Los Angeles, CA www.mtechsoftware.com 310-822-3624

Software Overview

The goal of our software is to help a user complete a task as fast as possible while maintaining high quality output and flexible formatting. Our software's graphical user interface, simplified file system, and drawing tools make it more user-friendly and powerful than competing software. The following is a list of our products:

QuickLog

QuickLog greatly speeds and simplifies the process of creating boring log/well construction diagrams. Featuring a point and click graphical interface, it's intended for use by geologists or data entry staff members to create diagrams without the need for a CAD system. Hundreds of different formats can be created without programming or lengthy formatting.

The Field Version add-on for QuickLog enables the user to collect boring log lithology and sampling data on a tablet PC, netbook, or ruggedized PC while still in the field – enter the data once and be done. It's the same program – so, there is no learning curve, and it enables you to view logs on-site so that you can make drilling decisions in real time.

QuickCross/Fence

The QuickCross and QuickFence modules use data already entered in QuickLog to create 2-D cross sections and 3-D fence diagrams. Using the drawing tools, you can edit the drawings right on the preview screen.

QuickGIS - QuickSoil

QuickGIS enables you to organize the lithology data for a set of borings into a table of X, Y, Z coordinates so that it fits the formats needed for exporting to most 3-D modeling programs such as ArcView and EVS. QuickSoil produces a soil analysis table that shows soil sample test results for a set of parameters. Each sample is placed at its correct depth and shaded according to the value of each parameter tested. It makes it easy to see the areas of contamination throughout the different layers of soil.

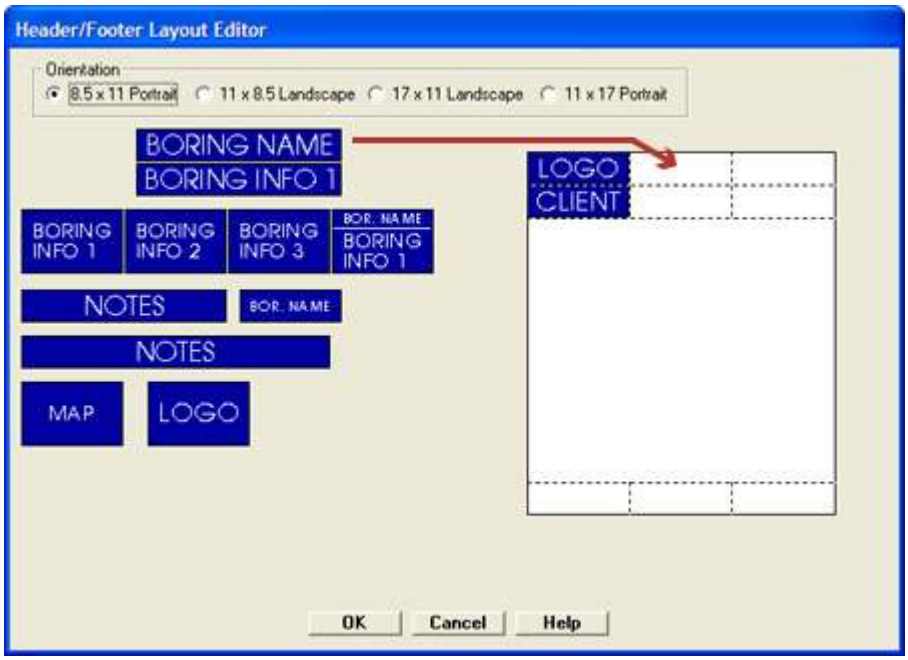
GW Assist – ChemGraph

Groundwater Assist extracts pertinent groundwater data from raw lab data files and adds it to historical data in Excel tables or other types of databases. Thus, each time you sample, you avoid tedious data entry. ChemGraph is an Access database and report writer. It enables you to quickly produce groundwater tables, graphs, and maps.

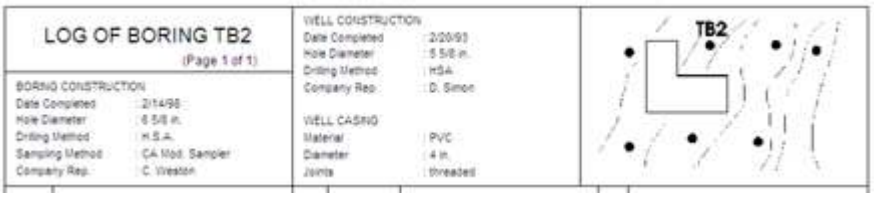
Quickog Features

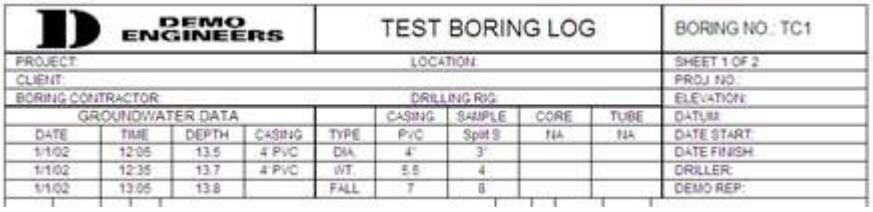
Create Log Format Quickly, Without Programming

To create the header and footer, you choose the paper size and then "drag and drop" elements:



You can completely customize the header and footer. Below are some samples:

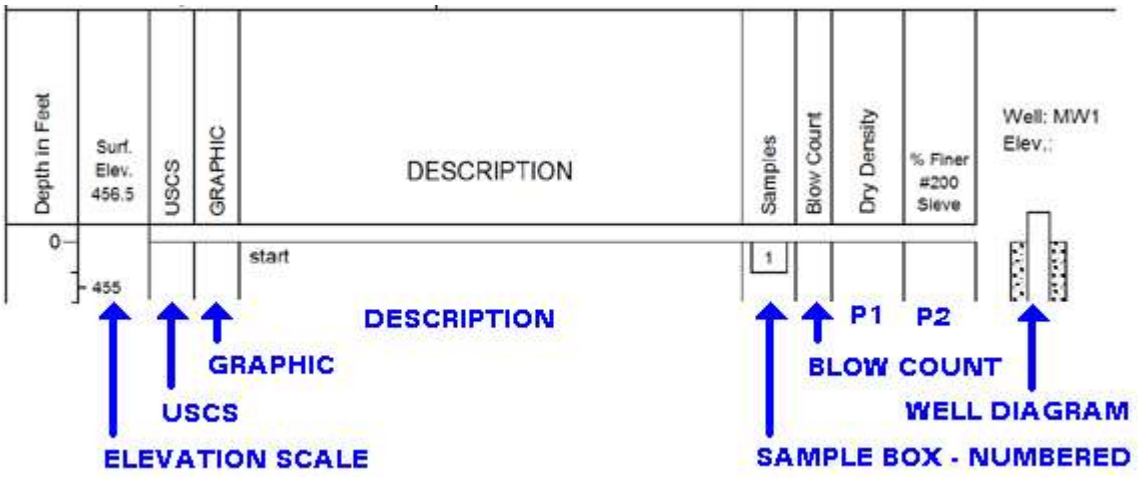




The body of the log is created "on the fly" by listing the column types to be shown from left to right. You can add, delete, or re-order these columns any time, even after you have entered data. Perhaps, you decide to add a lab test months after you have finished a set of logs -- inserting another column is no problem! Other logging programs, on the other hand, require the format to be pre-programmed before data can be entered.

	Column Type	Width	Heading Text, Pt. 1	Heading Text, Pt. 2
1	elevation scale	.4	Surf.	Elev.
2	USCS	.25	USCS	-
3	graphic	.25	GRAPHIC	-
4	descriptions	2.8	DESCRIPTION	(see column legend)
5	sample box-numbered	.3	Samples	-
6	blow count	.2	Blow Count	-
7	P1	.4	(see soil samp. pars.)	-
8	P2	.4	(see soil samp. pars.)	-
9	well diagram	1.6	(see well diagram)	-
10				

The resulting columns on the log are shown below:



Export Logs to Other Graphics Programs & CAD, if Necessary

After you've completed your log, you can simply print it, or you can export it to one of the following graphic formats: DXF, BMP, WMF, EMF.

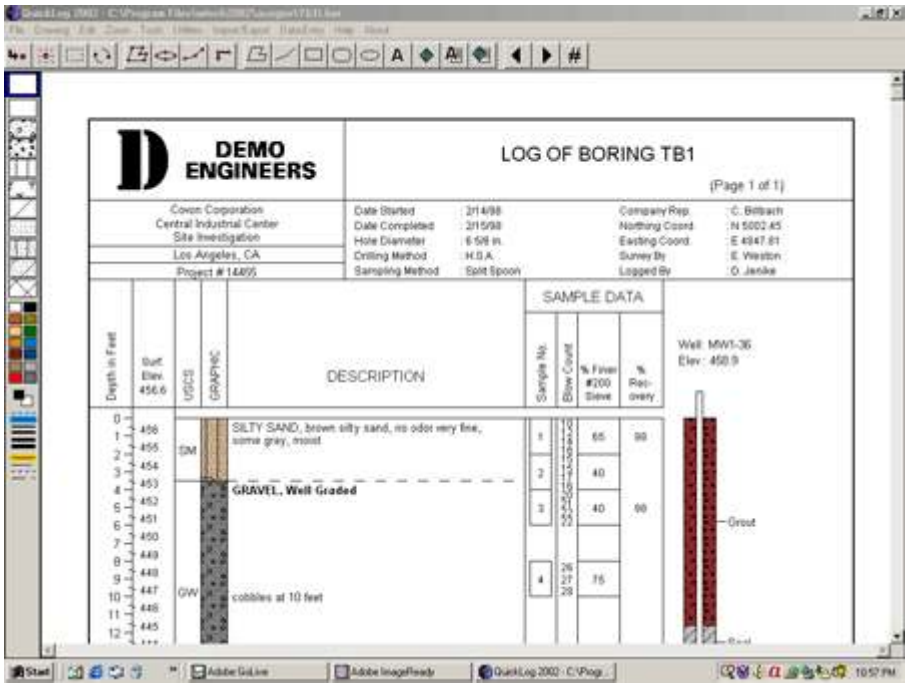
Easy to Use File Format, Export to ASCII Text or AGS Data Formats

Some borehole logging programs require you to save your data in a complex database/library system. With QuickLog however, you don't need a database programmer as each log is saved as a small ASCII text file (ending in ".BOR"). If you ever need to send it to a client or colleague, you just email the .BOR file. QuickLog also features database import/export via ASCII text and AGS data formats - so, it can be used with databases, if needed.

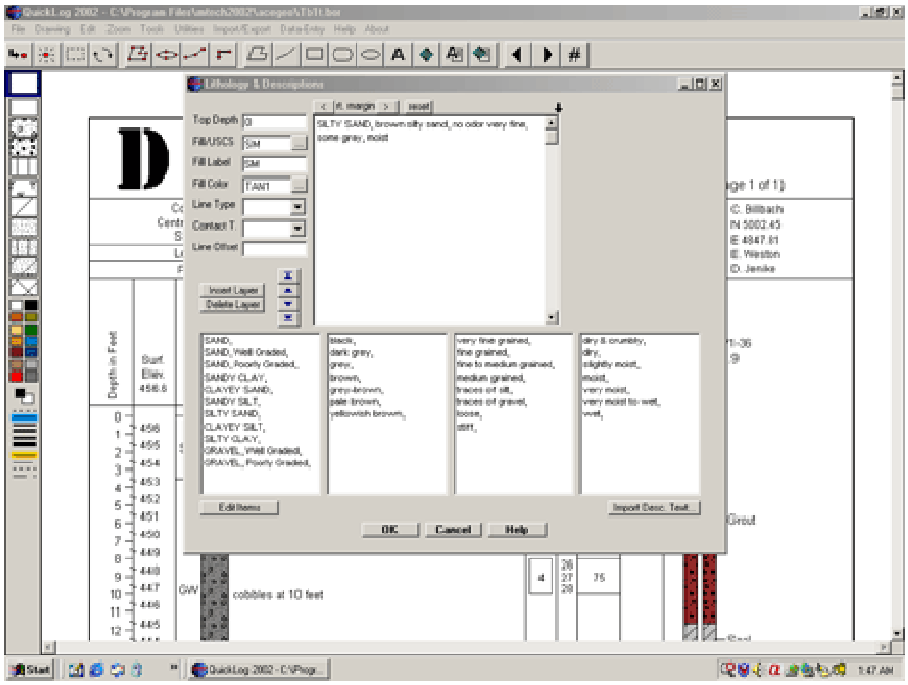
Using QuickGIS, you can also export QuickLog data into other modeling programs such as EVS, GMS, and Arcview**.**

QuickLog - Data Entry

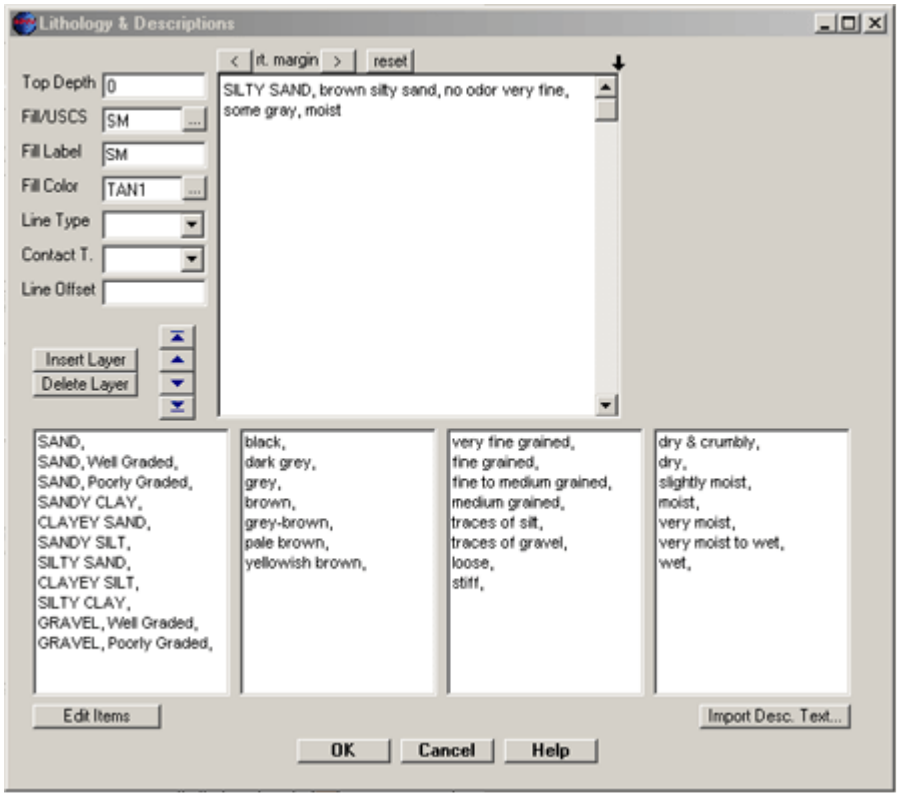
QuickLog's "point and click" interface makes data entry a breeze! When you open a log, it is shown on the preview screen. Just click wherever you would like to add or edit data:



A data entry editor then "pops up" pertaining to the area clicked. In the editor, you enter new data, make changes, and click "OK." The log is then updated on the screen. This simple interface makes the program easy to learn, and it makes it easy for those who do not use it regularly to "remember" how to use it when the time comes:

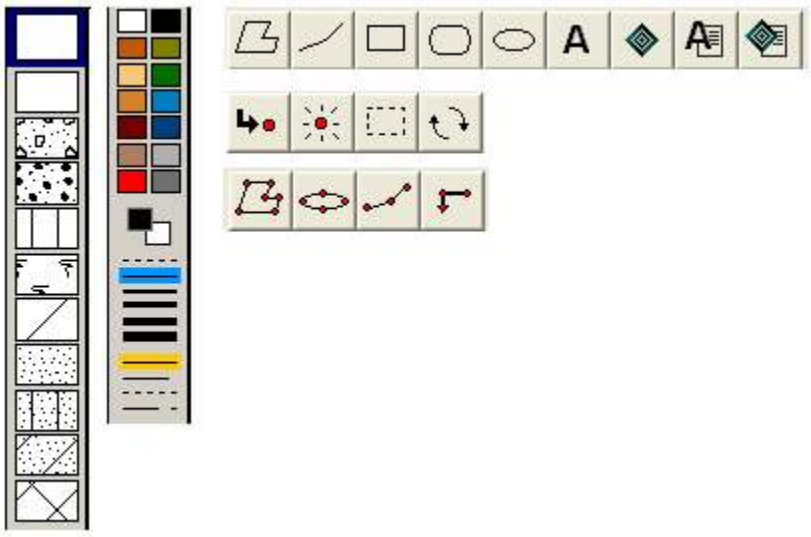


To speed entering soil and rock descriptions, you may set-up lists of often used description phrases (ex. "SAND, Poorly Graded," "yellowish brown," "traces of silt," etc). Then, you simply click on these phrases to have them placed in the description text box, above. Also, you can use this method to standardize description entry so that your logs become more consistent.



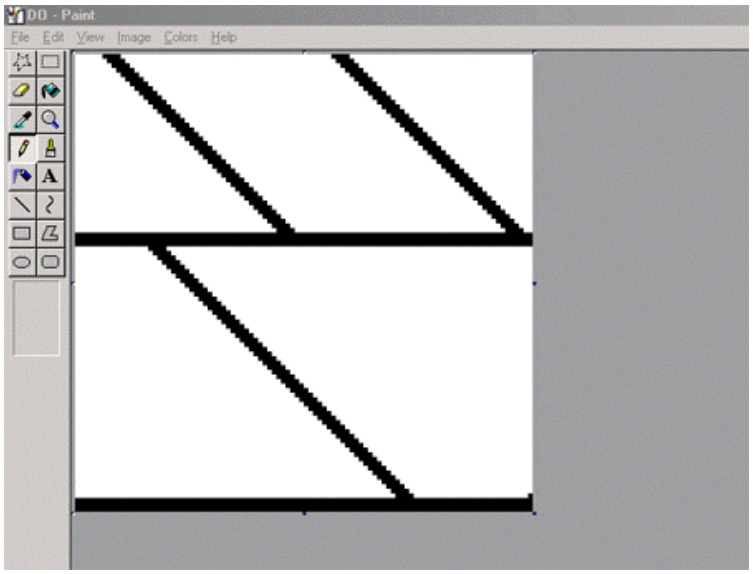
Drawing Tools

QuickLog features a rich set of drawing tools that enable you to add lines, text, and objects using the mouse, directly on the preview screen. Need to add a special feature that is not pre-programmed in the software? You can do it quickly using the drawing tools.



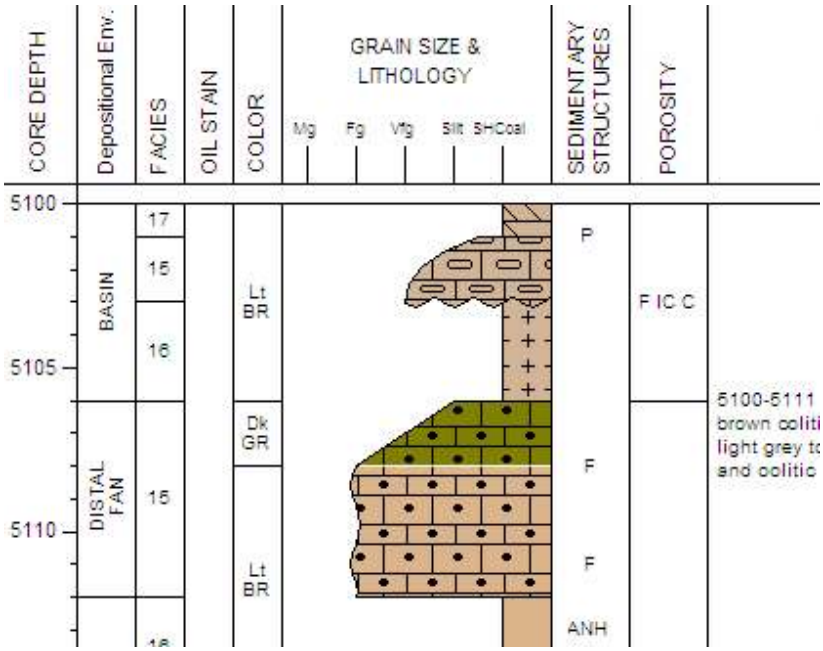
Create Custom Fill Patterns using any Paint Program

The program includes 65 fill patterns. Each fill pattern is a BMP file which you can open and modify using any paint program. This format enables us (and you) to create a wider variety of fill patterns than a CAD program can offer (since CAD can only use vector fill patterns). Any BMP file can be used as a fill pattern -- you could even take digital photos of your soil samples and use them as fill patterns. Below is the dolomite .BMP file in a paint program:



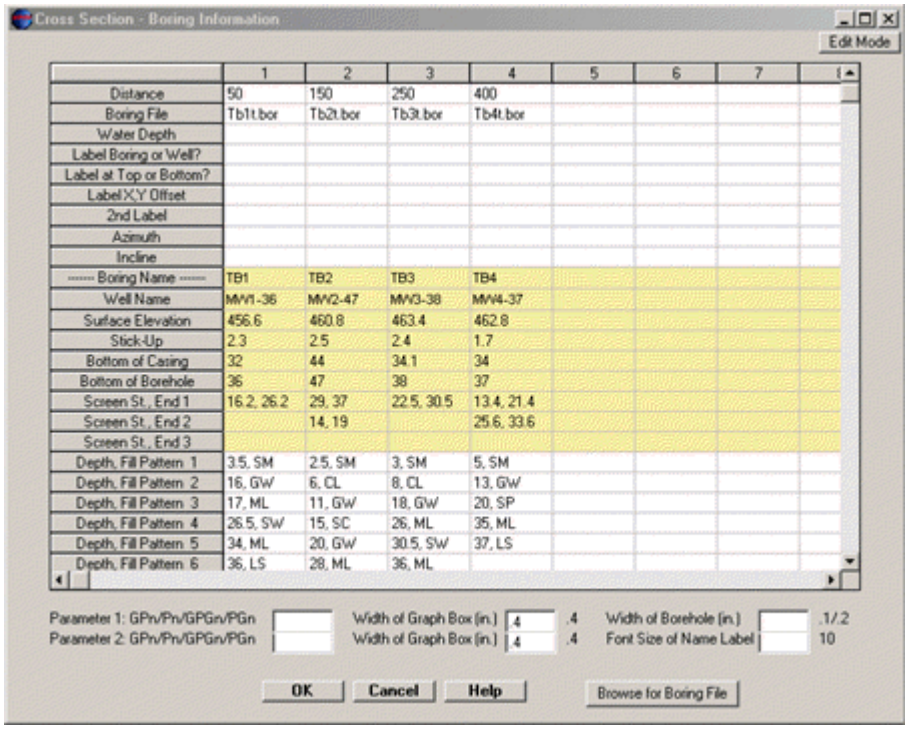
Grain Size Analysis – Lithology Log

QuickLog offers the highly specialized grain size analysis (lithology log) graphic column. Below is an example featuring Grain Size Analysis, Porosity, Depositional Environment, Sedimentary Structures, Facies, and Oil Stain.



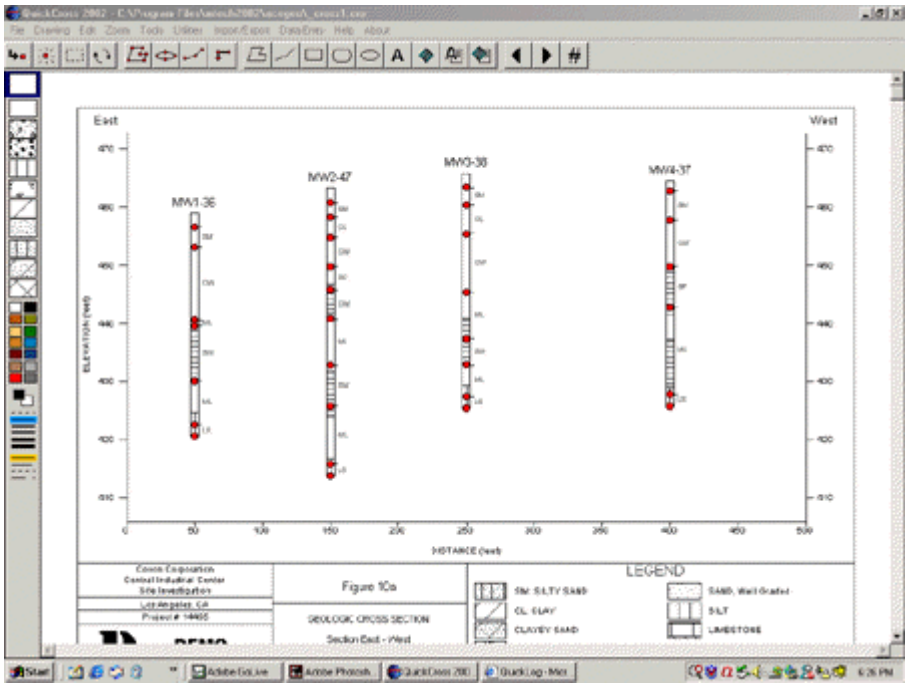
QuickCross/Fence Features

The data from QuickLog is easily imported into QuickCross and QuickFence. Below is the cross section data for 4 borings:

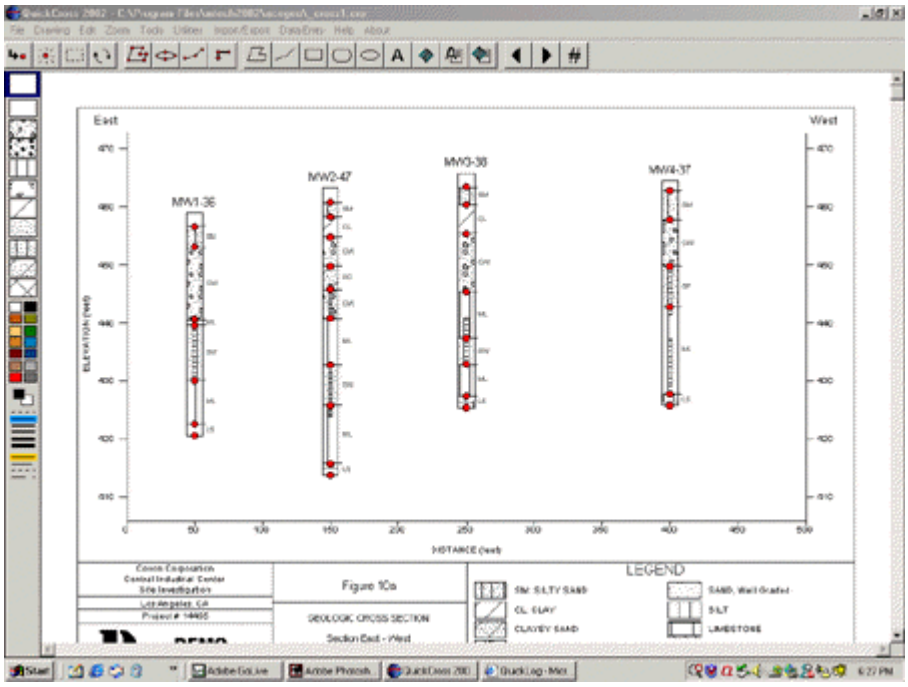


	1	2	3	4
Distance	50	150	250	400
Boring File	Tb1t.bor	Tb2t.bor	Tb3t.bor	Tb4t.bor
Water Depth				
Label Boring or Well?				
Label at Top or Bottom?				
Label X,Y Offset				
2nd Label				
Azimuth				
Incline				
------ Boring Name ------	TB1	TB2	TB3	TB4
Well Name	MW1-36	MW2-47	MW3-38	MW4-37
Surface Elevation	456.6	460.8	463.4	462.8
Stick-Up	2.3	2.5	2.4	1.7
Bottom of Casing	32	44	34.1	34
Bottom of Borehole	36	47	38	37
Screen St., End 1	16.2, 26.2	29, 37	22.5, 30.5	13.4, 21.4
Screen St., End 2		14, 19		25.6, 33.6
Screen St., End 3				
Depth, Fill Pattern 1	3.5, SM	2.5, SM	3, SM	5, SM
Depth, Fill Pattern 2	16, GW	6, CL	8, CL	13, GW
Depth, Fill Pattern 3	17, ML	11, GW	18, GW	20, SP
Depth, Fill Pattern 4	26.5, SW	15, SC	26, ML	35, ML
Depth, Fill Pattern 5	34, ML	20, GW	30.5, SW	37, LS
Depth, Fill Pattern 6	36, LS	28, ML	36, ML	

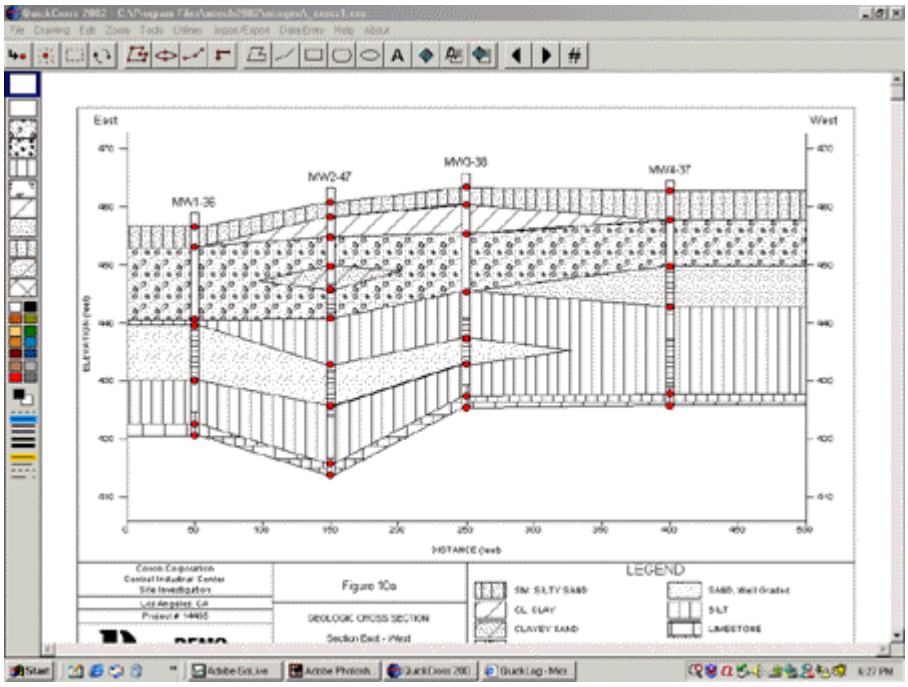
Below is a cross section generated from the list above. Each geological layer is marked with its fill pattern abbreviation (ex. SM). In minutes, you have a basic cross section drawn perfectly to scale. Accomplishing this task in CAD would take hours.



In addition to labeling the layers, you may choose to have them filled with a fill pattern inside the representation of the borehole:



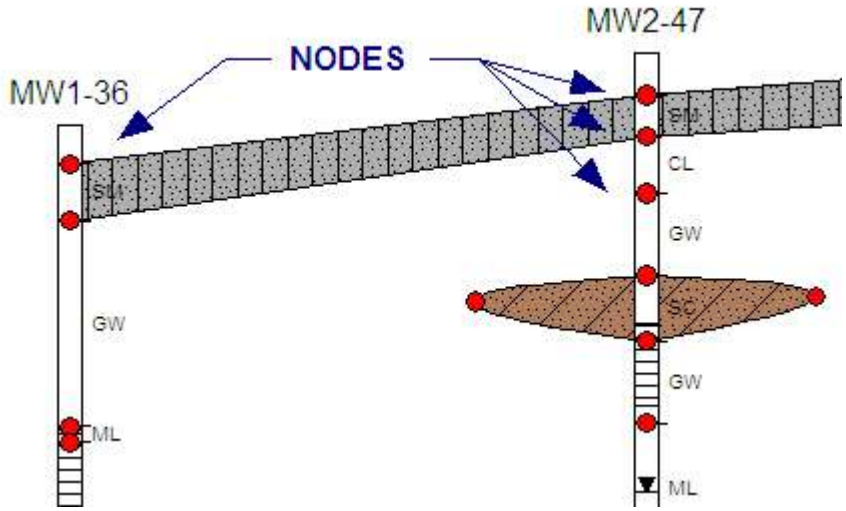
You also have the option of letting the program connect the geological layers using its artificial intelligence:



Drawing Tools

What really makes QuickCross/Fence outshine its competition are its drawing tools which enable you to manipulate the drawing right on the preview screen. Geological layers are often tricky and require a human touch to accurately recreate them. With QuickCross/Fence, you can quickly add layers, lenses, lines, text, and symbols. You can start by having the program connect the layers automatically, and then you can "clean them up," if needed.

Other cross section programs generate a basic cross section then require you to import it into a CAD program to finish it. Not only does QuickCross/Fence save you from this extra step, but it has some important advantages over using CAD. First of all, QuickCross/Fence has tools specifically designed for creating cross sections more quickly. For example, it places nodes at each contact point between the geologic layers. To add a new layer, you simply connect nodes. You can add your own nodes to control how layers pinch out between borings, and you can use the lens tool.



License Options

Stand-Alone: The program is registered via the Internet to work on one computer only.

Hardware Key: You are given a hardware key which plugs into the USB port. Multiple users from the same physical office may share the key.

Network: Users share a license that is stored on M-Tech's Internet server -- therefore, no network setup is needed, just an Internet connection. When the program is run, the license server is checked to verify that one user is logged on per license purchased. All users must be in the same physical office.

Pay-As-You-Go: You may install the software to as many computers as you like and have multiple users in any number of locations. You are billed via time used. When a user logs into the program, he or she enters a username, password, and other parameters such as "Job No." This way, usage can be tracked by project and re-billed to your clients.

Pay-As-You-Go “flexes” according to your needs - one month you may need 10 users, the next, no users. You pay for just what you use. Your IT staff doesn’t need to worry about how many “seats” you need each year, and your users no longer wait for licenses to become available, track hardware keys, or hand off logs/cross-sections to busy CAD operators.

Pricing	Std-Alone	HW Key	Network	Pay-As-You-Go
QuickLog	$850	$1450	$1700	contact us
QuickLog Field Add-On	$600	$600	$600	contact us
QuickCross/Fence	$950	$1550	$1900	contact us
QuickSoil – QuickGIS	$550	$950	$1100	contact us
GW Assist – ChemGraph	$1000	$1500	$1500	$25/project

Getting Started

Just download the demo at mtechsoftware.com and follow the brief tutorial to create your first log template - feel free to contact us if you need any help. You can be sure that QuickLog meets your needs before you spend any money. Then, contact us about license options – you may be up and running in a couple hours and complete your first project for $50 or less.

Product Comparison

GeoGraphics vs. Gint, WinLog, LogPlot, Etc.

QuickLog is much easier to setup and use. You will save time when making template changes, training new users, and every time you create logs. QuickCross/Fence offers a set of drawing tools and a macro language that enable you to create cross sections and fence diagrams more quickly and at a higher quality than the competition.

Contact us about a competitive upgrade. You may be able to switch at no cost - we just want to take over the annual contract!

GeoGraphics vs. Excel

GeoGraphics offers soil description "pick-lists," auto-scaling, and geologic fill patterns which save time and convey a much more professional look than Excel can offer.

Testimonials

"Our committee analyzed the major borehole logging programs and chose QuickLog - QuickCross because of its ease of use and the high quality logs and cross sections it could produce."

Jack Murosko, ENSR

"At another company, we used Gint -- Gint is so complicated that we needed a costly Gint-trained specialist dedicated to using it. If everyone can't use the software, it's not worth it!"

Martin Wills, Western Resource Management

"We were able to get the same presentation we had with AutoCAD in much less time"

Michael Li, Parsons Engineering Science

Samples

Sample logs, cross sections, and fence diagrams are shown on the pages that follow. The fill patterns, when printed, are better quality than those shown here due to the conversion to PDF format.

DEMO ENGINEERS

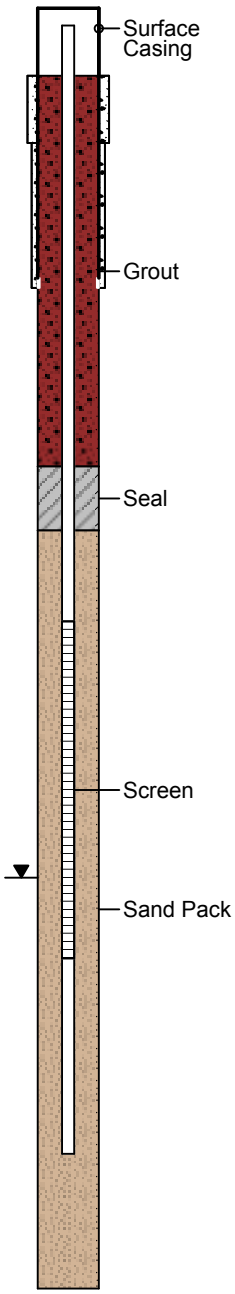
LOG OF BORING TB1

Covon Corporation
Central Industrial Center
Site Investigation
Los Angeles, CA
Project # 14455

Date Started	: 2/14/98	Company Rep.	: C. Billbach
Date Completed	: 2/15/98	Northing Coord.	: N 5002.45
Hole Diameter	: 6 5/8 in.	Easting Coord.	: E 4847.81
Drilling Method	: H.S.A.	Survey By	: E. Weston
Sampling Method	: Split Spoon	Logged By	: D. Jenike

Depth in Feet	Surf. Elev. 456.6	USCS	GRAPHIC	DESCRIPTION	SAMPLE DATA: Sample No.	Blow Count	% Finer #200 Sieve	% Recovery
0–3	456–453	SM		SILTY SAND, brown silty sand, no odor very fine, some gray, moist		10, 12, 14, 16	65	98
						15, 15, 17, 16	40	
4–5	453–452			**GRAVEL, Well Graded**		20, 21, 22, 22	40	98
6–9	451–448	GW				26, 27, 28	75	
10	447			cobbles at 10 feet				
11–15	446–442					30	15	55
16	441	ML		SILT, brown, no odor, traces of sand and clay		35		
17–21	440–436	SW		SAND, dry		35, 36, 38, 38	30	
22–26	435–431							
27–33	430–424	ML		SILT, brown, no odor		40, 45	50	45
34–35	423–422	LS		LIMESTONE, bedrock		45		
36–40	421–417							

Well: MW1-36
Elev.: 458.9



05-06-2014 C:\Users\Marc\Documents\M-Tech\samples\Tb1t.bor

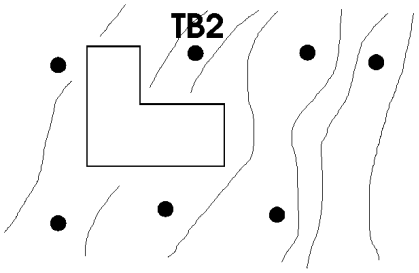
LOG OF BORING TB2

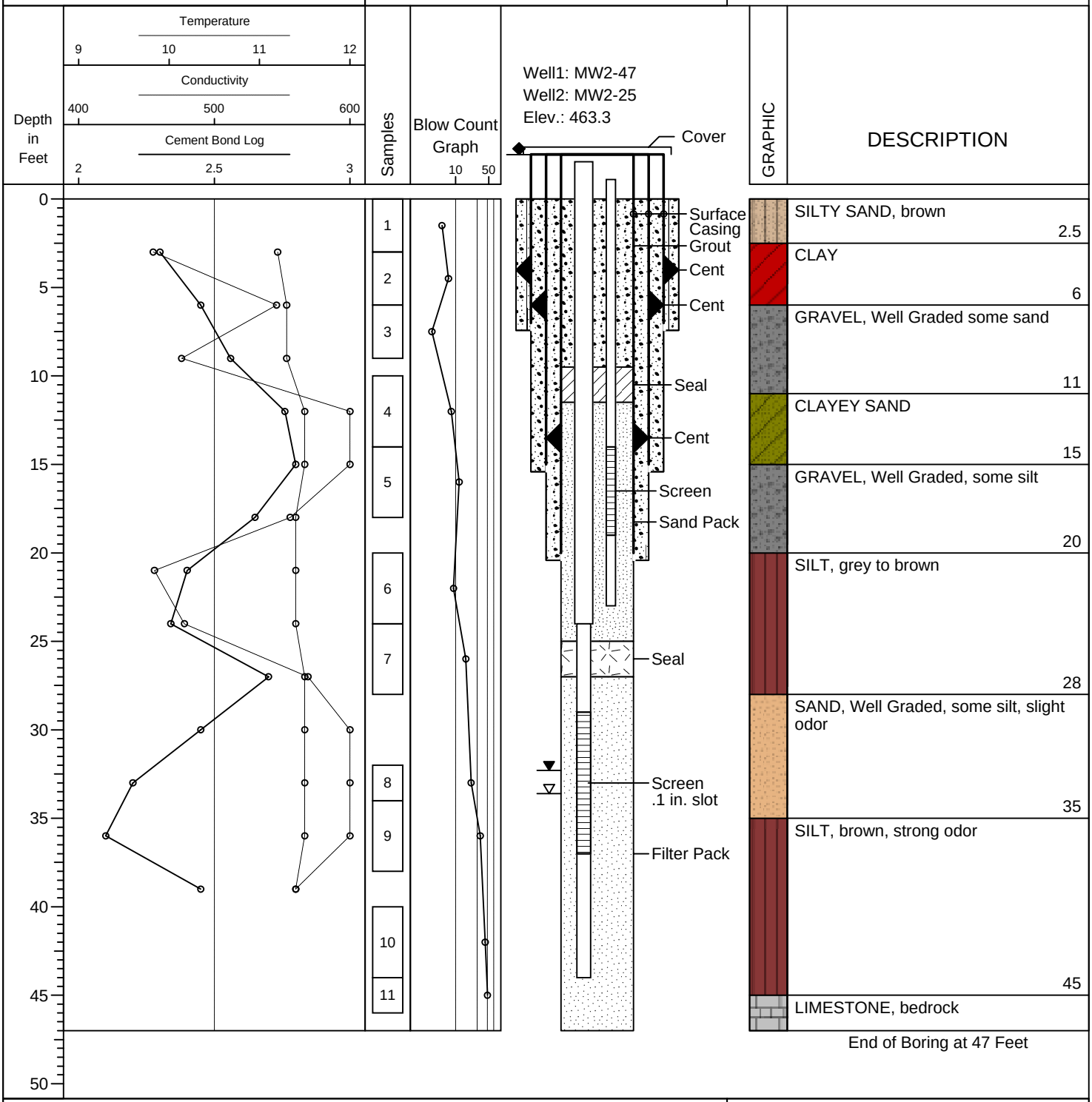
(Page 1 of 1)

BORING CONSTRUCTION
Date Completed : 2/14/98
Hole Diameter : 6 5/8 in.
Drilling Method : H.S.A.
Sampling Method : CA Mod. Sampler
Company Rep. : C. Weston

WELL CONSTRUCTION
Date Completed : 2/20/93
Hole Diameter : 5 5/8 in.
Drilling Method : HSA
Company Rep. : D. Simon

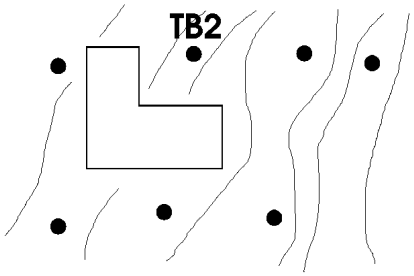
WELL CASING
Material : PVC
Diameter : 4 in.
Joints : threaded





Boring log 0 to 15 feet based on observations from drill cuttings. Soil sample 6 collected from 20 to 24 feet for VOC laboratory analysis. Groundwater and additional soil collected for biotreatability study.

DEMO ENGINEERS



LOG OF BORING TB3

(Page 1 of 1)

Date Completed	: 2/14/98
Hole Diameter	: 6 5/8 in.
Drilling Method	: H.S.A.
Sampling Method	: CA Mod. Sampler
Company Rep.	: C. Weston
Surface Elev.	: 463.4

WATER LEVEL READINGS

Date and Depth 1	:
Date and Depth 2	:
Date and Depth 3	:
Date and Depth 4	:
Date and Depth 5	:

DEMO ENGINEERS

Covon Corporation
Central Industrial Center
Site Investigation

Los Angeles, CA

Project # 14455

Depth in Feet	SIEVE ANALYSIS CUTTINGS % Fine	% Med.	% Coarse	Formation	DESCRIPTION	USCS
0					SILT, fine, traces of silty fine sand, some coarse sand, roots and other organic matter present	SM
5	10	40	50	Morrison	CLAY, brown, stiff, no odor, slight traces of gravel and sand	CL
10	15	45	40	Summerville	GRAVEL, Well Graded, some sand and clay, cobbles, slight product odor	GW
15	25	20	55		slightly silty at 16 feet	
20	35	35	30	Curtis	SILT, brown, slight odor, some sand	ML
25	20	50	30		SAND, Well Graded, damp	SW
30	25	50	25		SILT, fine, no odor	ML
35	20	60	20		LIMESTONE, bedrock	LS
40						

SIEVE ANALYSIS CUTTINGS: % Fine, % Med., % Coarse; 20 40 60 80

GRAPHIC

Blow Count Graph: 0 20 40 60 80

Depth in Feet: 0 5 10 15 20 25 30 35 40

Samples: 1 2 3 4 5 6 7 8 9

% Finer #200 Sieve: 0 50 100

Well Construction Information

WELL CONSTRUCTION

Date Completed	: 2/27/93
Hole Diameter	: 5 5/8 in.
Drill. Method	: HSA
Company Rep.	: D. Simon

WELL CASING

Material	: PVC
Diameter	: 4 in.
Joints	: threaded

WELL SCREEN

Material	: PVC
Diameter	: 2 in.
Joints	: threaded
Opening	: .010 slot

SAND PACK : #5 quartz

ANNULUS SEAL : bentonite pellets : and slurry

WELL SCREEN

Material	: steel
Diameter	: 6 in.
Cap	:

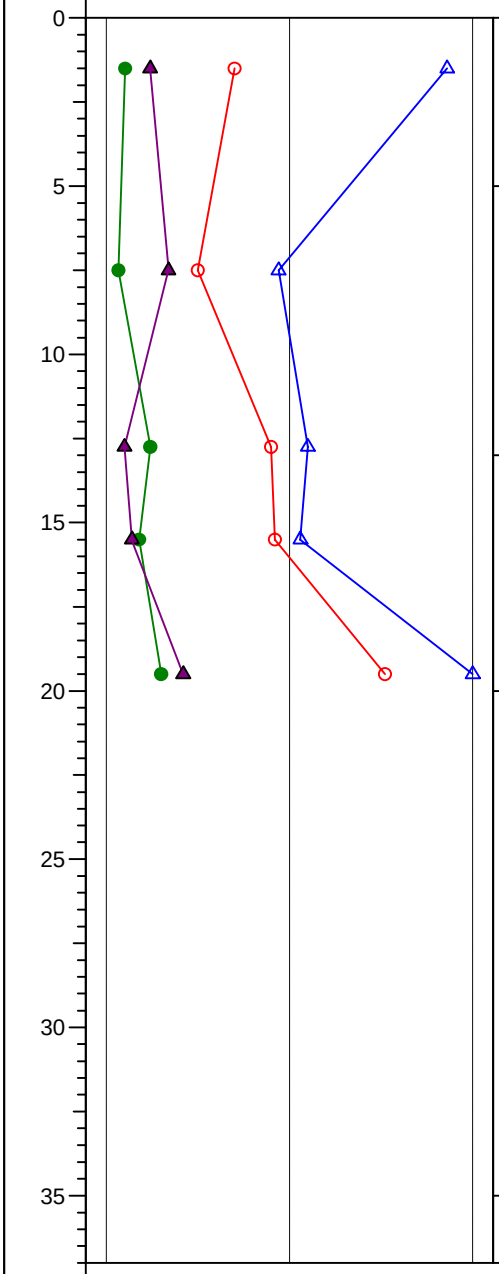
DEMO ENGINEERS

LOG OF BORING TB4

Covon Corporation
Central Industrial Center
Site Investigation
Los Angeles, CA
Project # 14455

Date Completed : 2/14/98
Hole Diameter : 6 5/8 in.
Drilling Method : H.S.A.
Sampling Method : CA Mod. Sampler
Company Rep. : C. Weston

Sample Portion
Unrecovered
Sent to Lab



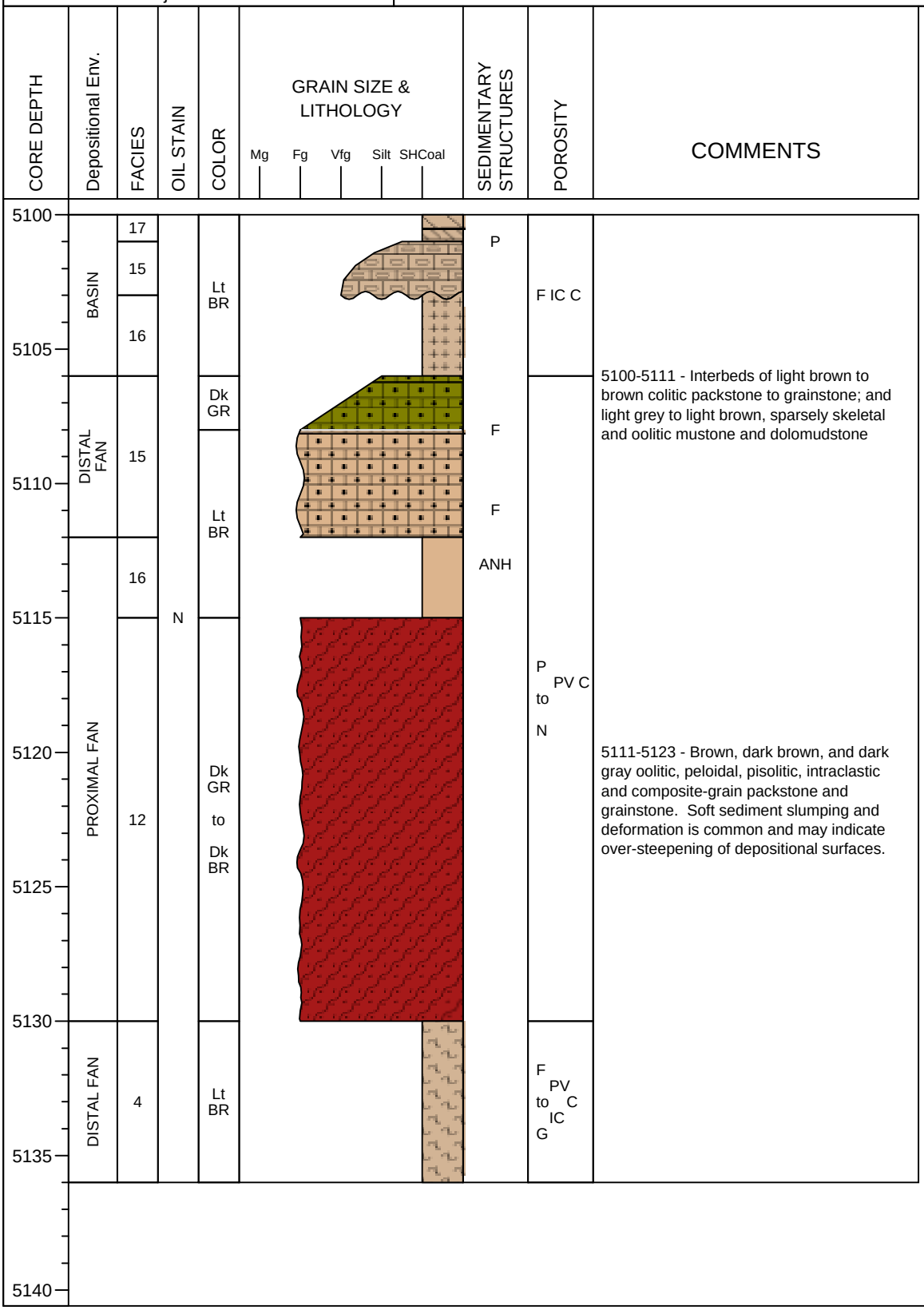
DESCRIPTION	USCS	GRAPHIC	Sample	Lab No.	Water Levels	REMARKS
SILT, grey, fine	SM			PS-1445		
GRAVEL, Well Graded, some sand and silt	GW			PS-1446		
				PS-1447		
SAND, Poorly Graded	SP			PS-1448		
				PS-1449		
SILT, brown-grey, damp	ML				▼	Static Water Level at 23.6 feet from top of casing
LIMESTONE, bedrock	LS					

DEMO ENGINEERS

LOG OF BORING TGR1

Covon Corporation
Central Industrial Center
Site Investigation
Los Angeles, CA
Project # 14455

Date Started	:	Company Rep.	:
Date Completed	:	Northing Coord.	:
Hole Diameter	:	Easting Coord.	:
Drilling Method	:	Survey By	:
Sampling Method	:	Logged By	:



5100-5111 - Interbeds of light brown to brown colitic packstone to grainstone; and light grey to light brown, sparsely skeletal and oolitic mustone and dolomudstone

5111-5123 - Brown, dark brown, and dark gray oolitic, peloidal, pisolitic, intraclastic and composite-grain packstone and grainstone. Soft sediment slumping and deformation is common and may indicate over-steepening of depositional surfaces.

LOG OF BORING: 3

Project No.1848.02	Project Name:Harrison	
Elevation:17 ft.*	Drilling Equipment:4 inch diameter portable	Drive Wt. and Drop:70 lb, 30 inch drop
Date: 03-11-03	Boring Diameter:4"	Approved:

Depth (ft)	Sample	Soil Type	Water Level	DESCRIPTION	Dry Density (pct)	Moisture Ct. (%)	Blow Count	Laboratory Tests
0		CL ML		DARK BROWN SILTY CLAY Medium stiff, moist				
5		CL		OLIVE BROWN SANDY CLAY Medium stiff, moist	76	23		
10		CL	▼	OLIVE BROWN SILTY CLAY with gravel Stiff, moist				
15		CL		LIGHT BROWN GRAVELLY CLAY Very stiff, saturated	88	26		
20				BROWN SANDSTONE BEDROCK, Hard				

Fill

LOG OF BORING: 4

Project No.1848.02	Project Name:Harrison

Depth (ft)	Sample	Soil Type	Water Level	DESCRIPTION	Dry Density (pct)	Moisture Ct. (%)	Blow Count	Laboratory Tests
0		CL ML		LAYER 1				
5		CL		LAYER 2	90	25.9		
10		CL	▼	LAYER 3				
15		CL		LAYER 4	118	17.8		
20				LAYER 5				

Fill

DEMO ENGINEERS

1015 East 10th Street
Algeron, WA

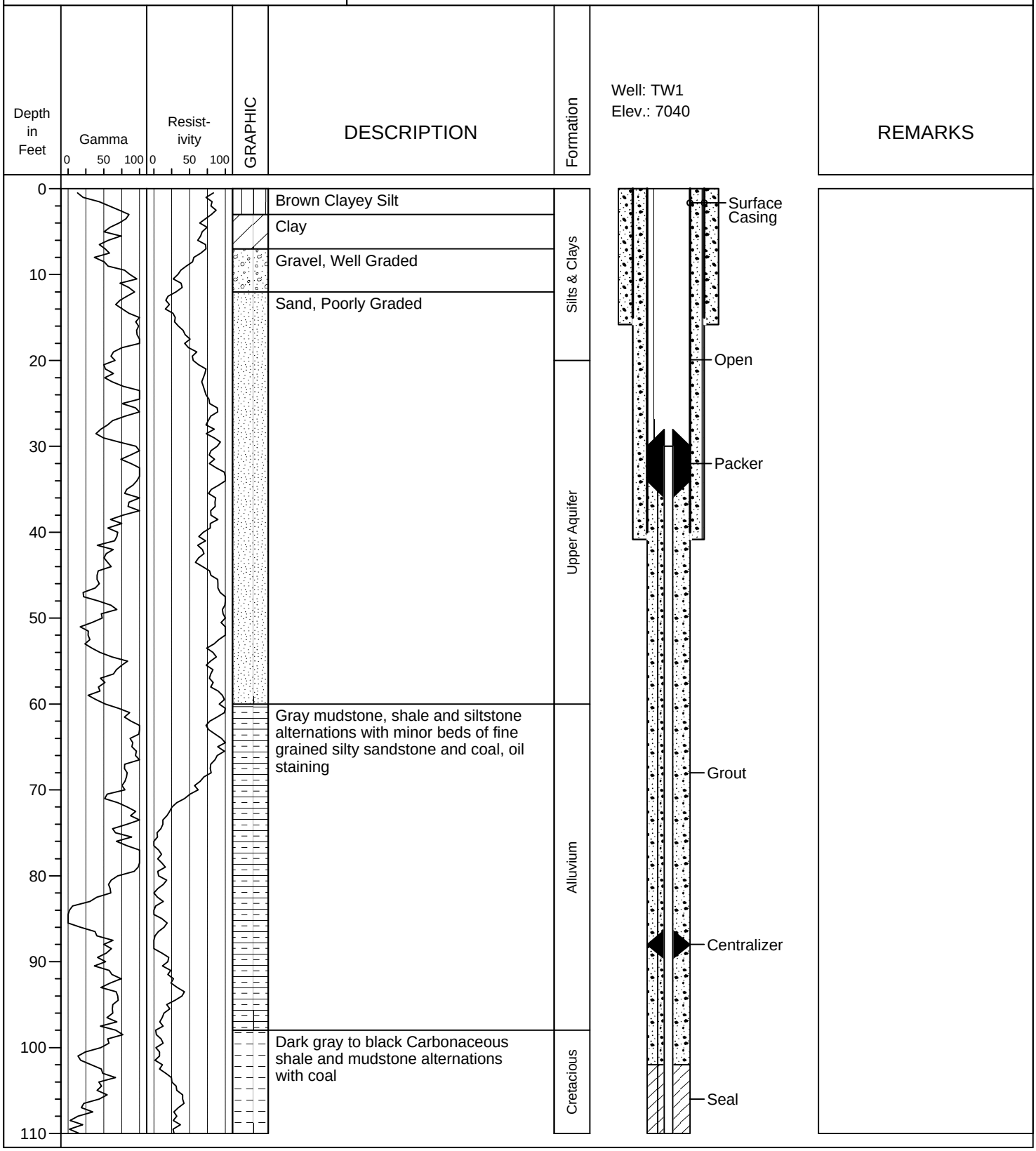
Figure 4

DEMO ENGINEERS

LOG OF BORING 711

Colorado Dept. of Natural Resources
Grand Junction, CO
Site Investigation
5500-00900

Date Started	: 2/14/98	Logged By	:
Date Finished	: 2/20/98	Checked By	:
Boring Location	: 76100.378 N		
	: 661899.387 E		
Surface Elevation	: 7040.0		



DEMO ENGINEERS

LOG OF BORING 711

Colorado Dept. of Natural Resources
Grand Junction, CO
Site Investigation
5500-00900

Date Started	: 2/14/98	Logged By	:
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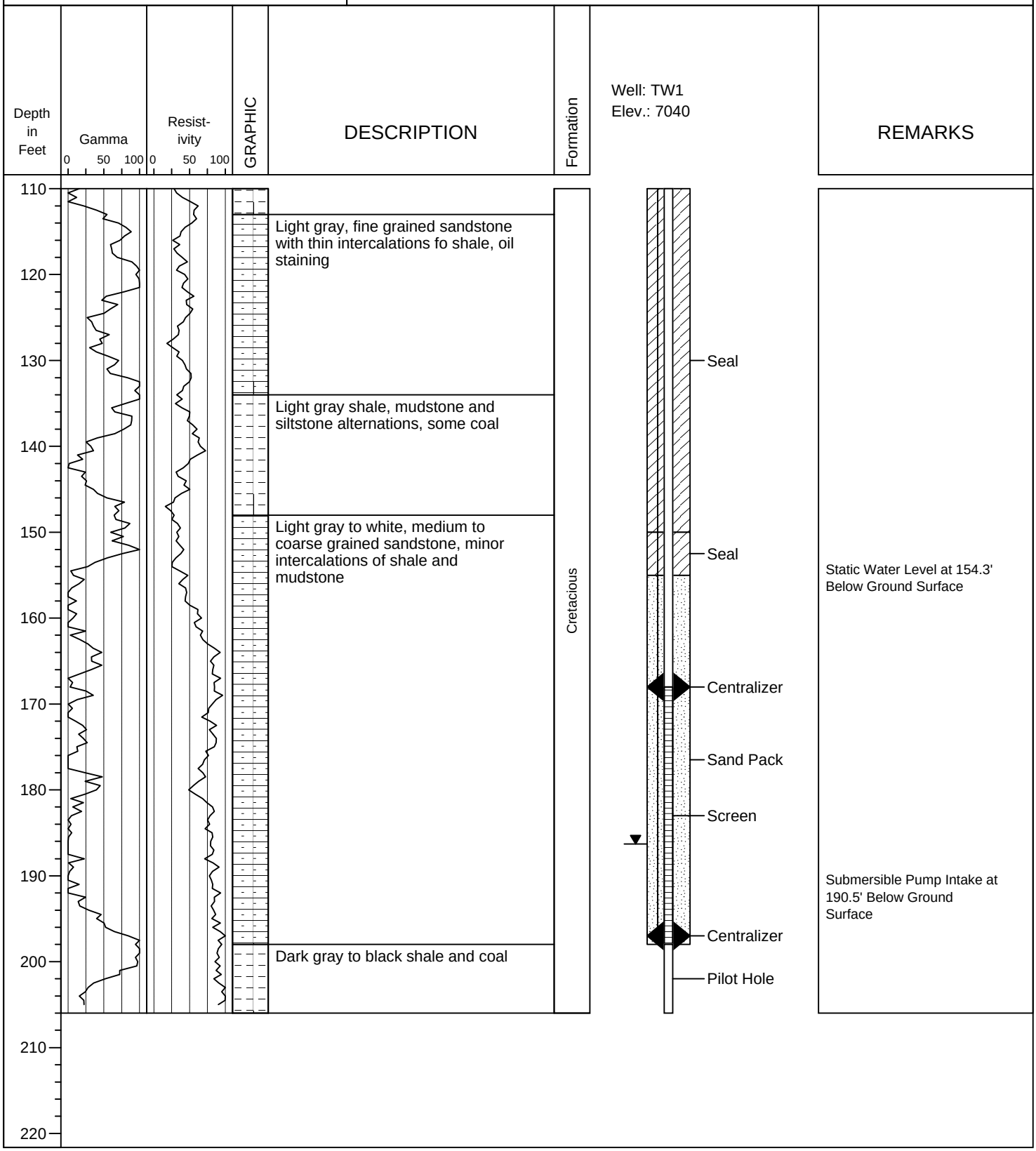

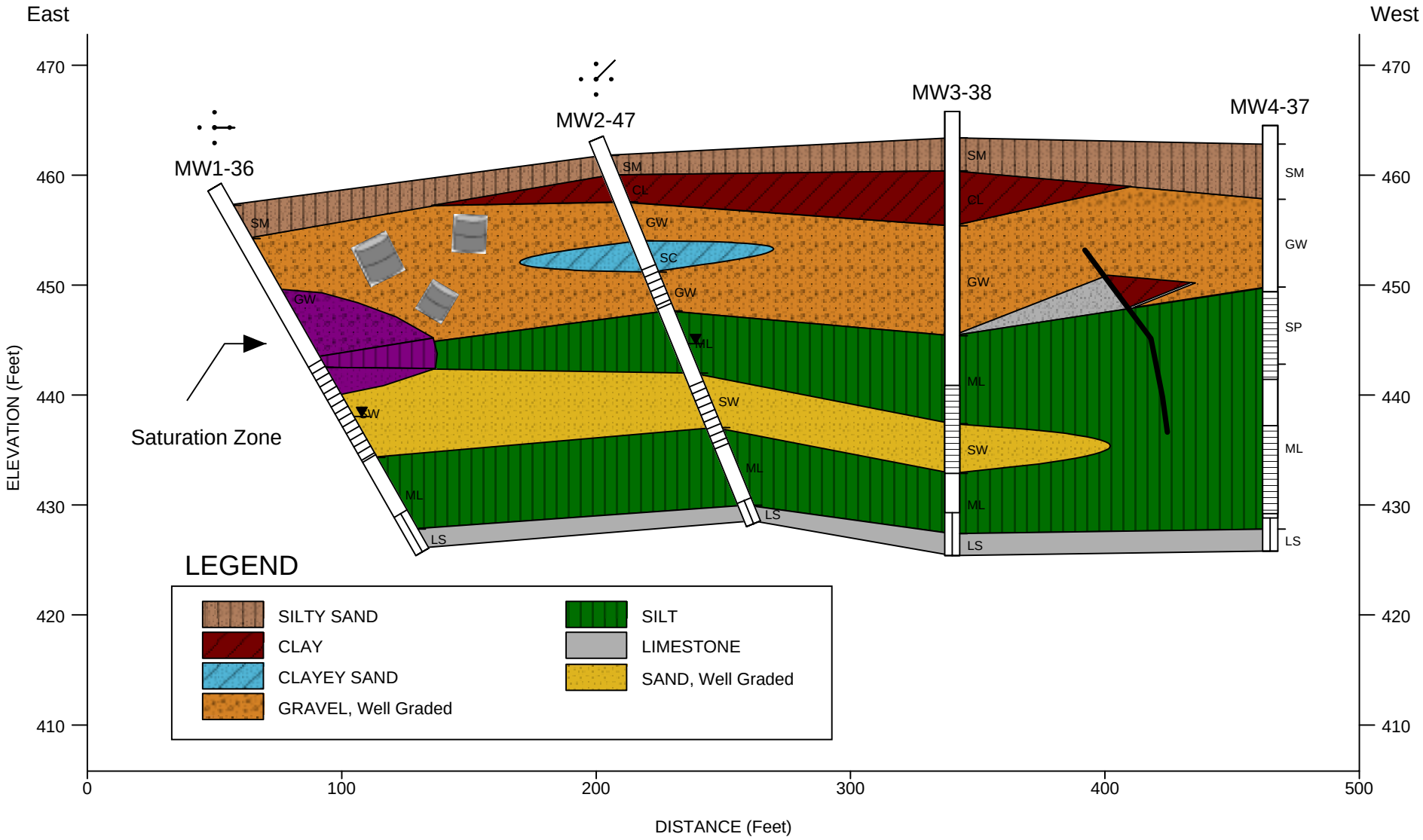

Covon Corporation Central Industrial Center Site Investigation	Figure 1	NOTES
Los Angeles, CA	GEOLOGIC CROSS SECTION Section East-West Upgradient Wells	
Project # 14455		
DEMO ENGINEERS		

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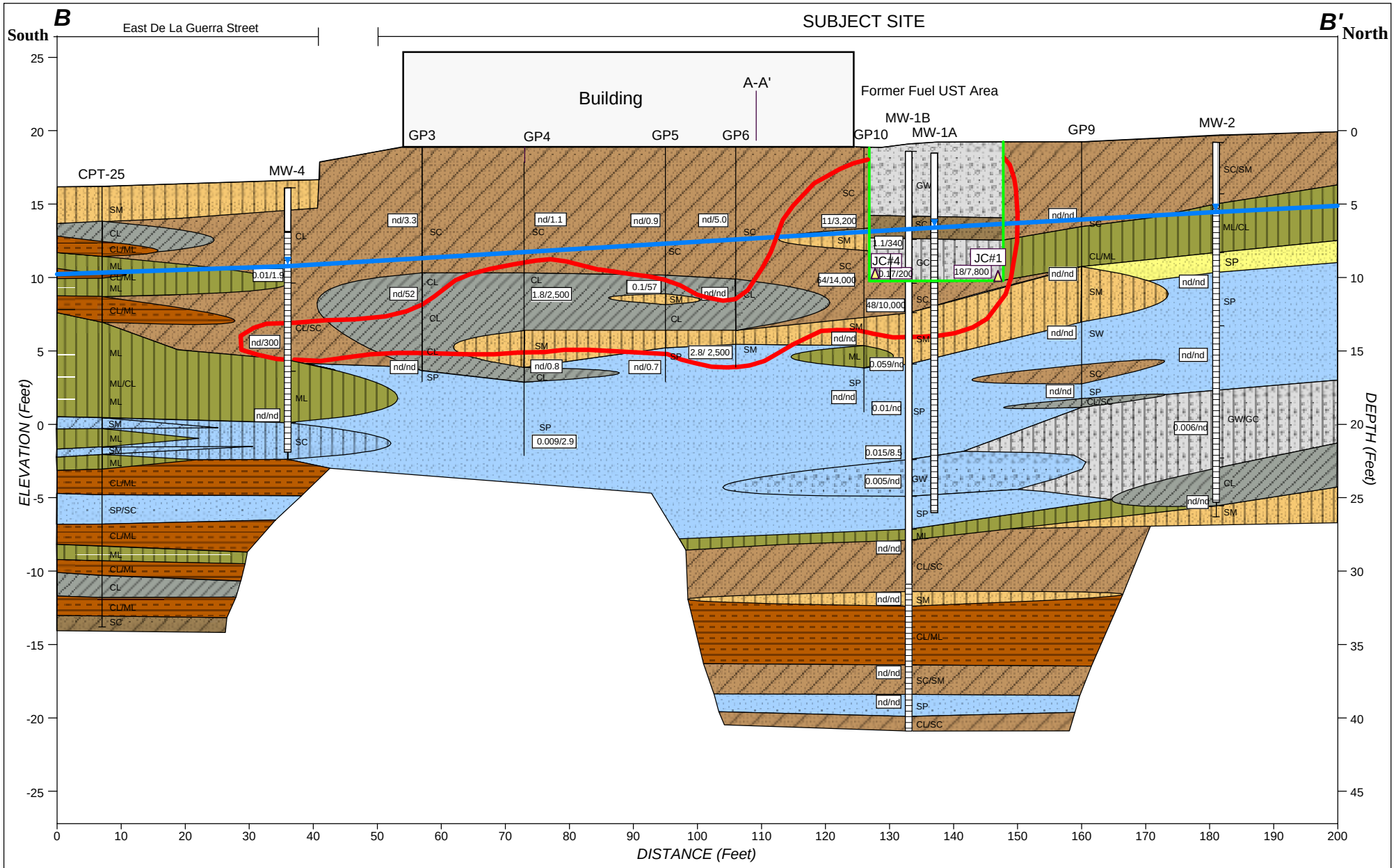
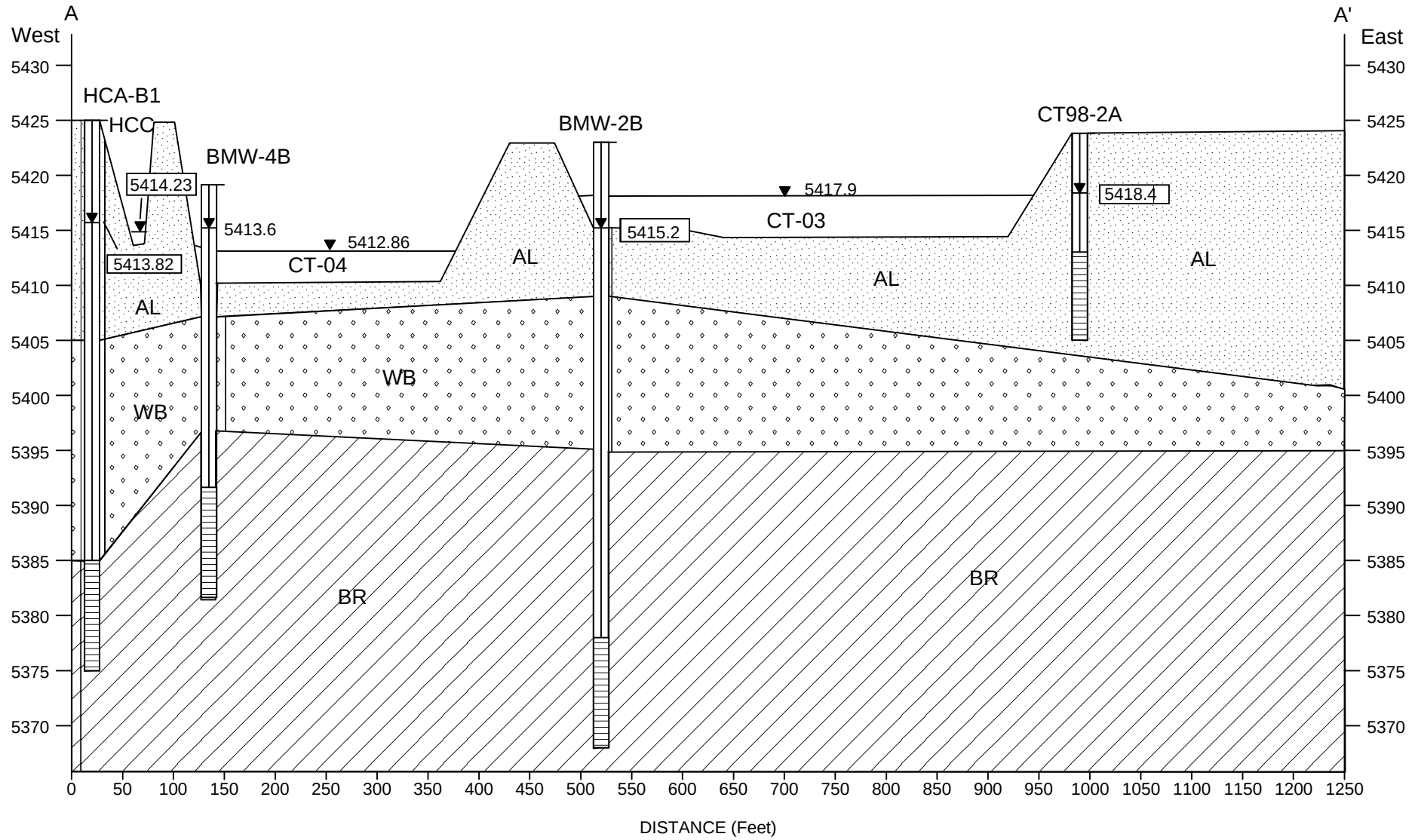


COMMERCIAL PROPERTY 123 xxx xxx Street xxxxx, California	**FIGURE 7**	LEGEND
xxxxx xxxx Site #900xx		
Project No. 200xxx-xx	GEOLOGIC CROSS SECTION Section B-B'	CLAY, SILT, Silty CLAY/Clayey SILT, Clayey SAND, Silty SAND; Poorly-Graded SAND, SAND (Saturated), Clayey GRAVEL, Well-Graded GRAVEL (Saturated); 2.5/2,400 Benzene/TPH(C4-C12) Concentrations in Soil (parts per million); nd Not Detected; Inferred Extent of Soil Plume (Benzene=0.1 ppm/TPH=100 ppm); Static Groundwater Level
HAYDEN ENVIRONMENTAL, INC Environmental Consulting Services		

04-17-2002 C:\logs\



By: NJM

Date: October, 2001

Water Table Elevations For 6/23/00

GEOLOGIC CROSS SECTION

Section West-East

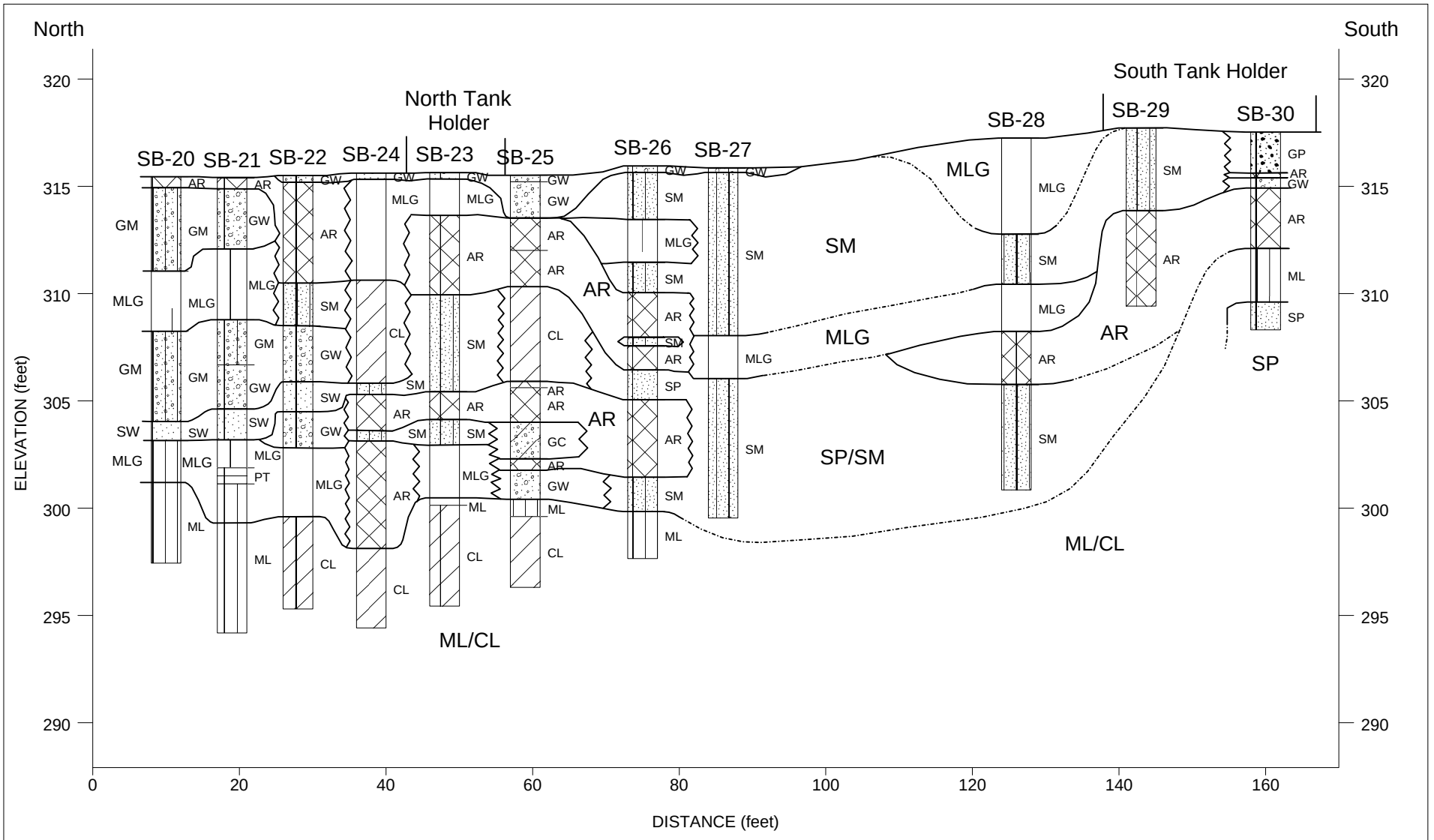
A - A'

LEGEND

- AL — Alluvium
- WB — Weathered Bedrock
- BR — Bedrock

HCC = Hydraulic Control Channel

10-11-2001



xxxxxx Power Corporation
xxxx, Former xxx Site
Phase III Supplemental Investigation
xxxxxx, New York

Job No. 10xx.xx

Figure 3C

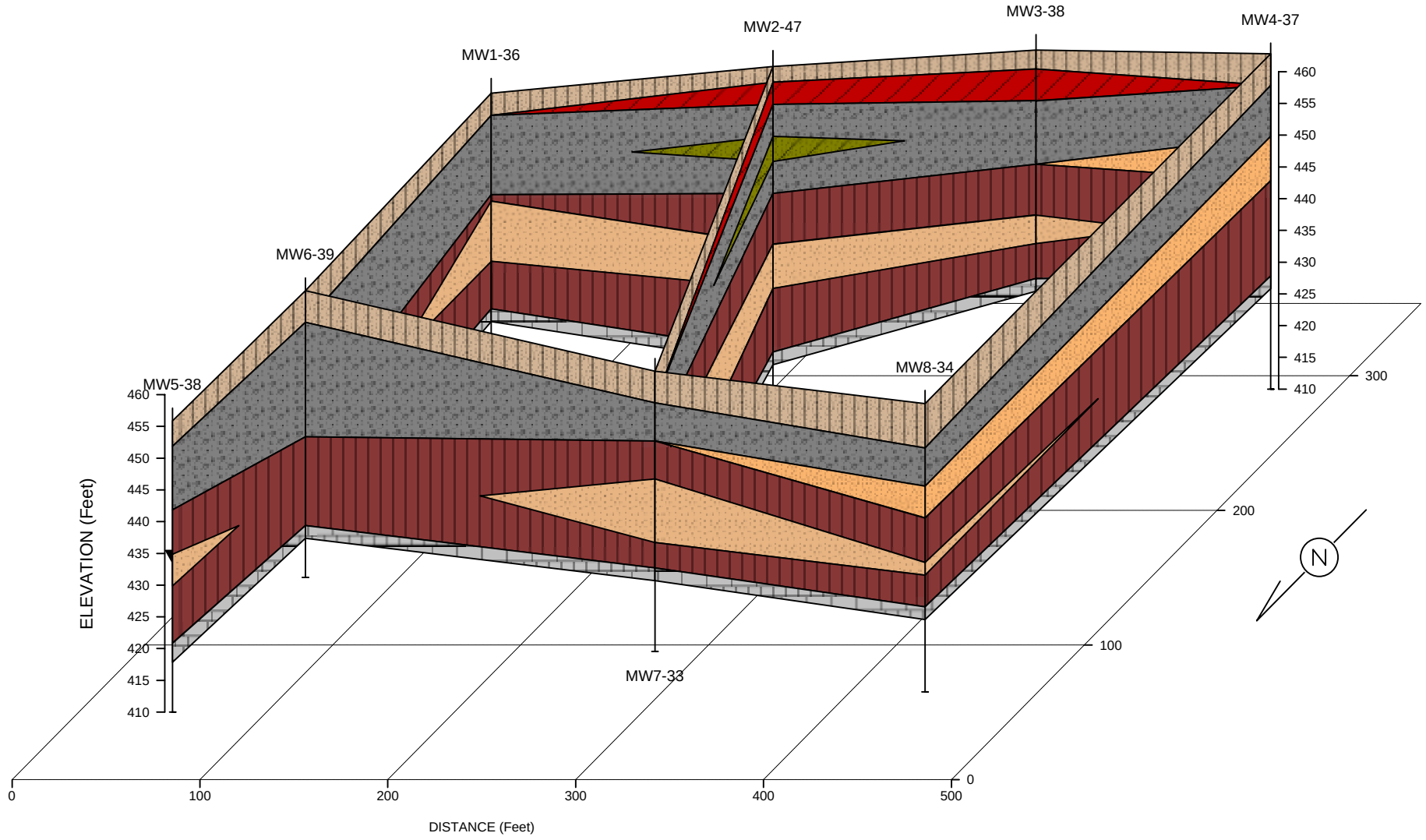
GEOLOGIC CROSS SECTION

Section North-South
From SB-20 to SB-30

LEGEND

- GW: Well Graded Gravel
- GM: Silty Gravel
- SW: Well Sorted Sand
- SM: Silty Sand with Gravel
- MLG: Silt with Gravel and/or Sand
- ML: Silt
- CL: Clay
- AR: Concrete and/or Brick

10-30-2001



Covon Corporation
Central Industrial Center
Site Investigation

Los Angeles, CA

Project # 14455

DEMO ENGINEERS

Figure 3

Geologic Fence Diagram

Facing South
line 3
line 4

LEGEND

- SILTY SAND
- GRAVEL, Well Graded
- CLAY
- SANDY CLAY
- SAND, Poorly Graded
- SILT
- SAND, Well Graded
- LIMESTONE