## EXPLORATION LOG SA45-A2

**PROJECT:** TRONOX PHASE B **PROJECT NO.**: 20092518V1

**EXPLORATION LOCATION:** TRONOX AREA 2 **EXPLORATION DATE:** 9-9-2009

**EXPLORATION SIZE (dia.):** 6.25" CORE BARREL **EQUIPMENT:** SDC550-24 SONIC CORE RIG

**ELEVATION**: EXISTING GROUND SURFACE **LOGGED BY**: SEARS/GAREY

INITIAL DEPTH TO WATER: NOT ENCOUNTERED DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED DATE MEASURED: N/A

| FINAL DEF                                       | TH TO WATER:             | NOT EN | COUNTERED DATE MEASURED:   | <u>N//</u> | 4  |                         |                      |                                 |                      |
|---|--------------------------|--------|--|------------|----|-------------------------|----------------------|---------------------------------|----------------------|
| ELEVATION/<br>DEPTH                             | SOIL & SAMPLE<br>SYMBOLS | USCS   | DESCRIPTION  | Ā          | 11 | MOISTURE<br>CONTENT (%) | DRY DENSITY<br>(pcf) | Pocket<br>Penetrometer<br>(tsf) | WELL<br>CONSTRUCTION |
| - 0<br>   |                          | SW     | SAND with gravel, reddish brown (5YR 4/4), 90% fine to coarse sand, 10% fine to medium sub-angular to sub-rounded volcanic gravel, trace caliche nodules, loose to medium dense, dry, no plasticity, strong HCI reaction |            |    |                         |                      |                                 |                      |
| - 10<br>-<br>-<br>-<br>-<br>-<br>- 12.5         | 15<br>24<br>14           | SW     | Collect SA45-10B, PID readings: 10.6 eV = 0.1 ppmV, 11.7 eV = 0.0 ppmVgravel content reduced to trace amounts  |            |    |                         |                      |                                 |                      |
| -<br>-<br>-<br>-<br>15<br>-<br>-<br>-<br>-<br>- | N                        | SW     | gravel content to approximately 5%   |            |    |                         |                      |                                 |                      |

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**ELEVATION**: EXISTING GROUND SURFACE **LOGGED BY**: SEARS/GAREY

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

DATE MEASURED: N/A

| FINAL DEP                  | TH TO WATER:             | NOT EN | COUNTERED DATE MEASURED:  | N/ | 4 |                         | <u> </u>             |                                 |                      |
|----------------------------|--------------------------|--------|---|----|---|-------------------------|----------------------|---------------------------------|----------------------|
| ELEVATION/<br>DEPTH        | SOIL & SAMPLE<br>SYMBOLS | USCS   | DESCRIPTION   | Ā  | П | MOISTURE<br>CONTENT (%) | DRY DENSITY<br>(pcf) | Pocket<br>Penetrometer<br>(tsf) | WELL<br>CONSTRUCTION |
| -                          |                          |        |   |    |   |                         |                      |                                 |                      |
| — 20<br>-<br>-             |                          | SW     | 20' to 20.5' below ground surface (BGS) strongly cemented zone (calcite and gypsum cement)  |    |   |                         |                      |                                 |                      |
| -<br>- 22.5<br>-<br>-<br>- |                          | SW     | gravel content to approximately 10%, mostly fine gravel   |    |   |                         |                      |                                 |                      |
| - 25<br>-<br>-<br>-<br>-   | 14<br>20<br>24           | SW     | Collect SA45-25B, PID readings: 10.6 eV = 0.1 ppmV, 11.7 eV = 2.2 ppmV  |    |   |                         |                      |                                 |                      |
| - 27.5<br>-<br>-<br>-      |                          |        |   |    |   |                         |                      |                                 |                      |
| — 30<br>-<br>-<br>-        |                          | SP     | SAND with silt, reddish yellow (5YR 6/8), approximately 5% silt, 95% very fine to fine sand, trace caliche nodules present, damp, low plasticity, weak HCl reaction |    |   |                         |                      |                                 |                      |
| — 32.5<br>-<br>-<br>-<br>- |                          |        |   |    |   |                         |                      |                                 |                      |
| — 35<br>-                  | -                        | SP     | color to reddish brown (5YR 4/4)  |    |   |                         |                      |                                 |                      |

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Figure No.

| EXPLORATION LOG<br>SA45-A2  |                          |      |   |   |  |   |                         |                      |                                 |                      |  |
|---|--------------------------|------|---|---|--|---|-------------------------|----------------------|---------------------------------|----------------------|--|
| PROJECT: TRONOX PHASE B EXPLORATION LOCATION: TRONOX AREA 2 EXPLORATION SIZE (dia.): 6.25" CORE BARREL ELEVATION: EXISTING GROUND SURFACE INITIAL DEPTH TO WATER: NOT ENCOUNTERED |                          |      |   | PROJECT NO.: 20092518V1 EXPLORATION DATE: 9-9-2009 EQUIPMENT: SDC550-24 SONIC CORE RIG LOGGED BY: SEARS/GAREY  DATE MEASURED: N/A |  |   |                         |                      |                                 |                      |  |
| FINAL DEP   | DATE MEASURED: N/A       |      |   |   |  |   |                         |                      |                                 |                      |  |
| ELEVATION/<br>DEPTH   | SOIL & SAMPLE<br>SYMBOLS | USCS | DESCRIPTION                                     |   |  | 1 | MOISTURE<br>CONTENT (%) | DRY DENSITY<br>(pcf) | Pocket<br>Penetrometer<br>(tsf) | WELL<br>CONSTRUCTION |  |
| -   | 12 11 15                 | SP   | Collect SA45-36B, PID reppmV, 11.7 eV = 3.3 ppm |   |  |   |                         |                      |                                 |                      |  |
| - 37.5  | _                        |      | END OF BORING                                   | AT 37.5 FEET  |  |   |                         |                      |                                 |                      |  |

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47.5

52.5

Figure No.