

# WSSC gINT V8i Standards

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## 1. Getting Started

WSSC provides a custom **Library (WSSC-gINT\_Library.glb)** and **Data Template (wssc\_template.gdt)** which -are required for performing work in gINT V8i. Down load the latest versions of the gINT library and template files from WSSC website.

Place these files in the following default locations:

**Library:** C:\Users\Public\Documents\Bentley\gINT\libraries\WSSC-gINT\_library.glb

**Template:** C:\Users\Public\Documents\Bentley\gINT\datatmpl\wssc\_template.gdt

Select **File > Change Library...** then select **WSSC-gINT\_Library.glb** as your new default library file. This is a one-time operation that will be remembered the next time you start gINT.

## 2. Create a New Project

### Option 1

1. Select **File > New Project > Clone Data Template...**
2. Select **wssc\_template.gdt**
3. Type a file name for the new project.

### Option 2

1. Select **File > New Project > Clone project**
2. Select **Example pipe line project**
3. Type a file name for the new project.



### 3. Input application tab

#### 3.1. Main Group

##### 3.1.1. Project Table

[Main Group]	
WSSC Contract Number	BA123
Project Description	Example Pipe Line Project
County	Prince George's
WSSC Group	TSG
WSSC Project Manager	M.M
Prime Consultant	XYZ Consultants
Prime Consultant Project Manager	L. K
Project Geotech Engineer	A. L
Date Created	8/17/2015
Date Modified	8/18/2015
ASTM/AASHTO	T-206
Water Unit Wt	62.42796
Coeff of Consol Factor	1
Nkt -Geographical constant [CPT]	12.5

- Enter all relevant fields. All fields highlighted in yellow are mandatory.
- Enter WSSC’s contract number as it appears on plans and other contract documents.



### 3.1.2. Test point Table

[Main Group]												
Test Point [BH,TP,CPT]	Borehole/ Testpit Sequence No.	Hole Depth (ft)	Ground Surface Elevation (ft)	Easting (ft)	Northing (ft)	Station	Offset	Offset Direction	Date Started	Date Completed	Geotech Consultant/Contractor	
BH-1	1	35	481.9	1295426	526453	44900	120	L	7/24/2006	7/24/2006	EFG Geo Consult.	
BH-2	5	70.3	456.3	1297122	524709	47350	145	L	8/21/2006	8/21/2006	EFG Geo Consult.	
BH-3	3	40.5	486.3	1296086	525328	46160	130	R	7/31/2006	8/1/2006	EFG Geo Consult.	
BH-4	2	100.9	466.6	1297011	524662	47300	0	CL	8/15/2006	8/17/2006	EFG Geo Consult.	
BH-5	5	76	452.3	1297010	524513	47400	110	R	8/29/2006	8/30/2006	EFG Geo Consult.	
CPT-1		40	481	1322847	515894				7/31/2006	8/1/2006		
TP-1		5	452.3	1297010	524513	47400	110	R	8/9/2007	8/9/2007	EFG Geo Consult.	
TP-2		5	481.0	1295337	526376	44900	0	CL	7/25/2006	7/25/2006	EFG Geo Consult.	
*												

- Enter all relevant information in designated fields. Please some fields will be applicable only to boreholes, test pits or CPT points.
- Additional data fields not shown on the above screen shot are available on the gINT project database.
- Enter boring designations, test hole depth, elevation, coordinates and start and finish dates of tests.



### 3.2. Boreholes and Test Pits Group

#### 3.2.1. Lithology Table

[Boreholes and Test Pits group]							
Depth (ft)	Bottom (ft)	Layer Line Type	Description	Graphic	Rock	Soil Classification	
0	4	Dash	Moist, Medium Stiff, Tan, SILT, Some Fine Sand	WSSC-USCS_MH		GM	
4	23.5	None	Moist, Loose, Light Brown, Medium to Coarse, SAND, Some Silt	WSSC-USCS_SM		MH	
6	8	None	Moist, Medium Dense, Light Brown, Tan, and Yellowish Orange, Medium to Coarse SAND, Little Silt	WSSC-USCS_SP		GP-GM	
8	18.5	Dash-Dash-Dot	Moist, Medium Stiff, Mottled Light Tan and White, SILT and Sand	WSSC-USCS_ML		GC	
18.5	23.5	Dot3	Same as S-5, Very Moist, Very Stiff, Trace Gravel	WSSC-USCS_SM		GP	
23.5	28.5	Dash	Wet, Very Dense, Light Tan, SAND and Silty Clay	WSSC-USCS_SP-SC		SC	
28.5	33.5	Dash-Dot-Dot	Moist, Very Dense, Mottled Light Tan and White, SAND, Little Silt	WSSC-USCS_SW		GM	
33.5	35	Dash	Moist, Dense, Mottled Light Tan and White, Fine to Medium SAND, Trace Silt	WSSC-USCS_SW		GP-GC	

- Enter description of soil and associated graphics as appropriate.
- If graphics is not desired or required for the logs, the graphics tab can be checked under the test point table.



### 3.2.2. Sample Table

[Boreholes and Test Pits group]																		
Depth (ft)	Bottom (ft)	Number	Blows 1st 6in	Blows 2nd 6in	Blows 3rd 6in	Blows 4th 6in	Core Recovery (in)	Percent Rock Core Recovery (%)	RQD Length (in)	Percent RQD (%)	Coring Time (min)	Core Remarks	Sample Type	SPT N Value	Natural Moisture Content	Liquid Limit	Plasticity Index (PI)	% P. No
0	2	S-1	3	4	4	5	11						SH		20	50	12	
2	4	S-2	4	6	8	6	8						S		12	30	21	
4	6	S-3	4	5	5	6	14						S		21	51	10	
6	8	S-4	8	7	6	6	24						S		10	53	12	
8	10	S-5	2	2	4	4	24						S		17	12	11	
13.5	15	S-6	3	3	5		18						S		14	15	2	
18.5	20	S-7	6	6	11		18						S		12	11	3	
23.5	24.3	S-8	40	50/4			10						S		19	12	3	
28.5	28.8	S-9	50/4				4						S			24	14	
33.5	35	S-10	24	22	26		15						S					
*																		

- Enter sample information as appropriate in this table.
- Additional data fields not shown on the above screen shot are available on the gINT project database.
- When available, enter soil index test (natural moisture content, liquid limit and plastic limit) in this table. Index results will be shown on the boring logs reports on the output tab under logs.

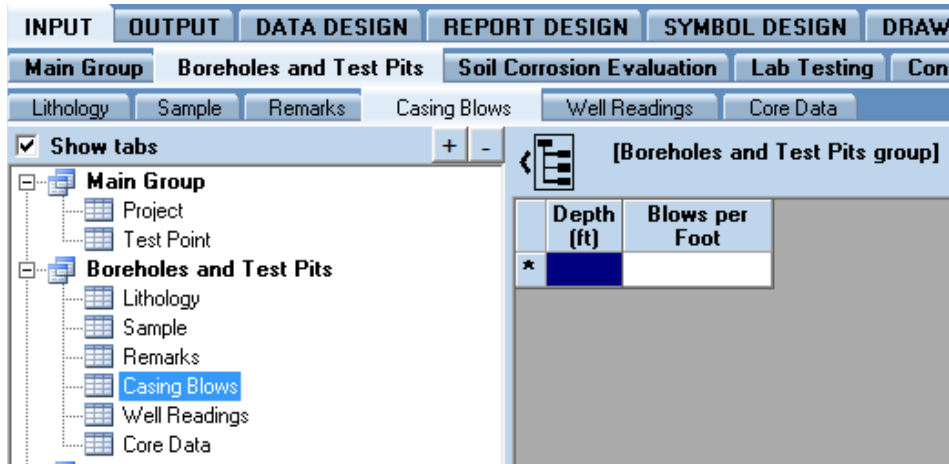
### 3.2.3. Remarks Table

[Boreholes and Test Pits group]	
Depth (ft)	Note
0	4" Topsoil
32.2	Caved in at 32.2'.
*	

- Enter appropriate remarks in this table.

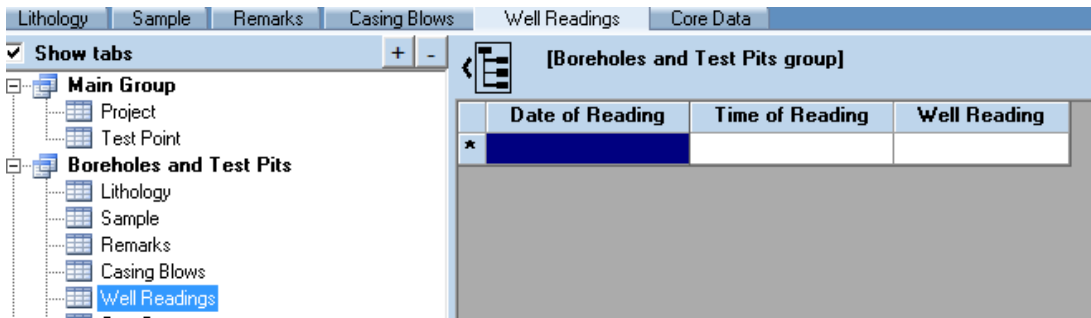


### 3.2.4. Casing Blows Table



- When available, enter blow counts for casings.

### 3.2.5. Well Readings Table



- When applicable, enter well reading information for boreholes.



### 3.2.6. Core data Table

[Boreholes and Test Pits group]									
	Depth	Frac	Inclination	Shape and Roughness	Coatings	Filling Materials	Other Discontinuities	Field PLT ROCK (psi) (psi)	Lab PLT Roc (psi)
*									

- When available, enter additional rock core information in the fields provided.

## 3.3. Soil Corrosion Evaluation Group

### 3.3.1. Testing company info table

[Soil Corrosion Evaluation group]	
Soil Corrosion Testing Company	ABBC INC.
Tested by	Michael A
Checked by	Bill K.
Date reported	11/11/2015
Pipe Sizes	24 inches

- Enter testing company information and sizes of pipes being evaluated for corrosion for reporting.





### 3.3.2. WSSC Soil Corrosion Tests and Evaluation Table

[Soil Corrosion Evaluation group]															Table H
Depth	Bottom Depth	Soil Resistivity (ohmcm)	Chloride Content (ppm)	PH	Redox potential (mV)	Soil Sample description	Ground water @ sample depth?	Chloride Content Point	Soil Resistivity Point	PH Point	Redox potential Point	Soil Sample description point	Sum of Points	Soil Corrosiv	
5	7	6	9000	7	65	Clay_Blue_Gray	Yes	10	10	0	3.5	10	33.5	Severe	
8	9	6	2000	2.5	-2	Clean_Sand	Yes	10	10	3	5	0	28	Severe	
9	12	500	2000	2	200	Clay_Stone	No	10	10	5	0	5	30	Severe	
15	20	600	600	4	-50	Clay	No	6	10	3	5	3	27	Severe	
20	22	50	8000	9	100	Clay_Stone	No	10	10	3	3.5	5	31.5	Severe	
23	24	100	5000	6	-20	Clay_Blue_Gray	Yes	10	10	0	5	10	35	Severe	
26	27	500	600	2	200	Silt	Yes	6	10	5	0	2	23	Severe	
28	30	200	10000	9	-20	Clay_Blue_Gray	Yes	10	10	3	5	10	38	Severe	
30	32	1000	8000	2	-51	Clay_Stone	No	10	8	5	5	5	33	Severe	
32	35	2000	200	5	75	Clay_Blue_Gray	Yes	4	6	0	3.5	10	23.5	Severe	
35	36	2500	30	3	-56	Clay	Yes	0	6	3	5	3	17	Severe	
36	37	20000	30	1	-20	Clay_Stone	Yes	0	0	5	5	5	15	Apprecia	
37	38	4000	32	8	200	Clean_Sand	Yes	0	4	0	0	0	4	Mild	
38	39	10000	30	2	-200	Clay_Blue_Gray	Yes	0	0	5	5	10	20	Severe	
39	40	200	25	1	-25	Clay_Stone	Yes	0	10	5	5	5	25	Severe	

- Enter soil corrosion lab test results in accordance with WSSC’s Pipe design manual.
- Upon saving data, gINT rule “WSSC soil corrosion evaluation “will run on the above table and populate the fields in grey.
- Associated report for soil corrosion evaluation is under “output/graphic tables/Soil Corrosively Summary Report”.

### 3.4. Lab testing Group

- Future development

### 3.5. Cone Penetration Test Group

- Future development



### 4. Output application tab – reports

- For WSSC boring log and Test pit log reports :

Output>logs>WSSC Standard boring log (letter size)


Output>logs>WSSC Standard test pit log (letter size)

- For WSSC standard Soil corrosion Report:

Output>Graphic tables>Soil Corrosively Summary Report

TSG/GE001 8-31-2015

**WASHINGTON SUBURBAN SANITARY COMMISSION  
STANDARD BORING LOG**

 **WSSC**  
Where Water Matters

Sheet 1 of 1  
Boring 1 of 8

Contract No. BA123A51 Project Description Example Pipe Line Project

Consultant XYZ Consultants Geotech Consultant/Contractor EFG Geo Consult.

Boring No. BH-1 Station 449+00 120 L Ground Surface Elevation 481.9 ft

Easting 526453 Northing 1295426 Logged by M.M

Date Started 7/24/06 Date Completed 7/24/06

Inspector M.M Driller M. Smith


Rig Type Rubber Tire ATV  
Rig No. CME 750  
Drive Hammer 140 LB  
Casing Auger Size 3.25 IN  
Size of Core 1.875 IN  
Size of Bit OD 2.98 IN  
Hammer Energy Ratio 65 %  
Auger Depth 35 FT

WATER TABLE			CAVE-IN TABLE		
Depth Below Surface (ft)	Elev (ft)	Time (hours)	Depth Below Surface (ft)	Elev (ft)	Time (hours)
23.3	458.6	0	7/24/06	10.0	471.9
12.5	469.4	24	7/25/06	15.0	466.9

DEPTH IN FEET	ELEV. IN FEET	MATERIAL DESCRIPTION	SPT SPOON/ROCK CORE			LAB. INDEX TESTS			REMARKS	
			SAMPLE NO.	BLOWS/ ROD	SAMPLE DEPTH	REC (%)	NMC (%)	LL (%)		PI (%)
4.0	477.90	Moist, Medium Stiff, Tan, SILT, Some Fine Sand	S-1	3-4-4-5	0.0-2.0	11%	20	50	12	4" Topsoil
			S-2	4-6-8-6	2.0-4.0	8%	12	30	21	
		Moist, Loose, Light Brown, Medium to Coarse, SAND, Some Silt	S-3	4-5-5-6	4.0-6.0	15%	10	51	10	
8.0	473.90	Moist, Medium Dense, Light Brown, Tan, and Yellowish Orange, Medium to Coarse SAND, Little Silt	S-4	8-7-6-6	6.0-8.0	24%	10	53	12	
		Moist, Medium Stiff, Mottled	S-5	2-2-4-4	0.0-2.0	24%	12	11		

TSG/GE003 09-30-2015

**WASHINGTON SUBURBAN SANITARY COMMISSION  
SOIL CORROSION POTENTIAL FOR METALLIC PIPES**

 **WSSC**  
Where Water Matters

Sheet 1 of 1

Contract No. BA123 Project Description Example Pipe Line Project

Consultant XYZ Consultants Testing Company ABBC INC.

Checked by Bill K. Tested by Michael A

Date reported 11/11/2015 Pipe sizes 20 in, 24 in

Boring/Test Pit ID	Depth (ft)	Resistivity, ohms-cm		PH		Redox Potential, millivolt		Chloride Conc., ppm		Soil Sample Description	Sum of Points	Ground water @ sample depth?	Soil Corrosivity	
		Results	Points	Results	Points	Results	Points	Results	Points					
BH-1	5-7	6	10	7	0	65	3.5	9000	10	Clay (Blue-Gray)	10	33.5	Yes	Severe
BH-1	8-9	6	10	3	3	-2	5	2000	10	Clean Sand	0	28	Yes	Severe
BH-1	9-12	900	10	2	5	200	0	2000	10	Clay/Stone	5	30	No	Severe
BH-1	15-20	600	10	4	3	-50	0	600	10	Clay	3	27	No	Severe
BH-1	20-22	50	10	9	3	100	3.5	8000	10	Clay/Stone	5	31.5	No	Severe
BH-1	23-24	100	10	6	0	-20	5	5000	10	Clay(Blue-Gray)	10	35	Yes	Severe
BH-1	26-27	900	10	2	5	200	0	600	6	Silt	2	23	Yes	Severe
BH-1	28-30	200	10	9	3	-20	5	10000	10	Clay(Blue-Gray)	10	38	Yes	Severe
BH-1	30-32	1000	8	2	3	-51	0	8000	10	Clay/Stone	5	33	No	Severe
BH-1	32-35	2000	6	5	5	200	3.0	30	0	Clay(Blue-Gray)	10	19.5	Yes	Severe
BH-2	4-6	5000	4	8	0	600	0	200	4	Clean Sand	0	8	Yes	Moderate
BH-2	8-11	3000	8	10	3	100	6	500	1	Clean Sand	0	18	No	Severe

