

Fermilab

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June 25, 2004

MEMO TO: Distribution

FROM: Jerry Leibfritz
Project Manager

**SUBJECT: MAY MONTHLY REPORT
MI-31
FESS/Engineering Project No. 6-6-44**

Please find attached the May 2004 monthly report for this project.

Enclosure

Distribution:

- P. Philp/MS 118
- M. Witherell/MS 105
- K. Stanfield/ MS 105
- S. Holmes/MS 105
- E. Temple/ MS 200
- J. Brown/MS 200
- H. Dick/ MS 306
- D. Carlson/MS 211
- C. Trimby/MS 212
- D. Nevin/MS 214
- E. Crumpley/MS 214
- S. Nagaitsev/ MS 307
- J. Sims/MS 214
- T. Prosapio/MS 214
- J. Spalding/MS 341
- R. Stefanski/MS 122
- Project File 6-6-44
- Chrono File



REPORTING PERIOD: May 2004

I. PROGRESS

1.1 General Construction

- a. Activity – Primary work activities included; Punchlist
- b. Cumulative hours worked – approximately 20,000 hours through 5/30/04.
- c. Subcontractor’s schedule evaluation – The final schedule with all supplemental agreements put the contract completion at 5/31/04. Final Acceptance of all work was taken on 5/28/04. Pay update #10 in the amount of \$447,592 occurred on 4/19/04. See attached reports and section II of this report for an earned value analysis. The main Subcontract is complete as of 5/28/04. Engineering Change Proposals/ Requests – See latest ECP list on Website. Supplemental Agreement numbers 1 through 10 have been incorporated into the Subcontract. At this time the total subcontract amount is \$2,791,638 and the completion date is 05/31/04.
- d. Upcoming issues – None
- e. Photographs: None

1.2 Project Support

- a. Efforts this month were spent on review of submittals, field supervision and construction administration related activities.

SCHEDULE INFORMATION AND MILESTONES:

MILESTONE	DEFINITION	BASELINE	PEP Dates	Latest Estimates
Start Project	Directive signed	30 May 02	30 May 02	26 Jun 02 (actual)
T2 Design Complete	Contract documents submitted for procurement	15 Jan 03	15 Aug 02	15 Nov 02 (actual)
Begin Construction	Notice To Proceed Issued – Switch work	27 Jun 03	21 Nov 02	17 Jan 03 (actual)
Construction Complete	Final acceptance of all work	9 Jun 04	9 Dec 03	31 May 04
Project Complete	Project closed	30 Nov 04	10 Dec 03	31 Jul 04

II. Overall Project Cost Summary and Earned Value Analysis:

		ORIGINAL BASELINE PROJECT COSTS (2001 dollars)	Latest Estimated Cost*	
1.1	General Construction	\$3,047,000	\$3,133,720	
1.1.1	Construction W / 18% OHP	\$2,323,000	\$2,955,224	
1.1.2	Construction Contingency	22% \$511,000	\$68,640	2%
1.1.3	Construction G & A	\$83,000	\$109,856	
1.1.4	Escalation (4.6%)	4.6% \$130,000	\$0	
1.2	Project Support	\$763,000	\$676,280	
1.2.1	Project Engineering	\$465,000	\$530,795	
1.2.2	Project Support Contingency	21% \$99,000	-\$1,169	0%
1.2.3	Project Support G & A	\$166,000	\$146,654	
1.2.4	Escalation (4.6%)	\$33,000	\$0	
Total Project Cost		\$3,810,000	\$3,810,000	

*NOTE THAT 1.1 AND 1.2 HAVE BEEN REDISTRIBUTED (2/21/03) TO REFLECT USE OF MUCH OF THE ESCALATION, ACTUAL FIXED PRICE CONSTRUCTION COSTS, AND A HIGHER CONTINGENCY. Includes Supplemental Agreements 1,through 8 and all T&M actual costs to date.

- The above negative contingency under 1.2 indicates that the remaining total remaining contingency is \$68,640-\$1169 = \$67,471.



ATTACHMENTS

See MI-31 website

<http://www-ap.fnal.gov/ecool/internal.html>

for the following:

TSR Report for 5-04

Earned Value Reports - Cost Reports and Graphs up to 5-04

Engineering Change Proposal List

More Photographs

Task Summary Report by Expenditure Type ("TSR")

Period End: MAY-04

Report on tasks: 1

A0201 - MI31 Ecooling Bldg

1 - MI31 Ecooling Bldg
Service Type: PL-EXST PRGM
SUPP-AIP

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
<u>Personnel Costs</u>							
FRINGE BENEFITS	189.49	1,220.80	1,220.80	3,411.86	3,411.86	0.00	0.00
OPTO ALLOC-MONTHLY	8.75	167.82	167.82	872.87	872.87	0.00	0.00
OPTO ALLOC-WEEKLY	32.83	60.39	60.39	139.53	139.53	0.00	0.00
OVERTIME	1,479.60	1,555.66	1,555.66	1,659.75	1,659.75	0.00	0.00
TIME WORKED -MONTHLY	134.62	2,581.93	2,581.93	11,481.17	11,481.17	0.00	0.00
TIME WORKED -WEEKLY	364.75	671.03	671.03	686.96	686.96	0.00	0.00
VAC EARNED ALLOC-MONTHLY	14.81	284.01	284.01	1,464.26	1,464.26	0.00	0.00
VAC EARNED ALLOC-WEEKLY	40.13	73.83	73.83	168.74	168.74	0.00	0.00
Personnel Costs	2,264.98	6,615.47	6,615.47	19,885.14	19,885.14	0.00	0.00

Materials & Services

CONSTRUCTION ENGINEERING	13,286.00	151,110.00	151,110.00	402,355.00	402,355.00	0.00	0.00
EXEMPT - CIVIL CONSTR.	99,062.00	1,201,097.00	1,201,097.00	2,383,583.00	2,383,583.00	9,629.00	0.00
EXEMPT - CIVIL CONSTRUCTION	0.00	398,426.00	-1,054,624.00	398,426.00	398,426.00	0.00	0.00
FEES	0.00	0.00	0.00	500.00	500.00	0.00	0.00
FREIGHT	0.00	590.76	590.76	596.33	596.33	0.00	0.00
MACHINE SHOP	0.00	110.00	110.00	110.00	110.00	0.00	0.00
MATERIAL PURCHASES	263.72	62,085.78	62,085.78	82,547.49	82,547.49	0.00	0.00
PHOTO/GRAPHIC SERVICES	24.00	161.50	161.50	239.50	239.50	0.00	0.00
STORES ISSUES	0.00	0.00	0.00	640.42	640.42	0.00	0.00
SUB-CONTRACT SERVICES	4,885.13	10,280.66	23,532.80	132,183.03	114,000.85	0.00	18,182.18
T&M CONSTRUCTION SVCS.	0.00	0.00	3,390.00	12,068.12	8,678.12	0.00	3,390.00

1 - MI31 Ecooling Bldg
Service Type: PL-EXST PRGM
SUPP-AIP

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
<u>Materials & Services</u>							
T&M ELECTRICAL SERVICES	0.00	0.00	0.00	12,966.11	12,966.11	0.00	0.00
T&M PIPE FITTERS	0.00	0.00	0.00	2,050.86	2,050.86	0.00	0.00
T&M RIGGING SERVICES	0.00	19,424.12	-16,454.16	64,829.68	64,829.68	0.00	0.00
TRAVEL, DOMESTIC-LAB EMPLOYEE	0.00	95.13	95.13	95.13	95.13	0.00	0.00
Materials & Services	117,520.85	1,843,380.95	371,094.81	3,493,190.67	3,471,618.49	9,629.00	21,572.18
<u>Indirect Cost</u>							
CSS ALLOCATION	2,876.93	29,199.60	29,199.60	77,339.23	77,339.23	0.00	0.00
G&A ALLOCATION	2.40	25.66	25.66	62,301.32	62,301.32	0.00	0.00
G&A ALLOCATION-CSS PORTION	1,842.79	18,703.56	18,703.56	44,260.25	44,260.25	0.00	0.00
G&A ALLOCATION-M&S PORTION	543.20	9,746.27	9,746.27	25,949.31	25,949.31	0.00	0.00
MSA ALLOCATION	283.18	5,081.00	5,081.00	44,823.26	44,823.26	0.00	0.00
Indirect Cost	5,548.50	62,756.09	62,756.09	254,673.37	254,673.37	0.00	0.00
1 - MI31 Ecooling Bldg SUBTOTAL:	125,334.33	1,912,752.51	440,466.37	3,767,749.18	3,746,177.00	9,629.00	21,572.18
DIST. TO ACCOUNTS REC'BL:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UNDISTRIBUTED BALANCE:	125,334.33	1,912,752.51	440,466.37	3,767,749.18	3,746,177.00	9,629.00	21,572.18

REPORT TOTALS

TOTAL PROJECT/TASK:	125,334.33	1,912,752.51	440,466.37	3,767,749.18	3,746,177.00	9,629.00	21,572.18
TOTAL DIST. ACCTS REC'BL:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL UNDIST BALANCE:	125,334.33	1,912,752.51	440,466.37	3,767,749.18	3,746,177.00	9,629.00	21,572.18

ACWP
MI-31 Actual Spending Profile
WBS 1.1 and 1.2

Year	Month	WBS 1.2 Project Support											WBS 1.1 Construction																	Monthly Totals	Cumulative Totals						
		ED&I					A						Subcontract	Subcontract	Subcontract	Subcontract	Switch conduit	Switch conduit	Transformer Purchase	Transformer Purchase	Cable Tray	Cable Tray Cabling	Cabling	Chiller	Chiller	Shielding Steel Fab	Shielding Steel Fab	Shielding Steel Inst.	Shielding Steel Inst.								
		T2 Hanson Direct	T2 Hanson G&A	T2 FESS Chargeback	T2 FESS G&A	T3 FESS M&S Direct	T3 FESS M&S G&A	T3 FESS Chargeback	T3 FESS G&A	T3 PM Salary TX	T3 PM G&A	Monthly Totals	Cumulative Totals	T3 Whittaker Direct**	T3 Whittaker G&A	T3 Whittaker Incentive	T3 Whittaker G&A	T&M Direct	T&M G&A	T3 Procurement	T3 Procurement G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	Monthly Totals	Cumulative Totals		
2002	Jul-02			\$8,512	\$2,477	\$304	\$52					\$11,345	\$11,345																					\$0	\$0		
	Aug-02	\$41,283	\$7,018	\$12,736	\$3,550					\$967	\$290	\$65,844	\$77,189																					\$0	\$0		
	Sep-02	\$28,350	\$4,820	\$13,376	\$4,013					\$967	\$290	\$51,815	\$129,004																					\$0	\$0		
2003	Oct-02			\$5,503	\$1,535	\$2,594	\$441	\$8,130	\$2,268			\$21,171	\$150,175																					\$0	\$0		
	Nov-02	\$20,500	\$3,764					\$6,070	\$1,730			\$2,024	\$577	\$803	\$241																			\$0	\$0		
	Dec-02							\$5,538	\$1,816	\$6,390	\$2,098	\$857	\$111																					\$0	\$0		
	Jan-03							\$1,562	\$484	\$6,106	\$1,893	\$679	\$124																						\$12,309	\$12,309	
	Feb-03							\$12,000	\$3,720	\$5,608	\$1,738	\$836	\$110																						\$12,355	\$24,664	
	Mar-03							\$16,015	\$5,125	\$2,800	\$896	\$836	\$291																						\$78	\$24,742	
	Apr-03							\$9,372	\$2,999	\$1,846	\$591	\$1,233	\$63																						\$116,307	\$141,049	
	May-03							\$14,444	\$4,333	\$9,230	\$2,769	\$1,018	\$266																						\$316,522	\$472,571	
	Jun-03							\$10,781	\$3,234	\$12,354	\$3,706	\$909	\$155																						\$400,240	\$872,811	
	Jul-03							\$10,773	\$3,232	\$14,000	\$4,200	\$255	\$77																						\$110,419	\$983,230	
	Aug-03							\$6,223	\$1,867	\$19,525	\$5,858	\$1,231	\$209																						\$271,392	\$1,254,622	
	Sep-03							\$5,933	\$1,780	\$32,376	\$9,713	\$1,177	\$354																						\$147,192	\$1,401,815	
	Oct-03					\$139	\$24	\$2,920	\$876	\$12,921	\$3,876	\$1,596	\$271																						\$163,013	\$1,564,827	
	Nov-03							\$12,038	\$3,611	\$15,987	\$4,796	\$791	\$135																						\$390,529	\$1,955,356	
	Dec-03							\$8,361	\$2,508	\$10,957	\$3,287	\$1,081	\$371																						\$231,536	\$2,186,892	
	Jan-04							\$5,497	\$1,649	\$9,417	\$2,825	\$0	\$0																						\$262,259	\$2,449,151	
	Feb-04							\$12,124	\$3,637	\$14,892	\$4,468	\$182	\$31																						\$20,877	\$2,470,028	
	Mar-04							\$9,655	\$2,896	\$10,658	\$3,197	\$0	\$0																						\$19,707	\$2,489,735	
	Apr-04							\$8,158	\$2,448	\$10,439	\$3,132	\$0	\$0																						\$476,285	\$2,966,020	
	May-04							\$12,035	\$3,610	\$6,424	\$1,927	\$0	\$0																							\$99,062	\$3,065,082
	TOTALS	\$90,133	\$15,601	\$40,127	\$11,575	\$3,037	\$516	\$177,627	\$53,825	\$203,954	\$61,547	\$15,918	\$3,580																						\$99,062	\$3,065,082	

Year	Month	Monthly Totals	Cumulative Totals
2002	Jul-02	\$0	\$0
	Aug-02	\$65,844	\$77,189
	Sep-02	\$51,815	\$129,004
2003	Oct-02	\$21,171	\$150,175
	Nov-02	\$35,708	\$185,884
	Dec-02	\$16,810	\$202,694
	Jan-03	\$23,157	\$225,852
	Feb-03	\$36,368	\$262,219
	Mar-03	\$26,041	\$288,260
	Apr-03	\$116,307	\$404,567
	May-03	\$331,522	\$736,089
	Jun-03	\$400,240	\$1,136,329
	Jul-03	\$110,419	\$1,246,748
	Aug-03	\$306,305	\$1,553,053
	Sep-03	\$271,392	\$1,824,445
	Oct-03	\$147,192	\$1,971,637
	Nov-03	\$163,013	\$2,134,650
	Dec-03	\$231,536	\$2,366,186
	Jan-04	\$262,259	\$2,628,445
	Feb-04	\$20,877	\$2,649,322
	Mar-04	\$19,707	\$2,669,029
	Apr-04	\$476,285	\$3,145,314
	May-04	\$99,062	\$3,244,376
	TOTALS	\$3,065,082	\$3,244,376

WBS 1.2 Escalation and Contingency
 Total for WBS 1.2 = \$676,280
 Total Direct and G&A (above) = \$677,449
 Project Support Escalation = \$0
 Project Support Contingency = -\$1,169 Not Accurate, Reflects unused portions of Direct and Indirect Costs

*** NOTE: THIS SPREAD SHEET WILL NOT FOLLOW THE MONTHLY TSR DIRECTLY BECAUSE COST SHOWN UNDER WHITTAKERS T3 SUBCONTRACT ARE EARNED VALUE NOT WHAT HAS BEEN PAID OUT. SEE THE CHART BELOW FOR PAYOUT INFORMATION.

WBS 1.1 Escalation and Contingency
 Total for WBS 1.1 = \$3,133,720
 Total Direct and G&A (above) = \$3,065,080
 Project Support Escalation = \$0
 Construction Contingency = \$68,640 Not Accurate, Reflects unused portions of Direct and Indirect Costs

* Total Indirect = \$146,654
 Total Direct = \$530,795

* Total Indirect = \$109,856
 Total Direct = \$2,955,224

Note:
 1. G&A distribution by month is approximate
 2. Text in italics includes costs from Hanson Engineers PO 550107 as support of FESS/Engr in house efforts.

Payout #	Payout Date amount	PAYMENT MILESTONE	Completion DATE	Actual Comp DATE	AMOUNT	CUMULATIVE TOTAL PAYOUT	RETENTION 10%	CUMULATIVE 10% RETENTION	% OF CONTRACT COMPLETE
Payout #1	6/12/2003	1A	05/02/03	5/5/2003	\$118,384.00	\$118,384.00	\$11,838.40	\$11,838.40	14%
	\$399,141	1B	06/18/03	6/10/2003	\$280,757.00	\$399,141.00	\$28,075.70	\$39,914.10	
Payout #2	7/1/2003	1C	06/25/03	6/15/2003	\$210,313.00	\$609,454.00	\$21,031.30	\$60,945.40	
	\$361,749	1D	06/27/03	6/27/2003	\$106,112.00	\$715,566.00	\$10,611.20	\$71,556.60	
		1E	07/25/03	7/1/2003	\$45,324.00	\$760,890.00	\$4,532.40	\$76,089.00	27%
Payout #3	8/13/2003	1F	08/05/03	7/19/2003	\$89,708.00	\$850,598.00	\$8,970.80	\$85,059.80	
	\$180,404	1G	08/05/03	8/5/2003	\$87,682.00	\$938,280.00	\$8,768.20	\$93,828.00	
		1J	07/24/03	7/10/2003	\$3,014.00	\$941,294.00	\$301.40	\$94,129.40	34%
Payout #4	9/3/2004	1H	08/28/03	8/18/2003	\$88,043.00	\$1,029,337.00	\$8,804.30	\$102,933.70	
	\$165,725	1I	09/08/03	8/28/2003	\$77,682.00	\$1,107,019.00	\$7,768.20	\$110,701.90	40%
Payout #5	10/20/2003	1K	09/25/03	9/8/2003	\$37,558.00	\$1,144,577.00	\$3,755.80	\$114,457.70	
	\$174,042	5A	10/02/03	9/28/2003	\$67,340.00	\$1,211,917.00	\$6,734.00	\$121,191.70	46%
		5B	10/28/03	10/20/2003	\$69,144.00	\$1,281,061.00	\$6,914.40	\$128,106.10	
Payout #6	11/21/2003	2A	10/31/03	10/31/03	\$60,617.00	\$1,341,678.00	\$6,061.70	\$134,167.80	
	\$460,499	2B	11/14/03	11/14/03	\$68,843.00	\$1,410,521.00	\$6,884.30	\$141,052.10	
		2C	11/19/03	11/19/03	\$26,363.00	\$1,436,884.00	\$2,636.30	\$143,688.40	
		2E	12/21/03	12/21/03	\$184,659.00	\$1,621,543.00	\$18,465.90	\$162,154.30	
		2H	11/10/04	11/10/04	\$46,172.00	\$1,667,715.00	\$4,617.20	\$166,771.50	
		3A	11/17/03	11/10/04	\$73,845.00	\$1,741,560.00	\$7,384.50	\$174,156.00	62%
Payout #7	12/31/2003	2F	12/31/03	12/31/2003	\$107,648.00	\$1,849,208.00	\$10,764.80	\$184,920.80	
	\$231,536	2I	12/31/03	12/31/2003	\$103,663.00	\$1,952,871.00	\$10,366.30	\$195,287.10	
		3D	12/16/03	12/23/2003	\$20,225.00	\$1,973,096.00	\$2,022.50	\$197,309.60	71%
Payout #8	1/30/2004	2G	12/31/03	1/6/2004	\$25,812.00	\$1,998,908.00	\$2,581.20	\$199,945.40	Reduced Retention to 5%
	\$262,259	3B	02/02/04	1/30/2004	\$187,560.00	\$2,186,468.00	\$18,756.00	\$209,323.40	
		4B	02/23/04	1/30/2004	\$48,887.00	\$2,235,355.00	\$2,444.35	\$211,767.75	80%
Payout #9	4/19/2004	2D	11/20/03	4/14/2004	\$9,850.00	\$2,245,205.00	\$985.00	\$212,620.25	
	\$447,592	3C	03/02/04	3/2/2004	\$21,178.00	\$2,266,383.00	\$2,117.80	\$213,319.15	
		3E	03/02/04	3/15/2004	\$21,166.00	\$2,287,549.00	\$2,116.60	\$214,377.45	
		3F	03/02/04	4/19/2004	\$259,645.00	\$2,547,194.00	\$25,964.50	\$239,339.70	
		4C	03/25/04	3/25/2004	\$84,375.00	\$2,631,569.00	\$8,437.50	\$247,777.20	
		4E	03/25/04	3/25/2004	\$10,727.00	\$2,642,296.00	\$1,072.70	\$248,850.00	
		6A	04/09/04	4/9/2004	\$40,651.00	\$2,682,947.00	\$4,065.10	\$252,915.10	96%
Payout #10	5/11/2004	4A	03/25/04	5/11/2004	\$8,530.00	\$2,691,477.00	\$853.00	\$253,768.10	Reduced Retention to 2%
	\$99,062.00	4D	03/25/04	5/11/2004	\$15,016.00	\$2,706,493.00	\$1,501.60	\$255,269.70	
		6B	04/21/04	5/11/2004	\$20,800.00	\$2,727,293.00	\$2,080.00	\$257,349.70	
		7	05/11/04	5/11/2004	\$54,716.00	\$2,782,009.00	\$5,471.60	\$262,821.30	100%
		SA#10	05/31/04		\$9,629.00	\$2,791,638.00	\$962.90	\$263,784.20	Final Payment and release of retention

**BCWP
MI-31 Spending Profile
WBS 1.1 and 1.2**

Title Source Type	WBS 1.2 Project Support													WBS 1.1 Construction													Monthly Totals	Cumulative Totals							
	ED&I						A							Subcontract	Subcontract	Subcontract	Subcontract	Switch conduit	Switch conduit	Transformer Purchase	Transformer Purchase	Cable Tray	Cable Tray	Cabling	Cabling	Chiller			Chiller	Shielding Steel Fab	Shielding Steel Fab	Shielding Steel Inst.	Shielding Steel Inst.		
	T2 Hanson Direct	T2 Hanson G&A	T2 FESS Chargeback	T2 FESS G&A	T3 FESS M&S	T3 FESS Chargeback	T3 FESS G&A	T3 PM Salary TX	T3 PM G&A	Monthly Totals	Cumulative Totals	Whittaker Direct**	Whittaker G&A	Whittaker Incentive	Whittaker G&A	T&M Direct	T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	Procurement Direct	Procurement G&A	T&M Direct	T&M G&A	T&M Direct	T&M G&A	Monthly Totals	Cumulative Totals				
F Y O 2	Mo-Yr																																		
	Jul-02	\$25,000	\$4,250	\$10,000	\$3,000	\$300	\$51				\$42,601																					\$0	\$0		
	Aug-02	\$20,000	\$3,400	\$10,000	\$3,000						\$37,700																					\$0	\$0		
	Sep-02	\$24,587	\$4,180	\$11,800	\$3,540						\$45,407																					\$0	\$0		
	Oct-02			\$10,000	\$3,000	\$300	\$51				\$3,000																					\$0	\$0		
	Nov-02	\$20,500	\$3,485	\$10,000	\$3,000						\$3,000																					\$0	\$0		
	Dec-02										\$3,000																					\$0	\$0		
	Jan-03										\$2,000																					\$0	\$0		
	Feb-03										\$2,000																					\$12,309	\$12,309		
	Mar-03										\$2,000																					\$12,355	\$24,664		
	Apr-03										\$3,000																					\$78	\$24,742		
	May-03										\$12,000																						\$115,998	\$140,740	
	Jun-03										\$12,000																						\$331,522	\$472,262	
	Jul-03										\$12,000																						\$400,240	\$872,502	
	Aug-03										\$12,000																						\$109,886	\$982,388	
	Sep-03										\$12,000																						\$253,407	\$1,235,795	
	Oct-03										\$12,000																						\$150,731	\$1,386,526	
	Nov-03										\$12,000																						\$39,087	\$1,425,613	
	Dec-03										\$12,000																						\$6,746	\$1,432,359	
	Jan-04										\$12,000																						\$33,154	\$1,465,513	
	Feb-04										\$12,000																						\$5,724	\$1,471,237	
	Mar-04										\$12,000																							\$177,992	\$1,649,229
	Apr-04										\$12,000																							\$390,529	\$1,989,758
	May-04										\$12,000																							\$231,536	\$2,186,583
	TOTALS	\$90,087	\$15,315	\$51,800	\$15,540	\$800	\$136	\$151,000	\$46,750	\$170,000	\$52,550	\$18,800	\$5,000																					\$3,653,856	

WBS 1.2 Escalation and Contingency

Total for WBS 1.2 = \$676,280
 Total Direct and G&A (above)= \$617,778 *
 Project Support Escalation = \$0
 Project Support Contingency = \$58,502 12%

* Total Indirect= \$135,291
 Total Direct = \$482,487

** NOTE BUDGETED COST OF WORK PERFORMED IS BASED ON WHITTAKERS LATEST T3 COST LOADED SCHEDULE.

WBS 1.1 Escalation and Contingency

Total for WBS 1.1 = \$3,133,720
 Total Direct and G&A (above)= \$3,036,078 *
 Project Support Escalation = \$0
 Construction Contingency = \$97,642 3%

* Total Indirect= \$105,410
 Total Direct = \$2,930,669

BCWS
MI-31 Anticipated Spending Profile
WBS 1.1 and 1.2

Title Source Type	WBS 1.2 Project Support													WBS 1.1 Construction													Monthly Totals	Cumulative Totals					
	ED&I						A							Subcontract	Subcontract	Subcontract	Subcontract	Switch conduit	Switch conduit	Transformer Purchase	Transformer Purchase	Cable Tray	Cable Tray	Cabling	Cabling	Chiller			Chiller	Shielding Steel Fab	Shielding Steel Fat	Shielding Steel Inst.	Shielding Steel Inst.
	T2 Hanson Direct	T2 Hanson G&A	T2 FESS Chargeback	T2 FESS G&A	T3 FESS M&S	T3 FESS Chargeback	T3 FESS G&A	T3 PM Salary TX	T3 PM G&A	Monthly Totals	Cumulative Totals	T3 Whittaker Direct**	T3 Whittaker G&A	T3 Whittaker Incentive	T3 Whittaker G&A	T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A	T3 T&M Direct	T3 T&M G&A	T3 Procurement Direct	T3 Procurement G&A	T3 T&M Direct	T3 T&M G&A	T3 T&M Direct	T3 T&M G&A	Monthly Totals	Cumulative Totals		
F Y O 2	Mo-Yr																																
	Jul-02	\$25,000	\$4,250	\$10,000	\$3,000	\$300	\$51				\$42,601																			\$0	\$0		
	Aug-02	\$20,000	\$3,400	\$10,000	\$3,000						\$37,700																				\$0	\$0	
	Sep-02	\$24,587	\$4,180	\$11,800	\$3,540						\$45,407																				\$0	\$0	
	Oct-02			\$10,000	\$3,000	\$300	\$51				\$18,551																				\$0	\$0	
	Nov-02	\$20,500	\$3,485	\$10,000	\$3,000						\$42,185																				\$0	\$0	
	Dec-02										\$7,800																				\$0	\$0	
	Jan-03										\$7,800																				\$0	\$0	
	Feb-03										\$7,800																				\$0	\$0	
	Mar-03										\$31,664																				\$0	\$0	
	Apr-03										\$32,540																				\$0	\$0	
	May-03										\$306,588																				\$0	\$0	
	Jun-03										\$339,128																				\$0	\$0	
	Jul-03										\$371,668																				\$0	\$0	
	Aug-03										\$404,208																				\$0	\$0	
	Sep-03										\$436,748																				\$0	\$0	
	Oct-03										\$469,288																				\$0	\$0	
	Nov-03										\$501,828																				\$0	\$0	
	Dec-03										\$534,368																				\$0	\$0	
	Jan-04										\$566,908																				\$0	\$0	
	Feb-04										\$588,968																				\$0	\$0	
	Mar-04										\$600,998																				\$0	\$0	
	Apr-04										\$617,778																				\$0	\$0	
	May-04										\$617,778																				\$0	\$0	
TOTALS		\$90,087	\$15,315	\$51,800	\$15,540	\$800	\$136	\$151,000	\$46,750	\$170,000	\$52,550	\$18,800	\$5,000					\$20,897	\$3,845	\$20,357	\$3,746	\$28,655	\$4,585	\$10,000	\$1,600	\$31,000	\$2,613	\$39,087	\$6,746	\$33,154	\$5,724	\$3,692,035	

Includes SA 1 through 9

WBS 1.2 Escalation and Contingency

Total for WBS 1.2 =	\$676,280
Total Direct and G&A (above)=	\$617,778 *
Project Support Escalation =	\$0
Project Support Contingency =	\$58,502 12%

Total Indirect=	\$135,291
Total Direct =	\$482,487

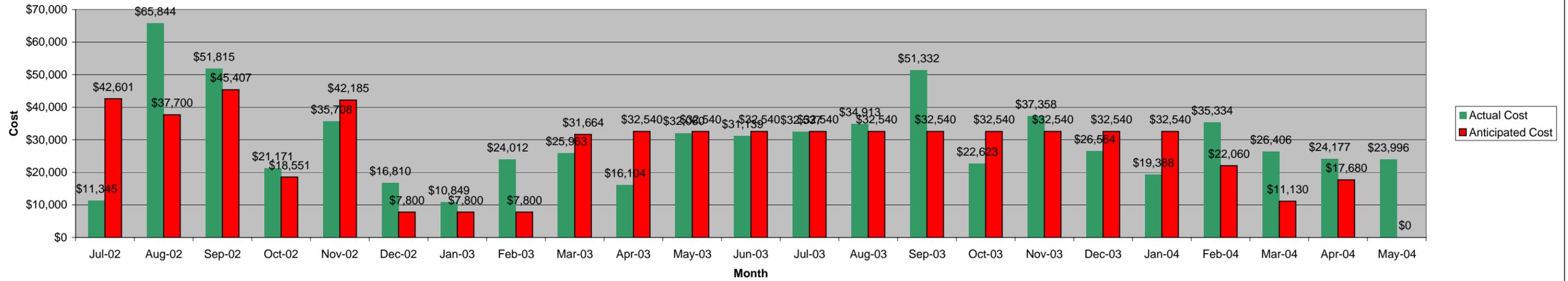
WBS 1.1 Escalation and Contingency

Total for WBS 1.10 =	\$3,133,720
Total Direct and G&A (above)=	\$3,074,257 *
Project Support Escalation =	\$0
Construction Contingency =	\$59,463 2%

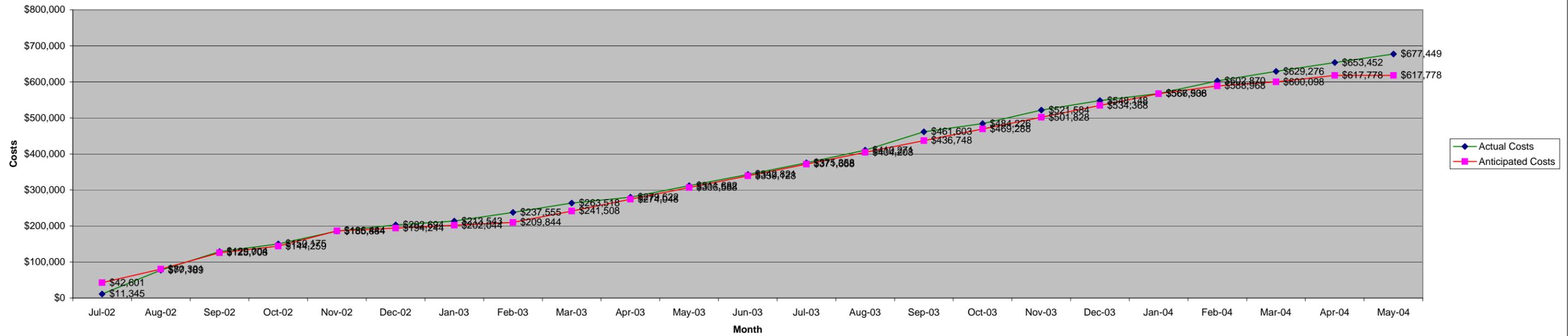
Total Indirect=	\$109,099
Total Direct =	\$2,965,159

** NOTE BUDGETED COST OF WORK SCHEDULED IS BASED ON WHITTAKERS LATEST T3 COST LOADED SCHEDULE.

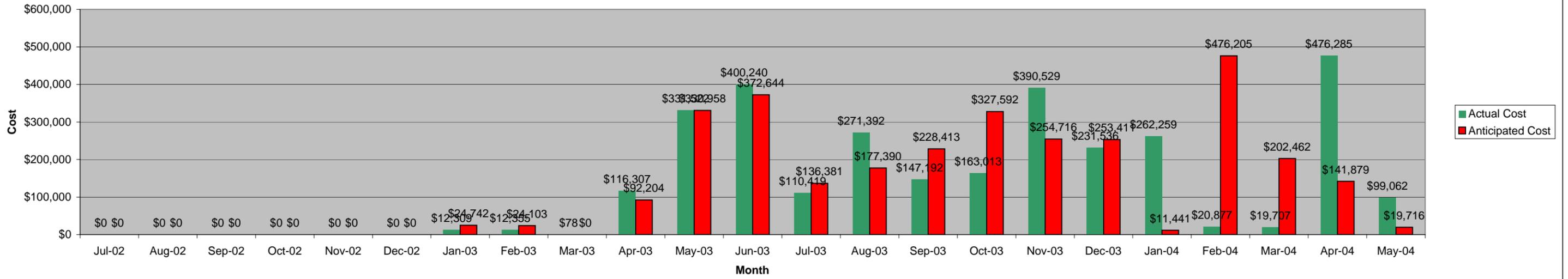
WBS 1.2 Monthly



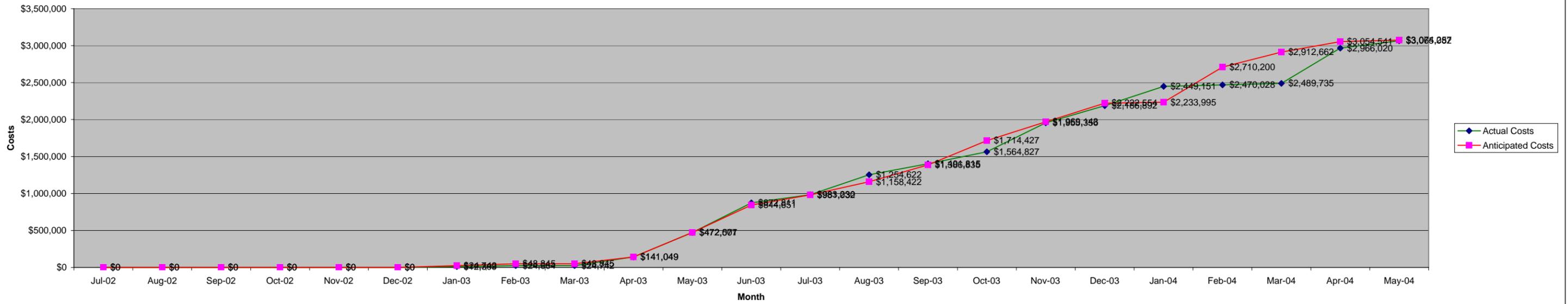
WBS 1.2 Cumulative



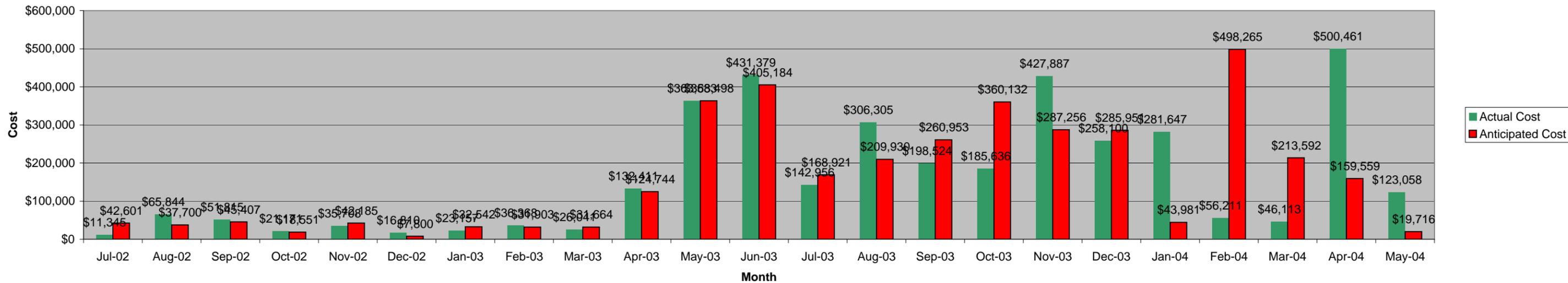
WBS 1.1 Monthly



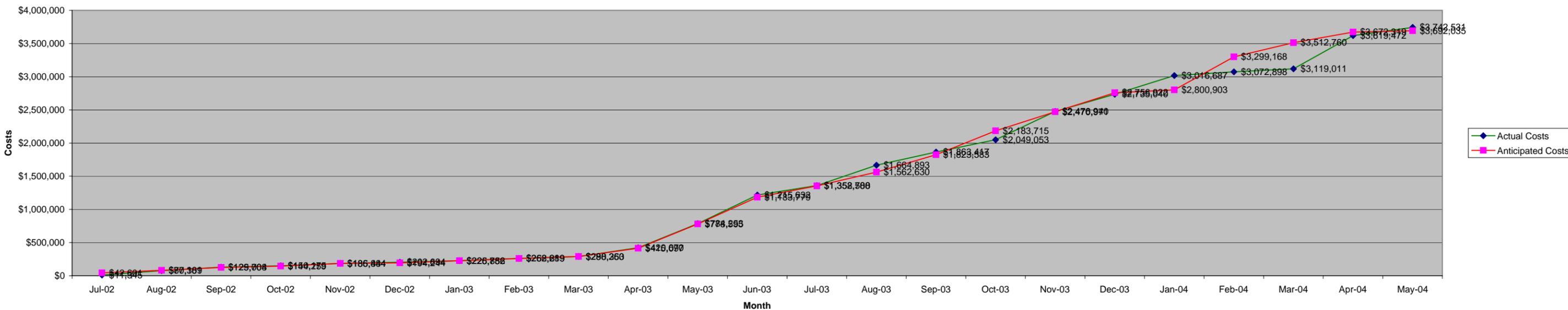
WBS 1.1 Cumulative



TPC Monthly



TPC Cumulative



MI-31 ECP LIST

ECP #	Description	Date Issued from CMO	Anticipated Credit, Extra or No Cost	Associated Sketch Number	Actual Credit, Extra or No Cost	Associated Payment Milestone	Overall Schedule Impact In Days	Whittaker Proposal Date	Accepted/Rejected or Pending	Req. #	Req. Approval Date	SA #	Date Work Complete	Comments
1	Holeless elevator instead of single cylinder elevator and add pit ladder	3/12/2003	Extra - \$5000	SK-1...	\$19,390	3a	0	4/17/2003	Accepted	163820	5/6/2003	2		
1a	Full width doors on elevator	3/12/2003	Extra - \$3000	SK-1...	\$3,080	3a	0	4/17/2003	Accepted	163822	5/6/2003	2		
2	Watermain valve clarifications/ modifications and installation of flushing hydrants.	3/12/2003	No Cost	SK-2	\$1,665	1e	1	3/19/2003	Accepted	163549	4/15/2003	1	7/15/2003	
3	Reduce shut down schedule from 6 weeks to 5 weeks VOID	3/12/2003	NA	None	\$0	5a	0	3/28/2003	Rejected					Void
4	Earth retention changes – including bottom of soldier piles to elevation 698 and shielding distance of 18.4 feet.	3/12/2003	No Cost	SK-4	\$0	1b	1	3/28/2003	Accepted	---	4/4/2003	1	4/30/2003	
5	Temporary Bulkhead Door	3/21/2003	Extra - \$7000	SK-5	\$10,231	5a	1	4/14/2003	Accepted	163802	4/25/2003	1	9/11/2003	
6	Modifications to MI Ducts	6/26/2003	Extra - \$30,000	SK-6	\$46,117	5a	5	7/21/2003	Accepted	165776	8/1/2003	4	10/15/2003	
7	Install 6 Atlas Piles at MI-30	From Sub	Extra - \$25,000	See Excavation Plan	\$26,180	1a	3	3/28/2003	Accepted	163420	5/1/2003	1	5/7/2003	Rush Requisition, added because excavation plan required supporting building. Approval by CCB required
8	Credit for Wall Panel Coating change – three coat system to two coat system	4/22/2003	Credit – \$3,500	None	-\$3,500	2h	0	4/25/2003	Accepted	--	4/25/2003	2		
9	Credit for substitute damp proofing product	4/22/2003	Credit- \$7,000	None	-\$7,500	1i	0	4/25/2003	Accepted	--	4/25/2003	2	10/15/2003	
10	Temporary Work Platform on MI-30	5/5/2003	Extra - \$3500	Page 1 of 1	\$4,610	1b	1	5/14/2003	Accepted	164321	5/19/2003	3	6/1/2003	Field Directed on 5/15/03 - Required for maintenance of MI-30 HVAC units
11	Relocation of Building Sump	6/10/2003	No Cost	SK ECP-10	\$0	1d	0	6/24/2003	Accepted	--		4	6/7/2003	
12	Rad. Detector Platform/ Relocation	From Sub	-	None	\$733		0	6/19/2003	Accepted	165153	6/27/2003	4	6/14/2003	Field Directed , noted incorrectly in the requisition as ECP 11. Time and Material.
13	Extra for Concrete Mix Design 71	From Sub	\$7,300	None	\$5,625	1k	0	9/12/2003	Accepted	165389	7/14/2003	5	8/29/2003	See letter from Mike Botts on 6/25/03
14	Connecting Enclosure Mods	7/28/2003	\$1,500	SK-14	\$1,755	5b	0	9/2/2003	Accepted	166707	9/9/2003	5	9/30/2003	
15	Credit for PVC in lieu of Rigid Conduit for ducts on sheet E-6	From Sub	(\$10,000)	None	-\$10,000	5b	0	9/2/2003	Accepted			6	11/7/2003	
16	Topsoil for MI Stockpile	9/12/2003	\$10,000	None	\$4,368	1	0		Accepted	167479	10/21/2003	8?	12/31/2003	Based on per load cost
17	Painting of Cast In Place Walls in Lieu of Concrete Sealer	9/12/2003	\$2,500	None	\$3,362	1	3		Accepted	167479	10/21/2003	6		
18	Time extension for Shielding Steel Placement	From Sub	\$0	None	\$0	5	6		Accepted	--	--	6	NA	
19	Mezzanine	10/22/2003	\$48,000	Several	\$53,127	3	16		Accepted	168753	12/17/2003	7	4/15/2004	
20	Bonus for completing MS 5b on time	NA	\$20,000	NA	\$20,000	5b	0	NA	Accepted	167810	10/28/2003	6	11/3/2003	
21	Electrical modifications for Equip. Lift	11/3/2003	\$1,500	SK-21a,b	\$2,890	3	1		Accepted	168516	12/1/2003	7	4/15/2004	
22	Add two 600 amp breakers into the 750 kva transformer	From Sub	-	NA	\$8,771	3	0	11/4/2003	Accepted	168124	11/13/2003	7	11/25/2003	
23	Credit for change from 750 mcm to 10 cable	From Sub	(\$850)	NA	-\$850	3			Accepted	--	--	7	11/19/2003	
24	Miscellaneous Field Directed Changes	From Sub	\$1,300	NA	\$1,248	3	0	11/26/2003	Accepted	168657	12/8/2003	7	11/11/2003	Field Directed - Move SF6 footing, Waterproof Conn Enc.
25	Pelletron Support	2/4/2004	\$41,000	ECP-25	\$40,651	4	15	2/17/2004	Accepted	170123	2/24/2004	8	4/15/2004	
26	Control Room Ceiling Revision	2/5/2004	\$2,000	ECP-26	\$2,130	6	1	3/5/2004	Accepted	170512	3/9/2004	8	4/15/2004	
27	Electrical revisions for Chiller and Condenser	3/1/2004	\$12,000	Revised E sheets, 4, 6, 7,10,11	\$7,944	6	5	3/15/2004	Pending			9	4/15/2004	
28	Truck Dock Safety Modifications	3/1/2004	\$3,000	Revised A-2	\$0	6			Rejected					
29	Miscellaneous Field Directed Changes #2	From Sub	\$1,060	NA	\$1,060	4	0	2/23/2004	Accepted	170448	3/5/2004	8	3/1/2004	Door Lite, shield block move, window frame stee
30	Cable Tray Installation	From Sub	NA	NA	\$6,735	7	0	3/31/2004	Accepted	171176	4/6/2004	9	4/12/2004	
31	Miscellaneous Field Directed Changes #3	From Sub	\$3,911	NA	\$3,911	7	0	4/1/2004	Accepted	171610	4/28/2004	9	5/1/2004	Slab, Set Condenser, Misc Elec.
32	60 amp 3 pole breaker	From Sub	\$1,126	NA	\$1,126	7	0	4/1/2004	Accepted	171752	5/10/2004	9	5/1/2004	Field directed
33	Final Misc Field Directed Changes	From Sub	\$9,629	NA	\$9,629	7	20		Accepted	172244	6/7/2004	10	5/28/2004	Louver, Heat Detectors, Breaker, reinspect lif
	TOTAL				\$264,489									

Note: Changes above colored in blue indicate added scope and bonus related extras.
All other changes are either unforeseen conditions or plan errors.

Original Subcontract Amount = \$2,527,150
Total Added Scope/Bonus = \$226,746
 Total Unforeseen/ Errors = \$37,742
 Subcontract amount to date = **\$2,791,639**

9% change from original subcontract amount includes bonus
 1% change from original subcontract amount