STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-3

SURFACE ELEVATION +569.6 NGVD

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| | | | | | Water |
| 0.5 | | | | | Gravelly fine to coarse sand, little silt, trace clay, organics and shells - gray - very dense (SM-GM) |
| 1.0 | 1 | SS | | | |
| 2.0 | PA | | | | |
| 3.0 | 2 | SS | | | |
| 3.5 | | | | | Highly weathered shale, thinly bedded |
| 4.0 | 2A | SS | | | |
| | | RB | | | |
| 5.0 | | | | | Hard shaly limestone<br>Recovery = 90%<br>RQD = 65% |
| 6.4 | | | | | Moderately weathered soft shale |
| 7.0 | | | | | Hard shaly limestone |
| 7.0 | RUN 1 | DB | | | Moderately weathered soft shale |
| 10.0 | | | | | . . . continued |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50
76 — 78 — 11/6" — 78

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| AL | BOR NG STARTED 9/9/04 | STS OFFICE Chicago Area - 01 | |
| AL | BOR NG COMPLETED 9/9/04 | ENTERED BY KKB | SHEET NO 2 OF 2 |
| AI | FOREMAN Bomb/Lehtinen | APPD BY DSD | STS JOB NO 34098 |

STS JOB NO. 34098 — SHEET NO 1 OF 2

STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-3

SURFACE ELEVATION +569.6 NGVD (Continued)

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| | | | | | Moderately weathered soft shale |
| 11.0 | | | | | |
| 12.0 | RUN 1 | DB | | | |
| 13.0 | | | | | |
| 13.2 | | | | | Hard shaly limestone |
| 14.0 | | | | | |
| 15.0 | | | | | End of Boring<br>Borehole grouted upon completion.<br>Casing used: 5 ft. of 4 in.<br>Automatic-Diedrich Hammer used for Standard Penetration Tests. |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| AL | BOR NG STARTED 9/9/04 | STS OFFICE Chicago Area - 01 | |
| AL | BOR NG COMPLETED 9/9/04 | ENTERED BY KKB | SHEET NO 2 OF 2 |
| AI | FOREMAN Bomb/Lehtinen | APPD BY DSD | STS JOB NO 34098 |

STS JOB NO. 34098

STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-4

SURFACE ELEVATION +575.5 NGVD

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| | | | | | Water |
| 5.0 | | | | | Organic silt, little sand, trace gravel and shells - brown and black - very soft (ML) |
| 6.0 | | | | | |
| 8.0 | | | | | Gravelly fine to coarse sand, little silt, trace clay - gray - loose (GM-SM) |
| 9.0 | 1 | SS | | | |
| | | | | | . . . continued |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50
WOH — 84.7

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

STS JOB NO. 34098 — SHEET NO 1 OF 3

STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-4

SURFACE ELEVATION +575.5 NGVD (Continued)

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| 10.0 | 2 | SS | | | Gravelly fine to coarse sand, little silt, trace clay - gray - loose (GM-SM) |
| 10.5 | | | | | |
| 11.0 | | RB | | | Highly weathered soft shale, thinly bedded |
| 12.0 | | | | | |
| 12.5 | | | | | |
| 13.0 | | | | | Hard shaly limestone<br>Recovery = 78%<br>RQD = 44% |
| 13.2 | | | | | Moderately weathered soft shale |
| 14.0 | | | | | |
| 14.4 | | | | | Hard shaly limestone |
| 15.0 | RUN 1 | DB | | | |
| 15.0 | | | | | Moderately weathered soft shale<br>Field Permeability (Packer) Test @ 14 to 23 ft.:<br>Pressure / Time / Flow Volume<br>2.5 psi / 5 min. / 0.5 Gal<br>5.0 psi / 5 min. / 0 Gal<br>10 psi / 5 min. / 0 Gal |
| 16.0 | | | | | |
| 17.0 | | | | | |
| 17.7 | | | | | Hard shaly limestone |
| 18.0 | | | | | . . . continued |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50
WOH

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

STS JOB NO. 34098 — SHEET NO 2 OF 3

STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-4

SURFACE ELEVATION +575.5 NGVD (Continued)

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| 18.1 | | | | | Moderately weathered soft shale |
| 19.0 | | | | | Hard shaly limestone |
| 19.5 | | | | | Moderately weathered soft shale |
| 20.0 | RUN 1 | DB | | | Hard shaly limestone |
| 21.0 | | | | | |
| 21.5 | | | | | End of Boring<br>Borehole backfilled upon completion.<br>Casing used: 15 ft. of 4 in.<br>Safety Hammer used for Standard Penetration Tests.<br>WOH = Weight of Hammer |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| AL | BOR NG STARTED 8/30/04 | STS OFFICE Chicago Area - 01 | |
| AL | BOR NG COMPLETED 8/30/04 | ENTERED BY KKB | SHEET NO 3 OF 3 |
| AI | FOREMAN D-25/Lehtinen | APPD BY DSD | STS JOB NO 34098 |

STS JOB NO. 34098

STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-5

SURFACE ELEVATION +575.5 NGVD

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| | | | | | Water |
| 5.0 | 1 | SS | | | Silty fine to coarse sand, little gravel, trace clay, shells and wood - brown and black - loose (SM) |
| 7.0 | | | | | Gravelly fine to coarse sand, little silt and clay, trace shells - brownish gray - medium dense (SM-GM) |
| 8.5 | 2 | SS | | | |
| 9.0 | 3 | SS | | | Gravelly fine to coarse sand, little silt, trace clay - brownish gray - medium dense to very dense (SM-GM) |
| 10.0 | | RB | | | . . . continued |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50
WOH — 15 — 13/6"

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

STS JOB NO. 34098 — SHEET NO 1 OF 3

STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-5

SURFACE ELEVATION +575.5 NGVD (Continued)

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| | RB | | | | Gravelly fine to coarse sand, little silt, trace clay - brownish gray - medium dense to very dense (SM-GM) |
| 10.5 | | | | | Hard shaly limestone |
| 11.0 | | | | | |
| 12.0 | RB | | | | |
| 13.0 | | | | | |
| 14.0 | | | | | Moderately weathered soft shale<br>Recovery = 73%<br>RQD = 65% |
| 15.0 | | | | | |
| 15.5 | | | | | Hard shaly limestone |
| 15.8 | | | | | Moderately weathered soft shale |
| 16.0 | | | | | |
| 16.7 | | | | | Hard shaly limestone |
| 17.0 | RUN 1 | DB | | | |
| 17.1 | | | | | Moderately weathered soft shale<br>Field Permeability (Packer) Test @ 15 to 25 ft.:<br>Pressure / Time / Flow Volume<br>10 psi / 5 min. / 0 Gal<br>20 psi / 5 min. / 0 Gal |
| 18.0 | | | | | |
| 18.6 | | | | | Hard shaly limestone |
| 19.0 | | | | | |
| 19.2 | | | | | Moderately weathered soft shale |
| 20.0 | | | | | . . . continued |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

STS JOB NO. 34098 — SHEET NO 2 OF 3

STS Consultants Ltd.

OWNER: IDNR/City of Yorkville
PROJECT NAME: Yorkville Dam
ARCHITECT-ENGINEER: Teng & Assoc.
SITE LOCATION: Kendall County, Illinois
LOG OF BORING NUMBER: B-5

SURFACE ELEVATION +575.5 NGVD (Continued)

| Elev. (Ft) | Sample No. | Sample Type | Sample Distance | Recovery | Description of Material |
|---|---|---|---|---|---|
| | | | | | Hard shaly limestone |
| 21.0 | | | | | |
| 21.2 | | | | | Moderately weathered soft shale |
| 22.0 | RUN 1 | DB | | | |
| 23.0 | | | | | |
| 23.5 | | | | | |
| 23.9 | | | | | End of Boring<br>Borehole backfilled upon completion.<br>Casing used: 12 ft. of 4 in.<br>Safety Hammer used for Standard Penetration Tests.<br>WOH = Weight of Hammer |

Unconfined compressive strength (tsf): 1 2 3 4 5
Plastic limit % — Water content % — Liquid limit %
Standard penetration blows/ft: 10 20 30 40 50

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

| | | | |
|---|---|---|---|
| AL | BOR NG STARTED 8/24/04 | STS OFFICE Chicago Area - 01 | |
| AL | BOR NG COMPLETED 8/24/04 | ENTERED BY KKB | SHEET NO 3 OF 3 |
| AI | FOREMAN Joy 12-Berge/Lehtinen | APPD BY DSD | STS JOB NO 34098 |

STS JOB NO. 34098

LOCATION OF BORINGS ON SHEET B2

FR–423



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