



UNDER ICE BED PHOTO SAMPLING

SUSITNA-WATANA
HYDROELECTRIC PROJECT

Date & Time: 3-20-2014 1130

Sheet 1 of 2

Location: PMA 94.8

Crew: RK, MP, BT

Weather: Clear

Camera: TT-SW6 - 6000-1

GPS Unit: PDX

Comments: lasers became ice encrusted. Turned laser lens on JLI video 134
Photo camera 1 # 527 left side channel looking to right # 528 center line holes looking US # 529 - over line holes
530 R side side channel (M) looking left

(A) Sample #	(B) GPS Point #	(D) Snow Depth (ft)	(E) Ice Thickness (ft)	(F) Top of Ice to Bed Distance (ft)	(G) Flow Depth (F-E) (ft)	(H) Frazil Ice Present?	(I) Freeboard Anchor Present? Height (ft)	(J) Freeboard Anchor Height (ft)	(K) Camera Height above Bed (ft)	(L) Video #	Comments / Bed Description
S1	1	2"	2.6	90"	4.9	No	.2	No	4	121	
S2	2	2"	2.4	91	5.2	No	.25	N	4	122	
S3	3	2"	2.3	94.5	5.6	No	.2	N	4	123	
S4	4	2"	2.4	88	4.9	No	.25	N	4	124	
S5	5	2"	2.3	103	6.3	No	.3	N	4	125	
S6	6	2"	2.4	100	5.9	No	.3	N	4	126	
S7	7	2"	2.4	95	5.5	No	.2	N	4	127	
S8	8	2"	2.6	93	5.2	No	.15	N	4	128	128 - one laser too light 129 - same
S9	9	2"	2.3	96	5.7	No	.3	N	4	130	
S10	10	2"	2.3	100	6.0	No	.3	N	4	131	
S11	11	2"	2.4	98	5.8	No	.3	N	4	132	132 - looked like no laser 133 - redo, 134 red 135 - after turning ice on and lasers
S12	12	2"	2.6	98	5.6	No	.4	N	4	135	

QC1

Photo Back up # Kilgore Runners # 315

hole slanting schematic on
back side

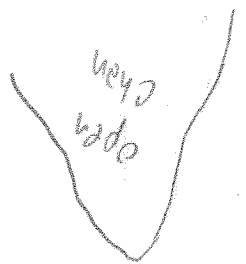
v1 3/2014

Left

Sheet 2 of 2

N
↓
Flow

UPST m



± 2000'

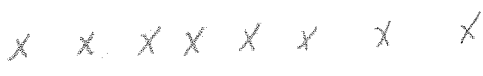


Log Debris IS

± 100'

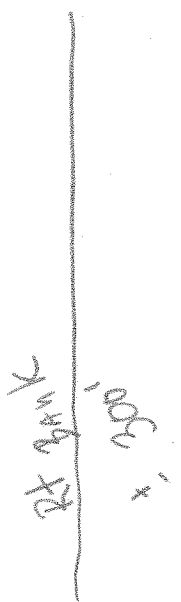


8 holes ± 10' apart

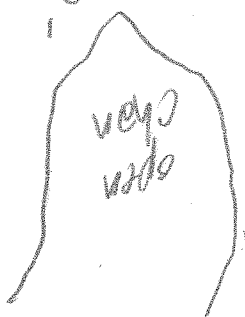


10' separating
diff rows

4 holes ± 10' apart



± 1000'



DUST m



Aerial Photo
Kilgus CAM
231 232
233 234
235 236
237

Kilgus
camera
Photo Backup # 316

3/20/14

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ac. GMD