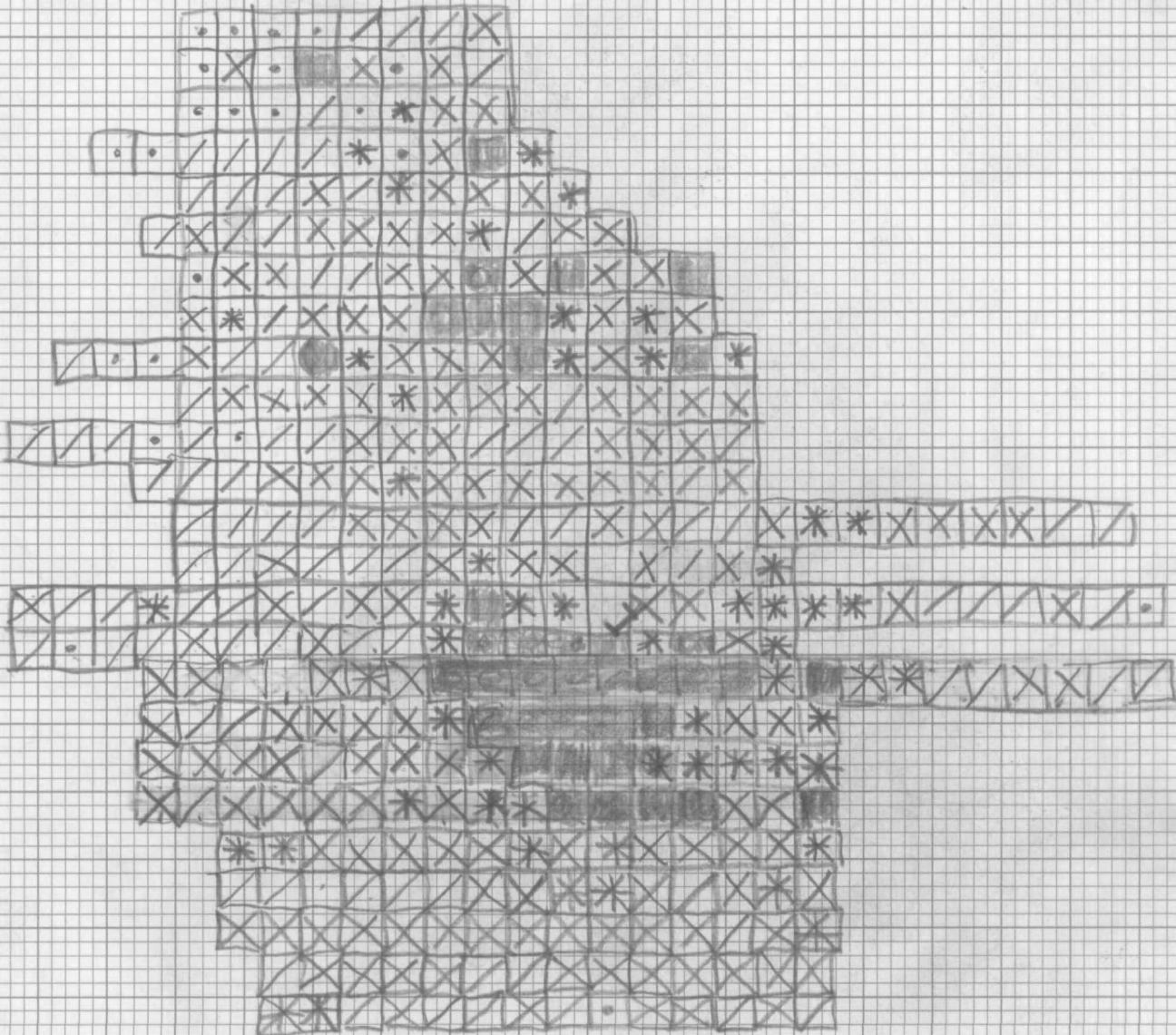
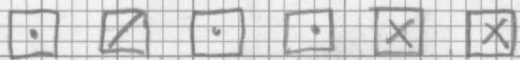
*C. Norman Jones*  
C. NORMAN JONES

Ca

0-20     •  
 30-50     /  
 60-130    X  
 140-310   \*  
 320+     ■



P<sub>2</sub>



• 1, 2, 3

/ 4, 5

X 6, 7, 8, 9, 10

\* 11 - 19

■ 20 +

Kppn

- • 35-49
- ✓ ▤ 50-64
- \* ▤ 65-99
- \* ▤ 100-139
- ▤ 140+

181  
171  
161  
151  
141  
131  
121  
111  
101  
96  
91  
86  
81  
76

89 99 109 119 129 139 149 159 169

← 82



**A & L EASTERN AGRICULTURAL LABORATORIES, INC.**

7621 Whitepine Road • Richmond, Virginia 23237 • Phone: 804-743-9401

October 19, 1982

Ms. Maureen Kavanagh  
Maryland Geological Survey  
711 W. 40TH STREET  
SUITE 440  
BALTIMORE, MD 21211

Dear Ms. Kavanagh:

Thank you for your interest in our services. As we discussed over the telephone, the cost of soil analyses which include pH, Exchangeable Potassium, Calcium and Available Phosphorus ( $P_1$  weak bray and  $P_2$  strong bray) is \$4.30 per sample. Our "turn around" time is three days.

If you have any questions, please feel free to contact me.

Sincerely,

Paul C.H. Chu, Ph.D.  
Laboratory Supervisor

*Paul Chu*  
RC/sro

HFL  
HCL

Acid soluble  
Ammonia

cc: C. Norman Jones, Managing Director  
Nancye Johnson, Billing

*Dedicated Exclusively to Providing Quality Analytical Services*

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Emery Cleaves

4 October 1982

Maureen Kavanagh

Processing of Soil Samples

I have made phone calls to get comparative bids on soils analyses. The University of Maryland charges \$5/sample to do the requested analysis (Ph, Potassium, Phosphates, and Calcium). Gascoyne Laboratories in Baltimore charges \$12.50/sample. A&L Eastern Agricultural Laboratories in Richmond charges \$4.30/sample. For 412 samples, the comparative cost are:

|                   |            |                              |
|-------------------|------------|------------------------------|
| U. of Maryland    | \$2,060.00 |                              |
| Gascoyne          | 5,150.00   |                              |
| A&L Eastern Agri. | 1,771.60   | + \$70 shipping = \$1,841.60 |

In addition to being the least expensive, A&L Eastern has higher cut-offs than University of Maryland for all of the requested elements, making the results more useful for our analysis. State Highway Administration will reimburse the total cost of the soil analysis.

MK/csw

C  
O  
P  
Y

MARYLAND GEOLOGICAL SURVEY  
MERRYMAN HALL, THE JOHNS HOPKINS UNIVERSITY  
BALTIMORE, MARYLAND 21218  
(301) 235-0771

8 November 1982

Dr. Paul C. H. Chu  
Laboratory Supervisor  
A & L Eastern Agricultural  
Laboratories, Inc.  
7621 Whitepine Road  
Richmond, Virginia 23237

Dear Dr. Chu:

The State of Maryland's Small Procurement Contract covering analyses of soil samples for the Maryland Geological Survey's Division of Archeology is enclosed. The contract is necessary due to the amount of money involved.

Please insert A & L Eastern Agricultural Laboratories, Inc's. Federal Tax Identification Number on page 2 of the contract; complete the Certification of Corporation Registration and Tax Payment (also enclosed); sign and return three copies of the contract to me. In turn, the contract will be duly signed by the Survey and approved by our parent organization the Department of Natural Resources.

A fully executed copy of the contract will be returned to you. Ms. Kavanagh, of the Division of Archeology, will be in contact with you at this time to set up procedures for delivery of the soil samples.

Sincerely,

Pat Tretter

Encls.

cc: M. Kavanagh

COPY

MARYLAND GEOLOGICAL SURVEY  
MERRYMAN HALL, THE JOHNS HOPKINS UNIVERSITY  
BALTIMORE, MARYLAND 21218  
(301) 235-0771

2 December 1982

Dr. Paul Chu  
Laboratory Supervisor  
A & L Eastern Agricultural Laboratories  
7621 White Pine Road  
Richmond, Virginia 23237

Dear Dr. Chu:

An executed copy of the State of Maryland's small procurement contract between Maryland Geological Survey and A & L Eastern Agricultural Laboratories for soils analyses is enclosed.

Ms. Kavanagh of the Survey's Division of Archeology will contact you relative to delivery of the soil samples.

Invoices covering charges for work performed under this contract should be addressed to Ms. Maureen Kavanagh, Division of Archeology, at the above address.

For your records, our Tax No. is 3000 256 3.

If I can be of further assistance to you, please do not hesitate to contact me at 301/338-7156.

Sincerely,

Pat Tretter

cc: Maureen Kavanagh ✓

Encl.

C  
O  
P  
Y

STATE OF MARYLAND

*Maureen*  
TELEPHONE: 235-0771  
235-1792

MARYLAND GEOLOGICAL SURVEY  
MERRYMAN HALL, THE JOHNS HOPKINS UNIVERSITY  
BALTIMORE, MARYLAND 21218

TO: Phyllis Stringer

DATE: 19 November 1982

FROM: Pat Tretter

SUBJECT: A & L Eastern Agricultural Laboratories, Inc. Contract

The contract between Maryland Geological Survey and A & L Eastern Agricultural Laboratories, Inc. with covering PO-4 is enclosed for your approval.

If you have any problems, please contact me (this is the first under the new system).

Encl.

\$60

BATC = Proj. Mgr.

\$100,000 -

\$160,000

total amount

913

1500  
2000

354.51

3/20

38709.90

+

47,531.05

15 July 82

Maureen:

✓ Emery ~~says~~ says that Dr. James Miller said that he could bill us <sup>3722</sup> on an as-we-submit-samples basis. Please call Miller or Joe Buriel and have them send us the bill. (We will need that for SHA anyway if we finish the project before the end of the quarter.)

In view of the large number of samples to be done (400 = \$<sup>2</sup>1,000), Emery wants price quotes from at least <sup>2</sup>~~three~~ other labs. Get price quote form from Ruth Vance. Off hand, I can't think of who to call, but surely some of the engineering companies either do ~~xxx~~ soil tests or can tell you where to get them done. Dennis or Joe may have suggestions.

After you get the price quotes, ask Emery about the next step (all 400 at once or spread out?).

Tyler

— Ph  
— calcium  
— phosphate  
— potash  
available -  
400 samples

Eastern Agri  
1-804-7439401  
A + L Laboratories Richmond - Private Lab  
Gascoyne Laboratories Inc. Baltimore  
Gascombe 301-539-0195  
July 19<sup>th</sup> Mr. Batackta

BATC  
5200.82  
NWK  
891.56

results  
of 18 S.T.P.

## Appendix II

Brick L5

Site Information

Change brick  
move #'s

Copy of Site form  
Regions map

7.5 minute quad showing site location

## Appendix I

Soils information

Calcium

Phosphate

Potash

interpretations

index cards

Contract

Scope of services: cost per sample

NTE \$

analysis required

time limit

Phone order bids record

Purchase Order #

- Memorandum of Understanding -

4.75

~~ppm~~

cost less per sample =

- ppm cutoffs - [revaling]

Xch Potassium : weak Bray -  
Av. Phosphorus : P1 : P2 : strong Bray -  
Calcium :  
they usually correlate well  
↳ organic farmers -  
mineral not being  
processed → fertilizer

U. Md extract 20-50% less than A+L weak Bray  
phosphorous → tied up w/ aluminum ions less + less available - no <sup>Sod. Fluoride</sup> ~~Pot~~ ion  
- double acid sulfuric + hydrochloric acid -  
200 ppm → activity

U. Md. 4.00 - 5.00 → absolute values → no cuts - 500 samples → weak -  
Exchangeable =

→ P.O. → generate bill

# 18 AN 500 SOIL SAMPLES BY BOX:

Box #1: samples 1-46

Box #2: samples 47-82

Box #3: samples 83-137

Box #4: samples 138-184

Box #5: samples 185-225

Box #6: samples 226-270

Box #7: samples 271-328

Box #8: samples 329-412

Box #9: samples 413-417

Soils  
Batters report

913

# RECORD OF PHONE BIDS RECEIVED

Item & Description:

Soil Analysis (Ph, Potash, Phosphate + Calcium)

Agency Code:

#4.60 - #4.30

Approved by:

mailing  
address for  
U.P.S.

Expect to

written price

- Purchase Request

deliver  
+ ask for consultation

quote

w/ purchase order

state what we expect -

|   | Date and Time of Call              | Vendor name and Phone No.                         | Name of Person Contacted    | Price Quoted incl. Delivery Charges | Delivery Date |
|---|------------------------------------|---------------------------------------------------|-----------------------------|-------------------------------------|---------------|
| 1 | July 19, 1982                      | Gascoyne Laboratories, Inc.                       | Mr. Batacto                 | \$12.50 / sample                    | —             |
|   | 11 am                              | Baltimore MD                                      |                             | w/ no prep.                         |               |
|   |                                    | 539-0195                                          |                             | 400 samples                         |               |
|   |                                    |                                                   |                             |                                     |               |
| 2 | July 19 1982                       | A+L Eastern Agri. Laboratories                    | <del>Joe</del> per sample - | \$4.30 per sample                   | —             |
|   | 3:30 pm                            | Richmond VA                                       | Charly.                     | 400 samples -                       |               |
|   |                                    | 1-804-743-9401                                    | Sylvia Searce               |                                     |               |
|   |                                    | Joe Burell: well established<br>MD. biggest lab - |                             |                                     |               |
| 3 | Date and Time of Call              | Vendor name and Phone No.                         | Name of Person Contacted    | Price Quoted incl. Delivery Charges | Delivery Date |
|   |                                    | Billing + Address                                 |                             |                                     |               |
|   | ammonia nitrate -                  | 999 ppm<br>K2O 2400 lb/acre                       |                             |                                     |               |
|   | double acid extraction<br>N/C/NP - | Ca 5000 ppm / 10000 lbs/acre                      |                             |                                     |               |
| 4 | Date and Time of Call              | Vendor name and Phone No.                         | Name of Person Contacted    | Price Quoted incl. Delivery Charges | Delivery Date |
|   | October 18 -                       | A+L → Paul Chm -                                  |                             |                                     |               |
|   |                                    | 7621 White Pine Rd                                |                             |                                     |               |
|   |                                    | Richmond, VA 23237                                |                             |                                     |               |
| 5 | Date and Time of Call              | Vendor name and Phone No.                         | Name of Person Contacted    | Price Quoted incl. Delivery Charges | Delivery Date |
|   |                                    | 500 gm                                            |                             |                                     |               |
|   |                                    |                                                   |                             |                                     |               |
|   |                                    |                                                   |                             |                                     |               |
| 6 | Date and Time of Call              | Vendor name and Phone No.                         | Name of Person Contacted    | Price Quoted incl. Delivery Charges | Delivery Date |
|   |                                    |                                                   |                             |                                     |               |
|   |                                    |                                                   |                             |                                     |               |
|   |                                    |                                                   |                             |                                     |               |

Item &amp; Description:

Agency Code:

Approved by:

|   | Date and Time of Call | Vendor name and Phone No.                  | Name of Person Contacted | Price Quoted incl. Delivery Charges | Delivery Date |
|---|-----------------------|--------------------------------------------|--------------------------|-------------------------------------|---------------|
| 1 | 7/19/82               | ATL                                        | Sylvia Scarce            | 4.00 +                              | 7 days        |
|   | 10/18/82              | 7621 White Pine Rd<br>Richmond Va<br>23237 | Paul Chue                | Shipping                            | after receipt |
| 2 | 7/19/82               | 539-0195                                   | Mr. Betactor             | 12.50/ea                            | 2             |
|   |                       |                                            |                          |                                     |               |
| 3 | 7/19                  | W. G. M<br>Asymmetry                       | Joe Burial               | 5.00/ea                             | 7-10 days     |
|   |                       |                                            |                          |                                     |               |
| 4 |                       |                                            |                          |                                     |               |
|   |                       |                                            |                          |                                     |               |
| 5 |                       |                                            |                          |                                     |               |
|   |                       |                                            |                          |                                     |               |
| 6 |                       |                                            |                          |                                     |               |
|   |                       |                                            |                          |                                     |               |

RECORD OF PHONE BIDS RECEIVED

Item & Description: Soils Analysis (Ph<sup>Exchangeable</sup>, Potassium<sup>Available</sup>, Phosphate + Calcium)

Agency Code: \_\_\_\_\_

Approved by: \_\_\_\_\_

|   | Date and Time of Call | Vendor name and Phone No. | Name of Person Contacted        | Price Quoted incl. Delivery Charges | Delivery Date |
|---|-----------------------|---------------------------|---------------------------------|-------------------------------------|---------------|
|   |                       |                           |                                 |                                     |               |
| 1 | July 19, 1982         | University of Maryland    | Joe Buriel                      | \$5.00/sample                       | 7 days        |
|   | 10:30 am              | Agronomy Department       |                                 | we deliver to                       | after receipt |
|   |                       | College Park, MD          |                                 | College Park                        |               |
|   |                       | 454-3722                  |                                 |                                     |               |
| 2 | July 19, 1982         | A+L Eastern Agri. Lab.    | Sylvia Sceance                  | \$4.30/sample                       | 7 days after  |
|   | 11 am                 | Richmond, VA              |                                 |                                     | receipt       |
|   |                       | 804-743-9401              | (also Paul Chue on              |                                     |               |
|   |                       |                           | Oct 18 - Laboratory Supervisor) |                                     |               |
| 3 | July 19, 1982         | Gascoyne Laboratories     | Mr. Bactock                     | \$12.50/sample                      | ?             |
|   | 3:30 pm               | Baltimore, MD             |                                 |                                     |               |
|   |                       | 539-0195                  |                                 |                                     |               |
|   |                       |                           |                                 |                                     |               |
| 4 | April 24, 1984        | A+L Ag.                   | Paul Chue                       | \$4.75/sample                       |               |
|   |                       |                           |                                 | (for 500 sample)                    |               |
|   |                       |                           |                                 |                                     |               |
|   |                       |                           |                                 |                                     |               |
| 5 | May 9, 1984           | Gascoyne Laboratories     | Mr. Bactock                     |                                     |               |
|   |                       | 539-0195                  |                                 |                                     |               |
|   |                       |                           |                                 |                                     |               |
|   |                       |                           |                                 |                                     |               |
| 6 | May 8, 1984           | U.Md.                     | Sue Hanner                      | \$5.00/sample                       | 3 days        |
|   |                       | 454 3722                  |                                 |                                     |               |
|   |                       |                           |                                 |                                     |               |
|   |                       |                           |                                 |                                     |               |

## DNR REQUEST FOR SERVICES

☐ Request for Services \$200.01 - \$999.99☒ Request for Services \$1,000 - \$7,500

Agency Control Number

11-145

| Requesting Unit Name | Appropriation Code     | Fund | Date             |
|----------------------|------------------------|------|------------------|
| MD Geological Survey | 30.01.11.007.002.08.05 | .01  | 19 November 1982 |

## Description and Justification of Service:

To provide soils analyses, i.e., pH, Exchangeable Potassium, Calcium and Available Phosphorus.

|                                         |                    |                                                                                                                                                                                                                                                                                                |                    |
|-----------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Total Contract Cost                     | Term of Contract   | Contract I.D.#                                                                                                                                                                                                                                                                                 | Procurement Method |
| \$2,005.00 incl. shipping               | 11/15/82 - 5/15/83 | 83-7-145                                                                                                                                                                                                                                                                                       | Small Procurement  |
| Vendor Name and Address Selected:       |                    | I certify that sufficient funds are available and <u>X</u> have, _____ have not been provided in the budget for the services requested. If funds have not been specifically provided in the budget for the requested services, funds will be available from the following source:<br><br>_____ |                    |
| A & L Eastern Agricultural Laboratories |                    |                                                                                                                                                                                                                                                                                                |                    |
| <u>7621 White Pine Road</u>             |                    |                                                                                                                                                                                                                                                                                                |                    |
| <u>Richmond, Virginia 23237</u>         |                    |                                                                                                                                                                                                                                                                                                |                    |
| _____                                   |                    |                                                                                                                                                                                                                                                                                                |                    |
| _____                                   |                    |                                                                                                                                                                                                                                                                                                |                    |

## Justification or additional comments regarding procurement method:

Survey does not have equipment to conduct soils analyses.

## Attachments, if appropriate:

Small Procurement Contract attached.

☒ Oral Solicitation form (P.O.2)☐ Copy of written or published solicitation.☐ Copy of bid board or newspaper notice.

Unit approval:

*Emery J. Cleaves*

Date 11/19/82

Procurement Office approval:

*Phyllis Stenger*  
Procurement Supervisor

Date

Date

Date

11/24/82

DEPARTMENT OF NATURAL RESOURCES

SMALL PROCUREMENT CONTRACT

(I.D. No.: 83-7-145)

THIS CONTRACT, entered into this \_\_\_\_\_ day of \_\_\_\_\_,  
19\_\_\_\_, by and between the

STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES

Maryland Geological Survey

The Rotunda

711 West 40th Street, Suite 440

Baltimore, Maryland 21211

hereinafter ("Department"),

and

A & L Eastern Agricultural Laboratories

7621 White Pine Road

Richmond, Virginia 23237

hereinafter ("Contractor");

WHEREAS, the Department has chosen the Contractor, and the Contractor has agreed to perform the work herein and be bound by the terms of this Contract;

NOW, THEREFORE, for and in consideration of the mutual covenants herein contained be it agreed by and between the parties hereto as follows:

ARTICLE I - NATURE OF CONTRACT

This Contract is for supplies, services or construction, the value of which is less than \$7,500.00, and is generally governed by the Small Procurement Procedures established pursuant to Title 21 of the Code of Maryland Regulations, particularly COMAR 21.05.07, and Article 21 of the Annotated Code of Maryland.

## ARTICLE II - SCOPE OF WORK

The Contractor shall provide soils analyses (which include pH, Exchangeable Potassium, Calcium and Available Phosphorus) of a number of samples. The number of samples is not to exceed 450.

## ARTICLE III - TERM

The term of this Contract shall be from 15 November 1982 through 15 May 1983. No work may be initiated under this Contract until the contractor has been instructed to proceed by the Department.

## ARTICLE IV - PAYMENT

The scope of work set forth above shall be performed during the term of this Contract for:

X A fixed amount of (\$4.30/sample) Not to exceed one thousand, nine hundred and thirty-five dollars and no cents (\$1,935.00) plus \$70.00 in shipping charges. Other: \_\_\_\_\_

The Contractor shall submit invoices for all costs incurred in accordance with a standard format including but not limited to the Contractor's Federal Tax Identification No. of 54-105-8771, or Social Security No. of \_\_\_\_\_, and a Contract Identifying Number set out above. Invoices shall be due and payable within 30 days of receipt by the Department.

## ARTICLE V - CHANGES

The Department may at any time by written change order make any change in the work within the general scope of this Contract. If any change under this clause causes an increase or decrease in

the Contractor's cost of, or the time required for, the performance of any part of the work under this Contract, an equitable adjustment shall be made and the Contract modified in writing accordingly.

#### ARTICLE VI - DISPUTES

This Contract shall be subject to the provisions of Article 21, Title 7 (Administrative and Civil Remedies) of the Annotated Code of Maryland and COMAR 21.10. Pending resolution of a claim, the Contractor shall proceed diligently with the performance of the Contract in accordance with the Department's decision.

#### ARTICLE VII - TERMINATION FOR CONVENIENCE

The Department may terminate this Contract, in whole or in part, without showing cause upon giving written notice to the Contractor. The Department shall pay all reasonable costs associated with this Contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with termination of the Contract. However, the Contractor may not be reimbursed for any anticipatory profits which have not been earned up to the date of termination.

#### ARTICLE VIII - TERMINATION FOR DEFAULT

When the Contractor has not performed or has unsatisfactorily performed the Contract, payment shall be withheld at the discretion of the Department. Failure on the part of a Contractor to fulfill contractual obligations shall be considered just cause for termination of the Contract, and the Contractor is not entitled to recover any costs incurred by the Contractor up to the date of termination.

#### ARTICLE IX - NON-DISCRIMINATION IN EMPLOYMENT

The Contractor is obligated not to discriminate in any manner against any employee or applicant for employment because of political or religious opinion or affiliation, sex, race, creed, color or national origin; and further, the Contractor shall include a similar clause in all subcontracts, except subcontracts for standard commercial supplies or raw materials.

#### ARTICLE X - BRIBERY AFFIDAVIT

Pursuant to Article 21, Section 3-405(h) of the Annotated Code of Maryland, the individual executing this Contract on behalf of the Contractor solemnly declares and affirms to the best of his knowledge, information and belief, that no officer, director or partner of the Contractor, or any of its employees directly involved in obtaining contracts with the State of Maryland or any political subdivisions thereof, has been convicted of bribery, attempted bribery, or conspiracy to bribe under the laws of any state or federal government.

#### ARTICLE XI - CORPORATE CERTIFICATION

If the Contractor is incorporated, this Contract shall be void ab initio at the election of the Department unless it is accompanied by an executed CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT as set out in Exhibit F. to COMAR 21.07.01.

#### ARTICLE XII - LAW APPLICABLE

This Contract shall be governed by the laws of the State of Maryland, and the parties hereby expressly agree that the courts of the State of Maryland shall have exclusive jurisdiction to decide any question arising hereunder.

The Contractor will observe and comply with all federal, state, and local laws and ordinances that affect, in connection with this Contract, the work to be performed, those employed or engaged in connection therewith, any material or equipment used, or the conduct of the work itself; and will procure and bear the expense of all necessary licenses, permits, and insurance.

ARTICLE XIII - MERGER

This Contract embodies the whole agreement of the parties. There are no promises, terms, conditions, or obligations referring to the subject matter, other than those contained herein or incorporated herein by reference.

IN WITNESS WHEREOF, the parties have executed this Contract by causing the same to be signed on the day and year first above written.

[Signature]  
WITNESS

[Signature]  
CONTRACTOR

(SEAL)

[Signature]  
WITNESS

[Signature]  
KENNETH N. WEAVER, DIRECTOR  
MARYLAND GEOLOGICAL SURVEY

(SEAL)

STATE OF MARYLAND  
DEPARTMENT OF NATURAL RESOURCES

[Signature]  
WITNESS

BY [Signature] (SEAL)

Herbert M. Sachs  
Director of Operations

Approved as to form and legal sufficiency  
this 23 day of November 1982

[Signature]  
Assistant Attorney General