					WBS V	470 Thu 5/9/13									
ID	WBS Task Name	Туре	Work	# Prototype Spares	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations I	Total nfrastructures	Total Capital D
1	¹ 1 HPS		32,488.6 hrs	0 0	\$2,408,114.24	\$1,366,880.14	\$1,761,144.08	\$1,039,083.10	\$1,210,638.48	\$2,971,782.56	\$77,915.31	\$20,834.95	\$953,650.26	\$248,127.50	\$1,770,004.80 _W
2	1.1 Beamline		1,680 hrs	0 0	\$171,239.92	\$70,369.92	\$91,480.90	\$100,870.00	\$131,131.00	\$222,611.90	\$0.00	\$0.00	\$0.00	\$5,811.00	\$216,800.90 _V
3	1.1.1 Beamline Design		440 hrs	0 0	\$8,966.40	\$8,966.40	\$11,656.32	\$0.00	\$0.00	\$11,656.32	\$0.00	\$0.00	\$0.00	\$0.00	\$11,656.32 _W
	Stepan Stepanyan (Phys) Ken Moffeit (Phys)		160 hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	MD Hall-B		160 hrs 120 hrs		\$0.00 \$8,966.40	\$0.00 \$8,966.40	\$0.00 \$11,656.32	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$11,656.32	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 W \$11,656.32 W
4	1.1.2 Beamline Review		0 hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 M
5			128 hrs	0 0	\$7,450.00	\$0.00	\$0.00	\$7,450.00	\$9,685.00	\$9,685.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,685.00 _M
	Frascati beampipe 1		1	0 0	\$7,450.00	\$0.00	\$0.00	\$7,450.00	\$9,685.00	\$9,685.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,685.00 W
	Stepan Stepanyan (Phys) Ken Moffeit (Phys)		64 hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
6	1.1.4 SVT Vacuum Box		64 hrs 248 hrs		<i>\$0.00</i> \$27,122.40	<i>\$0.00</i> \$18,482.40	<i>\$0.00</i> \$24,027.12	<i>\$0.00</i> \$8,640.00	<i>\$0.00</i> \$11,232.00	<i>\$0.00</i> \$35,259.12	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$0.00 W \$35,259.12
	Electron Run Flange		1	0 0	\$5,400.00	\$0.00	\$0.00	\$5,400.00	\$7,020.00	\$7,020.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,020.00 W
	Marco Oriunno (ME)		40 hrs	0 0	\$7,344.00	\$7,344.00	\$9,547.20	\$0.00	\$0.00	\$9,547.20	\$0.00	\$0.00	\$0.00	\$0.00	\$9,547.20 V
	Matt Swift (MD)		80 hrs		\$11,138.40	\$11,138.40	\$14,479.92	\$0.00	\$0.00	\$14,479.92	\$0.00	\$0.00	\$0.00	\$0.00	\$14,479.92 W
	Vacuum Flange hardware Conflat gaskets			0 0	\$1,080.00 \$2,160.00	\$0.00 \$0.00	\$0.00 \$0.00	\$1,080.00 \$2,160.00	\$1,404.00 \$2,808.00	\$1,404.00 \$2,808.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$1,404.00 V \$2,808.00 V
	Linear Shifts		3	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 V
	Cooling Feedthrough		2 44 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 V \$0.00 V
	Stepan Stepanyan (Phys) Ken Moffeit (Phys)		64 hrs		\$0.00 \$0.00	\$0.00 \$0.00	\$0.00	\$0.00	\$0.00	\$0.00 \$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
7	1.1.5 Electron Target		112 hrs	0 0	\$17,110.80	\$12,790.80	\$16,628.04	\$4,320.00	\$5,616.00	\$22,244.04	\$0.00	\$0.00	\$0.00	\$0.00	\$22,244.04 _W
	ElectronTarget		1	0 0	\$4,320.00	\$0.00	\$0.00	\$4,320.00	\$5,616.00	\$5,616.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,616.00 W
	Matt McCulloch (MT)		40 hrs		\$5,446.80	\$5,446.80	\$7,080.84	\$0.00	\$0.00	\$7,080.84	\$0.00	\$0.00	\$0.00	\$0.00	\$7,080.84 W
	Stepan Stepanyan (Phys) Ken Moffeit (Phys)		16 hrs		\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 V \$0.00 V
	Marco Oriunno (ME)		40 hrs	0 0	\$7,344.00	\$7,344.00	\$9,547.20	\$0.00	\$0.00	\$9,547.20	\$0.00	\$0.00	\$0.00	\$0.00	\$9,547.20 W
8	1.1.6 SVT Collimator Protection		176 hrs	0 0	\$24,431.84	\$9,531.84	\$12,391.39	\$14,900.00	\$19,370.00	\$31,761.39	\$0.00	\$0.00	\$0.00	\$0.00	\$31,761.39 _W
	ME Accelerator JLAB		32 hrs		\$3,554.24	\$3,554.24	\$4,620.51	\$0.00	\$0.00	\$4,620.51	\$0.00	\$0.00	\$0.00	\$0.00	\$4,620.51 W
	MT Accelerator JLAB SVT Collimator Protection		80 hrs	0 0	\$5,977.60 \$14,900.00	\$5,977.60 \$0.00	\$7,770.88 \$0.00	\$0.00 \$14,900.00	\$0.00 \$19,370.00	\$7,770.88 \$19,370.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$7,770.88 W \$19,370.00 W
	Stepan Stepanyan (Phys)		32 hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 V
	Ken Moffeit (Phys) 1.1.7 Vacuum boam line downstroam of chicano		32 hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
9	1.1.7 Vacuum beam iine downstream of chicane		32 hrs		\$14,900.00	\$0.00	\$0.00	\$14,900.00	\$19,370.00	\$19,370.00	\$0.00	\$0.00	\$0.00	\$0.00	\$19,370.00 V
	Vacuum beamline downstream chicane Stepan Stepanyan (Phys)		16 hrs	0 0	\$14,900.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$14,900.00 \$0.00	\$19,370.00 \$0.00	\$19,370.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$19,370.00 V \$0.00 V
	Ken Moffeit (Phys)		16 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 V
10	1.1.8 Beam Offset Monitor		128 hrs	0 0	\$12,224.72	\$7,754.72	\$10,081.14	\$4,470.00	\$5,811.00	\$15,892.14	\$0.00	\$0.00	\$0.00	\$5,811.00	\$10,081.14 _V
	Beam Offset Monitor	INFRA	1/ 5	0 0	\$4,470.00	\$0.00	\$0.00	\$4,470.00	\$5,811.00	\$5,811.00	\$0.00	\$0.00	\$0.00	\$5,811.00	\$0.00 V
	ME Hall-B MT Hall-B		16 hrs 80 hrs		\$1,777.12 \$5,977.60	\$1,777.12 \$5,977.60	\$2,310.26 \$7,770.88	\$0.00 \$0.00	\$0.00 \$0.00	\$2,310.26 \$7,770.88	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,310.26 V \$7,770.88 V
	Stepan Stepanyan (Phys)		32 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 V
11	1.1.9 1.1.9 Beam Profile Monitor		64 hrs		\$10,430.00	\$0.00	\$0.00	\$10,430.00	\$13,559.00	\$13,559.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13,559.00 v
	Insertable YAG Viewer Stepan Stepanyan (Phys)		32 hrs	0 0	\$10,430.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$10,430.00 \$0.00	\$13,559.00 \$0.00	\$13,559.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$13,559.00 V \$0.00 V
	Ken Moffeit (Phys)		32 hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 V
12	1.1.10 Frascati Vacuum Chamber		24 hrs	0 0	\$14,900.00	\$0.00	\$0.00	\$14,900.00	\$19,370.00	\$19,370.00	\$0.00	\$0.00	\$0.00	\$0.00	\$19,370.00 V
	Frascati beampipe 2		1	0 0	\$14,900.00	\$0.00	\$0.00	\$14,900.00	\$19,370.00	\$19,370.00	\$0.00	\$0.00	\$0.00	\$0.00	\$19,370.00 W
13	Stepan Stepanyan (Phys)		<i>24 hrs</i> 176 hrs		<i>\$0.00</i> \$26,837.60	<i>\$0.00</i> \$5,977.60	<i>\$0.00</i> \$7,770.88	<i>\$0.00</i> \$20,860.00	<i>\$0.00</i> \$27,118.00	<i>\$0.00</i> \$34,888.88	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$0.00 V \$34,888.88
	1.1.11 Photon Dump & Shielding Photon Dump & Shielding		170111.	0 0	\$20,860.00	\$0.00	\$0.00	\$20,860.00	\$27,118.00	\$27,118.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27,118.00 W
	MD Hall-B		80 hrs	0 0	\$5,977.60	\$5,977.60	\$7,770.88	\$20,860.00	\$27,118.00	\$7,770.88	\$0.00	\$0.00	\$0.00	\$0.00	\$7,770.88 V
	Stepan Stepanyan (Phys)		96 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 V
			0 hrs 152 hrs		\$0.00 \$6,866.16	\$0.00 \$6,866.16	\$0.00 \$8,926.01	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$8,926.01	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 V \$8,926.01
	1.1.13 HPS Beamline Installation Stepan Stepanyan (Phys)		32 hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Ken Moffeit (Phys)		32 Hrs		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 V
	ME Hall-B		8 hrs		\$888.56	\$888.56	\$1,155.13	\$0.00	\$0.00	\$1,155.13	\$0.00	\$0.00	\$0.00	\$0.00	\$1,155.13 V
16	MT Hall-B		80 hrs 0 hrs		<i>\$5,977.60</i> \$0.00	<i>\$5,977.60</i> \$0.00	<i>\$7,770.88</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$7,770.88</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$7,770.88 V \$0.00 v
	1.1.14 Dealthine installed		5,311 hrs		\$506,987.76	\$346,316.76	\$451,984.75	\$160,671.00	\$204,194.20	\$656,178.95	\$8,412.00	\$10,038.00	\$74,827.44	\$42,614.00	\$538,737.51
	1.2 3 4 1		0 hrs		\$0.00	\$0.00	\$0.00	\$100,071.00	\$0.00	\$0.00	\$0,412.00	\$10,038.00	\$0.00	\$42,014.00	
10	1.2.1 SVT Design Review		U NI:	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 N

					WBS	V470 Thu 5/9/13									
ID WBS	Task Name	Type Work	# Prof Spares	totyp	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations	Total Infrastructures	Total Capital De
19 1.2.2	1.2.2 Layers 1-3	1,060 hrs		0	\$80,265.20	\$53,305.20	\$66,193.92	\$26,960.00	\$37,104.00	\$103,297.92	\$0.00	\$0.00		\$0.00	\$103,297.92 _W
	Matt McCulloch (MT)	120 hrs		0	\$16,340.40	\$16,340.40	\$19,608.48	\$0.00	\$0.00	\$19,608.48	\$0.00	\$0.00	\$0.00	\$0.00	\$19,608.48 W
	Matt Swift (MD)	160 hrs		0	\$22,276.80	\$22,276.80	\$28,959.84	\$0.00	\$0.00	\$28,959.84	\$0.00	\$0.00	\$0.00	\$0.00	\$28,959.84 W
	Tensioners Assembly Fixture	8	0	0	\$12,960.00 \$1,200.00	\$0.00 \$0.00	\$0.00 \$0.00	\$12,960.00 \$1,200.00	\$18,144.00 \$1,440.00	\$18,144.00 \$1,440.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$18,144.00 W \$1,440.00 W
	U Support	2	0	0	\$10,800.00	\$0.00	\$0.00	\$10,800.00	\$15,120.00	\$15,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,120.00 W
	Cables Fixtures	1	0	0	\$2,000.00	\$0.00	\$0.00	\$2,000.00	\$2,400.00	\$2,400.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,400.00 W
	Tim Nelson (Phys) Per Hansson (Phys)	350 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Marco Oriunno (ME)	350 hrs 80 hrs		0	<i>\$0.00</i> <i>\$14,688.00</i>	\$0.00 \$14,688.00	<i>\$0.00</i> <i>\$17,625.60</i>	\$0.00 \$0.00	\$0.00 \$0.00	<i>\$0.00</i> <i>\$17,625.60</i>	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 W \$17,625.60 W
20 1.2.3	1.2.3 Layer 1-3 Ready	0 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00
21 1.2.4		1,400 hrs	0	0	\$120,255.20	\$77,785.20	\$106,671.60	\$42,470.00	\$59,058.00	\$165,729.60	\$7,896.00	\$10,038.00	\$17,934.00	\$0.00	\$147,795.60
	1.2.4 Layers 4-6 Matt Swift (MD)	160 hrs		0	\$22,276.80	\$22,276.80	\$28,959.84	\$0.00	\$0.00	\$28,959.84	\$0.00	\$0.00	\$0.00	\$0.00	\$28,959.84 W
	Matt McCulloch (MT)	160 hrs		0	\$21,787.20	\$21,787.20	\$30,502.08	\$0.00	\$0.00	\$30,502.08	\$0.00	\$0.00	\$0.00	\$0.00	\$30,502.08 W
	Tung Phan (ET)	40 hrs		0	\$4,345.20	\$4,345.20	\$6,083.28	\$0.00	\$0.00	\$6,083.28	\$0.00	\$0.00	\$0.00	\$0.00	\$6,083.28 W
	FNAL Composite	1	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Cables Fixtures Wirebonding Fixture	1	0	0	\$2,000.00 \$3,060.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,000.00 \$3,060.00	\$2,400.00 \$4,284.00	<i>\$2,400.00</i> <i>\$4,284.00</i>	\$0.00 \$0.00	\$0.00 \$2,142.00	\$0.00 \$2,142.00	\$0.00 \$0.00	\$2,400.00 W \$2,142.00 W
	Tensioners	8		2	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$18,144.00	\$18,144.00	\$4,536.00	\$4,536.00	\$9,072.00	\$0.00	\$9,072.00 W
	Assembly Fixture	5	2	2	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$8,400.00	\$8,400.00	\$3,360.00	\$3,360.00	\$6,720.00	\$0.00	\$1,680.00 W
	U Support	2	0	0	\$10,800.00	\$0.00	\$0.00	\$10,800.00	\$15,120.00	\$15,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,120.00 W
	Tim Nelson (Phys) Per Hansson (Phys)	440 hrs		0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 W \$0.00 W
	Marco Oriunno (ME)	160 hrs		0	\$29,376.00	\$29,376.00	\$41,126.40	\$0.00	\$0.00	\$41,126.40	\$0.00	\$0.00	\$0.00	\$0.00	\$41,126.40 W
	Kapton passivation	1	0	0	\$7,650.00	\$0.00	\$0.00	\$7,650.00	\$10,710.00	\$10,710.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,710.00 W
22 1.2.5	1.2.5 Layer 4-6 Ready	0 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
23 1.2.6	1.2.6 Hybrids Assembly & Wirebonding	0 hrs		0	\$27,000.00	\$0.00	\$0.00	\$27,000.00	\$27,000.00	\$27,000.00	\$0.00	\$0.00		\$0.00	\$27,000.00 W
24 1.2.7	Subcontract Santa Cruz	321 hrs	0	0	<i>\$27,000.00</i> \$23,739.12	<i>\$0.00</i> \$21,579.12	<i>\$0.00</i> \$25,894.94	<i>\$27,000.00</i> \$2,160.00	<i>\$27,000.00</i> \$2,592.00	<i>\$27,000.00</i> \$28,486.94	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$27,000.00 W \$28,486.94
24 1.2.7	1.2.7 C-Support			0											Į V V
	Matt Swift (MD) Matt McCulloch (MT)	80 hrs 16 hrs		0	\$11,138.40 \$2,178.72	\$11,138.40 \$2,178.72	\$13,366.08 \$2,614.46	\$0.00 \$0.00	\$0.00 \$0.00	\$13,366.08 \$2,614.46	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$13,366.08 W \$2,614.46 W
	C-support	101113	0	0	\$2,170.72	\$0.00	\$0.00	\$2,160.00	\$2,592.00	\$2,592.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,592.00 W
	Tim Nelson (Phys)	90 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Per Hansson (Phys)	90 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
25 1.2.8	Marco Oriunno (ME)	45 hrs 248 hrs		0	<i>\$8,262.00</i> \$22,085.00	<i>\$8,262.00</i> \$18,360.00	<i>\$9,914.40</i> \$25,704.00	<i>\$0.00</i> \$3,725.00	<i>\$0.00</i> \$5,215.00	<i>\$9,914.40</i> \$30,919.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$9,914.40 W \$30,919.00 w
25 1.2.0	1.2.8 DAQ Support/Cooling			0											I V V
	Matt Swift (MD) Matt McCulloch (MT)	40 hrs		0	\$5,569.20 \$5,446.80	\$5,569.20 \$5,446.80	\$7,796.88 \$7,625.52	\$0.00 \$0.00	\$0.00 \$0.00	\$7,796.88 \$7,625.52	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$7,796.88 W \$7,625.52 W
	DAQ Support	1	0	0	\$3,725.00	\$0.00	\$0.00	\$3,725.00	\$5,215.00	\$5,215.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,215.00 W
	Tim Nelson (Phys) Per Hansson (Phys)	64 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Per Hansson (Phys)	64 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
26 1.2.9	Marco Oriunno (ME)	40 hrs 440 hrs		0	<i>\$7,344.00</i> \$23,760.00	<i>\$7,344.00</i> \$18,360.00	<i>\$10,281.60</i> \$22,032.00	<i>\$0.00</i> \$5,400.00	<i>\$0.00</i> \$6,480.00	<i>\$10,281.60</i> \$28,512.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$10,281.60 W \$28,512.00 w
20 1.2.3	1.2.9 Baseplate			0											I V V
	Matt Swift (MD) Matt McCulloch (MT)	40 hrs		0	\$5,569.20 \$5,446.80	\$5,569.20 \$5,446.80	\$6,683.04 \$6,536.16	\$0.00 \$0.00	\$0.00 \$0.00	\$6,683.04 \$6,536.16	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$6,683.04 W \$6,536.16 W
	Baseplate	1	0	0	\$5,400.00	\$0.00	\$0.00	\$5,400.00	\$6,480.00	\$6,480.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,480.00 W
	Tim Nelson (Phys)	160 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Per Hansson (Phys)	160 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
27 1.2.10	Marco Oriunno (ME)	40 hrs 234 hrs		0	<i>\$7,344.00</i> \$14,993.28	<i>\$7,344.00</i> \$10,673.28	<i>\$8,812.80</i> \$12,807.94	<i>\$0.00</i> \$4,320.00	<i>\$0.00</i> \$5,184.00	<i>\$8,812.80</i> \$17,991.94	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$8,812.80 W \$17,991.94 w
27 1.2.10	1.2.10 Motion Levers			0											I v v
	Matt Swift (MD) Matt McCulloch (MT)	40 hrs		0	\$5,569.20 \$3,268.08	\$5,569.20 \$3,268.08	\$6,683.04 \$3,921.70	\$0.00 \$0.00	\$0.00 \$0.00	\$6,683.04 \$3,921.70	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$6,683.04 W \$3,921.70 W
	Flex links	241113	0	0	\$4,320.00	\$0.00	\$0.00	\$4,320.00	\$5,184.00	\$5,184.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,184.00 W
	Tim Nelson (Phys)	80 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Per Hansson (Phys)	80 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
28 1.2.11	Marco Oriunno (ME)	10 hrs 304 hrs		0	\$1,836.00 \$41,060.60	<i>\$1,836.00</i> \$40,269.60	\$2,203.20 \$56.277.44	<i>\$0.00</i> \$800.00	<i>\$0.00</i> \$880.00	\$2,203.20 \$57.257.44	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$56,377.44	\$0.00	\$2,203.20 W
20 1.2.11	1.2.11 Vacuum Flanges			U	\$41,069.60		\$56,377.44			\$57,257.44				\$0.00	\$880.00 W
	Matt Swift (MD) Matt McCulloch (MT)	OP 80 hrs OP 160 hrs		0	\$11,138.40 \$21,787.20	\$11,138.40 \$21,787.20	\$15,593.76 \$30,502.08	\$0.00 \$0.00	\$0.00 \$0.00	\$15,593.76 \$30,502.08	\$0.00 \$0.00	\$0.00 \$0.00	\$15,593.76 \$30,502.08	\$0.00 \$0.00	\$0.00 W \$0.00 W
	8" CF Flange	2 1001115	0	0	\$21,787.20	\$21,787.20	\$30,502.08	\$800.00	\$880.00	\$30,502.08	\$0.00	\$0.00	\$30,502.08	\$0.00 \$0.00	\$880.00 W
	Tim Nelson (Phys)	12 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
	Per Hansson (Phys)	12 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
20 4 2 42	Marco Oriunno (ME)	OP 40 hrs		0	\$7,344.00	\$7,344.00 \$14.747.54	<i>\$10,281.60</i> \$17,721.07	\$0.00	\$0.00	\$10,281.60	\$0.00	\$0.00	\$10,281.60	\$0.00	\$0.00 W
29 1.2.12	1.2.12 Shipping Crates	224 hrs		U	\$29,823.56	\$14,767.56		\$15,056.00	\$18,067.20	\$35,788.27	\$516.00	\$0.00		\$0.00	\$35,272.27 W
	Matt Swift (MD)	12 hrs	0	0	\$1,670.76	\$1,670.76	\$2,004.91	\$0.00	\$0.00	\$2,004.91	\$0.00	\$0.00	\$0.00	\$0.00	\$2,004.91 W

						WBS	V470 Thu 5/9/13									
ID WBS	Task Name	Туре	Work	# Spares	rototyp	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations	Total Infrastructures	Total Capital De
	Matt McCulloch (MT)		80 hrs			\$10,893.60	\$10,893.60	\$13,072.32	\$0.00	\$0.00	\$13,072.32	\$0.00	\$0.00	\$0.00		\$13,072.32 W
	Crates		2	0	0	\$10,756.00	\$0.00	\$0.00	\$10,756.00	\$12,907.20	\$12,907.20	\$0.00	\$0.00	\$0.00		\$12,907.20 <mark>W</mark>
	Tim Nelson (Phys)		60 hrs		0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Per Hansson (Phys) Marco Oriunno (ME)		60 hrs 12 hrs			\$0.00 \$2,203.20	\$0.00 \$2,203.20	\$0.00 \$2,643.84	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$2,643.84	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$2,643.84 W
	Half-Module Shipping Box		20		-	\$4,300.00	\$2,203.20	\$2,043.84	\$4,300.00	\$5,160.00	\$5,160.00	\$516.00	\$0.00	\$5.00 \$516.00		\$2,043.64 VV \$4,644.00 W
30 1.2.13	1.2.13 Integration and testing at SLAC		744 hrs		-	\$95,967.20	\$63,187.20	\$82,143.36	\$32,780.00	\$42,614.00	\$124,757.36	\$0.00	\$0.00	\$0.00		\$82,143.36
	Matt McCulloch (MT)		320 hrs		0	\$43,574.40	\$43,574.40	\$56,646.72	\$0.00	\$0.00	\$56,646.72	\$0.00	\$0.00	\$0.00		\$56,646.72 W
	Marco Oriunno (ME)		80 hrs		0	\$14,688.00	\$14,688.00	\$19,094.40	\$0.00	\$0.00	\$19,094.40	\$0.00	\$0.00	\$0.00		\$19,094.40 W
	Survey Technician SLAC		24 hrs		0	\$4,924.80	\$4,924.80	\$6,402.24	\$0.00	\$0.00	\$6,402.24	\$0.00	\$0.00	\$0.00		\$6,402.24 W
	Tim Nelson (Phys)		160 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Per Hansson (Phys)	14/504	160 hrs	_		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Chiller Equipment for chiller Control	INFRA INFRA	/	0	U	\$29,800.00 \$2,980.00	\$0.00 \$0.00	\$0.00 \$0.00	\$29,800.00 \$2,980.00	\$38,740.00 \$3,874.00	\$38,740.00 \$3,874.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
31 1.2.14	1.2.14 SVT tested and ready for shipment	IIVEKA		U	U	\$2,980.00		\$0.00	\$2,980.00	\$3,874.00	\$3,674.00	\$0.00	\$0.00	\$0.00		\$0.00
01 112111	Tim Nelson (Phys)												·			Į V V
	Per Hansson (Phys)		8 hrs 8 hrs		-	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
32 1.2.15	1.2.15 Integration at Jlab		320 hrs		-	\$28,029.60	\$28,029.60	\$36,438.48	\$0.00	\$0.00	\$36,438.48	\$0.00	\$0.00	\$0.00		\$36,438.48 _M
	Marco Oriunno (ME)		80 hrs) 0	\$14,688.00	\$14,688.00	\$19,094.40	\$0.00	\$0.00	\$19,094.40	\$0.00	\$0.00	\$0.00		\$19,094.40 W
	Ryan Herbst (EE)		80 hrs		0	\$14,000.00	\$13,341.60	\$19,094.40	\$0.00	\$0.00	\$17,344.08	\$0.00	\$0.00	\$0.00		\$17,344.08 W
	Tim Nelson (Phys)		80 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Per Hansson (Phys)		80 hrs			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
33 1.2.16	1.2.16 SVT Ready For Installation		0 hrs	s (0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
34 1.3	1.3 SVT DAQ		3,972.8 hrs		0	\$608,111.36	\$341,554.16	\$430,545.39	\$264,406.20	\$351,672.88	\$782,218.28	\$69,503.31	\$10,796.95	\$80,300.26		\$540,153.01 _W
35 1.3.1	1.3.1 FE Boards		504 hrs		0	\$105,891.00	\$60,037.20	\$84,052.08	\$45,853.80	\$64,195.32	\$148,247.40	\$33,090.50	\$3,676.72	\$36,767.22		\$111,480.18 _W
	Tim Nelson (Phys)		72 hrs		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
36 1.3.1.1	Per Hansson (Phys) 1.3.1.1 ADC		<i>72 hrs</i> 0 hrs			<i>\$0.00</i> \$5,760.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$5,760.00	\$0.00 \$8,064.00	<i>\$0.00</i> \$8,064.00	<i>\$0.00</i> \$3,628.80	<i>\$0.00</i> \$403.20	<i>\$0.00</i> \$4,032.00		\$0.00 W \$4,032.00 W
30 1.3.1.1	ADC		80		9	\$5,760.00 \$5,760.00	\$0.00	\$0.00	\$5,760.00	\$8,064.00	\$8,064.00	\$3,628.80	\$403.20	\$4,032.00		\$4,032.00 W
37 1.3.1.2	1.3.1.2 FPGA		0 hrs		0 0	\$10,756.00	\$0.00	\$0.00	\$10,756.00	\$15,058.40	\$15,058.40	\$6,776.28	\$752.92	\$7,529.20	\$0.00	\$7,529.20 W
	FPGA		20		1	\$10,756.00	\$0.00	\$0.00	\$10,756.00	\$15,058.40	\$15,058.40	\$6,776.28	\$752.92	\$7,529.20		\$7,529.20 W
38 1.3.1.3	1.3.1.3 Preamps		0 hrs		9	\$2,016.00	\$0.00	\$0.00	\$2,016.00	\$2,822.40	\$2,822.40	\$1,270.08	\$141.12	\$1,411.20		\$1,411.20 W
39 1.3.1.4	Preamp 1.3.1.4 Connector		200 0 hrs		-	<i>\$2,016.00</i> \$430.20	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$2,016.00</i> \$430.20	<i>\$2,822.40</i> \$602.28	<i>\$2,822.40</i> \$602.28	<i>\$1,270.08</i> \$271.03	<i>\$141.12</i> \$30.11	<i>\$1,411.20</i> \$301.14		<i>\$1,411.20</i> W \$301.14 W
33 1.3.1.4	Connectors		20		, ,	\$430.20	\$0.00	\$0.00	\$430.20	\$602.28	\$602.28	\$271.03	\$30.11	\$301.14		\$301.14 W
40 1.3.1.5	1.3.1.5 Power		0 hrs	s (0 0	\$1,075.60	\$0.00	\$0.00	\$1,075.60	\$1,505.84	\$1,505.84	\$677.63	\$75.29	\$752.92	\$0.00	\$752.92 W
	Power		20		,	\$1,075.60	\$0.00	\$0.00	\$1,075.60	\$1,505.84	\$1,505.84	\$677.63	<i>\$75.29</i>	\$752.92		\$752.92 W
41 1.3.1.6	1.3.1.6 Board		0 hrs		, ,	\$21,512.00	\$0.00	\$0.00	\$21,512.00	\$30,116.80	\$30,116.80	\$13,552.56	\$1,505.84	\$15,058.40		\$15,058.40 W
42 1.3.1.7	Board 1.3.1.7 Assembly			_	,	<i>\$21,512.00</i> \$4,304.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$21,512.00</i> \$4,304.00	\$30,116.80 \$6,025.60	<i>\$30,116.80</i> \$6,025.60	<i>\$13,552.56</i> \$2,711.52	<i>\$1,505.84</i> \$301.28	<i>\$15,058.40</i> \$3,012.80		<i>\$15,058.40</i> W \$3,012.80 W
42 1.5.1.7	Assembly		20			\$4,304.00	\$0.00	\$0.00	\$4,304.00	\$6,025.60	\$6,025.60	\$2,711.52	\$301.28	\$3,012.80		\$3,012.80 W
43 1.3.1.8	1.3.1.8 Schematic		120 hrs	s (0 0	\$20,012.40	\$20,012.40	\$28,017.36	\$0.00	\$0.00	\$28,017.36	\$0.00	\$0.00	\$0.00	\$0.00	\$28,017.36 W
	Ben Reese (EE)		120 hrs	0	0	\$20,012.40	\$20,012.40	\$28,017.36	\$0.00	\$0.00	\$28,017.36	\$0.00	\$0.00	\$0.00	\$0.00	\$28,017.36 W
44 1.3.1.9	1.3.1.9 Firmware		160 hrs		0	\$26,683.20	\$26,683.20	\$37,356.48	\$0.00	\$0.00	\$37,356.48	\$0.00	\$0.00	\$0.00		\$37,356.48 W
45 1.3.1.10	Ryan Herbst (EE) 1.3.1.10 Assembly		<i>160 hrs</i> 40 hrs		-	<i>\$26,683.20</i> \$6,670.80	<i>\$26,683.20</i> \$6,670.80	<i>\$37,356.48</i> \$9,339.12	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$37,356.48</i> \$9,339.12	<i>\$0.00</i> \$4,202.60	<i>\$0.00</i> \$466.96	<i>\$0.00</i> \$4,669.56		<i>\$37,356.48</i> W \$4,669.56 W
1.0.1.10	Ben Reese (EE)		40 hrs		9	\$6,670.80	\$6,670.80	\$9,339.12	\$0.00	\$0.00	\$9,339.12	\$4,202.60	\$466.96	\$4,669.56		\$4,669.56 W
46 1.3.1.11	1.3.1.11 Testing		40 hrs	s (\$6,670.80	\$6,670.80	\$9,339.12	\$0.00	\$0.00	\$9,339.12	\$0.00	\$0.00	\$0.00	\$0.00	\$9,339.12 W
	Ryan Herbst (EE)		40 hrs			\$6,670.80	\$6,670.80	\$9,339.12	\$0.00	\$0.00	\$9,339.12	\$0.00	\$0.00	\$0.00		\$9,339.12 W
47 1.3.2	1.3.2 FE Interface Board		48 hrs	s (0	\$10,155.96	\$8,004.96	\$9,605.95	\$0.00	\$0.00	\$9,605.95	\$9,605.95	\$0.00	\$9,605.95		\$0.00 W
48 1.3.2.1	Interface Board 1.3.2.1 Schematic		40 hrs	· /) 0	<i>\$2,151.00</i> \$6,670.80	<i>\$0.00</i> \$6,670.80	<i>\$0.00</i> \$8,004.96	<i>\$2,151.00</i> \$0.00	<i>\$2,581.20</i> \$0.00	<i>\$2,581.20</i> \$8,004.96	<i>\$2,581.20</i> \$8,004.96	<i>\$0.00</i> \$0.00	<i>\$2,581.20</i> \$8,004.96		\$0.00 W \$0.00 W
70 1.3.2.1	Ryan Herbst (EE)		40 hrs		9	\$6,670.80	\$6,670.80	\$8,004.96	\$0.00 \$0.00	\$0.00	\$8,004.96	\$8,004.96	\$0.00	\$8,004.96		\$0.00 W
49 1.3.2.2	1.3.2.2 Assembly		8 hrs		-	\$1,334.16	\$1,334.16	\$1,600.99	\$0.00	\$0.00	\$1,600.99	\$1,600.99	\$0.00	\$1,600.99	\$0.00	\$0.00 W
	Ryan Herbst (EE)		8 hrs		U	\$1,334.16	\$1,334.16	\$1,600.99	\$0.00	\$0.00	\$1,600.99	\$1,600.99	\$0.00	\$1,600.99	\$0.00	\$0.00 W
50 1.3.2.3	1.3.2.3 Firmware Design		0 hrs		, ,	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
51 1.3.3 52 1.3.4	1.3.3 FE Board Tested w/ hybrid 1.3.4 Flange Board		0 hrs 264 hr s		, ,	\$0.00 \$38,169.84	\$0.00 \$20,012.40	\$0.00 \$25,349.04	\$0.00 \$18,157.44	\$0.00 \$25,420.42	\$0.00 \$50,769.46	\$0.00 \$6,355.10	\$0.00 \$3,177.55	\$0.00 \$9,532.66		\$0.00 W \$41,236.80 W
	Tim Nelson (Phys)		72 hrs) 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Per Hansson (Phys)		72 hrs		U	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
53 1.3.4.1	1.3.4.1 Connector		0 hrs		-	\$172.80	\$0.00	\$0.00	\$172.80	\$241.92	\$241.92	\$60.48	\$30.24	\$90.72		\$151.20 W
	Connector		16	4	! 2	\$172.80	\$0.00	\$0.00	\$172.80	\$241.92	\$241.92	\$60.48	\$30.24	\$90.72	\$0.00	\$151.20 W
54 1.3.4.2	1.3.4.2 Fiber		0 hrs		0 0	\$7,228.00		\$0.00	\$7,228.00	\$10,119.20	\$10,119.20	\$2,529.80	\$1,264.90	\$3,794.70		\$6,324.50 W
55 1242	Fiber		16	_	2	\$7,228.00	\$0.00	\$0.00	\$7,228.00	\$10,119.20	\$10,119.20	\$2,529.80	\$1,264.90	\$3,794.70		\$6,324.50 W
55 1.3.4.3	1.3.4.3 Power Power		0 hrs		, ,	\$430.24 <i>\$430.24</i>	\$0.00 \$0.00	\$0.00 \$0.00	\$430.24 \$430.24	\$602.34 \$602.34	\$602.34 <i>\$602.34</i>	\$150.58 <i>\$150.58</i>	\$75.29 <i>\$75.29</i>	\$225.88 <i>\$225.88</i>		\$376.46 W <i>\$376.46</i> W
			U			ψ τ υ υ . Δ τ	ψ0.00	ψυ.υυ	ψ130.27	ψυυΖ.υτ	ψυυΣ.υΤ	ψ100.00	Ψ10.21	Ψ220.00	ψυ.υυ	ψ370.70 VV

						WBS '	V470 Thu 5/9/13									
ID WBS	Task Name	Type	Work	# Proto Spares	typ	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares		Total Operations	Total Infrastructures	Total Capital De
56 1.3.4.4	1.3.4.4 Board Board		0 hrs	0	0	\$8,604.80 \$8,604.80	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$8,604.80 \$8,604.80	\$12,046.72 <i>\$12,046.72</i>	\$12,046.72 <i>\$12,046.72</i>	\$3,011.68 <i>\$3,011.68</i>	\$1,505.84 <i>\$1,505.84</i>	\$4,517.52 \$4,517.52	\$0.00	\$7,529.20 W \$7,529.20 W
57 1.3.4.5	1.3.4.5 Assembly		0 hrs	0	0	\$1,721.60	\$0.00	\$0.00	\$1,721.60	\$2,410.24	\$2,410.24	\$602.56	\$301.28	\$903.84		\$1,506.40 W
	Assembly		8	2	1	\$1,721.60	\$0.00	\$0.00	\$1,721.60	\$2,410.24	\$2,410.24	\$602.56	\$301.28	\$903.84		\$1,506.40 W
58 1.3.4.6	1.3.4.6 Schematic		80 hrs	0	0	\$13,341.60	\$13,341.60	\$18,678.24	\$0.00	\$0.00	\$18,678.24	\$0.00	\$0.00	\$0.00		\$18,678.24 W
59 1.3.4.7	Ben Reese (EE) 1.3.4.7 Testing		<i>80 hrs</i> 40 hrs	0	0	<i>\$13,341.60</i> \$6,670.80	<i>\$13,341.60</i> \$6,670.80	<i>\$18,678.24</i> \$6,670.80	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$18,678.24</i> \$6,670.80	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		<i>\$18,678.24</i> W \$6,670.80 W
33 1.3.4.7	Ryan Herbst (EE)		40 hrs	0	0	\$6,670.80	\$6,670.80	\$6,670.80	\$0.00	\$0.00	\$6,670.80	\$0.00	\$0.00	\$0.00		\$6,670.80 W
60 1.3.5	1.3.5 Flange DAQ Tested		0 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
61 1.3.6	1.3.6 DAQ		1,640 hrs	0	0	\$259,489.80	\$173,440.80	\$213,465.60	\$86,049.00	\$120,468.60	\$333,934.20	\$7,529.20	\$0.00	\$7,529.20	\$91,855.40	\$234,549.60 _W
	Tim Nelson (Phys)		300 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
00 4 0 0 4	Per Hansson (Phys)		300 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
62 1.3.6.1	1.3.6.1 SVT COB SVT COB	INFRA	0 hrs	0	0	\$38,721.00 <i>\$38,721.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 \$0.00	\$38,721.00 \$38,721.00	\$54,209.40 \$54,209.40	\$54,209.40 \$54,209.40	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>		\$0.00 W <i>\$0.00</i> W
63 1.3.6.2	1.3.6.2 RTM	IIVI KA	0 hrs	0	0	\$16,134.00	\$0.00	\$0.00	\$16,134.00	\$22,587.60	\$22,587.60	\$0.00		\$0.00		\$0.00 VV
	RTM	INFRA	3	0	0	\$16,134.00	\$0.00	\$0.00	\$16,134.00	\$22,587.60	\$22,587.60	\$0.00	\$0.00	\$0.00	\$22,587.60	\$0.00 W
64 1.3.6.3	1.3.6.3 Custom Board		0 hrs	0	0	\$16,134.00	\$0.00	\$0.00	\$16,134.00	\$22,587.60	\$22,587.60	\$7,529.20	\$0.00	\$7,529.20		\$15,058.40 W
65 1 2 C 4	Custom Board		3	0	0	\$16,134.00	\$0.00	\$0.00	\$16,134.00	\$22,587.60	\$22,587.60	\$7,529.20	\$0.00	\$7,529.20		\$15,058.40 W
65 1.3.6.4	1.3.6.4 Crates Crates	INFRA	0 hrs	0	0	\$10,756.00 <i>\$10,756.00</i>	\$0.00 \$0.00	\$0.00 \$0.00	\$10,756.00 \$10,756.00	\$15,058.40 \$15,058.40	\$15,058.40 <i>\$15,058.40</i>	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W <i>\$0.00</i> W
66 1.3.6.5	1.3.6.5 Fiber Cables	IIVI KA	0 hrs	0	0	\$4,304.00	\$0.00	\$0.00	\$4,304.00	\$6,025.60	\$6,025.60	\$0.00		\$0.00		\$6,025.60 W
00 1101010	Fiber Cables		16	0	0	\$4,304.00	\$0.00	\$0.00	\$4,304.00	\$6,025.60	\$6,025.60	\$0.00	\$0.00	\$0.00		\$6,025.60 W
67 1.3.6.6	1.3.6.6 Schematic		160 hrs	0	0	\$26,683.20	\$26,683.20	\$37,356.48	\$0.00	\$0.00	\$37,356.48	\$0.00		\$0.00		\$37,356.48 W
00 4 0 0 7	Ben Reese (EE) 1.3.6.7 Firmware		160 hrs	0	0	\$26,683.20	\$26,683.20	\$37,356.48	\$0.00	\$0.00	\$37,356.48	\$0.00	\$0.00	\$0.00		\$37,356.48 W
68 1.3.6.7	Ryan Herbst (EE)		320 hrs <i>160 hrs</i>	0	0	\$53,366.40 <i>\$26,683.20</i>	\$53,366.40 <i>\$26,683.20</i>	\$64,039.68 <i>\$37,356.48</i>	\$0.00 \$0.00	\$0.00 <i>\$0.00</i>	\$64,039.68 <i>\$37,356.48</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>		\$64,039.68 W <i>\$37,356.48</i> W
	Ben Reese (EE)		160 hrs	0	0	\$26,683.20	\$26,683.20	\$26,683.20	\$0.00	\$0.00	\$26,683.20	\$0.00	\$0.00	\$0.00		\$26,683.20 W
69 1.3.6.8	1.3.6.8 Software		320 hrs	0	0	\$53,366.40	\$53,366.40	\$64,039.68	\$0.00	\$0.00	\$64,039.68	\$0.00	\$0.00	\$0.00		\$64,039.68 W
	Ryan Herbst (EE)		160 hrs	0	0	\$26,683.20	\$26,683.20	\$37,356.48	\$0.00	\$0.00	\$37,356.48	\$0.00	\$0.00	\$0.00		\$37,356.48 W
70 4000	Ben Reese (EE)		160 hrs	0	0	\$26,683.20	\$26,683.20	\$26,683.20	\$0.00	\$0.00	\$26,683.20	\$0.00	\$0.00	\$0.00		\$26,683.20 W
70 1.3.6.9	1.3.6.9 Testing Ryan Herbst (EE)		240 hrs 120 hrs	0	0	\$40,024.80 <i>\$20,012.40</i>	\$40,024.80 <i>\$20,012.40</i>	\$48,029.76 <i>\$28,017.36</i>	\$0.00 \$0.00	\$0.00 <i>\$0.00</i>	\$48,029.76 <i>\$28,017.36</i>	\$0.00 <i>\$0.00</i>	\$0.00 \$0.00	\$0.00 \$0.00		\$48,029.76 W <i>\$28,017.36</i> W
	Ben Reese (EE)		120 Hrs	0	0	\$20,012.40	\$20,012.40	\$20,017.30	\$0.00	\$0.00	\$20,017.30	\$0.00	\$0.00	\$0.00		\$20,017.30 W
71 1.3.7	1.3.7 DAQ Full system Test		0 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 V
72 1.3.8	1.3.8 Hybrid		1,196.8 hrs	0	0	\$61,410.96	\$40,024.80	\$48,029.76	\$21,386.16	\$25,663.39	\$73,693.15	\$7,128.72		\$8,554.46		\$65,138.69 _W
	Tim Nelson (Phys)		158.4 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Per Hansson (Phys)		158.4 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
73 1.3.8.1	1.3.8.1 Hybrid Misc Part Hybrid Misc Part		0 hrs	10	0	\$8,871.12	\$0.00	\$0.00 \$0.00	\$8,871.12	\$10,645.34 \$3,484.94	\$10,645.34 <i>\$3,484.94</i>	\$2,957.04	\$591.41	\$3,548.45		\$7,096.90 W
	APV25		36 180	50	10	\$2,904.12 \$5,967.00	\$0.00 \$0.00	\$0.00	\$2,904.12 \$5,967.00	\$3,484.94	\$3,484.94 \$7,160.40	\$968.04 \$1,989.00	\$193.61 \$397.80	\$1,161.65 \$2,386.80		\$2,323.30 W \$4,773.60 W
74 1.3.8.2	1.3.8.2 Hybrid Board		0 hrs	0	0	\$7,744.32	\$0.00	\$0.00	\$7,744.32	\$9,293.18	\$9,293.18	\$2,581.44	\$516.29	\$3,097.73		\$6,195.46 W
	Hybrid Board		36	10	2	\$7,744.32	\$0.00	\$0.00	\$7,744.32	\$9,293.18	\$9,293.18	\$2,581.44	\$516.29	\$3,097.73		\$6,195.46 W
75 1.3.8.3	1.3.8.3 Hybrid Assembly		0 hrs	0	0	\$4,770.72	\$0.00	\$0.00	\$4,770.72	\$5,724.86	\$5,724.86	\$1,590.24	\$318.05	\$1,908.29		\$3,816.58 W
76 1.3.8.4	Hybrid Assembly 1.3.8.4 Schematic		36	<i>10</i>	2	\$4,770.72	\$0.00	<i>\$0.00</i> \$16,009.92	<i>\$4,770.72</i> \$0.00	<i>\$5,724.86</i> \$0.00	<i>\$5,724.86</i> \$16,009.92	\$1,590.24	<i>\$318.05</i> \$0.00	\$1,908.29		<i>\$3,816.58</i> W \$16,009.92 W
76 1.3.8.4	Ryan Herbst (EE)		80 hrs	0	0	\$13,341.60 <i>\$13,341.60</i>	\$13,341.60 <i>\$13,341.60</i>	\$16,009.92 \$16,009.92	\$0.00 \$0.00	\$0.00	\$16,009.92	\$0.00 <i>\$0.00</i>	\$0.00 \$0.00	\$0.00 <i>\$0.00</i>		\$16,009.92 W
77 1.3.8.5	1.3.8.5 Assembly		120 hrs	0	0	\$20,012.40	\$20,012.40	\$24,014.88	\$0.00	\$0.00	\$24,014.88	\$0.00		\$0.00		\$24,014.88 W
	Ryan Herbst (EE)		60 hrs	0	0	\$10,006.20	\$10,006.20	\$12,007.44	\$0.00	\$0.00	\$12,007.44	\$0.00	\$0.00	\$0.00	\$0.00	\$12,007.44 W
	Ben Reese (EE)		60 hrs	0	0	\$10,006.20	\$10,006.20	\$12,007.44	\$0.00	\$0.00	\$12,007.44	\$0.00	\$0.00	\$0.00		\$12,007.44 W
78 1.3.8.6	1.3.8.6 Board Testing Ben Reese (EE)		40 hrs 40 hrs	0	0	\$6,670.80 \$6,670.80	\$6,670.80 <i>\$6,670.80</i>	\$8,004.96 \$8,004.96	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$8,004.96 \$8,004.96	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>		\$8,004.96 W <i>\$8,004.96</i> W
79 1.3.8.7	1.3.8.7 Hybrid qualification		320 hrs	0	0	\$0,070.80	\$0,070.80	\$8,004.96	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$8,004.96 W
7.0.0.7	Per Hansson (Phys)		160 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 VV
	Sho Uemura (Phys)		160 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
80 1.3.8.8	1.3.8.8 Single Hybrid qualification		0 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00 W
81 1.3.8.9	1.3.8.9 Hybrids Testing Sho Uemura (Phys)		320 hrs 160 hrs	0	0	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>		\$0.00 W <i>\$0.00</i> W
	Per Hansson (Phys)		160 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
82 1.3.9	1.3.9 Flex Cable		280 hrs	0	0	\$42,386.16	\$33,354.00	\$41,358.96	\$9,032.16	\$12,645.02	\$54,003.98	\$0.00		\$0.00		\$54,003.98
	Tim Nelson (Phys)		40 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Per Hansson (Phys)		40 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 VV
83 1.3.9.1	1.3.9.1 Misc Parts		0 hrs	0	0	\$1,290.72	\$0.00	\$0.00	\$1,290.72	\$1,807.01	\$1,807.01	\$0.00	\$0.00	\$0.00	\$0.00	\$1,807.01 W
	SVT Cable Misc parts		24	0	0	\$1,290.72	\$0.00	\$0.00	\$1,290.72	\$1,807.01	\$1,807.01	\$0.00	\$0.00	\$0.00		\$1,807.01 W
84 1.3.9.2	1.3.9.2 Cable		0 hrs	0	0	\$5,160.00	\$0.00	\$0.00	\$5,160.00	\$7,224.00	\$7,224.00	\$0.00		\$0.00		\$7,224.00 W
85 1.3.9.3	SVT Cable 1.3.9.3 Assembly		24 0 hrs	0	0	<i>\$5,160.00</i> \$2,581.44	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$5,160.00</i> \$2,581.44	<i>\$7,224.00</i> \$3,614.02	<i>\$7,224.00</i> \$3,614.02	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		<i>\$7,224.00</i> W \$3,614.02 W
00 1.3.9.3	ST Cable Assembly		0 nrs 24	0	0	\$2,581.44 \$2,581.44	\$0.00 \$0.00	\$0.00 \$0.00	\$2,581.44 \$2,581.44	\$3,614.02 \$3,614.02	\$3,614.02 \$3,614.02	\$0.00 \$0.00		\$0.00 \$0.00		\$3,614.02 W \$3,614.02 W
86 1.3.9.4	1.3.9.4 Schematic		160 hrs	0	0	\$26,683.20	\$26,683.20	\$32,019.84	\$0.00	\$0.00	\$32,019.84	\$0.00		\$0.00		\$32,019.84 W
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						WBS '	/470 Thu 5/9/13									
ID WBS	Task Name	Туре	Work	# Pi Spares	ototyp	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations	Total Infrastructures	Total Capital Equipments
	Ryan Herbst (EE)		80 hrs	0	0	\$13,341.60	\$13,341.60	\$18,678.24	\$0.00	\$0.00	\$18,678.24	\$0.00	\$0.00	\$0.00		\$18,678.24 W
87 1.3.9.5	Ben Reese (EE) 1.3.9.5 Testing		<i>80 hrs</i> 40 hrs	0	0	<i>\$13,341.60</i> \$6,670.80	<i>\$13,341.60</i> \$6,670.80	<i>\$13,341.60</i> \$9,339.12	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$13,341.60</i> \$9,339.12	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		<i>\$13,341.60</i> W \$9,339.12 W
01 1.0.0.0	Ryan Herbst (EE)		40 hrs	0	0	\$6,670.80	\$6,670.80	\$9,339.12	\$0.00	\$0.00	\$9,339.12	\$0.00	\$0.00	\$0.00		\$9,339.12 W
88 1.3.10	1.3.10 Flex Cable w/ hybrid&FE board		0 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00 W
89 1.3.11	1.3.11 Power Supplies & Cables SVT HV Unit	INFRA	0 hrs	0	0	\$58,258.00 <i>\$30,460.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$58,258.00 \$30,460.00	\$69,909.60 <i>\$36,552.00</i>	\$69,909.60 <i>\$36,552.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>	\$0.00 <i>\$0.00</i>		\$0.00 W \$0.00 W
	SVT LV Unit	INFRA	4	0	0	\$14,216.00	\$0.00	\$0.00	\$30,460.00	\$30,552.00	\$30,552.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	Wiener Crate	INFRA	2	0	0	\$13,582.00	\$0.00	\$0.00	\$13,582.00	\$16,298.40	\$16,298.40	\$0.00	\$0.00	\$0.00		\$0.00 W
90 1.3.12	1.3.12 HV/LV Cables		40 hrs	0	0	\$32,349.64	\$6,680.00	\$8,684.00	\$25,669.64	\$33,370.53	\$42,054.53	\$5,793.84	\$2,516.93	\$8,310.77		\$33,743.76 W
	LV PS connector LV PS connector FE board		9	6	0	\$90.90 \$484.02	\$0.00 \$0.00	\$0.00 \$0.00	\$90.90 \$484.02	\$118.17 \$629.23	\$118.17 \$629.23	\$78.78 \$0.00	\$0.00 \$0.00	\$78.78 \$0.00		\$39.39 W \$629.23 W
	LV PS connector flange side		9	0	0	\$484.02 \$90.72	\$0.00	\$0.00	\$484.02	\$029.23 \$117.94	\$029.23 \$117.94	\$0.00	\$0.00	\$0.00		\$029.23 VV \$117.94 W
	LV PS connector flange vacuum side		8	2	1	\$430.40	\$0.00	\$0.00	\$430.40	\$559.52	\$559.52	\$139.88	\$69.94	\$209.82	7	\$349.70 W
	LV PS wire outside vacuu		2,400		0	\$384.00	\$0.00	\$0.00	\$384.00	\$499.20	\$499.20	\$83.20	\$0.00	\$83.20		\$416.00 W
	HV connector flange vacuum side		64	16	8	\$13,767.68	\$0.00	\$0.00	\$13,767.68 \$954.00	\$17,897.98	\$17,897.98	\$4,474.50	\$2,237.25	\$6,711.74		\$11,186.24 W
	HV connector FE board HV connector flange		18	2	1	\$954.00 \$1,290.72	\$0.00 \$0.00	\$0.00 \$0.00	\$954.00 \$1,290.72	\$1,240.20 \$1,677.94	\$1,240.20 \$1,677.94	\$0.00 \$419.48	\$0.00 \$209.74	\$0.00 \$629.23		\$1,240.20 W \$1,048.71 W
	HV PS cable incl. connector		5	1	0	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$2,990.00	\$2,990.00	\$598.00	\$0.00	\$598.00		\$2,392.00 W
	HV wire vacuum		16	0	0	\$499.20	\$0.00	\$0.00	\$499.20	\$648.96	\$648.96	\$0.00	\$0.00	\$0.00		\$648.96 W
	Flange Board		10	0	0	\$5,378.00	\$0.00	\$0.00	\$5,378.00	\$6,991.40	\$6,991.40	\$0.00	\$0.00	\$0.00		\$6,991.40 W
91 1.4	SLAC Cable shop		40 hrs 2,924 hrs	0	0	\$6,680.00 \$36,808.48	<i>\$6,680.00</i> \$27,868.48	\$8,684.00 \$36,229.02	\$0.00 \$8,940.00	<i>\$0.00</i> \$11,622.00	<i>\$8,684.00</i> \$47,851.02	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$8,684.00 W \$47,851.02
92 1.4.1	1.4 ECAL 1.4.1 Fix 2-shorted HV groups on top-left		44 hrs	0	0	\$2,988.80	\$2,988.80	\$3,885.44	\$0.00	\$0.00	\$3,885.44	\$0.00		\$0.00		\$3,885.44 _W
	ET Hall-B JLAB		40 hrs	0	0	\$2,988.80	\$2,988.80	\$3,885.44	\$0.00	\$0.00	\$3,885.44	\$0.00	\$0.00	\$0.00	\$0.00	\$3,885.44 W
	Phy 2 ECAL JLAB		4 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
93 1.4.2	1.4.2 Order new motherboard		24 hrs	0	0	\$5,960.00	\$0.00	\$0.00	\$5,960.00	\$7,748.00	\$7,748.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,748.00 W
	New Bottom-Left Motherboard		1	0	0	\$5,960.00	\$0.00	\$0.00	\$5,960.00	\$7,748.00	\$7,748.00	\$0.00	\$0.00	\$0.00		\$7,748.00 W
	Phy 2 ECAL JLAB		24 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
94 1.4.3	1.4.3 New motherboards and amplifiers		256 hrs	0	0	\$24,879.68	\$24,879.68	\$32,343.58	\$0.00	\$0.00	\$32,343.58	\$0.00	\$0.00	\$0.00		\$32,343.58 _W
	EE Hall-B JLAB		224 hrs	0	0	\$24,879.68	\$24,879.68	\$32,343.58	\$0.00	\$0.00	\$32,343.58	\$0.00	\$0.00	\$0.00		\$32,343.58 W
	New Amplifiers Boards Phy 2 ECAL JLAB		32 hrs	0	0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
95 1.4.4	1.4.4 New pre-amplifier boards		24 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00 W
	Ecal Pre-amps		500	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
00 4 4 5	Phy 2 ECAL JLAB		24 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
96 1.4.5	1.4.5 Assembling ECAL		160 hrs	U	U	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00 W
97 1.4.6	Phy 2 ECAL JLAB		<i>160 hrs</i> 2,080 hrs	0	0	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		\$0.00 W
97 1.4.6	1.4.6 Test and Calibrate Ecal		·	U	U						,				· ·	\$0.00 W
	Phy 2 ECAL JLAB Phy 1 ECAI JLAB		160 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 \$0.00	\$0.00 W \$0.00 W
	Ph1 2 Orsay		640 hrs 640 hrs	0	0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W
	Phy 1 Orsay		640 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
98 1.4.7	1.4.7 New mounting system		336 hrs	0	0	\$2,980.00	\$0.00	\$0.00	\$2,980.00	\$3,874.00	\$3,874.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,874.00 W
	ECAL Mounting System		1	0	0	\$2,980.00	\$0.00	\$0.00	\$2,980.00	\$3,874.00	\$3,874.00	\$0.00	\$0.00	\$0.00		<i>\$3,874.00</i> W
	Phy 2 ECAL JLAB		16 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	MÉ Orsay MT Orsay		160 hrs 160 hrs	0	0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
99 1.4.8	1.4.8 ECAL Ready for the installation		0 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00
100 1.5	·		1,200 hrs	0	0	\$125,512.80	\$115,512.80	\$151,055.20	\$10,000.00	\$10,000.00	\$161,055.20	\$0.00		\$0.00		\$151,055.20
101 1.5.1	1.5 TDAQ		160 hrs	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00 W
101 1.0.1	1.5.1 EPICS information into data stream			0	0											Į v v
102 1.5.2	EE DAQ JLAB		<i>160 hrs</i> 0 hrs	0	0	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		\$0.00 W \$0.00
103 1.5.3	1.5.2 Software TDAQ				0											• •
	1.5.3 Hardware TDAQ		0 hrs	0	U	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00 W
104 1.5.4	1.5.4 Update firmware on FADC250		160 hrs	0	0	\$17,771.20	\$17,771.20	\$21,325.44	\$0.00	\$0.00	\$21,325.44	\$0.00		\$0.00	\$0.00	\$21,325.44 _W
405 1.5	Ben Redo (EE)		160 hrs	0	0	\$17,771.20	\$17,771.20	\$21,325.44	\$0.00	\$0.00	\$21,325.44	\$0.00	\$0.00	\$0.00		\$21,325.44 W
105 1.5.5	1.5.5 New firmware for cluster finding		320 hrs	0	0	\$35,542.40	\$35,542.40	\$49,759.36	\$0.00	\$0.00	\$49,759.36	\$0.00		\$0.00		\$49,759.36 _W
106 150	Scott Kenata (EE)		320 hrs	0	0	\$35,542.40	\$35,542.40	\$49,759.36	\$0.00	\$0.00	\$49,759.36	\$0.00	\$0.00	\$0.00		\$49,759.36 W
106 1.5.6	1.5.6 New_firmware for SSP		240 hrs	0	U	\$26,656.80	\$26,656.80	\$37,319.52	\$0.00	\$0.00	\$37,319.52	\$0.00		\$0.00		\$37,319.52 _W
	Ben Redo (EE) Scott Kenata (EE)		160 hrs	0	0	\$17,771.20	\$17,771.20	\$24,879.68	\$0.00	\$0.00	\$24,879.68	\$0.00	\$0.00	\$0.00		\$24,879.68 W
107 1.5.7	, ,		<i>80 hrs</i> 320 hrs	0	0	<i>\$8,885.60</i> \$35,542.40	<i>\$8,885.60</i> \$35,542.40	<i>\$12,439.84</i> \$42,650.88	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$12,439.84</i> \$42,650.88	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		<i>\$12,439.84</i> W \$42,650,88
1.0.7	1.5.7 Trigger monitoring tools		320 1113	J.	<u> </u>	Ψ55,572.70	Ψ55,572.70	Ψ12,030.00	ψ0.00	Ψ0.00	ΨπΖ,000.00	Ψ0.00	ψ0.00	Ψ0.00	Ψ0.00	\$42,650.88 _W

						WBS \	/470 Thu 5/9/13									
ID	WBS	Task Name	Туре	Work	# Prototype Spares	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations	Total Infrastructures	Total Capital Equipments
		Ben Redo (EE)		320 hr.	5 0 0	\$35,542.40	\$35,542.40	\$42,650.88	\$0.00	\$0.00	\$42,650.88	\$0.00	\$0.00	\$0.00	\$0.00	\$42,650.88 W
108 109		1.5.8 TDAQ ready 1.5.9 Data Storage		0 hr 0 hr		\$0.00 \$10,000.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$10,000.00	\$0.00 \$10,000.00	\$0.00 \$10,000.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$10,000.00	\$0.00 W \$0.00 W
109	1.5.9	Data Storage Tapes 5TB	INFRA	40		\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$10,000.00	\$10,000.00	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00 W
110	1.6	1.6 Slow Control		2,008 hr	s 0 0	\$106,817.60	\$75,527.60	\$94,409.50	\$31,290.00	\$39,112.50	\$133,522.00	\$0.00	\$0.00	\$0.00		\$105,584.50
111	1.6.1	1.6.1 Chiller control programming		92 hr	s 0 0	\$8,885.60	\$8,885.60	\$11,107.00	\$0.00	\$0.00	\$11,107.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,107.00 _M
		EE Accelerator JLAB		80 hr.	s 0 0	\$8,885.60	\$8,885.60	\$11,107.00	\$0.00	\$0.00	\$11,107.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,107.00 W
		Hovanes Hegiyan (Phys)		12 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
112	1.6.2	1.6.2 I/O modules for control		80 hr	s 0 0	\$22,350.00	\$0.00	\$0.00	\$22,350.00	\$27,937.50	\$27,937.50	\$0.00	\$0.00	\$0.00	\$27,937.50	\$0.00 W
		I/O Modules for controls Hovanes Hegiyan (Phys)	INFRA	00 h	$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$	\$22,350.00	\$0.00	\$0.00	\$22,350.00	\$27,937.50	\$27,937.50	\$0.00	\$0.00	\$0.00	\$27,937.50	\$0.00 W \$0.00 W
113	1.6.3			80 hr. 300 hr		<i>\$0.00</i> \$13,328.40	<i>\$0.00</i> \$13,328.40	<i>\$0.00</i> \$16,660.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$16,660.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$16,660.50
		1.6.3 Sensor readout programming Nerses Gevorgyan (EE)		120 hr.		\$13,328.40	\$13,328.40	\$16,660.50	\$0.00	\$0.00	\$16,660.50	\$0.00	\$0.00	\$0.00	\$0.00	\$16,660.50 W
		Hovanes Hegiyan (Phys)		180 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
114	1.6.4	1.6.4 SVT voltage control		138 hr	s 0 0	\$13,328.40	\$13,328.40	\$16,660.50	\$0.00	\$0.00	\$16,660.50	\$0.00	\$0.00	\$0.00	\$0.00	\$16,660.50 W
		Hovanes Hegiyan (Phys)		18 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
445	4.0.5	Nerses Gevorgyan (EE)		120 hr.		\$13,328.40	\$13,328.40	\$16,660.50	\$0.00	\$0.00	\$16,660.50	\$0.00	\$0.00	\$0.00	\$0.00	\$16,660.50 W
115	1.6.5	1.6.5 ECAL voltage control		118 hr		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Hovanes Hegiyan (Phys) Nerses Gevorgyan (EE)		78 hr. 40 hr.		\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 W \$0.00 W
116	1.6.6	1.6.6 SVT motor controls		92 hr		\$8,885.60	\$8,885.60	\$11,107.00	\$0.00	\$0.00	\$11,107.00	\$0.00	\$0.00	\$0.00		\$11,107.00
		EE Accelerator JLAB		80 hr.	5 0 0	\$8,885.60	\$8,885.60	\$11,107.00	\$0.00	\$0.00	\$11,107.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,107.00 W
		Hovanes Hegiyan (Phys)		12 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
117	1.6.7	1.6.7 Target motor control		46 hr	s 0 0	\$4,442.80	\$4,442.80	\$5,553.50	\$0.00	\$0.00	\$5,553.50	\$0.00	\$0.00	\$0.00	\$0.00	\$5,553.50 _W
		EE Accelerator JLAB		40 hr.		\$4,442.80	\$4,442.80	\$5,553.50	\$0.00	\$0.00	\$5,553.50	\$0.00	\$0.00	\$0.00	\$0.00	\$5,553.50 W
118	160	Hovanes Hegiyan (Phys)		<i>6 hr</i> . 142 hr		\$0.00	\$0.00	<i>\$0.00</i> \$5,553.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$5,553.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$0.00 W \$5,553.50
110	1.0.0	1.6.8 Software interlock				\$4,442.80	\$4,442.80	·						·		Į V V
		EE Accelerator JLAB Hovanes Hegiyan (Phys)		40 hr. 102 hr.		\$4,442.80 \$0.00	\$4,442.80 \$0.00	\$5,553.50 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$5,553.50 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$5,553.50 W \$0.00 W
119	1.6.9	1.6.9 Hardware interlocks		368 hr		\$8,940.00	\$0.00	\$0.00	\$8,940.00	\$11,175.00	\$11,175.00	\$0.00	\$0.00	\$0.00		\$11,175.00 V
		Hardware Interlock Equipments			1 0 0	\$8,940.00	\$0.00	\$0.00	\$8,940.00	\$11,175.00	\$11,175.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,175.00 W
		EE Hall-B JLAB		200 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
120	1.6.10	Hovanes Hegiyan (Phys)		<i>168 hr</i> . 160 hr		<i>\$0.00</i> \$4,442.80	<i>\$0.00</i> \$4,442.80	<i>\$0.00</i> \$5,553.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$5,553.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$0.00 W \$5,553.50
	1.0.10	1.6.10 Beamline control screens Nerses Gevorgyan (EE)		40 hr.		\$4,442.80	\$4,442.80	\$5,553.50	\$0.00	\$0.00	\$5,553.50	\$0.00	\$0.00	\$0.00	\$0.00	\$5,553.50 W
		Hovanes Hegiyan (Phys)		120 hr.		\$0.00	\$4,442.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
121	1.6.11	1.6.11 EPICS Scalers programing		284 hr		\$8,885.60	\$8,885.60	\$11,107.00	\$0.00	\$0.00	\$11,107.00	\$0.00	\$0.00	\$0.00		\$11,107.00 _M
		Nerses Gevorgyan (EE)		80 hr.	s 0 0	\$8,885.60	\$8,885.60	\$11,107.00	\$0.00	\$0.00	\$11,107.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,107.00 W
100		Hovanes Hegiyan (Phys)		204 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
122	1.6.12	1.6.12 Alarms configuration		46 hr		\$4,442.80	\$4,442.80	\$5,553.50	\$0.00	\$0.00	\$5,553.50	\$0.00	\$0.00	\$0.00		\$5,553.50 W
	1	Nerses Gevorgyan (EE) Hovanes Hegiyan (Phys)		40 hr.		\$4,442.80	\$4,442.80	\$5,553.50	\$0.00	\$0.00	\$5,553.50	\$0.00	\$0.00	\$0.00	\$0.00	\$5,553.50 W \$0.00 W
123	1.6.13	1.6.13 Archiving of controls		<i>6 hr</i> . 142 hr		<i>\$0.00</i> \$4,442.80	<i>\$0.00</i> \$4,442.80	<i>\$0.00</i> \$5,553.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$5,553.50	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	\$5,553.50
		EE Accelerator JLAB		40 hr.		\$4,442.80	\$4,442.80	\$5,553.50	\$0.00	\$0.00	\$5,553.50	\$0.00	\$0.00	\$0.00	\$0.00	\$5,553.50 W
		Hovanes Hegiyan (Phys)		102 hr.	s 0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
124	1.7	1.7 Installation & Commissioning		728 hr	s 0 0	\$45,244.80	\$45,244.80	\$57,936.96	\$0.00	\$0.00	\$57,936.96	\$0.00	\$0.00	\$54,999.36	\$0.00	\$2,937.60 _W
125	1.7.1	1.7.1 SVT installation		48 hr		\$2,937.60	\$2,937.60	\$2,937.60	\$0.00	\$0.00	\$2,937.60	\$0.00	\$0.00	\$0.00		\$2,937.60 W
		Marco Oriunno (ME) Tim Nelson (Phys)		16 hr. 16 hr.		\$2,937.60 \$0.00	\$2,937.60 \$0.00	\$2,937.60 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,937.60 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,937.60 W \$0.00 W
		Per Hansson (Phys)		16 hr.	5 0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
126	1.7.2	1.7.2 SVT Commissioning	OP	120 hr	s 0 0	\$6,670.80	\$6,670.80	\$8,672.04	\$0.00	\$0.00	\$8,672.04	\$0.00	\$0.00	\$8,672.04	\$0.00	\$0.00 _M
		Ryan Herbst (EE)	OP	40 hr.		\$6,670.80	\$6,670.80	\$8,672.04	\$0.00	\$0.00	\$8,672.04	\$0.00	\$0.00	\$8,672.04	\$0.00	\$0.00 W
		Tim Nelson (Phys) Per Hansson (Phys)	OP OP	40 hr. 40 hr.		\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 W \$0.00 W
127	1.7.3	1.7.3 ECAL Commissioning	OP	120 hr		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 VV
		ET Orsay	OP	40 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
		MT Orsay	OP	40 hr.	s 0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
400	171	Phy 2 ECAL JLAB	OP OP	40 hr.		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
128	1.7.4	1.7.4 TDAQ Commissioning	OP	320 hr		\$28,204.80	\$28,204.80	\$36,666.24	\$0.00	\$0.00	\$36,666.24	\$0.00	\$0.00	\$36,666.24	\$0.00	\$0.00 W
		EE Hall-B JLAB ET Hall-B JLAB	OP OP	80 hr. 80 hr.		\$8,885.60 \$5,977.60	\$8,885.60 \$5,977.60	\$11,551.28 \$7,770.88	\$0.00 \$0.00	\$0.00 \$0.00	\$11,551.28 \$7,770.88	\$0.00 \$0.00	\$0.00 \$0.00	\$11,551.28 \$7,770.88	\$0.00 \$0.00	\$0.00 W \$0.00 W
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						WBS V	/470 Thu 5/9/13									
ID	WBS	S Task Name	Туре	Work	# Prototype Spares	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations	Total Infrastructures	Total Capital De
		Ryan Herbst (EE)	OP OP	80 hrs	0 0	\$13,341.60	\$13,341.60	\$17,344.08	\$0.00	\$0.00	\$17,344.08	\$0.00	\$0.00	\$17,344.08	\$0.00	\$0.00 W
129	1.7.5	Phy 1 JD 1.7.5 Slow Control Commissioning	OP OP	<i>80 hrs</i> 120 hrs	0 0	<i>\$0.00</i> \$7,431.60	<i>\$0.00</i> \$7,431.60	<i>\$0.00</i> \$9,661.08	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$9,661.08	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$9,661.08	<i>\$0.00</i> \$0.00	\$0.00 W \$0.00 W
		EE Hall-B JLAB	OP	40 hrs	0 0	\$4,442.80	\$4,442.80	\$5,775.64	\$0.00	\$0.00	\$5,775.64	\$0.00	\$0.00	\$5,775.64	\$0.00	\$0.00 W
		ET Hall-B JLAB	OP	40 hrs	0 0	\$2,988.80	\$2,988.80	\$3,885.44	\$0.00	\$0.00	\$3,885.44	\$0.00	\$0.00	\$3,885.44		\$0.00 W
130	1.7.6	Hovanes Hegiyan (Phys)	OP	<i>40 hrs</i> 0 hrs	0 0	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		\$0.00 W \$0.00 W
131		1.7.6 HPS ready for the beam		3,520 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00
132		1.8 Electron Running		3,320 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
132	1.0.1	1.8.1 Beamline Commissioning (2014)		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
		Stepan Stepanyan (Phys) Hovanes Hegiyan (Phys)		40 IIIS 40 hrs	0 0	\$0.00	\$0.00 \$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Phy 1 JD		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
		Phy 1 M Ken Moffeit (Phys)		40 hrs 40 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
		Phy 2 ECAL JLAB		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Tim Nelson (Phys)		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
122	1.8.2	Per Hansson (Phys)		<i>40 hrs</i> 320 hrs	0 0	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00	<i>\$0.00</i> \$0.00		\$0.00 W \$0.00 W
133	1.0.2	1.8.2 Detector Commissioning Run (2014)			0 0	•		·								Į V V I
		Stepan Stepanyan (Phys) Hovanes Hegiyan (Phys)		40 hrs 40 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 W \$0.00 W
		Phy 1 JD		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Phy 1 M		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
	-	Ken Moffeit (Phys) Phy 2 ECAL JLAB		40 hrs 40 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
		Tim Nelson (Phys)		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
404	4.0.0	Per Hansson (Phys)		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
134	1.8.3	1.8.3 Data Run 2.2GeV (2014) 1.8.4 Data Run 1.1 GeV (2014)		0 hrs 0 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
	1.8.5	1.8.5 Beamline recommissioning (2015)		320 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00
		Stepan Stepanyan (Phys)		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
		Hovanes Hegiyan (Phys)		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	1	\$0.00 W
		Phy 1 JD Phy 1 M		40 hrs 40 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
		Ken Moffeit (Phys)		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Phy 2 ECAL JLAB		40 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Tim Nelson (Phys) Per Hansson (Phys)		40 hrs 40 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
137	1.8.6	1.8.6 Data Run (2015)		2,560 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00
		Stepan Stepanyan (Phys)		320 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
		Hovanes Hegiyan (Phys)		320 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
		Phy 1 JD Phy 1 M		320 hrs 320 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
		Ken Moffeit (Phys)		320 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Phy 2 ECAL JLAB		320 hrs	0 0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00 W
		Tim Nelson (Phys) Per Hansson (Phys)		320 hrs 320 hrs	0 0	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	<i>\$0.00</i> <i>\$0.00</i>	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00		\$0.00 W \$0.00 W
138	1.9	1.9 SLAC Travel Meetings		2,520 hrs		\$103,963.50	\$103,963.50	\$124,756.20	\$0.00	\$0.00	\$124,756.20	\$0.00	\$0.00	\$124,756.20		\$0.00 W
139	1.9.1	1.9.1 Consultation 1 at JLAB		160 hrs	0 0	\$6,273.00	\$6,273.00	\$7,527.60	\$0.00	\$0.00	\$7,527.60	\$0.00	\$0.00	\$7,527.60	\$0.00	\$0.00 W
		Rental Car 1	OP	40 hrs	0 0	\$535.50	\$535.50	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00	\$0.00 W
		Marco Oriunno (ME) Ken Moffeit (Phys)	OP OP	40 hrs 40 hrs	0 0	\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
		Tim Nelson (Phys)	OP OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00		\$0.00 W
140	1.9.2	1.9.2 Collaboration Meeting November 2013	OP	440 hrs		\$18,283.50	\$18,283.50	\$21,940.20	\$0.00	\$0.00	\$21,940.20	\$0.00	\$0.00	\$21,940.20	\$0.00	\$0.00 W
		Rental Car 2 Rental Car 1	OP OP	40 hrs 40 hrs	0 0	\$535.50 \$535.50	\$535.50 \$535.50	\$642.60 \$642.60	\$0.00 \$0.00	\$0.00 \$0.00	\$642.60 \$642.60	\$0.00 \$0.00	\$0.00 \$0.00	\$642.60 \$642.60		\$0.00 W \$0.00 W
	+	Sho Uemura (Phys)	OP OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00		\$0.00 W
		Ken Moffeit (Phys)	OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00 W
	-	Matt Graham (Phys) Tim Nelson (Phys)	OP OP	40 hrs 40 hrs	0 0	\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
	+	Per Hansson (Phys)	OP OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00		\$0.00 W
		Takashi Maruyama (Phys)	OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00 W
	-	Ryan Herbst (EE) Marco Oriunno (ME)	OP OP	40 hrs 40 hrs	0 0	\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
		John Jaros (Phys)	OP OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00		\$0.00 W
141	1.9.3	1.9.3 Consultation 2 at JLAB		160 hrs		\$6,273.00	\$6,273.00	\$7,527.60	\$0.00	\$0.00	\$7,527.60	\$0.00	\$0.00	\$7,527.60	\$0.00	\$0.00 W
<u> </u>		Marco Oriunno (ME)	OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00 W

					WBS	V470 Thu 5/9/13									
ID WBS	Task Name	Туре	Work	# Prototyp Spares	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares	Prototypes	Total Operations	Total Infrastructures	Total Capital Equipments
	Ken Moffeit (Phys)	OP OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Tim Nelson (Phys) Rental Car 1	OP OP	40 hrs 40 hrs		\$1,912.50 \$535.50	\$1,912.50 \$535.50	\$2,295.00 \$642.60	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$642.60	\$0.00 \$0.00		\$2,295.00 \$642.60		\$0.00 W \$0.00 W
142 1.9.4	1.9.4 Collaboration Meeting November 2014	UF	440 hrs		\$18,283.50	\$18,283.50	\$21,940.20	\$0.00	\$0.00	\$21,940.20	\$0.00	-	\$21,940.20		\$0.00 W
112 11011	Rental Car 1	OP	40 hrs	-	\$535.50	\$535.50	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00		\$642.60		\$0.00 W
	Marco Oriunno (ME)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Ryan Herbst (EE)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Ken Moffeit (Phys)	OP OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	-	\$2,295.00		\$0.00 W
	Matt Graham (Phys)	OP OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Tim Nelson (Phys) Per Hansson (Phys)	OP OP	40 hrs 40 hrs		\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00		\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
	Takashi Maruyama (Phys)	OP OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Sho Uemura (Phys)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Rental Car 2	OP	40 hrs	0 (\$535.50	\$535.50	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00		\$642.60	\$0.00	\$0.00 W
	John Jaros (Phys)	OP	40 hrs		Ψ1,712.00	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
143 1.9.5	1.9.5 Collaboration Meeting May 2015	0.0	440 hrs		\$18,283.50	\$18,283.50	\$21,940.20	\$0.00	\$0.00	\$21,940.20	\$0.00		\$21,940.20		\$0.00 W
	John Jaros (Phys) Ken Moffeit (Phys)	OP OP	40 hrs 40 hrs		\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00	-	\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
	Marco Oriunno (ME)	OP OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Matt Graham (Phys)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Per Hansson (Phys)	OP	40 hrs	0 (\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Tim Nelson (Phys)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	-	\$2,295.00		\$0.00 W
	Takashi Maruyama (Phys)	OP OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Sho Uemura (Phys) Ryan Herbst (EE)	OP OP	40 hrs 40 hrs		\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00		\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
	Rental Car 1	OP OP	40 hrs		\$535.50	\$535.50	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00		\$642.60		\$0.00 W
	Rental Car 2	OP	40 hrs			\$535.50	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00	-	\$642.60		\$0.00 W
144 1.9.6	1.9.6 Collaboration Meeting November 2015		440 hrs	0	\$18,283.50	\$18,283.50	\$21,940.20	\$0.00	\$0.00	\$21,940.20	\$0.00	\$0.00	\$21,940.20	\$0.00	\$0.00 W
	John Jaros (Phys)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Ken Moffeit (Phys)	OP OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Marco Oriunno (ME) Matt Graham (Phys)	OP OP	40 hrs 40 hrs	0 0	\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00		\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
	Per Hansson (Phys)	OP OP	40 Hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Tim Nelson (Phys)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Takashi Maruyama (Phys)	OP	40 hrs	0 (\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Sho Uemura (Phys)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	-	\$2,295.00		\$0.00 W
	Ryan Herbst (EE)	OP OP	40 hrs		Ψ1,712.00	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Rental Car 1 Rental Car 2	OP OP	40 hrs 40 hrs		\$535.50 \$535.50	\$535.50 \$535.50	\$642.60 \$642.60	\$0.00 \$0.00	\$0.00 \$0.00	\$642.60 \$642.60	\$0.00 \$0.00		\$642.60 \$642.60		\$0.00 W \$0.00 W
145 1.9.7	1.9.7 Collaboration Meeting May 2016	UF	440 hrs		\$18,283.50	\$18,283.50	\$21,940.20	\$0.00	\$0.00	\$21,940.20	\$0.00		\$21,940.20		\$0.00 W
110 11011	John Jaros (Phys)	OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Ken Moffeit (Phys)	OP	40 hrs	0 0	\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00	\$0.00 W
	Marco Oriunno (ME)	OP	40 hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Matt Graham (Phys)	OP OP	40 hrs		\$ 1/7 TE100	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Per Hansson (Phys) Ryan Herbst (EE)	OP OP	40 hrs 40 hrs		\$1,912.50 \$1,912.50	\$1,912.50 \$1,912.50	\$2,295.00 \$2,295.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,295.00 \$2,295.00	\$0.00 \$0.00		\$2,295.00 \$2,295.00		\$0.00 W \$0.00 W
	Sho Uemura (Phys)	OP OP	40 Hrs		\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Takashi Maruyama (Phys)	OP OP	40 hrs			\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Tim Nelson (Phys)	OP	40 hrs	0 (\$1,912.50	\$1,912.50	\$2,295.00	\$0.00	\$0.00	\$2,295.00	\$0.00		\$2,295.00		\$0.00 W
	Rental Car 1	OP	40 hrs		\$535.50	\$535.50	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00		\$642.60		\$0.00 W
110 110	Rental Car 2	OP	40 hrs		ψυυυ.υυ	\$535.50	\$642.60	\$0.00	\$0.00	\$642.60	\$0.00		\$642.60		\$0.00 W
146 1.10	1.10 SLAC Travel for Commissioning and Running		4,080 hrs	0	\$112,149.00	\$112,149.00	\$155,861.10	\$0.00	\$0.00	\$155,861.10	\$0.00	\$0.00	\$155,861.10	\$0.00	\$0.00 _W
147 1.10.1	1.10.1 Integration and Installation SVT at JLAB		640 hrs		\$18,666.00	\$18,666.00	\$26,132.40	\$0.00	\$0.00	\$26,132.40	\$0.00		\$26,132.40		\$0.00 W
	Ryan Herbst (EE)	OP OP	80 hrs		\$2,754.00	\$2,754.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00		\$3,855.60		\$0.00 W
	Tim Nelson (Phys) Per Hansson (Phys)	OP OP	80 hrs 80 hrs		\$2,754.00 \$2,754.00	\$2,754.00 \$2,754.00	\$3,855.60 \$3,855.60	\$0.00 \$0.00	\$0.00 \$0.00	\$3,855.60 \$3,855.60	\$0.00 \$0.00		\$3,855.60 \$3,855.60		\$0.00 W \$0.00 W
	Takashi Maruyama (Phys)	OP OP	80 hrs			\$2,754.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00		\$3,855.60		\$0.00 W
	Sho Uemura (Phys)	OP OP	80 hrs		\$2,754.00	\$2,754.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00	-	\$3,855.60		\$0.00 W
	Rental Car 1	OP	80 hrs		\$1,071.00	\$1,071.00	\$1,499.40	\$0.00	\$0.00	\$1,499.40	\$0.00		\$1,499.40		\$0.00 W
	Rental Car 2	OP	80 hrs		Ψ1,011.00	\$1,071.00	\$1,499.40	\$0.00	\$0.00	\$1,499.40	\$0.00		\$1,499.40		\$0.00 W
140 1400	Marco Oriunno (ME)	OP	80 hrs		Ψ2,701.00	\$2,754.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00		\$3,855.60		\$0.00 W
148 1.10.2	1.10.2 Commissioning	OP	560 hrs		\$15,912.00	\$15,912.00	\$22,276.80	\$0.00	\$0.00	\$22,276.80	\$0.00		\$22,276.80		\$0.00 W
	Sho Uemura (Phys) Ken Moffeit (Phys)	OP OP	80 hrs 80 hrs		\$2,754.00	\$2,754.00 \$2,754.00	\$3,855.60 \$3,855.60	\$0.00 \$0.00	\$0.00 \$0.00	\$3,855.60 \$3,855.60	\$0.00 \$0.00		\$3,855.60 \$3,855.60		\$0.00 W \$0.00 W
	Tim Nelson (Phys)	OP OP	80 hrs		\$2,754.00	\$2,754.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00		\$3,855.60		\$0.00 W
	Per Hansson (Phys)	OP	80 hrs			\$2,754.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00		\$3,855.60		\$0.00 W
	Rental Car 1	OP	80 hrs			\$1,071.00	\$1,499.40	\$0.00	\$0.00	\$1,499.40	\$0.00	\$0.00	\$1,499.40	\$0.00	\$0.00 W
	Rental Car 2	OP	80 hrs		Ψ1,011.00	\$1,071.00	\$1,499.40	\$0.00	\$0.00	\$1,499.40	\$0.00		\$1,499.40		\$0.00 W
	Takashi Maruyama (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00	\$0.00	\$3,855.60	\$0.00	\$0.00 W

						WBS V	470 Thu 5/9/13									
ID	WBS Ta	ask Name	Туре		# Prototyp	Cost	Labor	Ltotal	Material	Mtotal	Total	Spares F	Prototypes	Total Operations	Total Infrastructures	Total Capital Do
149	1.10.3	1.10.3 Commissioning (2014)		400 hrs	0 (\$12,087.00	\$12,087.00	\$15,713.10	\$0.00	\$0.00	\$15,713.10	\$0.00	\$0.00	\$15,713.10	\$0.00	\$0.00 W
		Ken Moffeit (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Takashi Maruyama (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Tim Nelson (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Rental Car 1	OP	80 hrs	0 0	\$1,071.00	\$1,071.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00 W
		Per Hansson (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
150	1.10.4	1.10.4 Run 2.2GeV (2014)		320 hrs	0 (\$9,333.00	\$9,333.00	\$11,306.70	\$0.00	\$0.00	\$11,306.70	\$0.00	\$0.00	\$11,306.70	\$0.00	\$0.00 W
		Rental Car 1	OP	80 hrs	0 0	\$1,071.00	\$1,071.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00 W
		Ken Moffeit (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Per Hansson (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Takashi Maruyama (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$2,754.00	\$0.00	\$0.00	\$2,754.00	\$0.00	\$0.00	\$2,754.00	\$0.00	\$0.00 W
151	1.10.5	1.10.5 Run 1.1 GeV (2014)		320 hrs	0 (φ7,555.00	\$9,333.00	\$12,132.90	\$0.00	\$0.00	\$12,132.90	\$0.00	\$0.00	\$12,132.90		\$0.00 W
		Ken Moffeit (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Tim Nelson (Phys)	OP OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Rental Car 1 Per Hansson (Phys)	OP OP	80 hrs	0 0	Ψ1,071.00	\$1,071.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00 W
152	1.10.6		UP	<i>80 hrs</i> 560 hrs	0 0	\$2,754.00	\$2,754.00 \$15,012.00	\$3,580.20	<i>\$0.00</i> \$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W \$0.00
102	1.10.0	1.10.6 Commissioning (2015)			,	\$15,912.00	\$15,912.00	\$28,121.40		\$0.00	\$28,121.40	\$0.00	\$0.00	\$28,121.40	\$0.00	Į V V
		Ken Moffeit (Phys)	OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$11,016.00	\$0.00	\$0.00	\$11,016.00	\$0.00	\$0.00	\$11,016.00	\$0.00	\$0.00 W
		Rental Car 1	OP OP	80 hrs	0 0	\$1,071.00	\$1,071.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00 W
		Tim Nelson (Phys)	OP OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Per Hansson (Phys)	OP OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00	\$3,580.20	\$0.00	\$0.00 W
		Takashi Maruyama (Phys) Rental Car 2	OP OP	80 hrs	0 0	\$2,754.00 \$1,071.00	\$2,754.00 \$1,071.00	\$3,580.20 \$1,392.30	\$0.00 \$0.00	\$0.00 \$0.00	\$3,580.20 \$1,392.30	\$0.00 \$0.00	\$0.00 \$0.00	\$3,580.20 \$1,392.30	\$0.00 \$0.00	\$0.00 W \$0.00 W
		Sho Uemura (Phys)	OP OP	80 hrs	0 0	\$2,754.00	\$2,754.00	\$3,580.20	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00	\$1,392.30	\$0.00	\$0.00 W
153	1.10.7		UF	640 hrs	0 0	\$2,754.00	\$15,453.00	\$20,088.90	\$0.00	\$0.00	\$20,088.90	\$0.00	\$0.00	\$20,088.90		\$0.00 W
100	1.10.7	1.10.7 Run 2.2 GeV (2015)			,											
		Ken Moffeit (Phys)	OP	160 hrs	0 0	\$4,437.00	\$4,437.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00 W
		Per Hansson (Phys)	OP OP	160 hrs	0 0	\$4,437.00	\$4,437.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00 W
		Rental Car 1 Takashi Maruyama (Phys)	OP OP	160 hrs 160 hrs	0 0	\$2,142.00 \$4,437.00	\$2,142.00 \$4,437.00	\$2,784.60	\$0.00 \$0.00	\$0.00 \$0.00	\$2,784.60 \$5,768.10	\$0.00 \$0.00	\$0.00 \$0.00	\$2,784.60 \$5.769.10	\$0.00 \$0.00	\$0.00 W \$0.00 W
15/	1.10.8		UP	640 hrs	0 0	\$4,437.00	\$15,453.00	<i>\$5,768.10</i> \$20,088.90	\$0.00	\$0.00	\$20,088.90	\$0.00	\$0.00	<i>\$5,768.10</i> \$20,088.90	\$0.00	\$0.00 VV
134	1.10.0	1.10.8 Run 6.6 GeV (2015)			0											Į V V
		Ken Moffeit (Phys)	OP	160 hrs	0 0	\$4,437.00	\$4,437.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00 W
		Tim Nelson (Phys)	OP OP	160 hrs	0 0	\$4,437.00	\$4,437.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00	\$5,768.10	\$0.00	\$0.00 W
		Rental Car 1	OP OP	160 hrs 160 hrs	0 0	\$2,142.00 \$4,437.00	\$2,142.00	\$2,784.60	\$0.00 \$0.00	\$0.00 \$0.00	\$2,784.60	\$0.00	\$0.00 \$0.00	\$2,784.60 ¢5.740.10	\$0.00	\$0.00 W \$0.00 W
155	1 11	Sho Uemura (Phys)	UP	4,544.8 hrs	0 0	\$4,437.00 \$128,373.12	<i>\$4,437.00</i> \$128,373.12	<i>\$5,768.10</i> \$166,885.06	\$0.00 \$0.00	\$0.00	<i>\$5,768.10</i> \$166,885.06	<i>\$0.00</i> \$0.00	\$0.00	<i>\$5,768.10</i> \$0.00	<i>\$0.00</i> \$0.00	\$0.00 VV \$166,885.06
133	1.11	1.11 Project management		·	U (V V
		Marco Oriunno (ME)		699.2 hrs	0 0	7 7		\$166,885.06	\$0.00	\$0.00	\$166,885.06	\$0.00	\$0.00	\$0.00	\$0.00	\$166,885.06 W
		John Jaros (Phys)		349.6 hrs	0 0	φ0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
150	4 40	Stepan Stepnyan (Phys)		3,496 hrs 0 hrs	0 0	φυ.σσ	\$0.00	\$0.00 \$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 W
156	1.12	1.12 UCSC Funds		UIIIS	U (\$462,905.90	\$0.00	\$0.00	\$462,905.90	\$462,905.90	\$462,905.90	\$0.00	\$0.00	\$462,905.90		\$0.00 _W
157	1.12.1	1.12.1 UCSC FY13		0 hrs	0 (\$53,547.00	\$0.00	\$0.00	\$53,547.00	\$53,547.00	\$53,547.00	\$0.00	\$0.00	\$53,547.00		\$0.00 W
		UCSC Omar Moreno	OP	4	0 0	\$32,000.00	\$0.00	\$0.00	\$32,000.00	\$32,000.00	\$32,000.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00 W
		UCSC Mrs	OP OP	1	0 0	\$13,000.00	\$0.00	\$0.00	\$13,000.00	\$13,000.00	\$13,000.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00 W \$0.00 W
		UCSC M&S UCSC Travel	OP OP	1	0 0	\$2,547.00 \$6,000.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,547.00 \$6,000.00	\$2,547.00 \$6,000.00	\$2,547.00 \$6,000.00	\$0.00 \$0.00	\$0.00 \$0.00	\$2,547.00 \$6,000.00	\$0.00 \$0.00	\$0.00 W
158	1.12.2	1.12.2 UCSC FY14	UF	0 hrs	0 0	\$6,000.00	\$0.00	\$0.00	\$119,641.00	\$119,641.00	\$119,641.00	\$0.00	\$0.00	\$119,641.00		\$0.00 W
100		UCSC Omar Moreno	OP	10.8	0 0	\$86,400.00	\$0.00	\$0.00	\$86,400.00	\$86,400.00	\$86,400.00	\$0.00	\$0.00	\$86,400.00	\$0.00	\$0.00 W
		UCSC Travel	OP	2.1	0 0		\$0.00	\$0.00	\$12,600.00	\$12,600.00	\$12,600.00	\$0.00	\$0.00	\$12,600.00	\$0.00	\$0.00 W
		UCSC Vitaliy Fadeyev	OP	1	0 0	\$13,000.00	\$0.00	\$0.00	\$13,000.00	\$13,000.00	\$13,000.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00 W
		UCSC M&S	OP	3	0 0	\$7,641.00	\$0.00	\$0.00	\$7,641.00	\$7,641.00	\$7,641.00	\$0.00	\$0.00	\$7,641.00	\$0.00	\$0.00 W
159	1.12.3	1.12.3 UCSC FY15		0 hrs	0 (\$159,531.60	\$0.00	\$0.00	\$159,531.60	\$159,531.60	\$159,531.60	\$0.00	\$0.00	\$159,531.60		\$0.00 W
		UCSC M&S	OP	2.8	0 0	\$7,131.60	\$0.00	\$0.00	\$7,131.60	\$7,131.60	\$7,131.60	\$0.00	\$0.00	\$7,131.60	\$0.00	\$0.00 W
		UCSC Omar Moreno	OP OR	12.1	0 0	\$96,800.00	\$0.00	\$0.00	\$96,800.00	\$96,800.00	\$96,800.00	\$0.00	\$0.00	\$96,800.00	\$0.00	\$0.00 W
		UCSC Vitaliu Fadayay	OP OP	7.1	0 0	\$42,600.00	\$0.00	\$0.00	\$42,600.00	\$42,600.00	\$42,600.00	\$0.00	\$0.00	\$42,600.00	\$0.00	\$0.00 W \$0.00 W
160	1 12 4	UCSC Vitaliy Fadeyev 1.12.4 UCSC FY16	UP	0 hrs	0 0	\$13,000.00 \$130,186.30	\$0.00 \$0.00	\$0.00 \$0.00	\$13,000.00 \$130,186.30	\$13,000.00 \$130,186.30	\$13,000.00 \$130,186.30	\$0.00 \$0.00	\$0.00 \$0.00	\$13,000.00 \$130,186.30	\$0.00 \$0.00	\$0.00 VV \$0.00 W
100	1.14.7	UCSC M&S	OP	2.9	0 0	\$7,386.30	\$0.00	\$0.00	\$7,386.30	\$7,386.30	\$7,386.30	\$0.00	\$0.00 \$0.00	\$7,386.30	\$0.00 \$0.00	\$0.00 W
		UCSC Omar Moreno	OP	12	0 0	\$96,000.00	\$0.00	\$0.00	\$96,000.00	\$96,000.00	\$96,000.00	\$0.00	\$0.00	\$96,000.00	\$0.00	\$0.00 W
		UCSC Travel	OP	2.3	0 0		\$0.00	\$0.00	\$13,800.00	\$13,800.00	\$13,800.00	\$0.00	\$0.00	\$13,800.00	\$0.00	\$0.00 W
		UCSC Vitaliy Fadeyev	OP	1	0 0		\$0.00	\$0.00	\$13,000.00	\$13,000.00	\$13,000.00	\$0.00		\$13,000.00	\$0.00	\$0.00 W
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