GL018609

THE UNIVERSITY OF WYOMING
DEPARTMENT OF GEOLOGY AND GEOPHYSICS
P.O. BOX 3006
LARAMIE, WYOMING 82071
(307) 766-3386

Mr. P. M. Wright
University of Utah Research Institute
Earth Science Laboratory
391 Chipeta Way, Suite C
Salt Lake City, Utah 84108-1295

5 April 1987

Dear Mike,

Please find enclosed a copy of my lithologic log for the GEO N-3 core which I inspected last week. I expect to have a more 'official' looking version sometime soon. Below is a list of the samples which I took. The number refers to the depth in feet. Average sample size was 4". Thank you again for your cooperation.

Best regards,

Scott Linneman

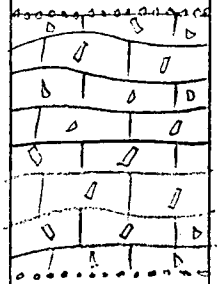
Scott Linneman

U.W. Sample List From GEO N-3 Core (n=77)

464 508 600 710 744 765 796 829 913 958 1014 1066 1103
1144 1168 1241 1281 1334 1378 1420 1449 1501 1525 1548
1583 1597 1715 1765 1790 1796 1974 2037 2100 2122 2175
2199 2214 2243 2283 2343 2382 2408 2435 2451 2487 2529
2574 2648 2683 2733 2773 2799 2817 2844 2874 2924 2999
3024 3070 3133 3143 3205 3240 3245 3342 3361 3432 3611
3642 3726 3743 3780 3835 3876 3888 3918 3966

LITHOLOGIC LOG OF GEO N-3 CORE

Scott Linneman 4/87

(ft) DEPTH	UW SAMPLE	LITHOLOGY	DESCRIPTION	ALTERATION
453	464		Coarsely porphyritic b-a 15% phenos: pl (<1cm) >> ol = cp (<2mm) grey glass grndms	none
500	508			
			Unconsolidated cinders and scoria (near vent) (of the porphyritic b-a above)	minor oxidation + some sulfur
600	600			
700	710		Mod. porphyritic b-a 5% phenos: pl > cp > ol (<2mm) slightly pink oxidized grndms	
	744			
	765		4' white lapilli airfall (3mm lap)	
	796		V. fine gr. b-a: (<< 1% pl phenos)	

LITHOLOGIC LOG OF GEO N-3 CORE

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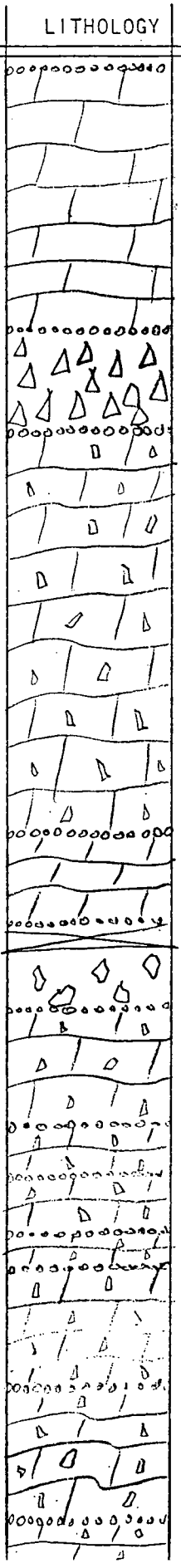

(ft) DEPTH	UW SAMPLE	DESCRIPTION	ALTERATION
800			
	809	V. fine gr b-a flow (< 1% pl phenos)	oxidized platy surfaces
		Platy at bottom	
900			
	913	Coarsely porphyritic b-a	
	958	10% phenos: pl (<4mm) >> ol (<3mm)	
1000			
	1014	V. fine gr b-a (< 1% pl phenos)	
		no sample	
		Near vent sulfur cemented cinders	
	1066	Coarsely porphyritic b-a (multiple flows)	
1100	1103	20% phenos: pl (<5mm) >> ol = cp (<2mm)	
	1144		
		Coarsely porph. b-a	
	1168	10% phenos: pl (<6mm) >> ol (<2mm)	

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(ft) DEPTH	UW SAMPLE	LITHOLOGY	DESCRIPTION	ALTERATION
1200				
			V. fine gr. b-a	
	1241			
			Lt. brown airfall (9')	
	1281			
1300				
			Mod. porph. b-a flows	
	1334		5% phenos: pl (3mm) >> ol = cp	
			Slightly oxidized groups	
	1378			
1400				
	1420			
			P.-ph. b-a	
	1449		20% phenos: pl (2mm) >> cp	
1500	1501			
	1525		Series of thin sparsely porph b-a flows	minor oxid. of vesicular portions
	1548		3% phenos: pl >> cp (<2mm)	
	1583			
	1597			

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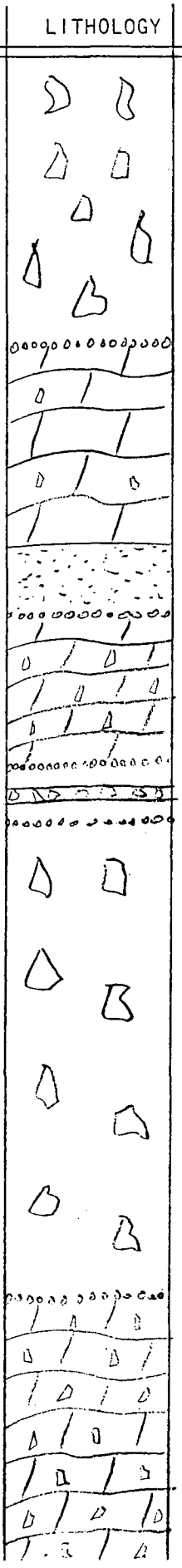

(ft) DEPTH	UW SAMPLE	DESCRIPTION	ALTERATION
1600		Scoria and vesicular blocks	
		Sparsely porph b-a	
1700		2% phenos: pl > cp	
	1715		
		Pink, lithic rich ashflow	
	1755	Mod. porph b-a	
	1790	2' mod. welded pink ashflow	
	1796	2' mod welded b-a scoria white ashflow	
1800		Cinders, scoria and blocks (b-a)	
		near vent: sulfur cemented (cinder cone?)	
1900			
		Coarsely porph andesite	
	1974	20% phenos: pl (8mm) >> cp (2mm)	
		lt gr. glassy grndms	

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(ft) DEPTH	UW SAMPLE	LITHOLOGY	DESCRIPTION	ALTERATION
2000				
	2037		Coarsely porph. andesite	
2100	2100		20% phenos: pl (8mm) >> cp (2mm)	
	2122		lt. grey glassy groundmass	
	2175			
2200	2199			
	2214		V. fine gr. b-a	mafic minerals oxidized
	2243		<1% phenos: pl >> ol+cp	
	2283		Coarsely porph. andesite	
2300			(25% phenos)	
	2343			
	2382		V. fine gr b-a (lt. grey)	

LITHOLOGIC LOG OF GEO N-3 CORE
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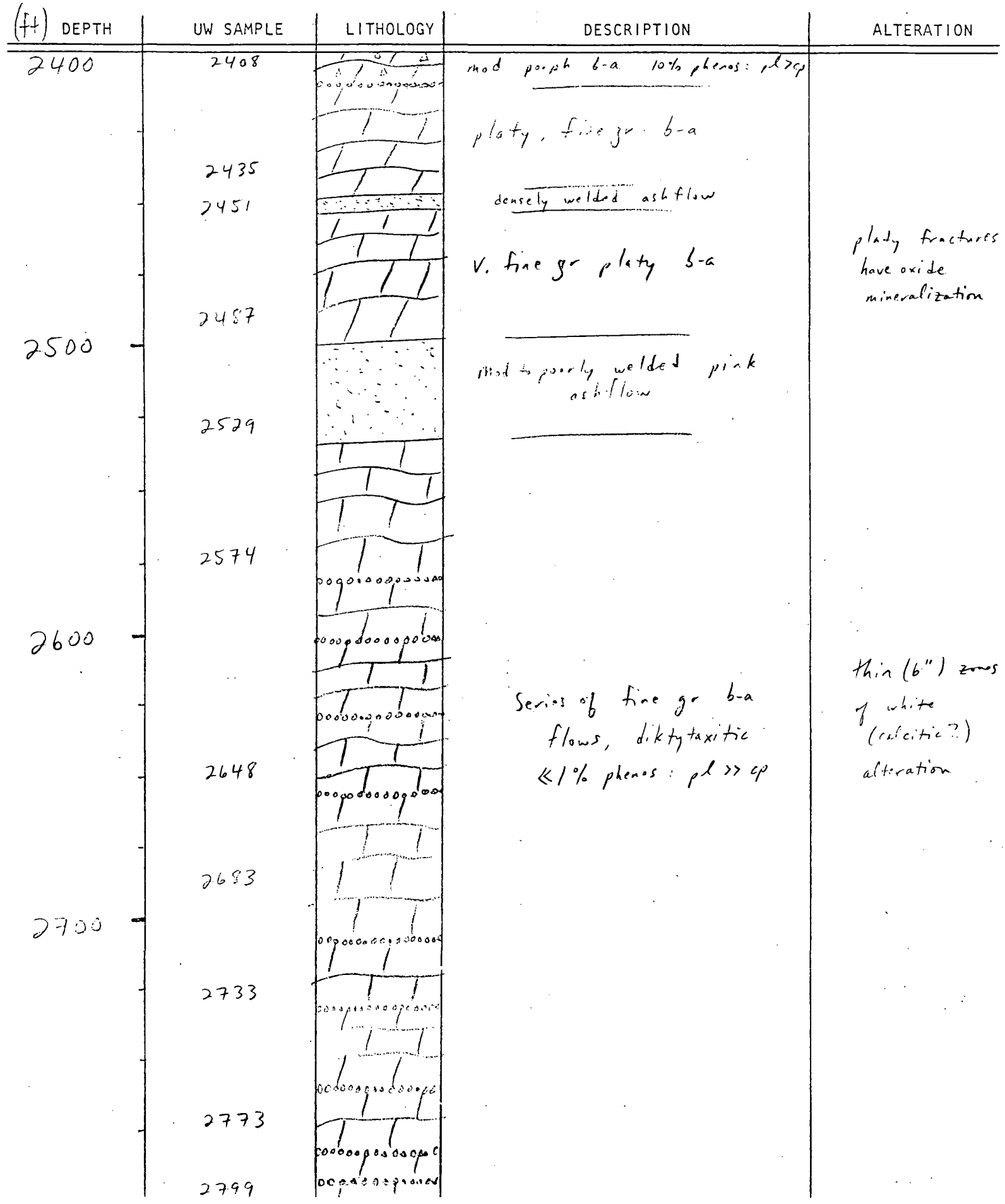

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(ft) DEPTH	UW SAMPLE	LITHOLOGY	DESCRIPTION	ALTERATION
2800				
	2817		V. fine gr. b-a	notably less altered ↑
	2844		Orange (baked) soil	
	2874			
2900				
	2924		V. fine gr. intergranular basalt flows	fractures filled with Ca+ ?
3000	2999		Thin (8') lithic-rich ash flow	
	3024		V. fine gr. flow-banded basalt	green chloritic grains
	3070			
3100				
	3133		Intermed. comp welded ash flow	
	3143		clast rich bottom	
			Grey-mottled, fine gr b-a	
			Pink ash	
			Fine gr. b-a	

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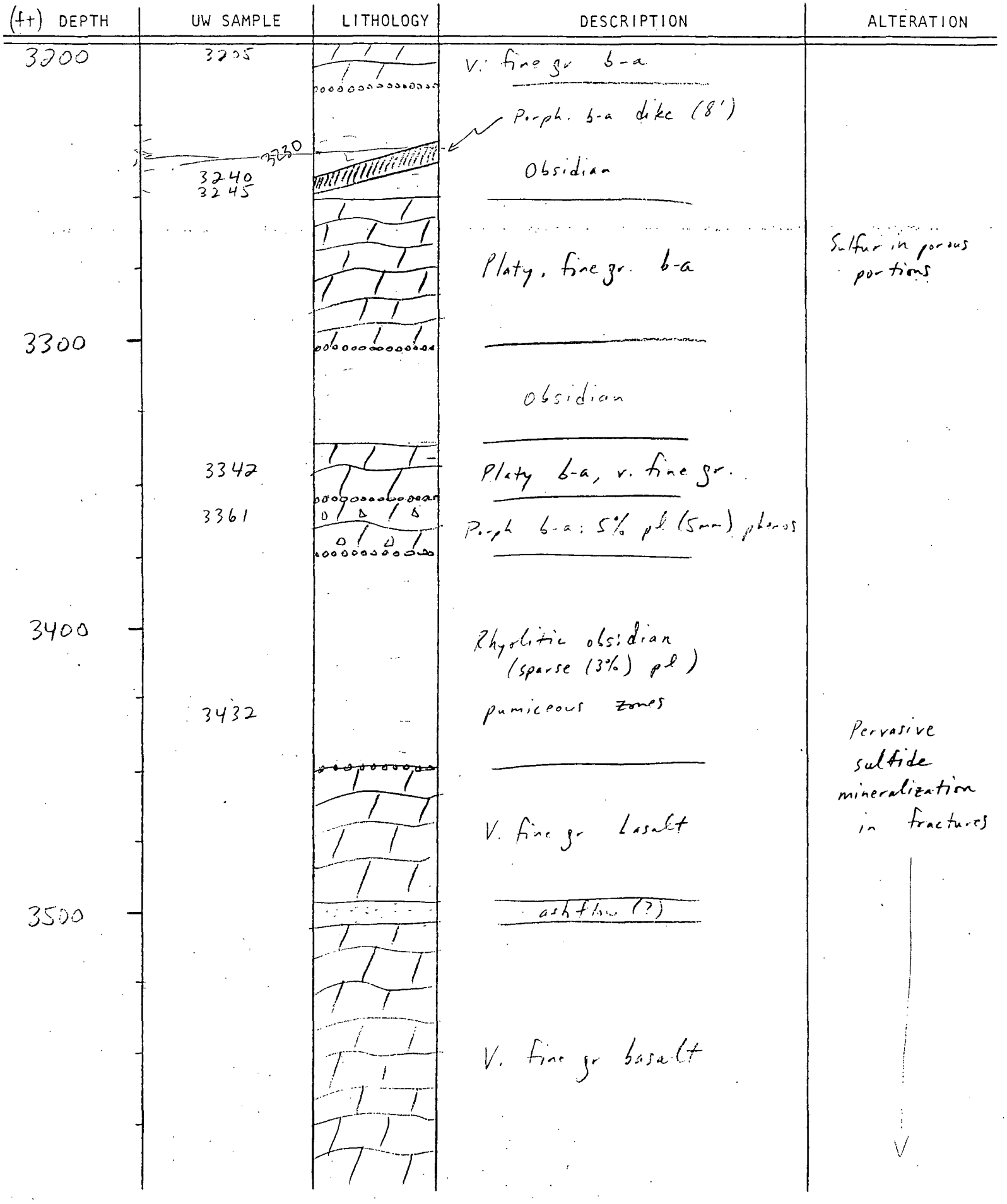

LITHOLOGIC LOG OF GEO N-3 CORE

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(ft) DEPTH	UW SAMPLE	LITHOLOGY	DESCRIPTION	ALTERATION
3600	3611		V. fine gr. basalt	
	3642		Lt. pink silicic flows V. fine gr.	Cc + qtz mineralized fractures
3700	3726		Densely welded ashflow	
	3743			
	3780		V. fine gr basalt	Vesicles filled (?Cc) Green chloritic grndms
3800	3835			
	3876		Brown fine gr. andesite?	Pervasive vesicle filling; sulfide mineralization
3900	3888			
	3918		V. fine gr. basalt	Green chloritic grndms; qtz veins
	3966		Pink dacite Basalt	

Sept 21st 1987

S. W. Koehler Co.
P.O. Box 41
306 Junction Street
Grangeville, ID 83530
Attn: Steve Koehler

Dear Steve:

Enclosed please find 33 samples for thin sectioning. The thin sections should be numbered GEO-N3 475.5 through GEO-N3 3892. Please do not stain.

475.5	2193
711.5	2307
772	2397
840	2539
924.5	2882
1061	2769
1214	2966.5
1281	3047
1300	3203
1332	3241
1434	3314.5
1537	3352
1586.5	3415
1705	3597
1775	3769.5
1962.5	3833.5
	3892

The P.O. number is 200-2329

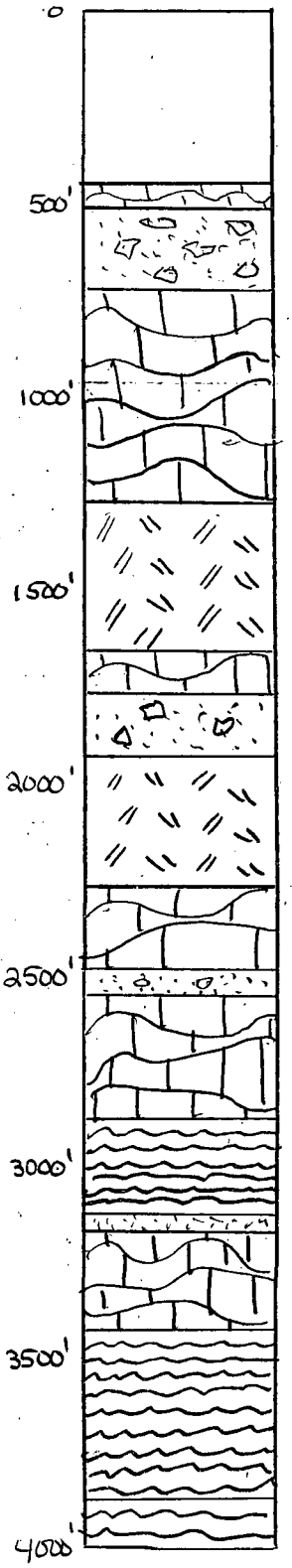
Thank-you.

Sincerely,

Phillip M. Wright

Please send us a current price list

GEO - NEWBERRY N-3



453' - 512' Basaltic Andesite
512' - 705' Cinders ash & scorea

705' - 1276' Basaltic Andesite Flows intercalated with Pyrodastic & volcaniclastic deposits

1276' - 1659' Andesite Flows intercalated with Lahar/volcaniclastic deposits, ash and scorea

1659' - 1780' Basaltic Andesite Flows intercalated with volcaniclastic, cinder and ash deposits

1780' - 1920' Agglomerates, ash and Scorea

1920' - 2283' Andesite

2283' - 2496' Basaltic Andesite

2496' - 2530' Lapilli tuffs

2530' - 2899' Basaltic Andesite

2899' - 3112' Basalt Flows intercalated with agglomerates and volcaniclastic deposits

3112' - 3160' Ash flows and agglomerates

3160' - 3412' Basaltic Andesite with intercalated volcaniclastic, tuffs and agglomerates

3412' - 3877' Basalt flows with intercalated volcaniclastic, ash flow deposits

3877' - 4002' TD Basalt