

Text References

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Plan References

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2. Templeton Planning Group, 2002, *280 Lot Site Plan, Canyon Hills*, City of Los Angeles, California, dated May 23, 2002, revised August 19, 2002 and December 19, 2002.
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Aerial Photographs

Date	Flight No.	Frame	Scale	Source
12-4-52	7K	107-108		Continental Aerial Photo
10-27-54	AXJ-20K	20-21		Continental Aerial Photo
1-30-70	60-2	57-59	1"=4000'	Continental Aerial Photo
11-7-76	76162	273-274		Continental Aerial Photo
5-12-79	FC-LA2	252-254		Continental Aerial Photo
1-28-86	F	447-448		Continental Aerial Photo
07-07-88	19258, 19261			Continental Aerial Photo
06-07-90	C82-6	31-32		Continental Aerial Photo
05-10-93	C88-25	153-154		Continental Aerial Photo
06-19-95	C113-22	132-133		Continental Aerial Photo
12-07-98	C130-21	125-127		Continental Aerial Photo

APPENDIX B
EXPLORATION LOGS

LOG OF EXPLORATORY BORING

Project: **Canyon Hills**

Boring No.: **HS-1**

Project Number: **00189-00**

Driller: **Giles Expl. Services**

Date Drilled: **1/27/03**

Drill Type: **CME45**

Logged By: **MZ**

Hammer Wt. / Drop: **140lb / 30in**

Ground Elev. [ft]: **1440.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<input checked="" type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> California <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)											

Slightly Weathered: olive to brown; dry; very hard; no recovery at 39.5-40 feet; refusal at 41 feet. *(continued)*

TD=41 Feet,
Backfilled With
Cuttings, No
Water

HS-BA TP_00189-00 HS.GPJ_ZKCI.GDT 2/12/03



**ZEISER
KLING**
Consultants, Inc.

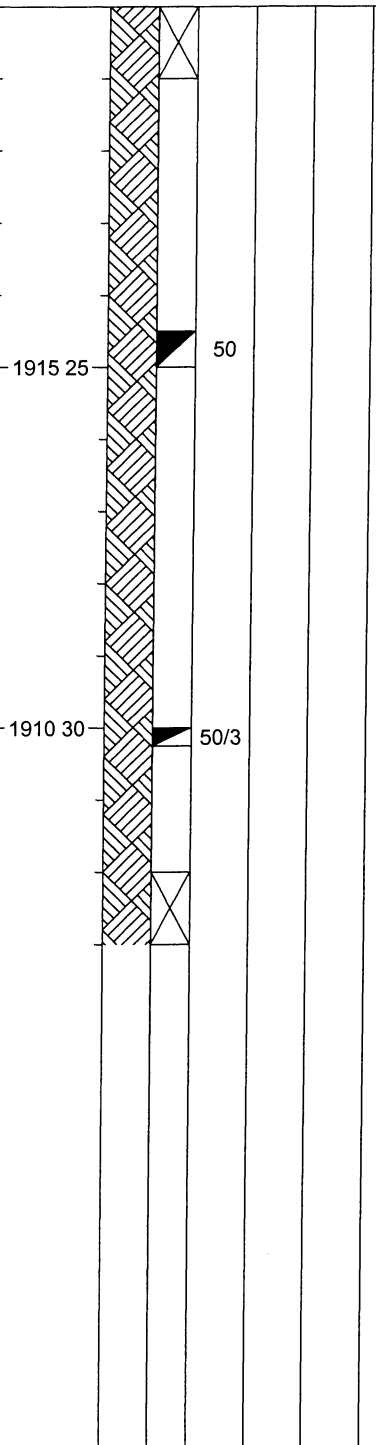
LOG OF EXPLORATORY BORING

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/27/03**
 Logged By: **MZ**

Boring No.: **HS-2**
 Driller: **Giles Expl. Services**
 Drill Type: **CME45**
 Hammer Wt. / Drop: **140lb / 30in**
 Ground Elev. [ft]: **1940.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests	Remarks
SOIL DESCRIPTION and CLASSIFICATION (USCS)											

Slightly Weathered: white, light gray, brown; dry; mafic rich; hard to very hard; very hard at 20-20.5 feet and at 28.5 feet to TD; no sample recovery at 29.5 feet. (continued)



TD=33 Feet,
Backfilled With
Cuttings, No
Water

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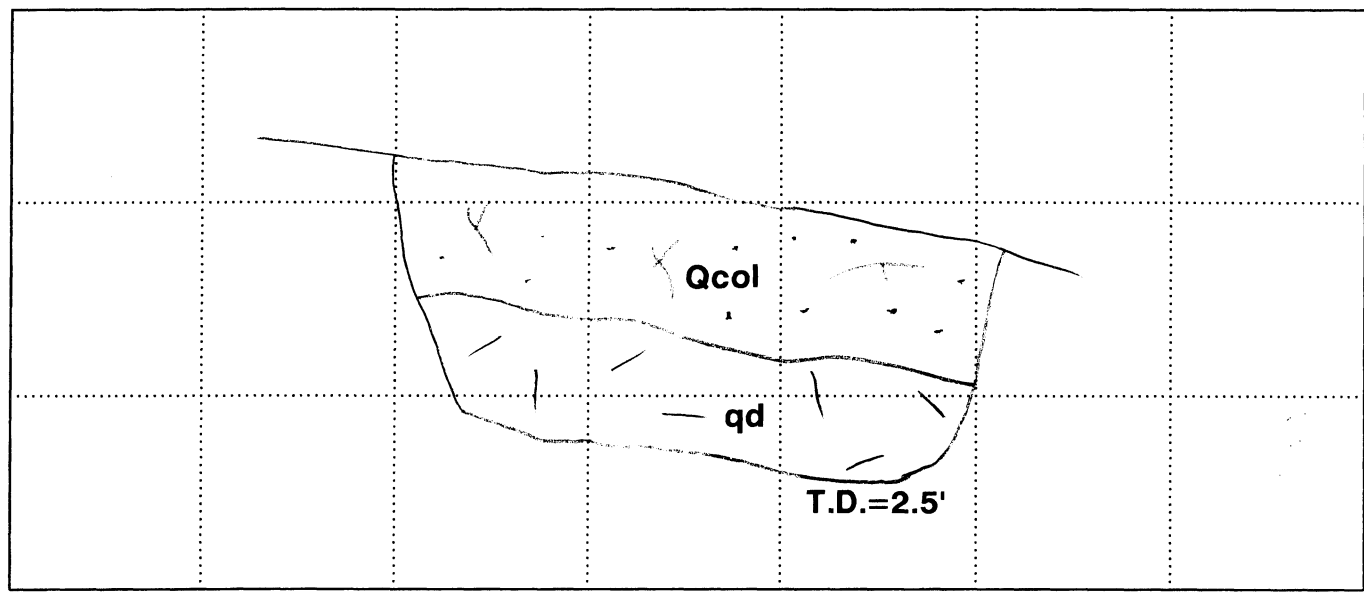
LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/16/02**
 Logged By: **MZ**

Test Pit No.: **HP-1**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1561.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California	<input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)												

1560	1											
Colluvium (Qcol): Silty Sand (SM): orangish brown; damp; loose; abundant root activity												
1559	2						N10E, 50N J N75E, 85N J N55E, 59S J					
Quartz Diorite (qd): Highly Weathered: orangish brown; dry; medium to coarse grained.												



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Scale: H 2 [ft]
 V 2 [ft]
 Pit Orientation: N60W
 Natural Slope Angle: 17

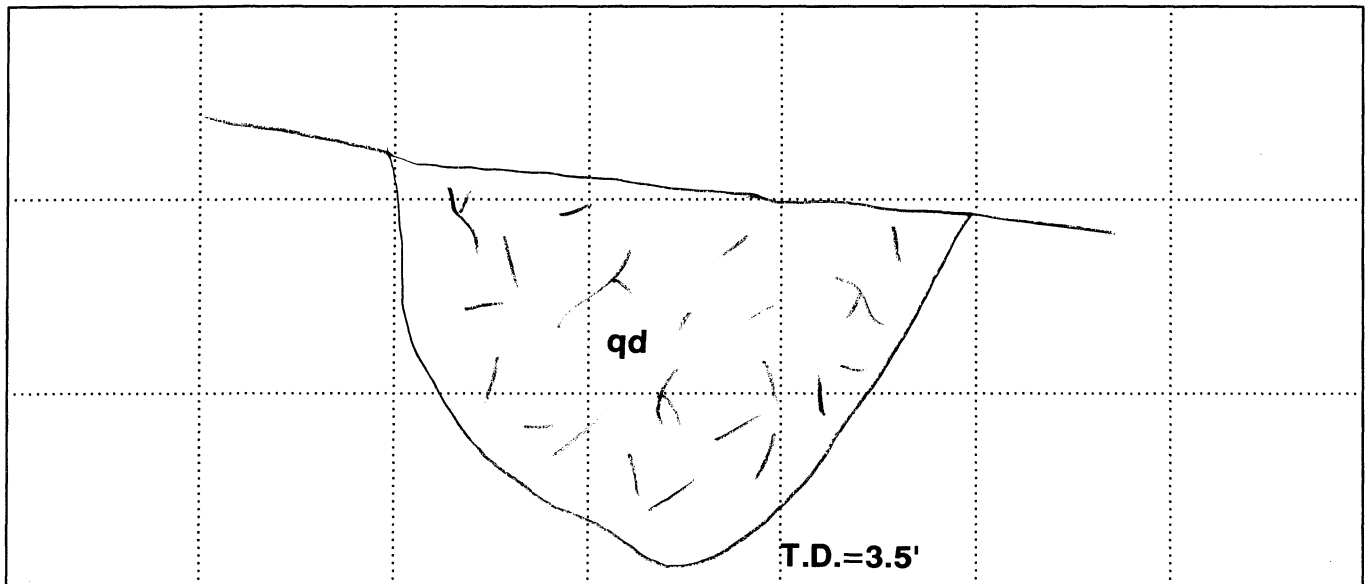
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/16/02**
 Logged By: **MZ**

Test Pit No.: **HP-2**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1615.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1614	1						N82E, 72S J N25W, 55S J	Quartz Diorite (qd): <u>Weathered:</u> pale yellow; damp; friable- breaks down to silty to clayey sand; highly weathered 0-3 feet, moderately weathered 3-3.5 feet; abundant root activity 0-3 feet, minor root hairs 3-3.5 feet.					
1613	2												
1612	3												



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Scale: H 2 [ft]
 V 2 [ft]

Pit Orientation: N50W
 Natural Slope Angle: 12

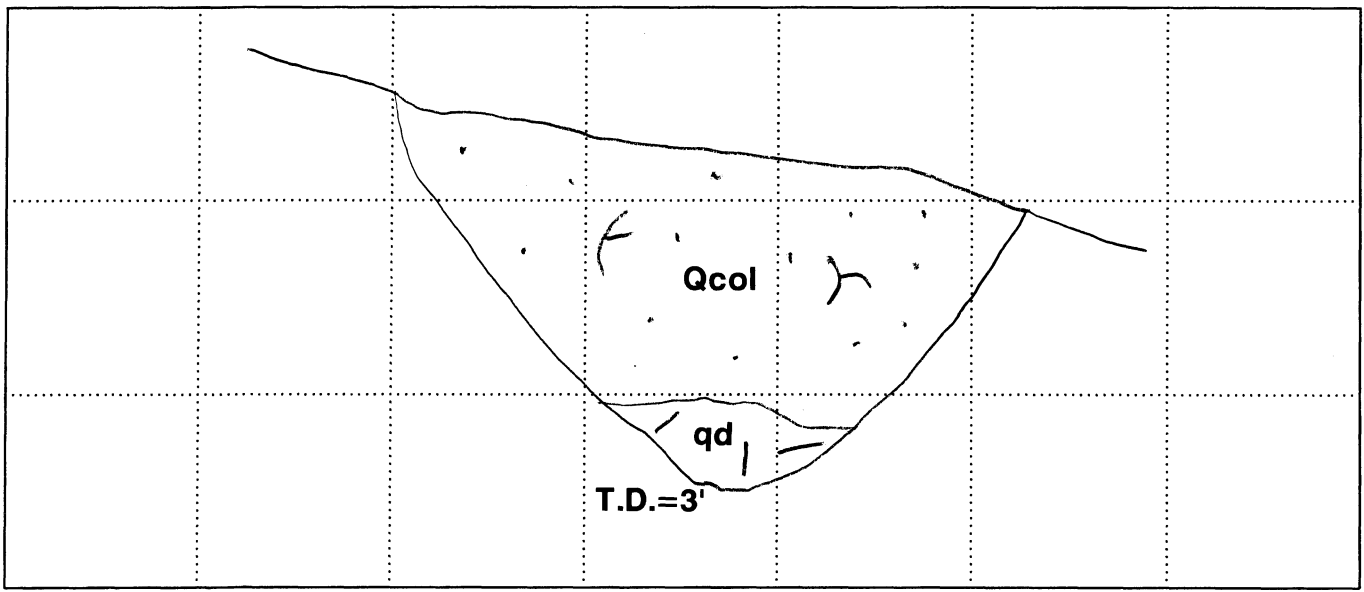
- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/16/02**
 Logged By: **MZ**

Test Pit No.: **HP-3**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1797.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1796	1	[Stippled Pattern]					NS, 70W J N10W, 70S J EW, 87S J	<p>Colluvium (Qcol): Silty Sand (SM): pale reddish brown; damp to moist; loose; minor roots to 1/8 inch.</p>					
1795	2	[Stippled Pattern]				<p>Quartz Diorite (qd): Highly Weathered: pale orangish white; damp; friable-breaks down to silty sand; minor porosity to 1/16"</p>							
1794	3	[Cross-hatched Pattern]											



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Scale: H 2 [ft]
V 2 [ft]
Pit Orientation: N30W
Natural Slope Angle: 20

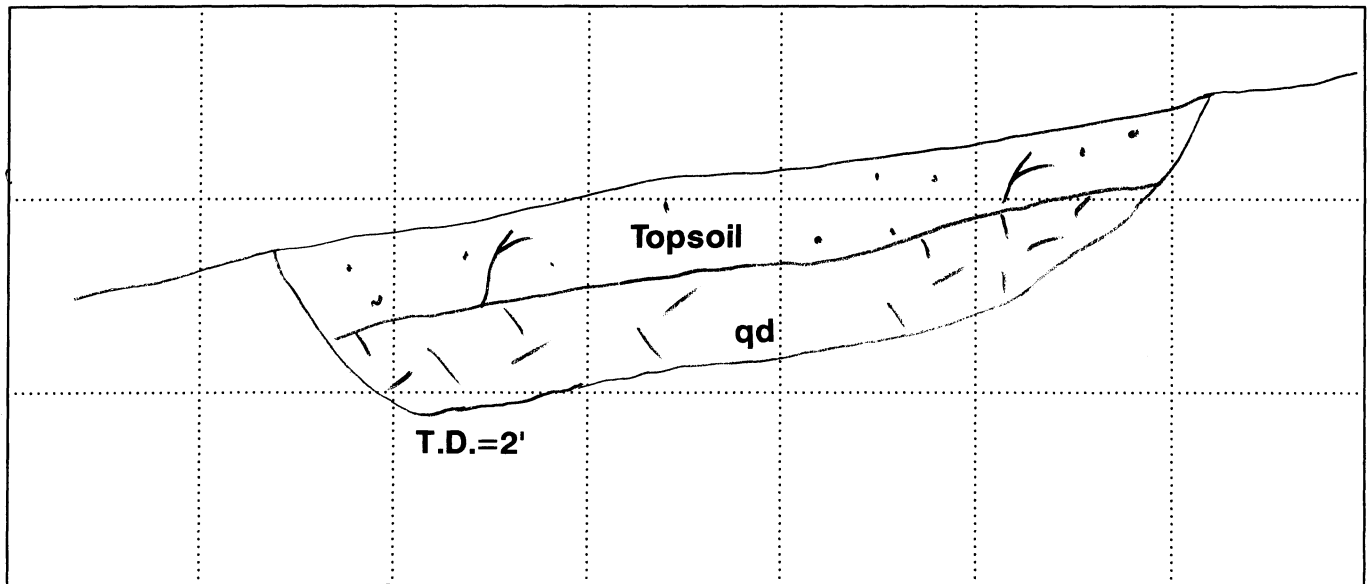
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/16/02**
 Logged By: **MZ**

Test Pit No.: **HP-4**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1909.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1908	1	[Pattern]					Joints: N60W, 62S N23E, 42S N58W, 79S	Topsoil: Silty Sand (SM): red brown; damp; very loose to loose; abundant roots to 1/4 inch.					
1907	2	[Pattern]				Quartz Diorite(qd): Highly Weathered: pale red brown; damp; minor root activity to 1/8 inch; heavily jointed and oxidized.							



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Scale: H 2 [ft]
 V 2 [ft]

Pit Orientation: N70E
 Natural Slope Angle: 15

- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

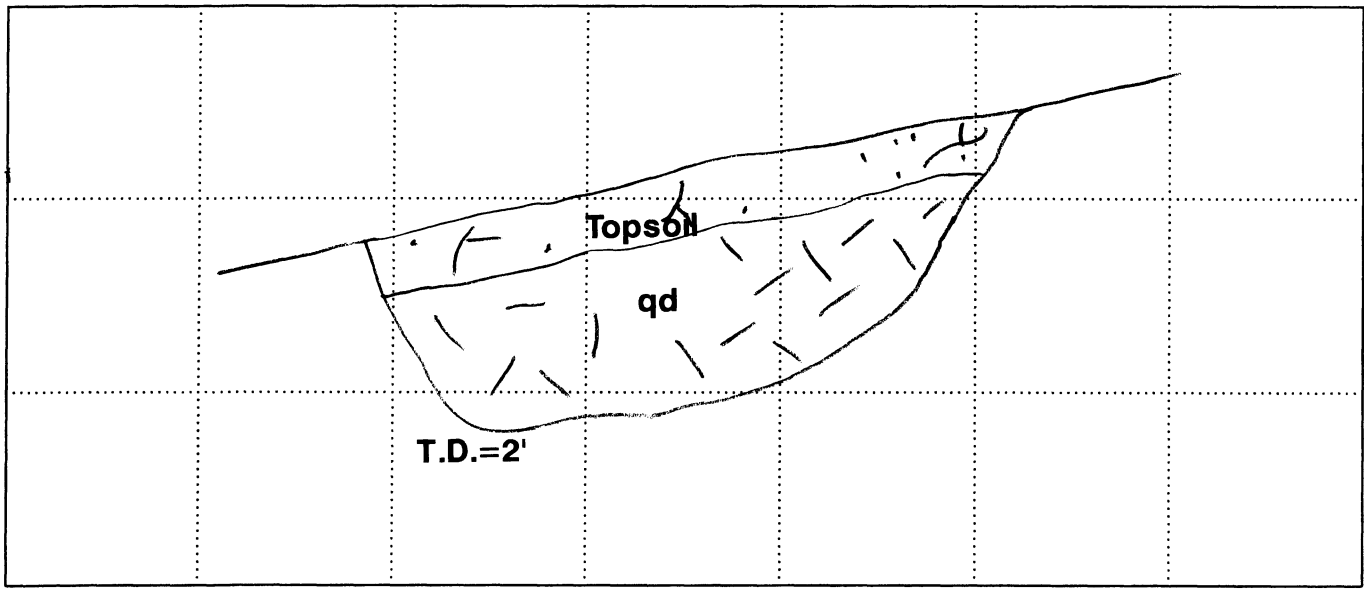
LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/17/02**
 Logged By: **MZ**

Test Pit No.: **HP-5**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1819.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California	<input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input checked="" type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)												

1818	1											
<p>Topsoil: Silty Sand (SM): reddish brown; damp; medium dense; roots to 1/8 inch.</p> <p>Quartz Diorite (qd): Highly Weathered: pale yellow (reddish brown infilled joints); damp; soft; friable- breaks down to silty sand.</p>												
1817	2											



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Scale: H 2 [ft]
 V 2 [ft] Pit Orientation: S60E
 Natural Slope Angle: 15

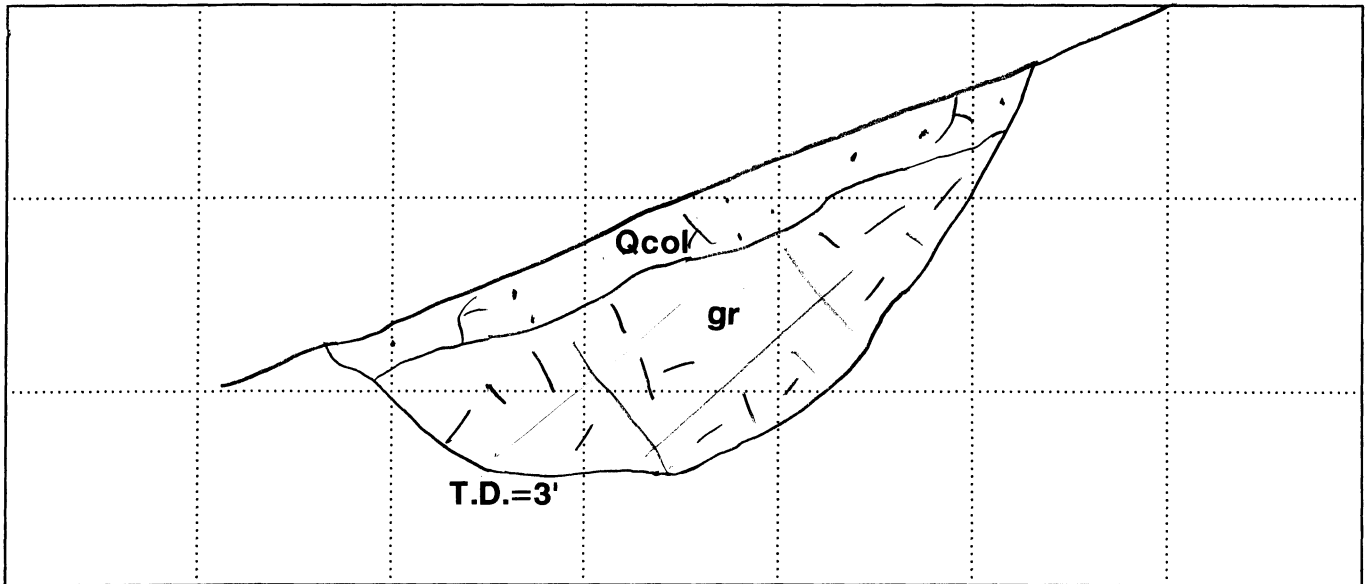
- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/17/02**
 Logged By: **MZ**

Test Pit No.: **HP-6**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1779.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> California <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1778	1	[Hatched Pattern]					NS, 78E J EW, 88N J N10W, 64S J	Colluvium (Qcol): Silty Sand (SM): light brown; damp; very loose to loose; abundant root hairs, roots to 1/8 inch. Granite (gr): Highly to Moderately Weathered: yellowish white; damp; friable- breaks down to silty sand; abundant root hairs, roots to 1/8 inch; heavily jointed from 2 to 3 feet.					
1777	2	[Hatched Pattern]											
1776	3	[Hatched Pattern]											



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Scale: H 2 [ft]
 V 2 [ft]

Pit Orientation: N30E
 Natural Slope Angle: 25

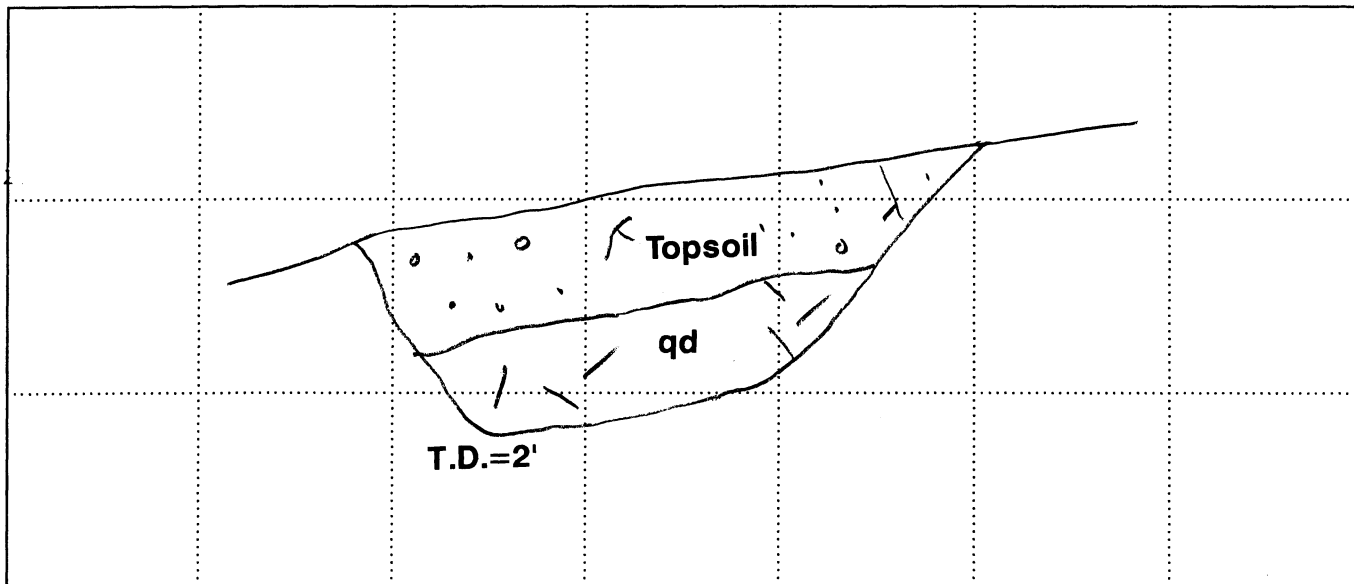
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/17/02**
 Logged By: **MZ**

Test Pit No.: **HP-7**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1929.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1928	1	[Dotted Pattern]					N7W, 80S J N55E, 62S J N20E, 85N J	<p>Topsoil: Silty Sand (SM): reddish brown; damp; medium dense; abundant root hairs, roots to 1/8 inch.</p>					
1927	2	[Cross-hatched Pattern]				<p>Quartz Diorite (qd): Highly Weathered: reddish brown; damp; friable-breaks down to silty sand; root hairs minor; highly jointed .</p>							



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Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: N85E
Natural Slope Angle: 12

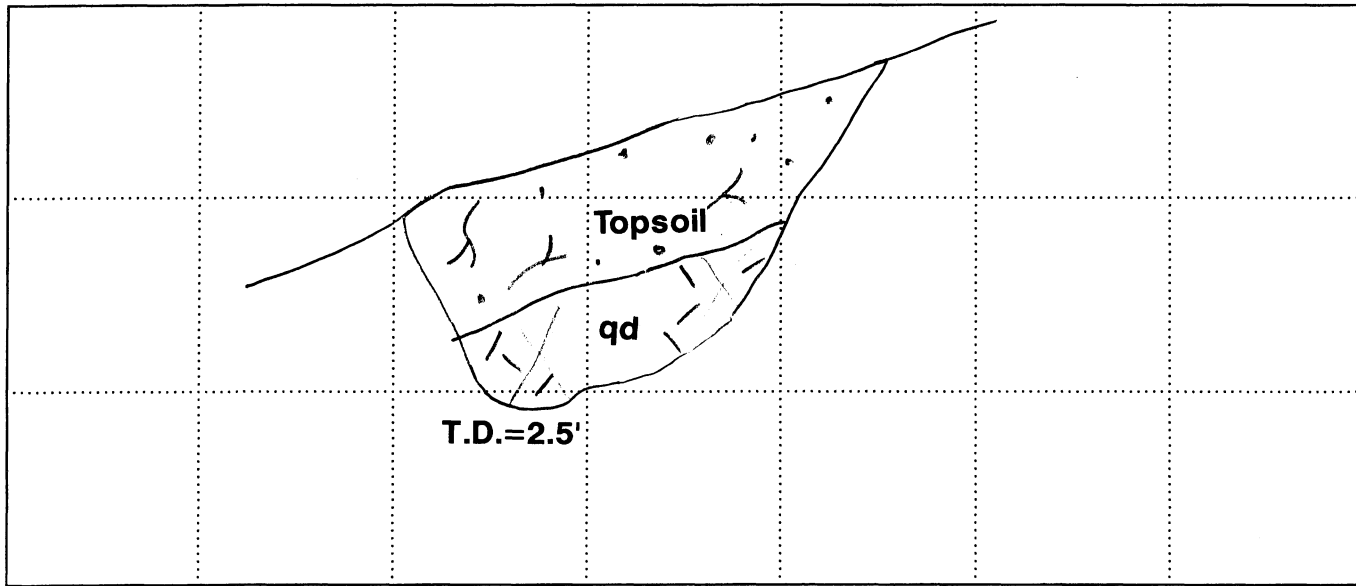
- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/17/02**
 Logged By: **MZ**

Test Pit No.: **HP-8**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1685.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> Shelby Tube ∇ Water Level ATD <input checked="" type="checkbox"/> California ⊠ Bulk Sample ▼ Static Water Table	Pocket Pen. [tsf]	Lab Tests
								SOIL DESCRIPTION and CLASSIFICATION (USCS)		
1684	1	[Stippled Pattern]					N10W, 52N J N10E, 85N J N40E, 48N J	Topsoil: <u>Silty Sand (SM):</u> reddish brown; damp; medium dense; abundant root hairs, roots to 1/4 inch.		
1683	2	[Cross-hatched Pattern]				Quartz Diorite (qd): <u>Highly to Moderately Weathered:</u> reddish brown; damp; friable- breaks down to silty sand; minor porosity and fibrous roots; granite biotite rich.				



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Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: EW
Natural Slope Angle: 23

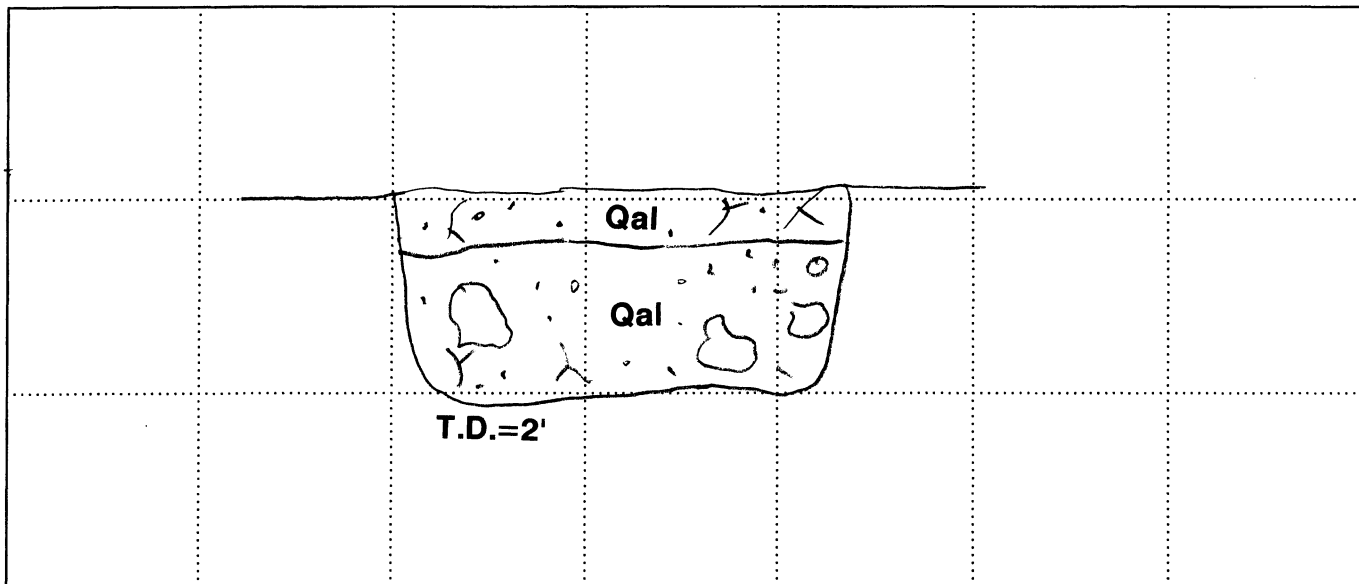
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/17/02**
 Logged By: **MZ**

Test Pit No.: **HP-9**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1774.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> Shelby Tube <input type="checkbox"/> Water Level ATD <input checked="" type="checkbox"/> California <input checked="" type="checkbox"/> Bulk Sample <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
1773	1						Alluvium (Qal): Gravelly Sand (SP): dark brown; damp; soft; abundant fibrous roots.			
1772	2						Alluvium (Qal): Gravelly Sand (SP): dark brown; damp; medium dense to dense; abundant root activity; fines consist of silty sand to sandy gravel; some cobbles to boulders.			



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Scale: H 2 [ft]
 V 2 [ft]

Pit Orientation: N15W
 Natural Slope Angle: 0

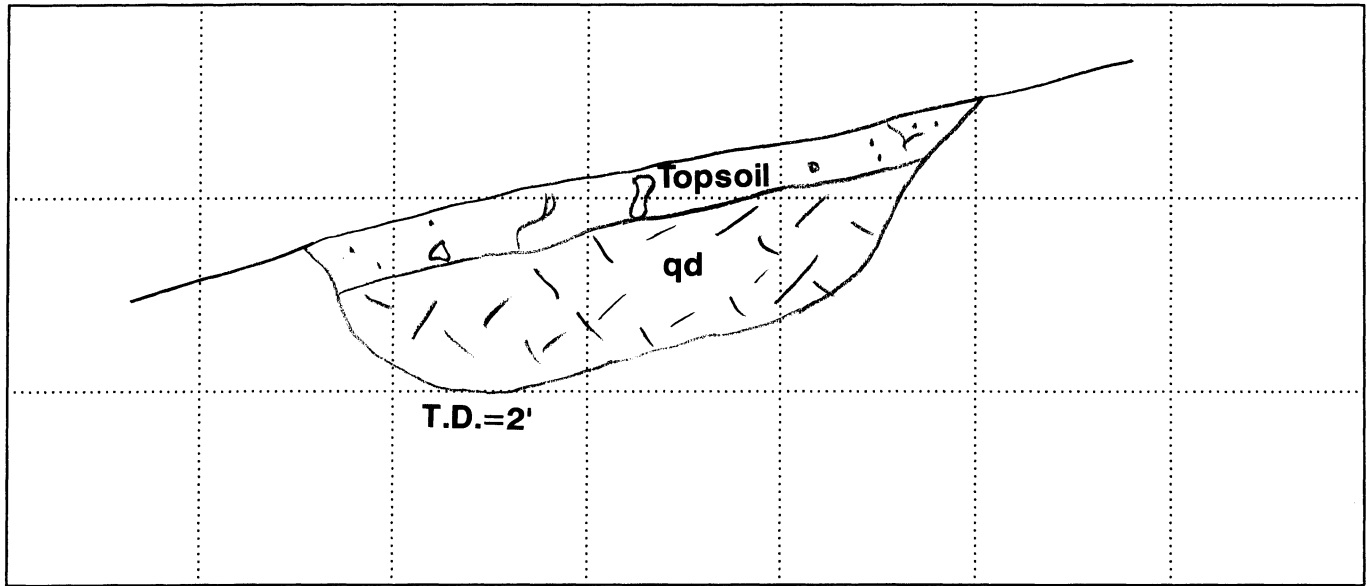
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/17/02**
 Logged By: **MZ**

Test Pit No.: **HP-10**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1711.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> Shelby Tube ▽ Water Level ATD <input checked="" type="checkbox"/> California ☒ Bulk Sample ▽ Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
1710	1						N40E, 58S J N40W, 57N J	<p>Topsoil: Silty Sand (SM): reddish brown; damp; loose to medium dense; abundant root hairs.</p> <p>Quartz diorite (qd): Moderately Weathered: reddish brown; damp; hard at 2 feet; minor root hairs; friable- breaks down to silty sand.</p>		
1709	2									



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Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: N40W
Natural Slope Angle: 17

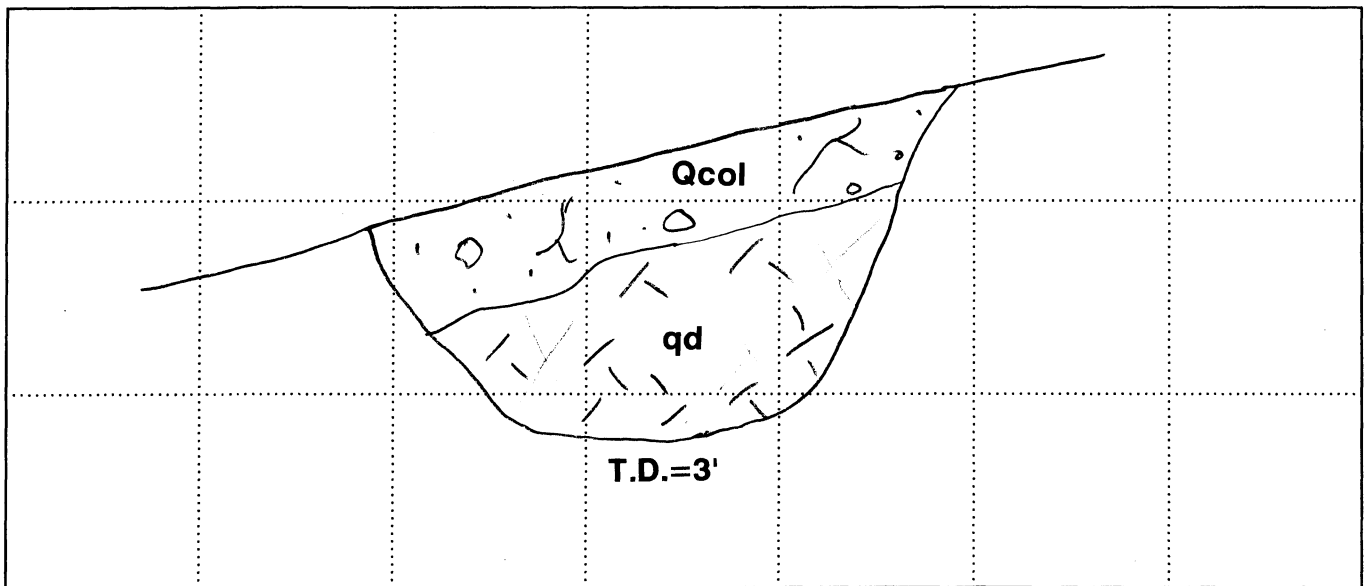
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- J - Joint
- C - Contact
- F - Fault
- S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-11**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1867.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> Shelby Tube ▽ Water Level ATD <input checked="" type="checkbox"/> California ☒ Bulk Sample ▽ Static Water Table	Pocket Pen. [tsf]	Lab Tests
								SOIL DESCRIPTION and CLASSIFICATION (USCS)		
1866	1	[Pattern]					N25E, 80N J N10W, 56S J EW, 57S J	Colluvium (Qcol): Silty Sand (SM): brown; damp; very loose to loose; abundant root hairs.		
1865	2	[Pattern]				Quartz Diorite (qd): Highly to Moderately Weathered: pale orangish brown; friable- breaks down to silty sand; damp; dark brown clay soil infilled joints with root activity.				
1864	3	[Pattern]								



HS-BA-TP-00189-00-TP-GPJ-ZKCI-GDT-2/12/03



Scale: H 2 [ft]
 V 2 [ft]

Pit Orientation: NS
 Natural Slope Angle: 22

B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

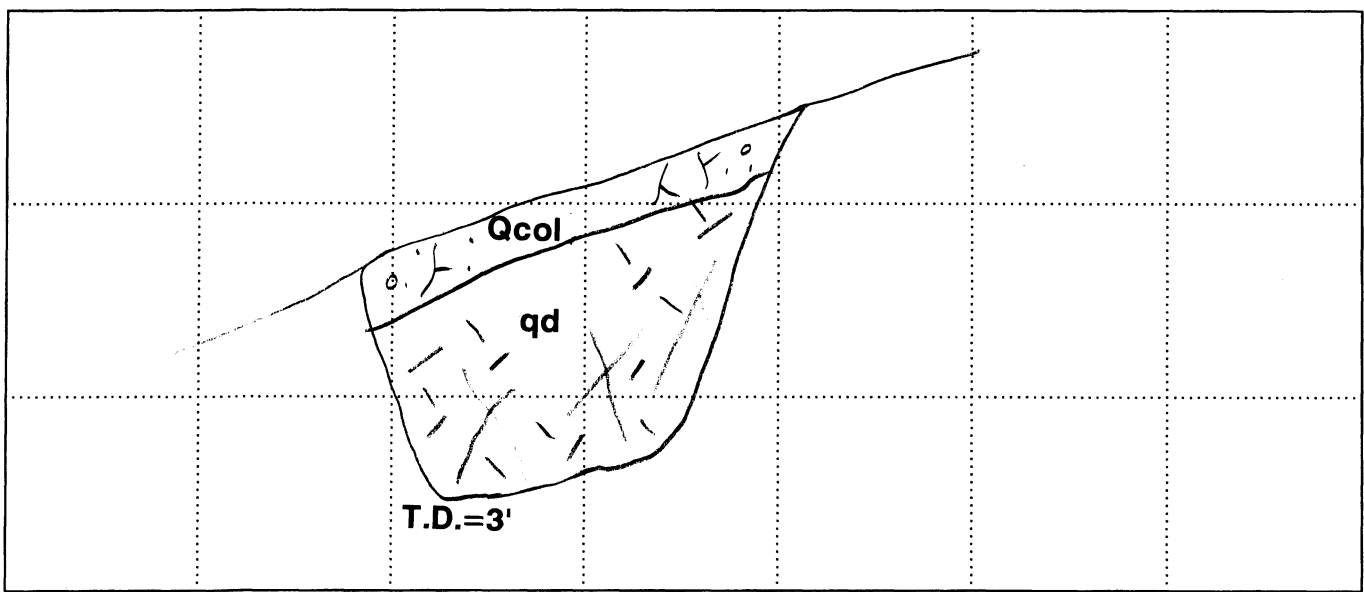
LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-12**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1923.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California	<input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)												

1922	1							<p>Colluvium (Qcol): <u>Silty Sand (SM):</u> dark brown; damp; loose; root hairs to 1/2 inch roots, slope covered with brush and trees.</p>				
1921	2	2					N75E, 62S J EW, 63S J N50E, 52N J	<p>Quartz Diorite (qd): <u>Highly to Moderately Weathered:</u> light brown; damp; fractures infilled with colluvium and root activity; friable- breaks down to silty sand.</p>				
1920	3	3										



HS BA_TP_00189-00_TP_GPJ_ZKCI.GDT_2/12/03



Scale: H 2 [ft]
 V 2 [ft]

Pit Orientation: S45E
 Natural Slope Angle: 25

B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

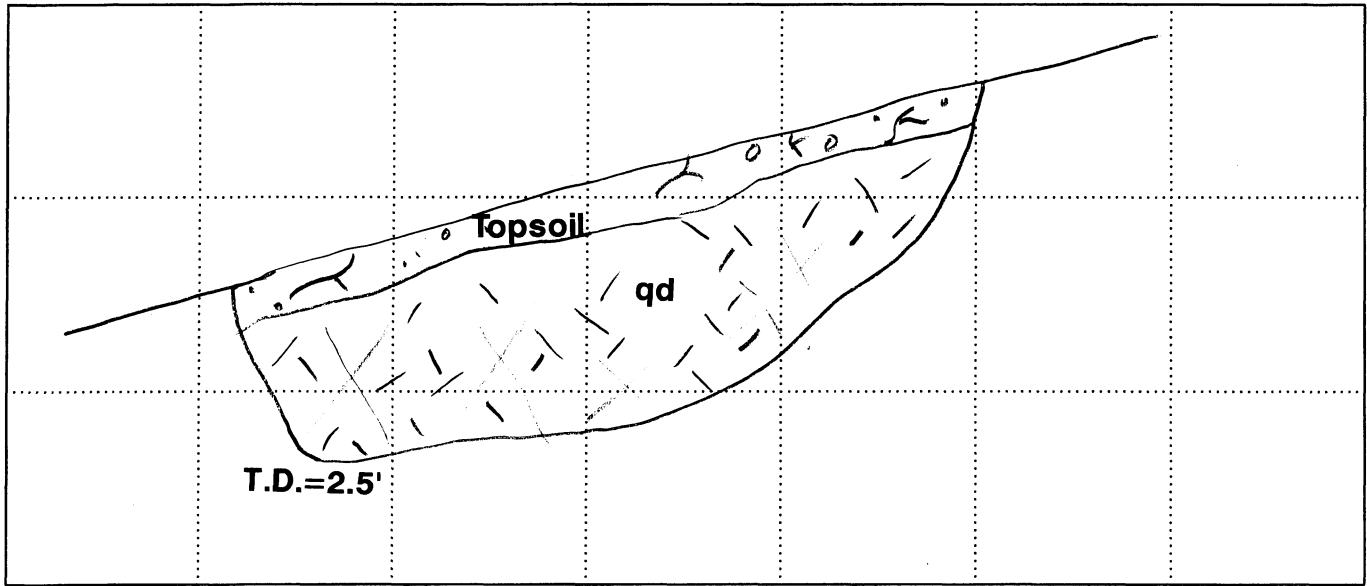
LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-13**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **2016.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California	<input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)						

2015	1							<p>Topsoil: Silty Sand (SM): gray brown; dry; loose; abundant root hairs, roots to 1/2 inch. Quartz Diorite (qd): Moderately to Slightly Weathered: pale orange and black; damp; biotite-rich granite; oxidized; friable-breaks down to silty sand; minor jointing.</p>						
2014	2						N10W, 75S J N85E, 68N J N10W, 85S J							



HS BA TP 00189-00 TP.GPJ ZKCI.GDT 2/12/03



Scale: H 2 [ft]
 V 2 [ft]
 Pit Orientation: N15W
 Natural Slope Angle: 25

- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

LOG OF EXPLORATORY TEST PIT

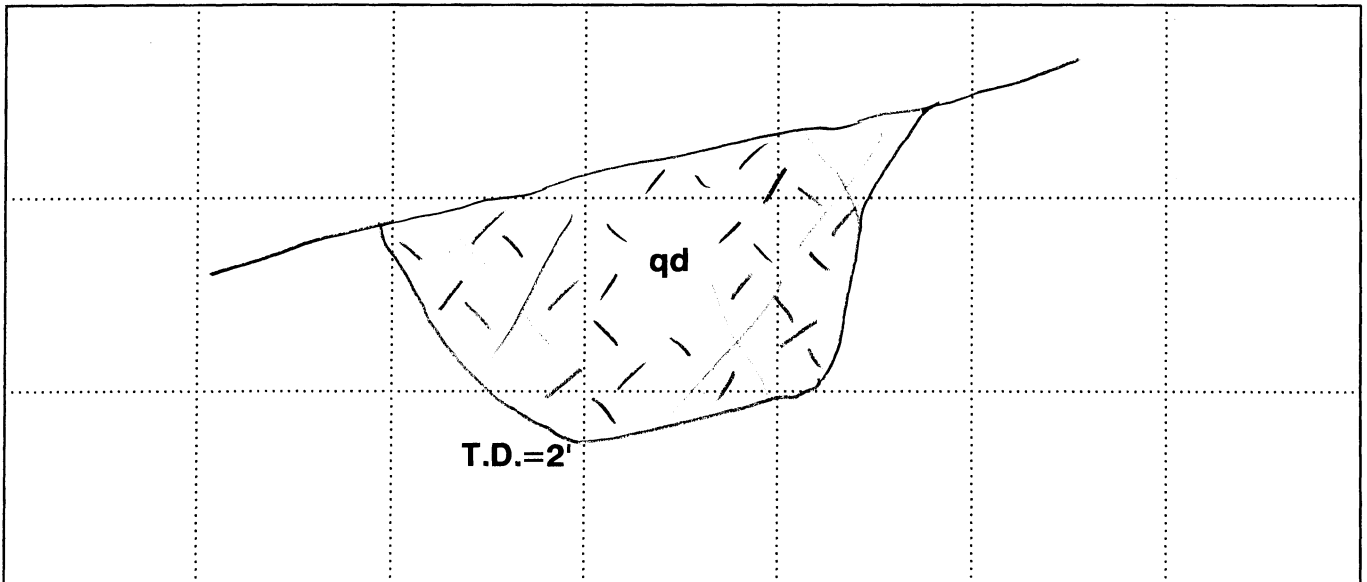
Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-14**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1900.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California	<input checked="" type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input checked="" type="checkbox"/> Water Level ATD <input checked="" type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)												

1899	1						N10W, 53S J					
1898	2						N5E, 70N J N10E, 80N J N40W, 85S J N45E, 63N J					

Quartz Diorite (qd):
Moderately Weathered: grayish white and pale orange; damp; abundant root activity in upper 1 foot, root hairs to 1/4 inch; highly jointed; friable- breaks down to silty sand; less than 1 inch topsoil.



HS BA TP 00189-00 TP.GPJ ZKCLGDT 2/12/03



Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: N17E
Natural Slope Angle: 10

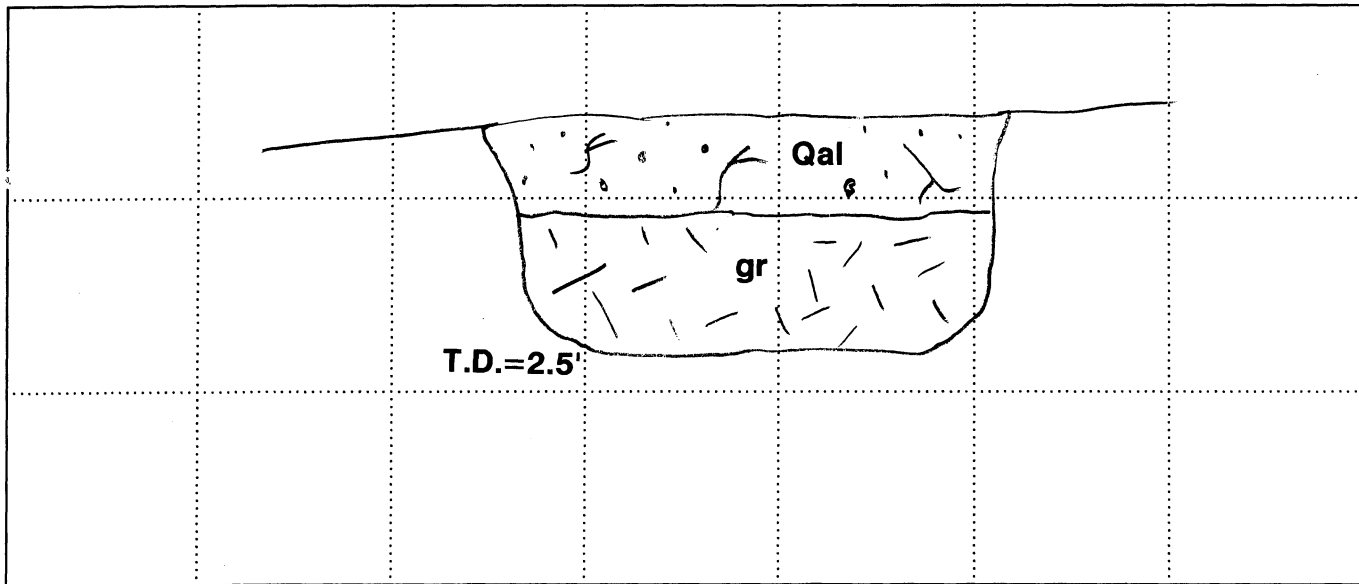
B - Bedding Plane
J - Joint
C - Contact
F - Fault
S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-15**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1884.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1883	1						N35E, 88N J N85W, 43S J N75E, 40S J	<p>Alluvium (Qal): Silty Sand (SM): orangish brown; damp; medium dense; moderate to abundant root hairs, roots to 1/4 inch.</p>					
1882	2							<p>Granite (gr): Moderately Weathered: black, minor reddish brown oxidation; damp; abundant root hairs, roots to 1/4 inch; friable- breaks down to silty sand.</p>					



HS BA TP 00189-00 TP.GPJ_ZKGI.GDT_2/12/03



Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: N20W
Natural Slope Angle: 0

B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

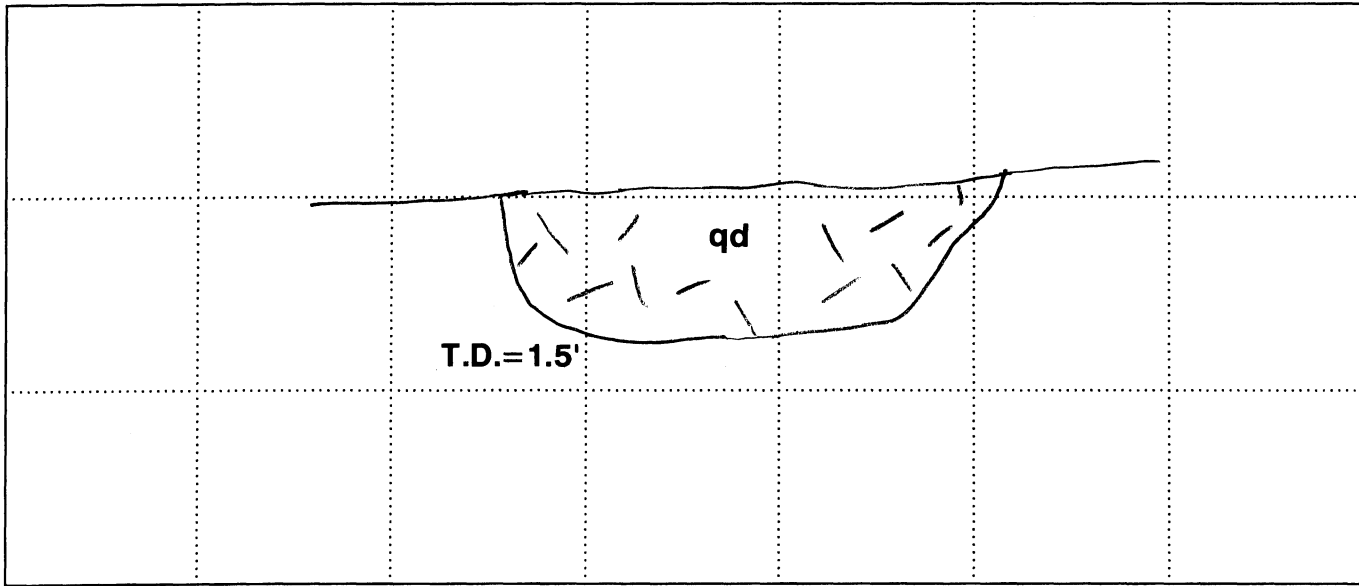
LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-16**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1808.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> Shelby Tube ▽ Water Level ATD <input checked="" type="checkbox"/> California ⊠ Bulk Sample ▽ Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)										

1807	1									
Quartz Diorite (qd): Highly Weathered: reddish brown; damp; hard at 1.5 feet; minor root activity, roots most common in upper 1/2 foot; highly weathered; friable- breaks down to sandy silt.										
1806	2									



HS BA TP 00189-00 TP.GPJ ZKCLGDT 2/12/03




Scale: H 2 [ft]
 V 2 [ft] Pit Orientation: EW
 Natural Slope Angle: 9

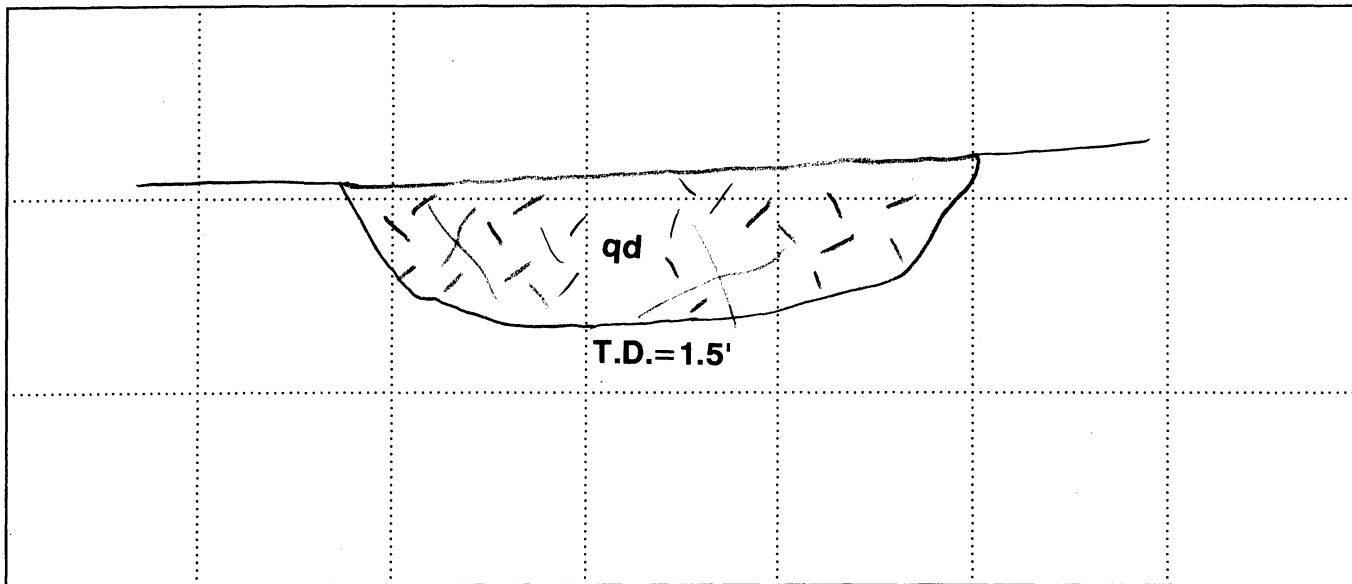
- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-17**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1802.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1801	1						N70W, 45S J N62W, 76N J N25E, 83S J	<input checked="" type="checkbox"/> Quartz Diorite (qd): Highly to Moderately Weathered: pale orange; damp; hard at 1.5 feet; minor root activity; friable- breaks down to silty sand; highly jointed.					
1800	2												



HS BA TP 00189-00 TP.GPJ ZKCI.GDT 2/12/03



Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: S25E
Natural Slope Angle: 4

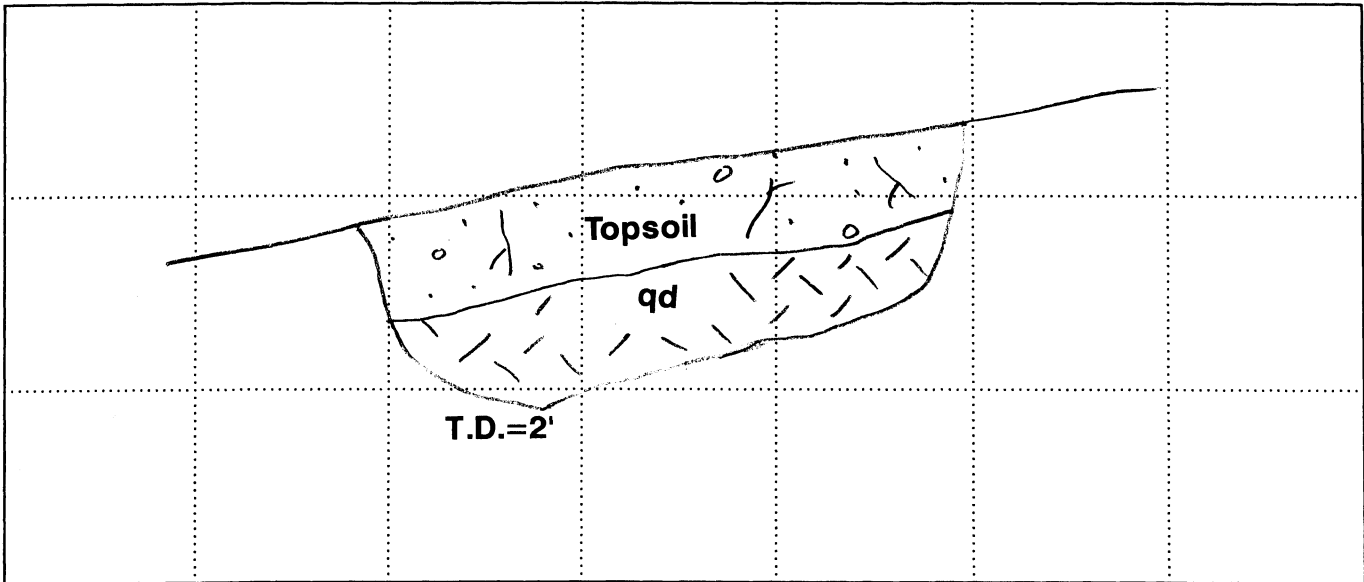
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/20/02**
 Logged By: **MZ**

Test Pit No.: **HP-18**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1880.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1879	1	[Pattern]					N80W, 77S J N80W, 57N J N20E, 69S J	Topsoil: <u>Silty Sand (SM):</u> reddish brown; loose to medium dense; damp; abundant root activity, root hairs to 1/4 inch.					
1878	2	[Pattern]				Quartz Diorite (qd): <u>Highly Weathered:</u> pale orange; damp; fine grained; minor root activity; moderately jointed; friable- breaks down to silty sand.							



HS BA TP 00189-00 TP.GPJ ZKCI.GDT 2/12/03




Scale: H 2 [ft]
 V 2 [ft]
 Pit Orientation: N55E
 Natural Slope Angle: 13

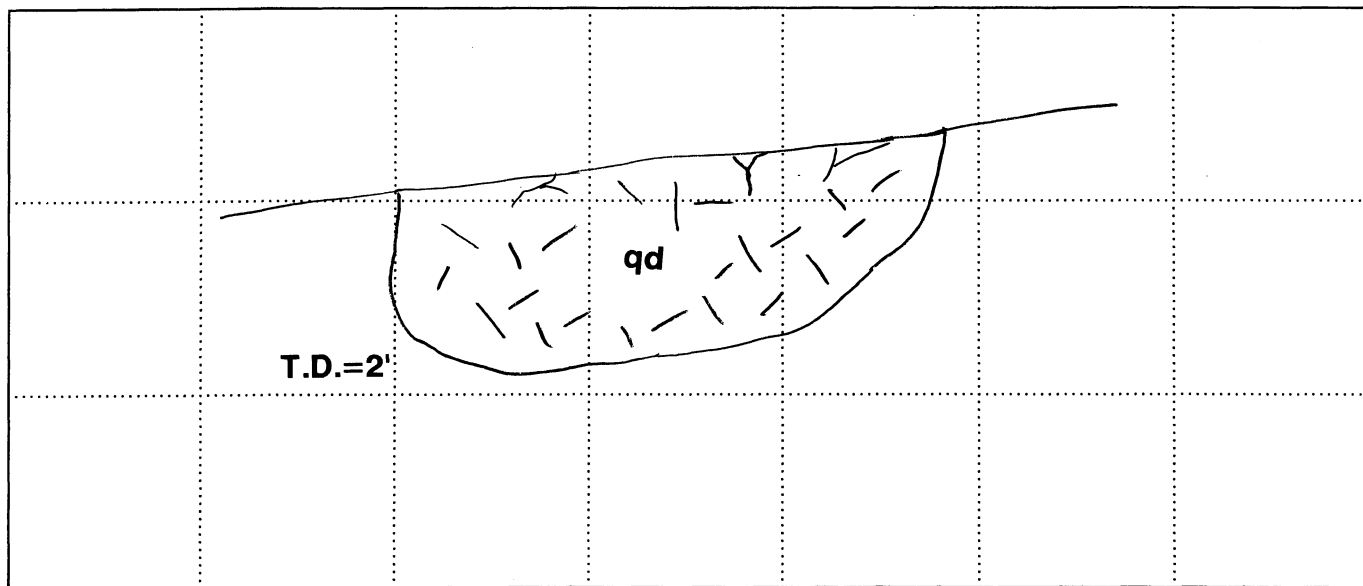
- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/22/02**
 Logged By: **MZ**

Test Pit No.: **HP-19**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1905.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> Shelby Tube ∇ Water Level ATD <input checked="" type="checkbox"/> California ⊗ Bulk Sample ∇ Static Water Table	Pocket Pen. [tsf]	Lab Tests
								SOIL DESCRIPTION and CLASSIFICATION (USCS)		
1904	1						Quartz Diorite (qd): Highly Weathered: reddish brown; damp; root activity common at surface; friable- breaks down to silty sand.			
1903	2									



HS BA TP 00189-00 TP.GPJ ZKCI.GDT 2/12/03



Scale: H 2 [ft]
V 2 [ft]


Pit Orientation: S20W
Natural Slope Angle: 6

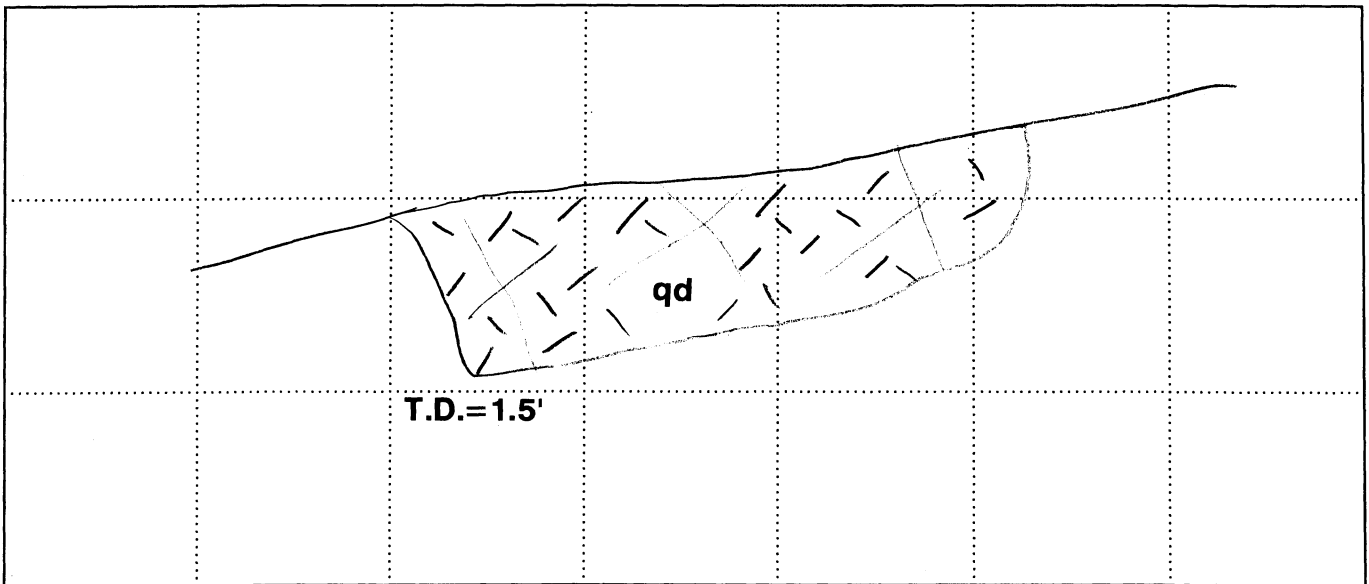
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/22/02**
 Logged By: **MZ**

Test Pit No.: **HP-20**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1958.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon	<input type="checkbox"/> Shelby Tube	<input type="checkbox"/> Water Level ATD	Pocket Pen. [tsf]	Lab Tests		
								<input type="checkbox"/> California	<input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Static Water Table				
SOIL DESCRIPTION and CLASSIFICATION (USCS)														
1957	1						NS, 73W J N70E, 87S J N10E, 58N J	Quartz Diorite (qd): Moderately Weathered: reddish brown and black; damp; biotite rich granite; foliated; friable- breaks down to silty sand; heavy root activity in upper 0.5 feet, no root activity below.						
1956	2													



HS BA TP 00189-00 TP.GPJ ZKCI.GDT 2/12/03



Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: NS
Natural Slope Angle: 5

- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

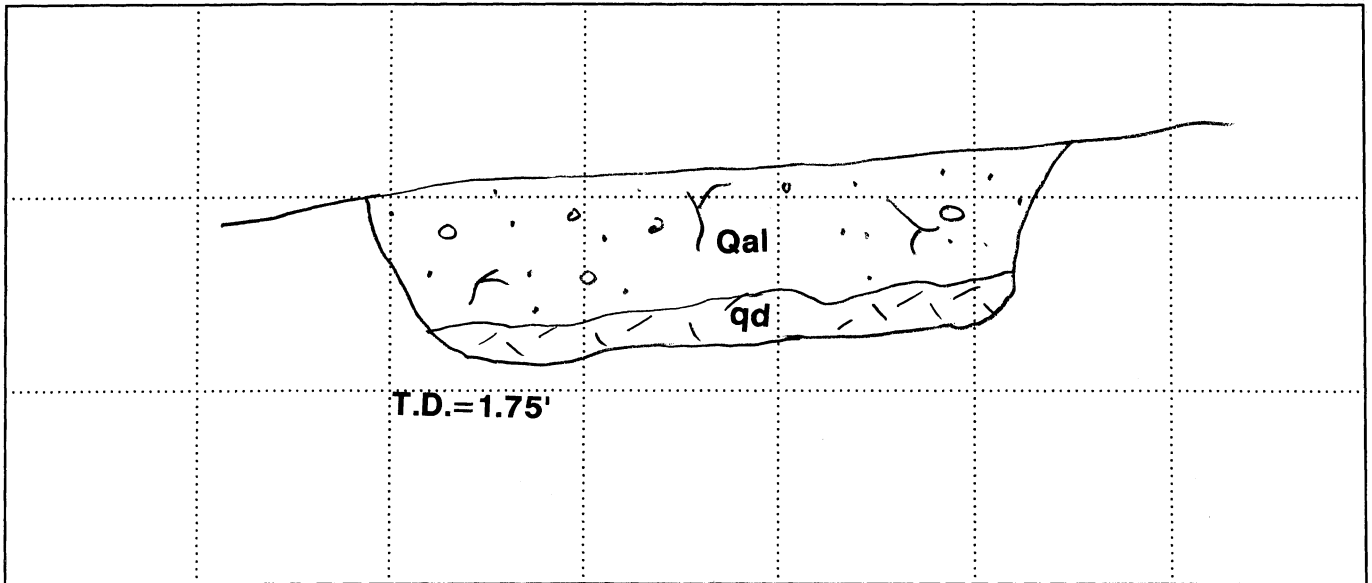
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/22/02**
 Logged By: **MZ**

Test Pit No.: **HP-21**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1676.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Bulk Sample <input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
1675	1	[Symbol]					<p>Alluvium (Qal): Silty Sand (SM): dark brown; damp; very loose to loose; minor root activity, roots to 1/4 inch.</p>			
1674	2	[Symbol]					<p>Quartz Diorite (qd): Moderately Weathered: dark brown; damp; irregular contact with alluvium.</p>			



HS BA TP 00189-00 TP.GPJ ZKCI.GDT 2/12/03



Scale: H 2 [ft]
 V 2 [ft]

Pit Orientation: N20W
 Natural Slope Angle: 5

- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

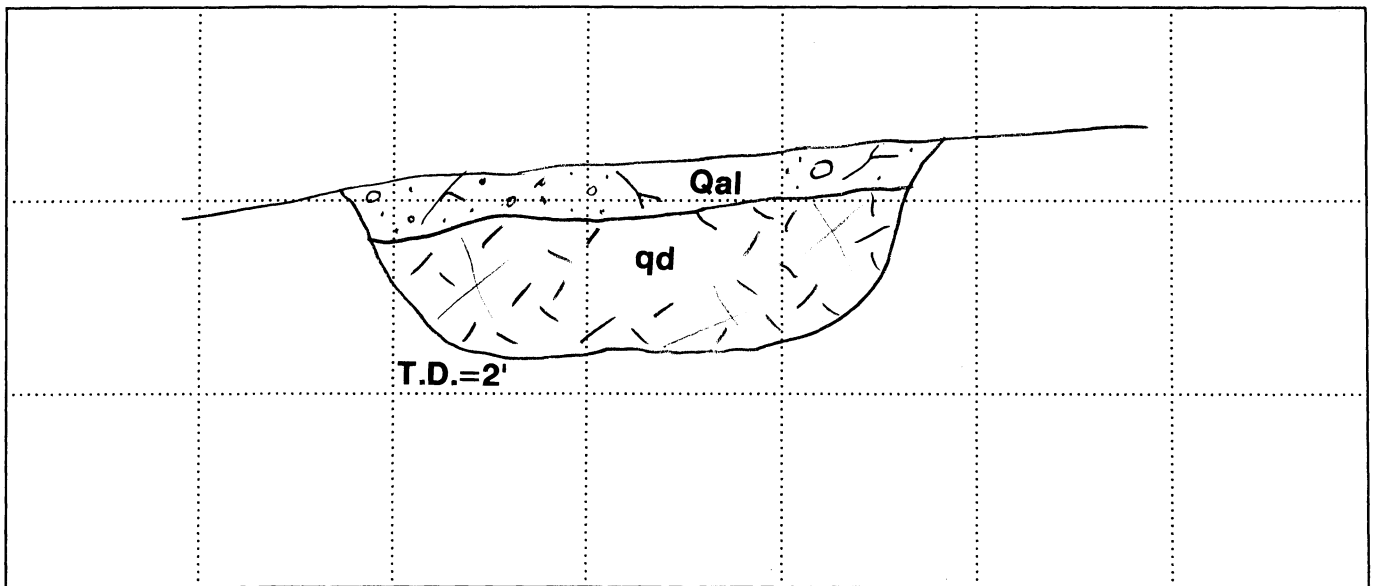
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/22/02**
 Logged By: **MZ**

Test Pit No.: **HP-22**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1753.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	Standard Split Spoon California Shelby Tube Bulk Sample Water Level ATD Static Water Table	Pocket Pen. [tsf]	Lab Tests
								SOIL DESCRIPTION and CLASSIFICATION (USCS)		
1752	1	[Pattern]					N30W, 90 J N67E, 33S J	Alluvium (Qal): Silty Sand (SM): reddish brown; damp; very loose to loose; abundant root hair activity.		
1751	2	[Pattern]				Quartz Diorite (qd): Highly to Moderately Weathered: grayish white to pale orange; damp; minor root activity; minor jointing; minor foliation; friable- breaks down to silty sand.				
1750										



HS BA TP 00189-00 TP.GPJ ZKCLGDT 2/12/03



Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: N15E
Natural Slope Angle: 6

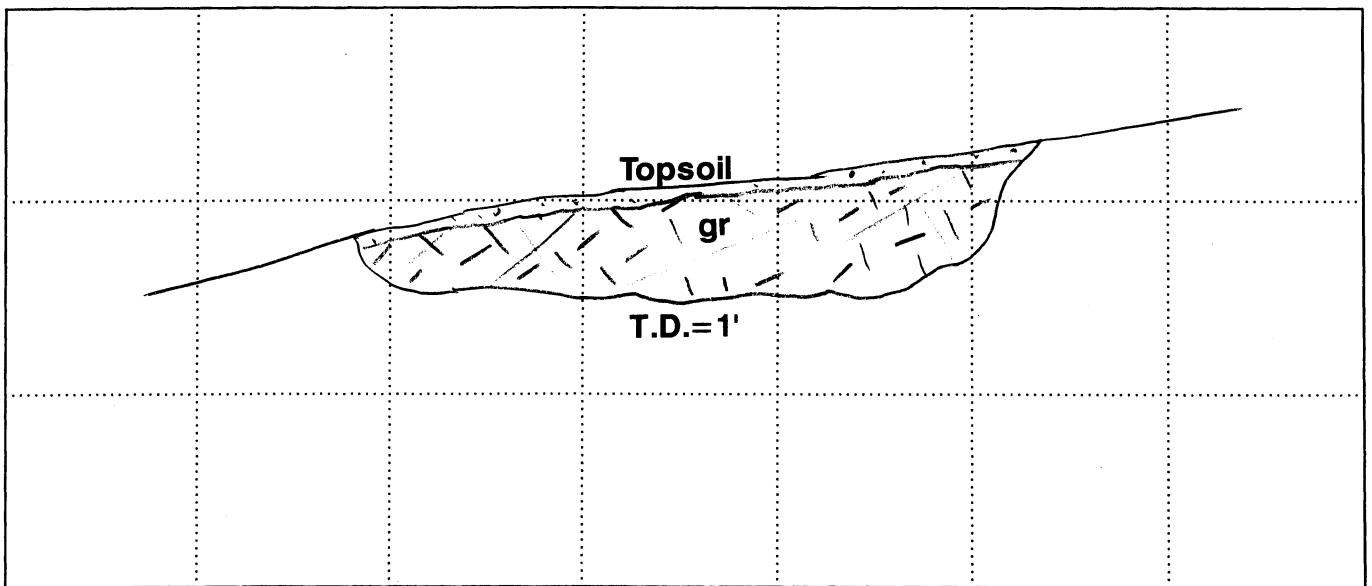
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/22/02**
 Logged By: **MZ**

Test Pit No.: **HP-23**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **2047.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
2046	1						N42E, 48S J N20W, 58S J	<p>Topsoil: Silty Sand (SM): pale brown; damp; loose; abundant root hairs. Granite (gr): Slightly Weathered: pale brown; damp; hard to very hard; moderately jointed.</p>					
2045	2												



HS BA TP 00189-00 TP.GPJ ZKCI.GDT 2/12/03



Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: N15E
Natural Slope Angle: 4

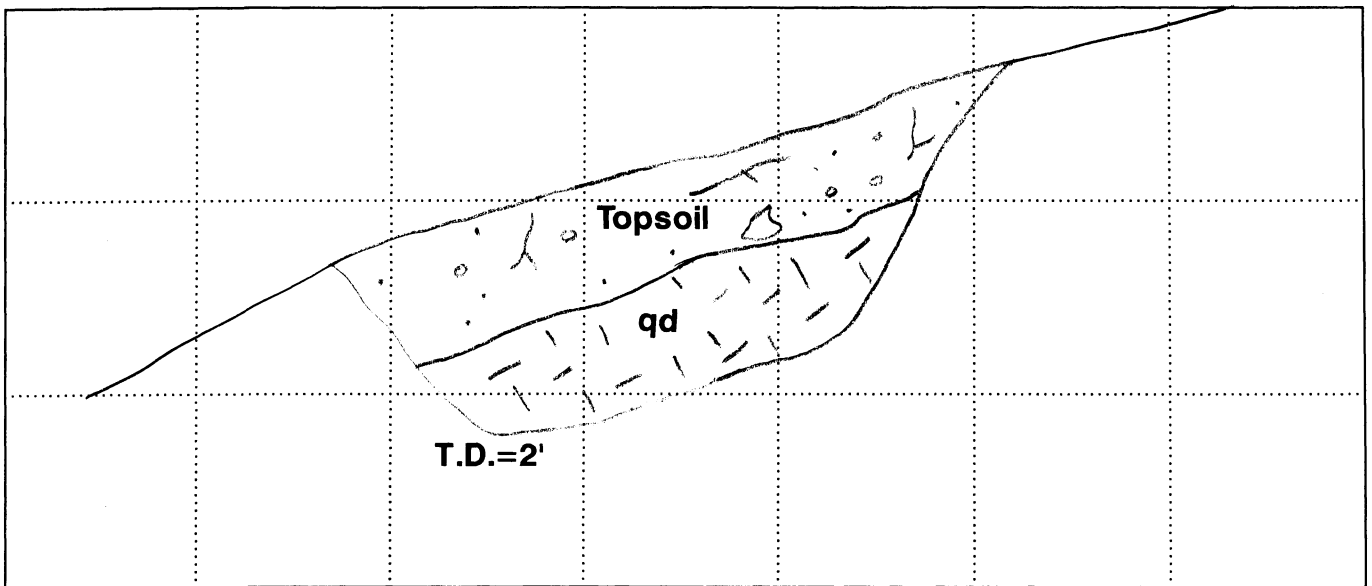
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/22/02**
 Logged By: **MZ**

Test Pit No.: **HP-24**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1707.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> California <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1076	1						NS, 63W J N64W, 50N J N10W, 90 J	<p>Topsoil: Silty Sand (SM): grayish brown; damp; very loose to loose; abundant root hairs, roots to 1/4 inch; 4 inch burrows at bedrock contact.</p>					
1075	2							<p>Quartz Diorite (qd): Highly Weathered: dark gray to black; damp; biotite and hornblende rich; friable- breaks down to silty sand.</p>					



HS BA TP 00189-00 TP.GPJ ZKCLGDT 2/12/03



Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: N65E
Natural Slope Angle: 26

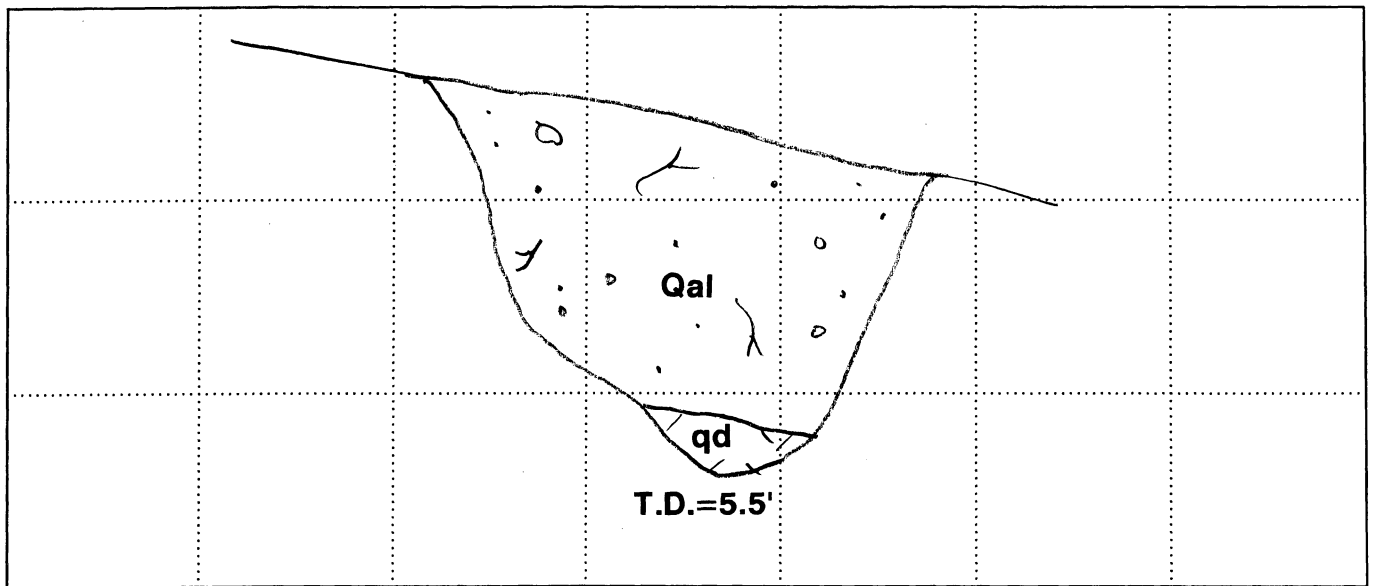
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-25**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1375.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1374	1						N45W, 5S J	<p>Alluvium (Qal): Gravelly Sand: brown; damp to moist; coarse gravel to small cobble, sub-angular to -rounded; roots to 1/2 inch.</p>					
1373	2							<p>Quartz Diorite (qd): Weathered: gray; damp; medium to coarse grained; some oxidation; minor fracturing; roots from 1/4 to 1/2 inch; irregular contact with alluvium; some metamorphics present.</p>					
1372	3												
1371	4												
1370	5												



HS BA TP 00189-00 TP.GPJ ZKCl.GDT 2/12/03



Scale: H 4 [ft]
 V 4 [ft]

Pit Orientation: NS
 Natural Slope Angle: 20

B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-26**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1370.0**

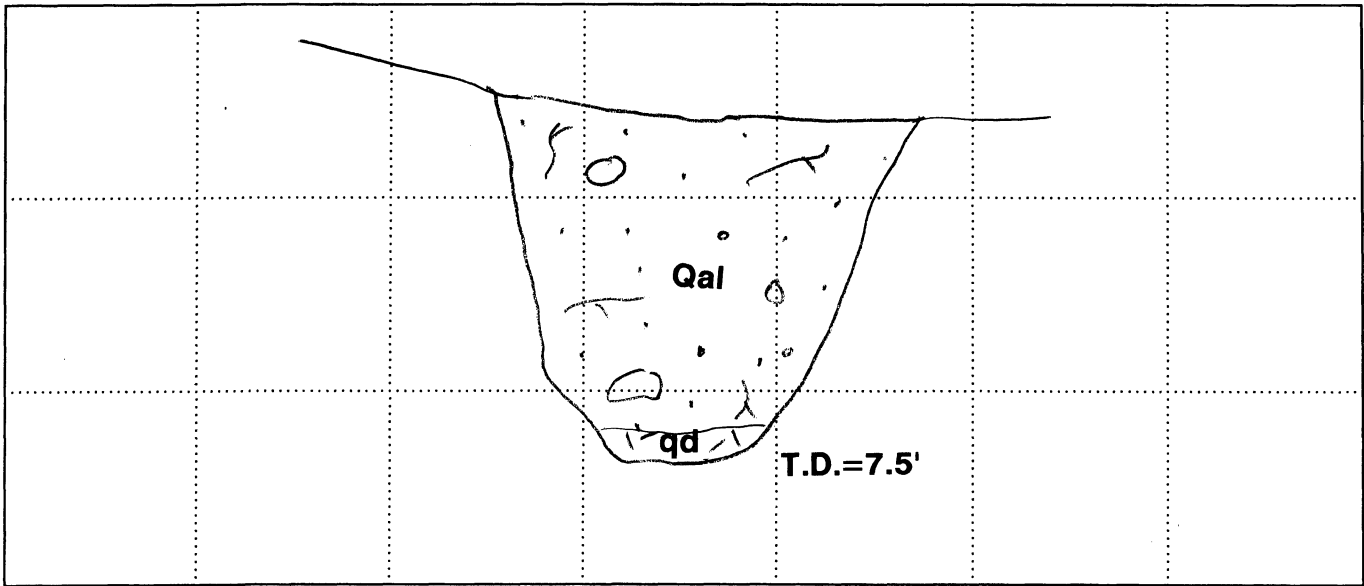
Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> California <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
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SOIL DESCRIPTION and CLASSIFICATION (USCS)

1369	1						N50W, 15N J					
1368	2											
1367	3											
1366	4											
1365	5											
1364	6											
1363	7											

Alluvium (Qal):
 Silty Sand (SM): dark brown; damp to moist; fine to medium grained; roots up to 1/4 inch; cobbles and boulders at 5 feet.

Quartz Diorite (qd):
 Highly to Moderately Weathered: dark gray; damp; generally massive; irregular contact with alluvium; some oxidation; gray weathering; minor metamorphics present.



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Scale: H 4 [ft]
 V 4 [ft] Pit Orientation: N20W
 Natural Slope Angle: 5

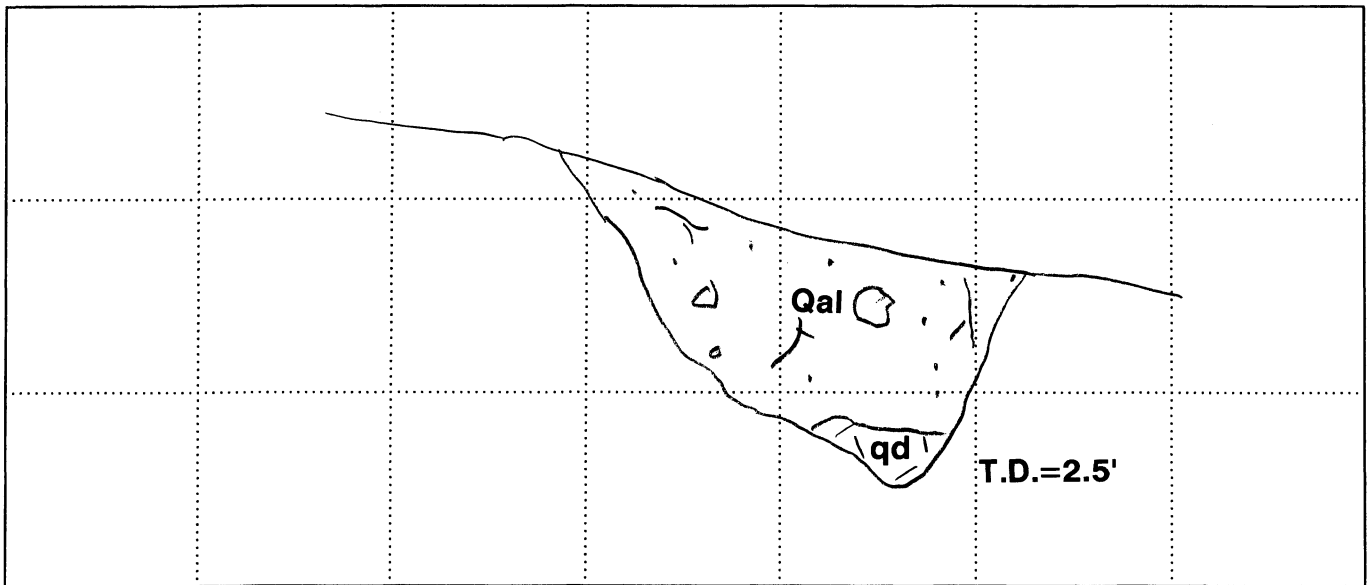
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-27**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1415.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input checked="" type="checkbox"/> California <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests		
								SOIL DESCRIPTION and CLASSIFICATION (USCS)					
1414	1	[Dotted Pattern]					N50E, 55S J	<p>Alluvium (Qal): Silty Sand (SM): medium brown; damp to moist; loose; fine to coarse gravels, occasional small boulder; root hairs abundant in upper 1 foot.</p>					
1413	2	[Cross-hatched Pattern]				<p>Quartz Diorite (qd): Highly to Moderately Weathered: gray; damp; hard; medium to coarse grained; irregular contact with alluvium.</p>							




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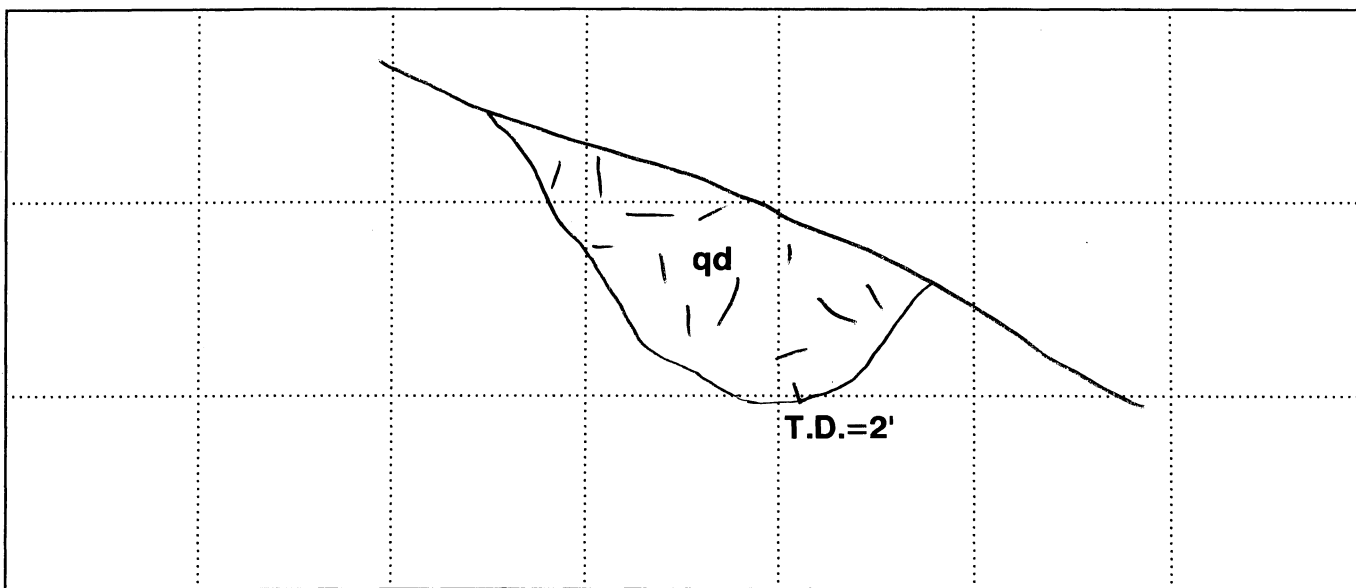
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-28**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1640.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> California <input type="checkbox"/> Bulk Sample <input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)										
1639	1						Quartz Diorite (qd): Highly to Moderately Weathered gray; damp; friable; gray weathering; minor metamorphosed intrusives, weathering dark gray.			
1368	2									



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Scale: H 2 [ft]
V 2 [ft]

Pit Orientation: NS
Natural Slope Angle: 30

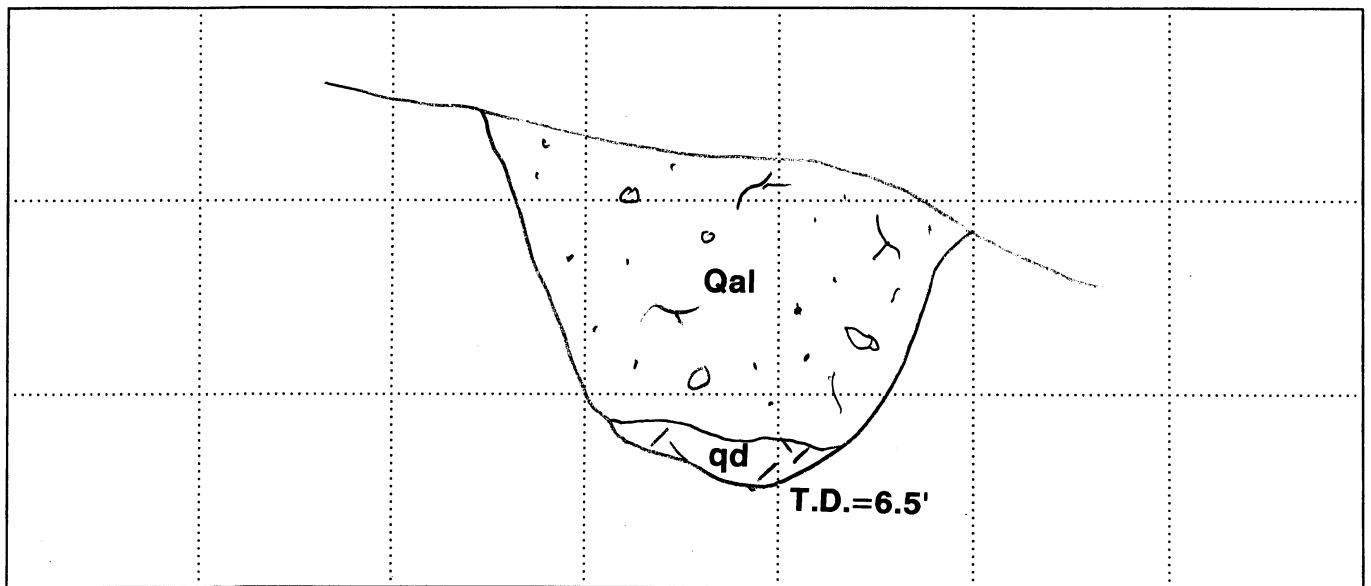
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-29**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1545.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon	<input checked="" type="checkbox"/> Shelby Tube	<input type="checkbox"/> Water Level ATD	Pocket Pen. [tsf]	Lab Tests
								<input checked="" type="checkbox"/> California	<input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Static Water Table		
SOIL DESCRIPTION and CLASSIFICATION (USCS)												
1544	1						<p>Alluvium (Qal): Gravelly Sand (SP); brown; damp; sub-rounded to sub-angular; some large cobbles; roots to 1/2 inch.</p> <hr/> <p>Quartz Diorite (qd): Weathered Granite; gray; damp; fine- to coarse-grained; minor metamorphics; some oxidation; irregular contact with alluvium.</p>					
1543	2											
1542	3											
1541	4											
1540	5											
1539	6											



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Scale: H 4 [ft]
 V 4 [ft]

Pit Orientation: N5W
 Natural Slope Angle: 5

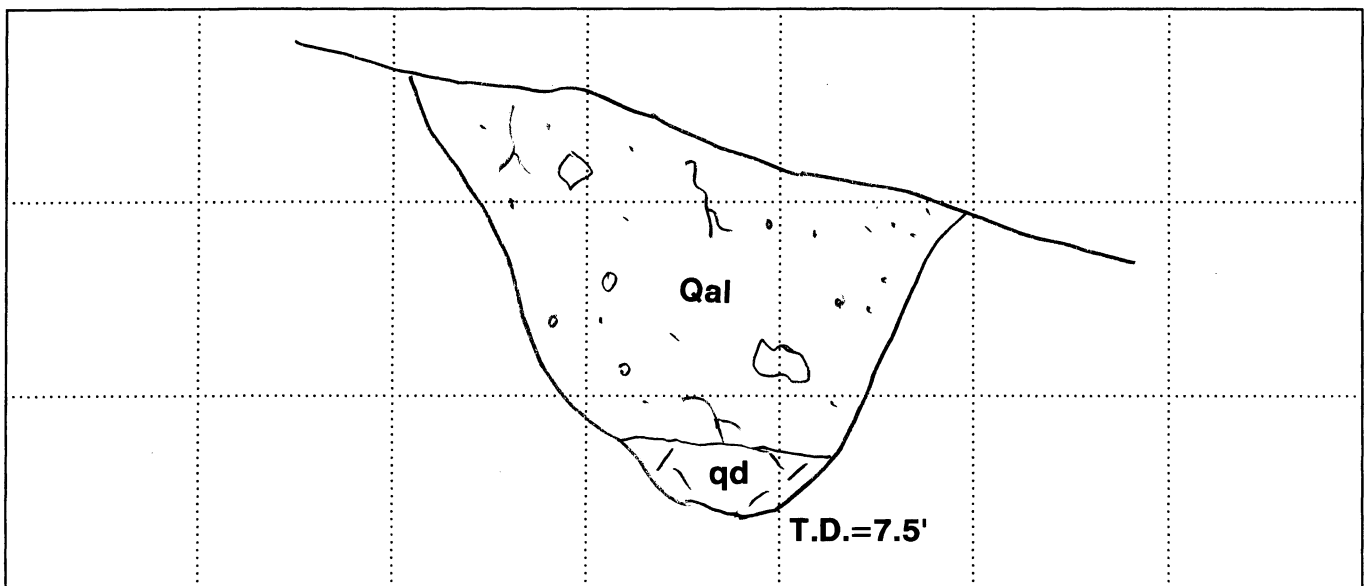
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-30**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1330.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> California <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests	
								SOIL DESCRIPTION and CLASSIFICATION (USCS)				
1329	1						Alluvium (Qal): Silty Sand (SM): brown; damp to moist; loose; some cobbles and gravels; subrounded to subangular; roots up to 1/2 inch diameter.					
1328	2											
1327	3											
1326	4											
1325	5											
1324	6							Quartz Diorite (qd): Highly to Moderately Weathered: grayish orange-white; gray weathering; minor roots; some oxidation; minor fine-grained metamphics.				
1323	7											



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Scale: H 4 [ft]
V 4 [ft]

Pit Orientation: NS
Natural Slope Angle: 8

B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

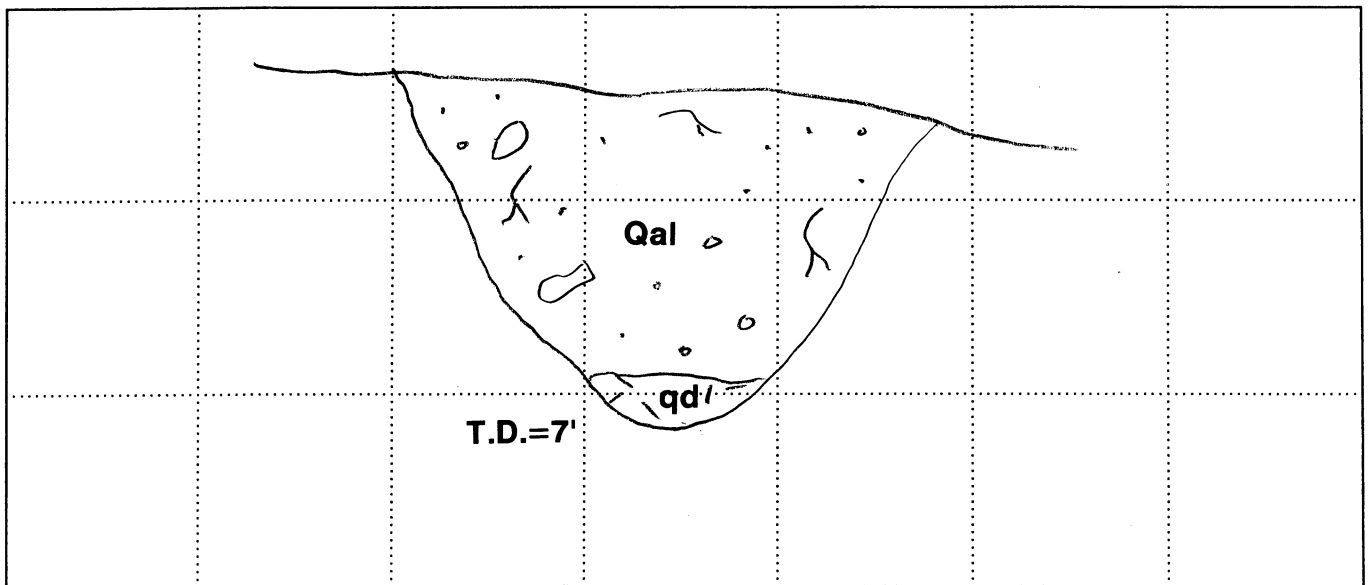
LOG OF EXPLORATORY TEST PIT

Sheet 1 of 1

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-31**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1405.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon	<input type="checkbox"/> Shelby Tube	<input type="checkbox"/> Water Level ATD	Pocket Pen. [tsf]	Lab Tests	
								<input checked="" type="checkbox"/> California	<input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Static Water Table			
SOIL DESCRIPTION and CLASSIFICATION (USCS)													
1404	1						<p>Alluvium (Qal): Silty Sand with Gravel (SM); brown; damp to moist; loose; subangular to subrounded; roots up to 1/2 inch diameter.</p>						
1403	2												
1402	3												
1401	4												
1400	5												
1399	6												
1398	7												
								<p>Quartz Diorite (qd): Moderately Weathered; gray; damp; generally massive; some oxidation; some fracturing; irregular contact with alluvium.</p>					



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Scale: H 4 [ft]
 V 4 [ft]

Pit Orientation: N20E
 Natural Slope Angle: 7

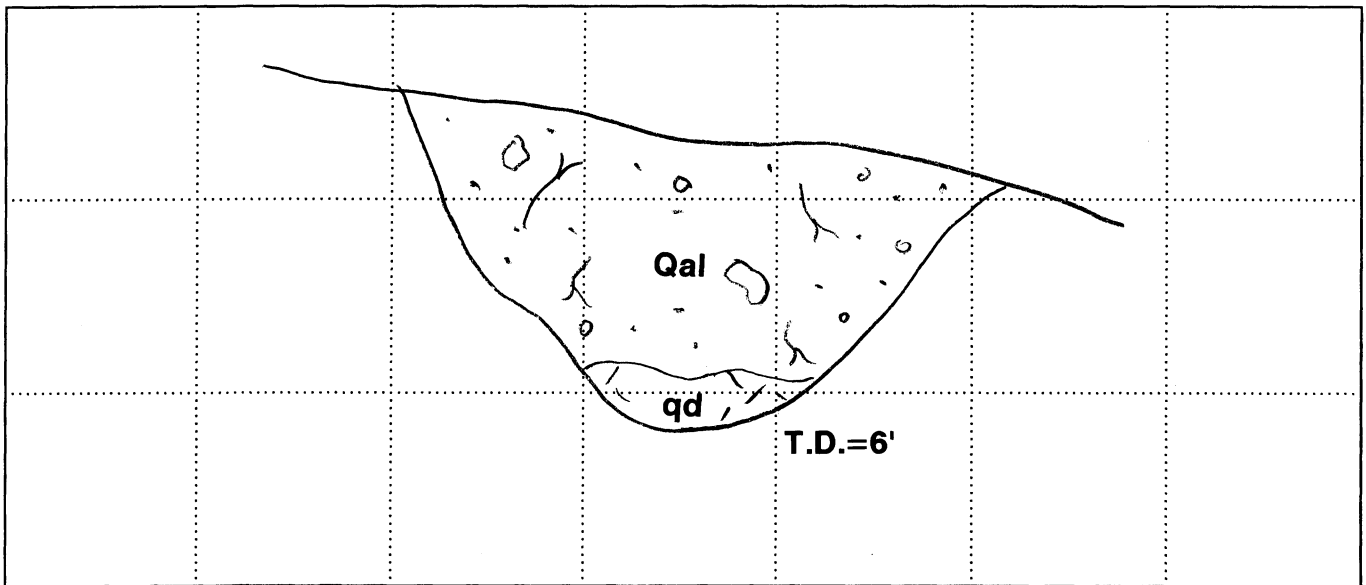
B - Bedding Plane
 J - Joint
 C - Contact
 F - Fault
 S - Shear

LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-32**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1580.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input type="checkbox"/> California <input type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)											
1579	1	[Stippled Pattern]					<p>Alluvium (Qal): Gravelly Sand (SP): brown; damp; loose; fine to coarse; some large cobbles and boulders; roots up to 1/2 inch diameter.</p> <hr/> <p>Quartz Diorite (qd): Moderately Weathered: gray; damp; medium- to coarse-grained; minor oxidation.</p>				
1578	2	[Stippled Pattern]									
1577	3	[Stippled Pattern]									
1576	4	[Stippled Pattern]									
1575	5	[Cross-hatched Pattern]									



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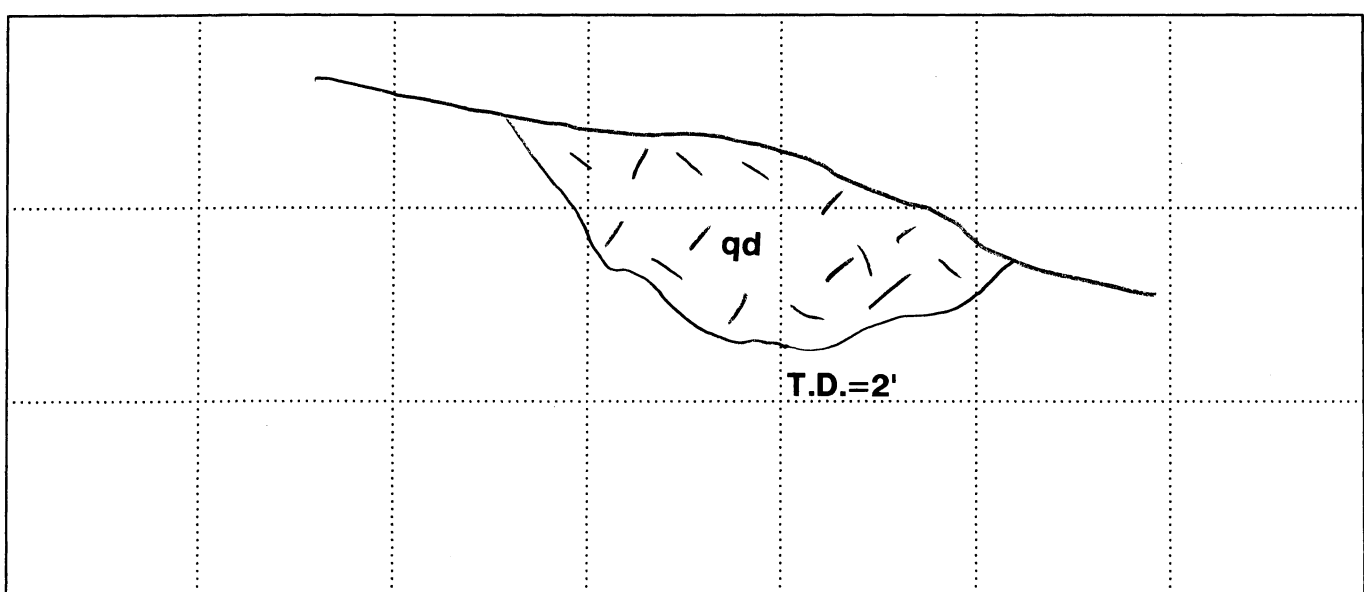
LOG OF EXPLORATORY TEST PIT

Project: **Canyon Hills**
 Project Number: **00189-00**
 Date Drilled: **1/21/03**
 Logged By: **JSC**

Test Pit No.: **HP-33**
 Contractor: **D&D Constr.**
 Backhoe:
 Hammer Wt. / Drop:
 Ground Elev. [ft]: **1705.0**

Elevation [ft]	Depth [ft]	Graphic Log	Sample Type	Blows/6"	Moisture Content [%]	Dry Density, [pcf]	Geologic Notes	<input checked="" type="checkbox"/> Standard Split Spoon <input type="checkbox"/> Shelby Tube <input checked="" type="checkbox"/> California <input checked="" type="checkbox"/> Bulk Sample	<input type="checkbox"/> Water Level ATD <input type="checkbox"/> Static Water Table	Pocket Pen. [tsf]	Lab Tests
SOIL DESCRIPTION and CLASSIFICATION (USCS)											

1704	1	1703	2								
<p>Quartz Diorite (qd): Weathered: gray; damp; medium to coarse grained; some metamorphics present, fine to medium grained, dark gray.</p>											



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Scale: H 2 [ft]
 V 2 [ft] Pit Orientation: N75W
 Natural Slope Angle: 30

- B - Bedding Plane
- J - Joint
- C - Contact
- F - Fault
- S - Shear

APPENDIX C

DUKE PROPERTY EXPLORATION

PACIFIC SOILS ENGINEERING