Top Hole Elev. 97±'
Hole Dia. 24"
Type of Rig B/A
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 4

Ocean Ave. between Madrone & San Lucas
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9-24-71
Logged by L. Cann
Notes by L. Cann

ATTITUDES	Log Orientation N S	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
		0	
	Soil	Yl.brn.-med.brn., clay-rich	Soft, Moist
	Qt	SD: Lt. yl.brn.-grn.brn., clayey mtx., qtz grains, little feldspar	
5		SD: Lt.brn., crs.gr., subang., v/fri.	Soft-Firm, Moist
		CLAY: Yl.brn., 2" tk., mott.	
		SD: Lt.brn. crs.gr.	
B N80°W,d.9°N		SD: Lt.brn., med.gr., lean clay bed 1/2"tk. at 9'2" on N.wall. FeO stain.	
10		SD: Lt.brn., crs.gr., clean	
		SD: Gy., highly mica	
Contact Horiz.		GVL: Lt.brn., slt.pebbles & cobbles in sd. mtx., pholas borings in slt. clasts	Slight flow H_2O
	Slt	Fract. 1/2" wide, silty clay in zone, no bedding visible	H_2O along fracts in slt.
J N35°W,d.73NE		Fract.zone 4"-6" wide on E side of hole.	
J N52°E,d.80°S			
B N40-45°E,d.6°N		Slt. on W. side of hole solid & massive, E.side of hole highly fract.	
J NS,d.70-85°E			
B N43°E,d.12°NW	20'	Fract. blocks 1"-2", conc. fract.	Firm-Hard, Wet
B N43°E,d.26°NW			
	Slt	Dk. brn.-dr. gy., mass., mica, unox., conc.frac., scat.clay beds, locally highly frac., 90% silt 10% ss., scat. ls. concretions	H_2O inflow along joints, fracts. + bedding
25			Soft, wet
B N60°E,d.22°N		CLAY: Lt.gy., plastic, 1/8" tk.	Firm, wet
30			
			Standing H_2O at 32'
35		Notes: 1. Logged from cuttings below 29'2" because of H_2O.	
0			

	Elevation
Base of Terrace (Sand)	84.5
Top of Bedrock (Siltstone)	84.5
H_2O	65.0

T.D. 49'4"

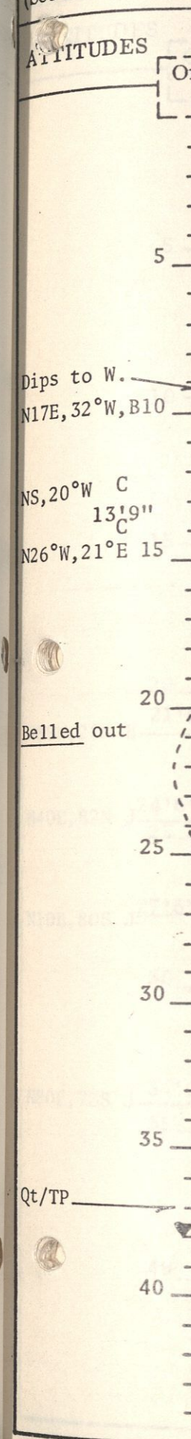
F. BEACH LEIGHTON & ASSOCIATES

Top Hole Elev. 104.0
Hole Dia. 24"
Type of Rig 24" Bucket
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 5

Ocean Ave. betw. San Lucas & La Grande
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9/24/71
Logged by L. Cann
Notes by B. Dickey



ENGINEERING GEOLOGY DESCRIPTION Measured Depth 51±', W/H_2O @ 38±' Depth	PHYSICAL CONDITION
Fill Road Gravel	
1'6"	
Soil/Qt.Mix. Colluvium W/6-8" Blocks of Terrace SS.	Moist-soft
5'7"	
Qt SD, Coarse, in clayey mtx.	
6'10" SD, Silty, in clayey mtx.,(very massive)	
7'6"	
SD, Coarse.	
9' Clay-rich Bed, 2" thick.	
NOTE: Qt. is softer, more friable than in Hole #6,possibly less clay in Mat.	
SD, Coarse	
12'7"	
SD Gray-Brn., W/FeO stain.Scatt'd crs. SD W/less than 10% Pebbles	
CT- Irregular	
15'9" SD & Gvl. Clean, about 1' thick	
19'9" H_2O at C.	
SD Micaceous	Loose
Basal cg.(gvl) in Terrace Sand	
CTCT	
Slt. NOTE: No slide surfaces in Qt, must be in Slt. below Qt. Hole logged to 22± feet.	
TD: 51' H_2O @ 38±'	

	Elevation
Base of Terrace (Sand)	67.0
Top of Bedrock (Ss)	67.0
H_2O	66.0

F. BEACH LEIGHTON & ASSOCIATES

Top Hole Elev. 90.0
Hole Dia. 24"
Type of Rig Bucket Auger
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 6

Ocean Ave.betw. La Grande & Los Banos
Location of Hole
Sheet 1 of 2

Project Moss Beach
Tract
Date 9/24/71
Logged by Cann
Notes by B. Dickey

ATTITUDES	Log Orientation W E	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
		Soil — Dk. brn-med.brn w/worm tubules, scatt'd crs. sd.	
	3.0'		
	4.5'	TRANS ZONE — Soil to terrace, v/irregular	
5	Qt.	TERRACE — Yellowish brn, typical terrace sediments Pbls. v/crs. sd, red-brn clayey mtx.	Soft-firm Moist
	7'4"		
	7'10"	(Silty)	
10		SD — Yl.-brn. layer, Fn.-med. grain, scat.	Soft, Moist
	12'	(Grad.-Horiz) Granitic & Slt. clasts, yl.banding, no distinct bedding.	
	13'6"	a.a. w/ Slt. Clasts. Abundant Slt. clasts to 1-1/2" subang.-subrdd. with filled Tolad Borings. (No R.S.)	Moist
	13'19"	(v/irreg-horiz. root hair)	
15		Ss — Lt. gray, fn-grained, mottled w/rust stringers, massive, blocky, highly fractd., v/little open structure	Firm-Damp to Moist
	19'4"	Grada. color chge to bluish-gy., unoxidized, spotty at first.	
20			
N8SW,28N B 21'6"	21'4"	Ss Conc. (a.a.)	
	22'4"	Semi-Conc. zone, belled on west, bdg. is poorly developed.	
N40E,82N J 24'6"			
25		(Open structure to 1/8")	
	26'8"	(Gyp. in J) No bdg.	
N10E,80S J 27'6"			
30		Lots of joints, Gyp. xls. along joints, yl-gy-brn along joints. Blue-gray away from joints.	
N80E,73S J 34'0"			
35			
	39'	Conc. Bed. Hd, xln, highly fractd.	
40			

Top Hole Elev. _____
Hole Dia. _____
Type of Rig _____
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 6

Location of Hole
Sheet 2 of 2

Project Moss Beach
Tract _____
Date _____
Logged by _____
Notes by _____

ATTITUDES	Log Orientation W E	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
	41'	(continued)	
		Conc. Bed Hd., xln.	Firm to hard Damp
	Qt.	Ss (a.a.)	
	43'	Conc. zone Hd., blocky	
N25°W, 36°W B	44'3"		
45	45'2"		
		Ss (a.a.) Massive, fractd.	
0		TD: 50'	

NOTE:
Measured 49.5' T.D.
Dry - No H_2O in boring
Logged to 48'
No clay-coated R.S.
Mtx. is massive, fractd.

	Elevation
Base of Terrace (Sand)	76.5
Top of Bedrock (Sandstone)	76.5

Top Hole Elev. 110.0
Hole Dia. 24"
Type of Rig 24" Bucket
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 7

La Grande Ave. & San Ramon Ave.
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9/24/71
Logged by Dickey
Notes by Cann

ALTITUDES	Log Orientation W — E	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
	Soil	SOIL - Dk. brn, clayey silt, mass.	Soft - Damp
	Qt	CONTACT sharp, undulating, stringers extend into the Qt.	
5		QT - Rust-brn, clayey sand, clayey mtx.	Soft-Firm Damp
		Sandy	
		CONTACT - Irreg.	
10		GRAVEL - Pebbles & v/crs. sand, gr., wea. C Silty gy.	
		SD - v/crs.	Soft - Moist
		SD - Brn, med., mica.	
15		SD - Grade to crs.	
		SD - v/crs.	Firm - Moist
20		SD - 1" thick	
		SD - 1" thick - Slt. pebbles.	
		SD - Mica.	
		Slight seepage	
25		TD: 25'3"	Standing H_2O 1-2" deep. Hole drilled 9/23/71.

NOTE:
Hole logged to 25'3" T.D.
H_2O standing 1" in bottom of bell.

H_2O @ 85.0'

Top Hole Elev. 95±'
Hole Dia. 24"
Type of Rig 24" Bucket
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 8

Los Banos at Park Ave.
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9-24-71
Logged by L. Cann
Notes by L. Cann

ALTITUDES	Log Orientation W E	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
	Soil	Dk.brn.-med.brn., silty, scat. roots	Soft, Damp
		Gradational contact, stringers of soil into Qt. Transition zone	
5	Qt	Red brn., crs.sd., clayey mtx.	
No stratifications		Root tubules., black organic coatings within tubules.	Soft-Firm, Moise
10		SD: Red brn., crs.gr., subang., mass.	
Horizontal Bedding		SD: Dk.gy., crs.gr., scat.pebbles, 1/2"-1"tk. Irregular contact.	Slight Free H_2O
		SILT: Gy.-grn., clay-rich, FeO stain at contact.	
B N75°W,d.10°N		SD: Yl.brn., a.a.	
B N50°W,d.16°N	15'	CLAY: Lt.gy., 1/4"tk. semi plastic, contact irregular, well developed, continuous.	
B E-W, d.11°N		SD: Gy.-brn., med.gr., organic, fri.	Soft-Firm
		Gradational contact	
20		SD: Lt.brn., crs.gr., subang-sub.rdd., scat. pebbles, sdy.mtx., FeO stains. Clean sand lens 1/2 of hole.	
25		SD: Lt.brn-gy.brn., fn-med.gr., mica, v/fri.	Soft,Moist
30			
		Hole belled to 4' diameter.	
35			Soft, Wet
		SD: a.a., highly mica, slight caving.	
			Free H_2O v/slight flow
40		GVL: Lt.brn-red brn., cobbles in sdy.mtx., pholas borings, 60% slt. clasts.	
	Slt.	Dk.brn-gy.brn., mass., fract.,granitic clst. scat.clay zones, petrol.odor	Damp-Firm, Moist
T.D. 46'			

Notes:
1. Logged from cuttings below 30'

	Elev.
Base of Terrace (Sd)	54-0
Top of Bedrock (Ss)	54-0
H_2O at	55-6

F. BEACH LEIGHTON & ASSOCIATES

Top Hole Elev. 80.0
Hole Dia. 24"
Type of Rig Bucket-Auger
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 9

100± ' SE of Galway Bay Inn
Location of Hole
Sheet 1 of 2

Project Moss Beach
Tract
Date 9/28/71
Logged by L. Cann
Notes by R. Dickey

ATTITUDES	Log Orientation W. E	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
		QT - Clayey. Clayey Terrace Sand	
	Qt		
	c 4'4"		
	5	SD	
	c 7'3"	Lt. brn., mica. sand, friable	Soft - Firm
		GVL Gravel, clayey w/ Slt. frags.	
	10		
		Purisima w/Pholas Borings	
	12'6"	CLAY Reddish-brn. clay, slick & crumbly.	
	13'6"		
	Slt		
		SLT Dk. gy.,fragmtd., Purisima, numerous shears,	
	15		
N60W,42W CL	15'6"	CLAY SEAM 1/4" frags. in clay mtx.(looks like slide).	
	19'14"	R.S. - clay-coated, 1/4" thick, v/fragile. No	
N60W,27W	20 R.S	frags. bigger than 1/4" "Looks like Princess Park"	
	25		
N50°W,25E	R.S 25'9"	CLAY SEAMS - v/plastic and moist, highly fragmtd.,	Plastic - Moist
N82E, 22W	R.S 26'6"	Purisima in clayey Mtx., very weak mat.	
	30		
	30'9"	Scat. mineralized veins	
			2-3" Thick clay (gouge zone) on R.S.
N42W,68S	R.S 35'6"	SLIDE SURFACE - Moist plastic clay, 2-6" thick. Looks like Slide surface.	
N38W,34W	R.S		
N20W,43°W			Moist
		Ss (TP) - Lt. gy.,sandy. slt. or silty ss., fairly mashed up.	Soft - Firm Moist

F. BEACH LEIGHTON & ASSOCIATES

Top Hole Elev. _____
Hole Dia. _____
Type of Rig _____
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 9

Location of Hole
Sheet 2 of 2

Project Moss Beach
Tract _____
Date _____
Logged by _____
Notes by _____

ALTITUDES	Log Orientation W E	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
		(continued)	
		SS	
Irreg. N40W, 20W	45	45'6" Seepage controlled by Clay Seam 1/4-1/2" thick "mud". Not much bdg.	
	Cl.Sm	CLAY SEAM	
	50		
		CLAY SEAM	
N5W, 28°W		53'5" CLAY SEAM	
N10W, 34W		55'2" CLAY SEAM	
		56'3"	
		57'6" Still all broken up. Better bedded below 57'6". 56'3" may be slide surface.	
		58'6"	
	60		

TD: 61'

	Elevation
Base of Terrace (Sand)	67.5
Top of Bedrock (Siltstone)	67.5

Dry

Top Hole Elev. 78±'
Hole Dia. 24"
Type of Rig Bucket-Auger
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 10

Opposite Torres' House
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9/24/71
Logged by L. Cann
Notes by L. Cann

ATTITUDES	Log Orientation W / E	ENGINEERING GEOLOGY DESCRIPTION Looking at north wall	PHYSICAL CONDITION
		Top of hole - graded prior to drilling	
J N16°E, d.90°		1/8" locally open fract filled with brn soil material	
	Qt	SD: Red brn., crs.gr., slty-clayey mtx.	
		Gradational contact	Soft-Firm Damp-Moist
5		SD: Yl.brn.-red brn., med.gr., silty mtx.,fri.	
	6'8"	Gradational contact	
C NS, d.40°E (Apparent dip)	7'6"	GVL: Red brn., pebbles & cobbles rdd., 65% slt.clasts,	
B N20°W,d.28°E		pholas borings, sdy mtx.	
J N82°W,d.40°S	10'		No H_2O at contact.
J N38°W,d.47°W		12'2"	Firm-Hard, Damp
J N50°W,d.42°W	SS	Lt.brn.-lt.gy.,mott.,mass.,blocky,scat.open struct.,scat.root hairs, dk.brn.clay coatings along joints, 1/8" tk.locally, scat.pholas borings below Qt contact.	
B N70°E,d.28°S			
B N10W,d.32E	15'	15'9"	
J N52°W,d.38°W		18'	
J N28°W,d.45°W		20'	
J N70°E,d.73N			
J N30°W,d.32°W			
		Notes:	Firm-Hard Damp
	T.D.24'	1. Logged out at 22'6".	
		2. Unable to drill deeper because of resistant sandstone.	
		Below 12'6" firm to hard, damp condition	
		3. At 15'3" is blue gy.-transition from oxidized to unoxidized.	
		4. No oper struct.below 12.5' to 18.5'.	
		5. Ss is brn.along fracts., gy in non fractd.areas.	
		6. No free H_2O.	
		7. Joints are well developed, clay-coated and dip toward the bluff.	
		8. May be part of a larger landslide. (See Cross-Section C-C')	

	Elevation
Base of Terrace (Sand)	69.0
Top of Bedrock (Sandstone)	69.0

Top Hole Elev. 70'
Hole Dia. 24"
Type of Rig Bucket
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 11

Orval, South of Park
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9/27/71
Logged by B. Dickey
Notes by Hay

ATTITUDES	Log Orientation W E	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
	Soil	blk, sandy.	
	Qt.	GRAVEL: rusty-brn, sandy gravel.	Damp & Hard
	5'4"	Rusty bd.	
B 5'8"		SD & GVL: gradational zone; grn. ss to rusty gravel to crs. pebbly sd.	Firm to loose & moist
		SILT: gy, grades into ss below.	Firm to Hard & v/Moist
10		SD: pebbly	
		Water Line	
15		Driller reported H_2O at 15'.	
20			
25		Driller reported grn. sand at 26'.	
30		TD: 30'	

F. BEACH LEIGHTON & ASSOCIATES

93

Top Hole Elev. 120.0'
Hole Dia. 24"
Type of Rig Bucket
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 12

200' SE of La Grande on Park
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9/27/71
Logged by B. Dickey
Notes by Hay

ATTITUDES	Log Orientation N S	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
		SOIL: Blk, sandy, w/roots throughout	Damp & soft
	Qt	Transition - grades into pebbly terrace deposits	
	5	GVL: Red-brn., sandy	
		CLAY: Gy., sandy	
		3" Gravel bed.	
		SD: Gy., med. grn.	Damp & loose
	10	3" sandy gvl bed.	
		SD: Brn., v/crs. grn.	
		SD: Tan, med. grn., w/scat. pebbles.	
	15	SD: Alternating v/crs., pebbly sand & fn.grn.	
C. E-W 12°S	16'8" 17'1"		
	20	SD: Brn., limonitic mica. med. grn.	Damp & loose
		GVL: 6", w/slt. pebbles	
	25	Med. grn. SS	
		SS & SLT: Alternating beds,fn. gr.	
		"DG": Highly decomposed granitic rk., highly fractd., rust grn.	
	gr 30		
		DG is bl-gy & clay-rich.	

	Elevation
Base of Terrace (Sand)	94.0
Top of Bedrock (Granite)	94.0

Dry

TD: 43'6"

F. BEACH LEIGHTON & ASSOCIATES

Top Hole Elev. 71.4'
Hole Dia. 24"
Type of Rig Bucket
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 13

Redondo Ave., 200' E of Monterey
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9/28/71
Logged by L. Cann
Notes by

ATTITUDES	Log Orientation	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
	QT	Greenish-yellowish, brn, clay-rich, scat. qtz. pebbles - Feldspar clasts., wea.	
		First seepage at 16'6"	
		SD: Lt., brn.	
		SD: Blue-gy, med. mica., v/fri.	
		TD: 41' NOTES: 1. Logged from cuttings because of caving sand. 2. Unable to drill deeper because of caving sand & H_2O.	

5
10
15
20
25
30
35
40

Top Hole Elev. 101.0
Hole Dia. 24"
Type of Rig Bucket Auger
(See Abbreviation List attached)

GEOLOGIC DRILLING LOG NO. 14

San Lucas & Ocean
Location of Hole
Sheet 1 of 1

Project Moss Beach
Tract
Date 9/23/71
Logged by Dickey
Notes by Cann

ALTITUDES	Log Orientation N S	ENGINEERING GEOLOGY DESCRIPTION	PHYSICAL CONDITION
		SOIL: Dk. brn., silty clay	
		Grada. Contact	Soft-Firm Damp
		Less clay @ 4'	
5	QT.	Yl.-brn., crs. sd., scat. pebbles.	
			Soft-Moist
		GVL: Yl.-grn., dk. brn, fri., granitic pebbles	
10		SD: Tan, v/crs., scat. pebbles, fri.	Soft-Moist
Apparent dip N2-3°		Sharp Contact	
		SD: Rust to grn., fri., med.	
15		GVL: Rust. Sdy, fri.	Soft-Moist
15'6" High 15'8" Low		Rust. bd.	
		SD-GVL:	
20		SD: Gy.-brn., mica. v/fri, lam.	Soft, Moist
C			
J N42°E,d,81°W			
J N76°W,d,62°N		SLT: Dk. grn.	
J N28°W,d,72°E		Joints - Fractures, rust coated	
25		Bedding	
J N58°E,d, Vert			H_2O @ 28'8"
		28'8" to Top of H_2O	
30		TD: 30'	

NOTES:

Slight seepage @ QT Contact

	Elevation
Base of Terrace (Sand)	80.0
Top of Bedrock (Siltstone)	80.0
H_2O @	72.0