PLAINTIFF'S EXHIBIT

CHV-887

LIS OF MATERIALS

Engineer's Job File No. 87-041 BM – 87151 Accounting Charge No. D5940-0159-XX-360

Draftsman MPM DATE REQUIRED: 2/27/87 Date 2/5/87

Engineer: DJPX324 Lead Engr.: KRA-292 FIRM

MK. NO.	ITEM NO.	QUAN.	SIZE	DESCRIPTION 87151	SOURCE STOCK OR P. O. No.	EST. DEL. DATE
1		10'	3"	PIPE SMLS CS SCH 40 BFW		
2		1	3"	FLANGE WN RF FS/150# SCH 40		
3		1	3"	ELBOW 90° LR CS SCH 40 BW		
4		1	3"	45°		
5		1	3"	GASKET 150# RF SPIRAL WND		
6		4	5/8 X 3 3/4	STUD BOLT B-7 W/2 HEX NUTS		
7		1	3"	Weld Cap - C.S. - Sch 40 - BFW		
8		1		Cover Plate Per Drawing		
9				PC-59-30081-1 - 5 foot		
10				5" Diameter 1/4" thick pl -		
11				A515-70 w/ 8 5/8" Diameter		
12				Holes on 5'2 3/4" B.C. to		
13				Straddle & Cover to include		
14				Structural Tee & Lifting		
15				Lugs. - Paint Cover (both		
16				sides) with Iso-Alkyd		
17				Silicone Primer		
18						
19		1		5 foot 1 inch I.D. x 5 foot 5 inch O.D.		
20				x 1/16" thick Sheet asbestos		
21				gasket with Bolt holes		
22				drilled per above.		
23						
24				END USE RL BM - 87151		
25				D-5940 Condensate Tank		
26						
27				2/5/87		
28						
29				2/5/87		
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32						

CHEV
BB 011484

Sheet 1 of 2

Bill of Materi

Date	Originator	Phone	Order No.	Rev.
1/22/87	DJ Pillsbury	X324	RLBIM 87123	C

Vendor	Job No.	Priority	Date Required
	87-018		2/15/87 FIRM

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
	T-7101-0171-XX-360		

Deliver to	Org. Unit	ETA	VIA
SRL/T&U/Mining S/M Storage Area			

Item	Quantity	Unit	Description of Material and Remarks	Purchasing Use Only
1	2	ea	1½" - 150# R.F. - Weld Neck Flange - C.S. - Sch 80 Bore	
2	1	ea	1½" - 150# Gate Valve - R.F. - C.S. Body - 12 Chr. Trim - B.B.	
3	8	ea	Stud Bolt - B-7 - ½" O.D. x 2¾" long w 2 Nuts	
4	2	ea	1½" Flexitallic Gasket - 150# - R.F. - 304/Asbestos	
5	2	ea	Ditto above - 3"	
6	2	ea	3" - 150# R.F. - Weld Neck Flange - C.S. - R.F.	
7	1	ea	3" - 150# Gate Valve - C.S. Body - B.B - ~~12 Chr~~ 12 Chr Trim - B.B.	
8	8	ea	Stud Bolt - B-7 - ⅝" O.D. x 3½" long	CHEV BB 011485

Date Received	Received VIA	Inspected by	Complete	Partial

Tallied by	Freight Bill No.	Car No.	Picked up by	Date

p1 of 4

Bill of Material

Date	Originator	Phone	Order No.	Rev.
1/27/87	Dan Pillsbury	X324	RLBM 87131	0

Vendor	Job No.	Priority	Date Required
	Inspection 87-023		2/27/87 Firm

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
	FURNC-0171-XX-290		

Deliver to	Org. Unit	ETA	VIA
SRV Staging Area / Nancy DSP X324			

Item	Quantity	Unit	Description of Material and Remarks	Purchasing Use Only
1	2	ea	2½" Pipe - Sch 80 - 18" Long - Material - Inconel #671	
2	2	ea	Carbon Steel ρ - A-515 Gr 70 - 4.10" O.D. x 2.875" I.D. (Machine Circle as dimensions are ± 1/64") - 1/4" thick	
3	2	ea	4" - 300# ST&G Gasket - 316 Double Jacketed Asbestos	
4	1	CARTON	A.P. Green - Inswool - HP Bulk 2400°F Alumina - Silica Bulk Ceramic Fiber - 25 lb carton	
5	2	ea	Sairset - 3000°F - Air Setting, bonding Morter in 50lb containers (AP Green Product)	CHEV BB 011486

Date Received	Received VIA	Inspected by	Complete	Partial

Tallied by	Freight Bill No.	Car No.	Picked up by	Date

MFG-334 (OS-10-84)
Printed in U.S.A.

Sheet 1 of 2

Bill of Materia

Date	Originator	Phone	Order No.	Rev.
1/22/87	DJ Pillsbury	X324	RLBM 87123	0
Vendor	**Job No.**		**Priority**	**Date Required**
	87-018			2/15/87 FIRM
Interim Storage Location	**Appropriation**		**Date Placed**	**Sched. Ship Date**
	T-7101-0171-XX-360			
Deliver to		**Org. Unit**	**ETA**	**VIA**
SRL/T&C/Hanford S/D Storage Area				

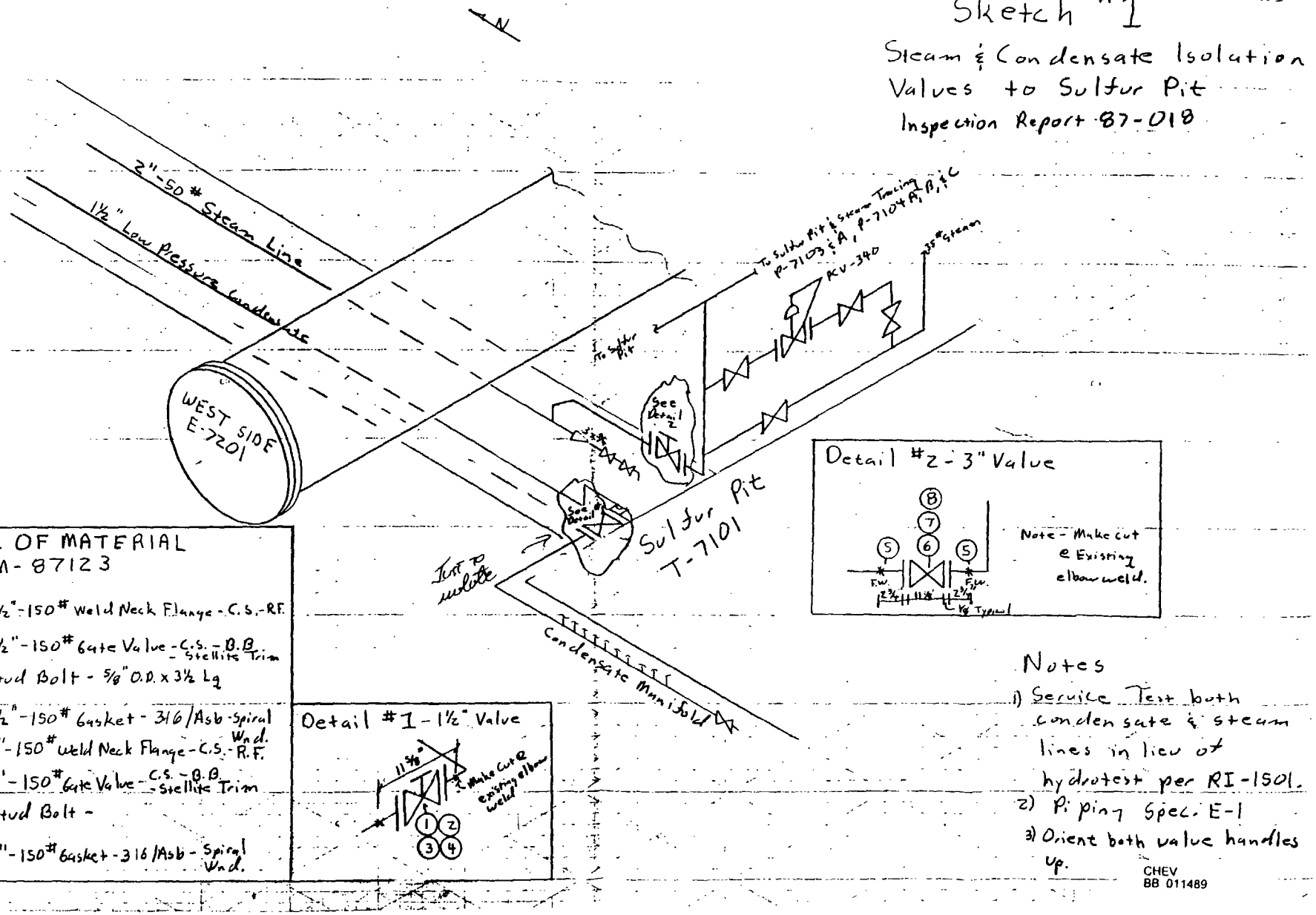
Item	Quantity	Unit	Description of Material and Remarks	Purchasing Use Only
1	2	ea	1½" - 150# R.F. - Weld Neck Flange - C.S. - Sch 80 Bore	
2	1	ea	1½" - 150# Gate Valve - R.F. - C.S Body - 12 Chr. Trim - B.B.	
3	8	ea	Stud Bolt - B-7 - ½" O.D. x 2¾" long w 2 Nuts	
4	2	ea	1½" Flexitallic Gasket - 150# - R.F. - 304/Asbestos	
5	2	ea	Ditto above - 3"	
6	2	ea	3" - 150# R.F. - Weld Neck Flange - C.S. - R.F.	
7	1	ea	3" - 150# Gate Valve - C.S. Body - B.B - ~~Steel~~ 12 Chr Trim - B.B.	
				CHEV BB 011488
8	8	ea	Stud Bolt - B-7 - ⅝" O.D. x 3½" long	

Date Received	Received VIA	Inspected by	Complete	Partial
Tallied by	**Freight Bill No.**	**Car No.**	**Picked up by**	**Date**

Sketch #1

Steam & Condensate Isolation Valves to Sulfur Pit

Inspection Report 87-018



Quanity	BILL OF MATERIAL RLBM-87123
2 ea	(1) 1½"-150# Weld Neck Flange - C.S. - R.F.
1 ea	(2) 1½"-150# Gate Valve - C.S. - B.B. - Stellite Trim
8 ea	(3) Stud Bolt - 5/8" O.D. x 3½ Lg
2 ea	(4) 1½"-150# Gasket - 316/Asb - Spiral Wnd.
2 ea	(5) 3"-150# Weld Neck Flange - C.S. - R.F.
1 ea	(6) 3"-150# Gate Valve - C.S. - B.B. - Stellite Trim
8 ea	(7) Stud Bolt -
	(8) 3"-150# Gasket - 316/Asb - Spiral Wnd.

Notes

1) Service Test both condensate & steam lines in lieu of hydrotest per RI-1501.
2) Piping Spec. E-1
3) Orient both valve handles up.

CHEV
BB 011489

Engineer's Job File No. 48113-639 BM – 87214 Accounting Charge No. SWING 8113-77 270

Draftsman G.T.A. Ph 388 DATE REQUIRED: 2/9/87 Date 1/9/87

Engineer: T.H.M. Lead Engr.: VAS

K.D.	ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P.O. No.	EST. DEL. DATE
1	L11DA2A	60Ft	10"	Smls. Stl. Pipe Sch. 30		
2	L40EA3DD	2	10"	150# FS W.N. Flg. 1/16" PF Sch 30		
3	L	2	10	150# x 1/16 thk. Full Face Asb. Comp.		
4	L620	24	7/8"Ø x 4 1/2"	Stud Bolt Gr B7 W/2 Hex Nuts		
5		14Ft	L 3x3x3/8	Angle Iron		
6		2	3"x3/8"x3"	Stl. Plate		
7		2	4 1/2"x3/8"x5 3/8"	" "		
8		2	4"x3/8"x6"	" "		
9		2	8"x3/8"x10 1/2"	" "		
10		2	3"x3/8"x6"	" "		
11		2	12"x3/8"x14"	" "		
12		1	12"x1/4"x36"	" "		
13		1	2"x1/4"x36"	" "		
14		1	2"x1/4"x60"	" "		
15		4'0"	C6x10.5	Structural Stl. Channel		
16	L620	16	3/4"Ø x 2 1/2"	Machine Bolt Mild Stl. W/1 Hex Nut		
17		4	24"x5/16"x24"	Stl. Plate		
18		2	13"x5/16"x108	" " Rolled to 23" O.D.		
19	L50EA1AC	1	10"	Stl. 45° BW Elbow L.R. Sch. 30		
20		1	10"	Staytite Central 150# CI Flg. P.F.		
				Swing Joint HUBER		
22		1 Ft.	1"Ø	Monel Bar Stock		
23		1	3"x1/2"x48"	Brass Plate		
24		1	1 1/2"x1 1/2"x36"	Brass Plate		
25		1	3"Ø x 4"	Brass Bar Stock		
26		2	3/16"Ø x 1 1/2"	Cotter Pin		
27		4	3/4"	3000# = 3 1/2 Coupling		
28		4	3/4"	Scd. Stl. Bar Stock Plug Rd.		
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32				END USE: 191 TK SWING LINE J.H. Manufield		
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CHEV
BB 011490

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H | J | K

LIST OF MATERIALS

neer's File No. 4813-639 BM – 87214 Accounting Charge No. SWING 8113-77-270

sman G.T.A. Ph 388 DATE REQUIRED: 2/9/87 Date 1/9/87

neer: T.H.M. Lead Engr.: VAS

ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P.O. No.	EST. DEL. DATE
11DA2A	60Ft	10"	Smls. Stl. Pipe Sch. 30		
90BA3DD	2	10"	150# FS W.N. Flg. 1/16" P.F Sch 30		
	2	10	150# x 1/16 thk. Full Face Asb. Comp.		
620	24	7/8"ø x 4 1/2	Stud Bolt Gr B7 w/2 Hex Nuts		
	14ft	L 3x3x3/8	Angle Iron		
	2	3"x3/8"x3"	Stl. Plate		
	2	4 1/2"x3/8"x5 3/8"	" "		
	2	4"x3/8"x6"	" "		
	2	8"x3/8"x10 1/2"	" "		
	2	3"x3/8"x6"	" "		
	2	12"x3/8"x14"	" "		
	1	12"x1/4"x36"	" "		
	1	2"x1/4"x36"	" "		
	1	2"x1/4"x60"	" "		
	4'0"	C6x10.5	Structural Stl. Channel		
620	16	3/4"ø x 2 1/2"	Machine Bolt Mild Stl. w/1 Hex Nut		
	4	24"x5/16"x24"	S.H. Plate		
	2	13"x5/16"x108"	" " Rolled to 23" O.D.		
10EA1AC	1	10"	Stl. 45° B.W. Elbow L.R. Sch. 30		
	1	10"	Staytite Central 150# CI Flg. P.F.		
			Swing Joint HUBER		
	1ft.	1"ø	Monel Bar Stock		
	1	3"x1/2"x48"	Brass Plate		
	1	1 1/2"x1/2"x3 1/6"	Brass Plate		
	1	3"ø x 4"	Brass Bar Stock		
	2	3/16"ø x 1 1/2"	Cotter Pin		
	4	3/4"	3000# FS 1/2 Coupling		
	4	3/4"	Scd. Stl. Bar Stock Plug Rd. Hd.		

CHEV
BB 011491

END USE: 191 TK SWING LINE J. H. Mansfield Inc.

G | H | J | K

LIST OF MATERIALS

Engineer's Job File No. 113-1661 BM – 19244 Accounting Charge No. 6113-12-3160

Draftsman LCD DATE REQUIRED 2/10/89 Date 2/1/89

Engineer: ARC 4374 Lead Engr.: VAS 357

MK. NO.	ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P. O. No.	EST. DEL. DATE
1		1	2"	FLANGE 150 LB CS RF WN BORE		
2		1	2"	LINE BLIND 150 LB CS GFIWI S 40		
3		1	2"	GASKET 150LB 304/ASB		
4		8	5/8"x3"LG	STUD BOLT B-7 W/2 NUTS		
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CHEV
BB 011492

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LIST OF MATERIALS

Engineer's Job Fab No. 1843-639 Bill - 87214 Accounting Charge No SWING-9113-77 210

Distribution GTA, Pl. 343 DATE REQUIRED 2/9/87 Date 1/6/87

Engineer I.H.M. Lead Eng. VAC

MK. NO.	ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P.O. No	EST DEL. DATE
1	L11DA2A	[illegible]	10"	Sm. St. Stock Sch. 80		
2	L49DEA200	3	10"	150# FS W.N. Fig 1/4 Sch 20		
3	L	3	10	150# x [illegible] Full Face Asb. Comp.		
4	L66EC	24	7/8 D x 2 1/2	Stud Bolt Gr B7 w/2 Hex Nuts		
5		1 Pr	L 3 x 3 x 3/8	Angle Iron		
6		2	3/4 x 3 x 9	Str Plate		
7		2	1/2 x 3 x 3 7/8	" "		
8		2	1/4 x 3 1/2 x 4	" "		
9		2	8 x 1/2 x 10 3/4	" "		
10		2	3 x 1/2 x 4	" "		
11		3	12 x 1/2 x 14	" "		
12		1	12 x 1/2 x [illegible]	" "		
13		1	2 x 3/4 x 24	" "		
14		1	2 x 3/4 x 66	" "		
15		4'0"	C 6 x 10.5	Structural Stl. Channel		
16	L63C	16	3/4 x 2 1/2	Machine Bolt Mild Stl w/1 Hex Nut		
17		4	3/4 x 2	Sm. Dia.		
18		3	1 3/4 x 10	" " Rolled 2 1/2" I.D.		
19	L50EA1AC	1	10"	Stl 45° 2 N. Flgd Std LR. Sch 30		
20		1	10"	Stainless Seamless 150# Cl Fig 23		
				Swing Joint HUBEE		
22		1 Ft	1" Ø	Assmt Bar Stock		
23		1	3" x 1/2 x 4 1/2"	Brass Plate		
24		1	1 1/8 x 1/2 x 10	Brass Plate		
25		1	3 3/4"	Brass Bar Stock		
26		2	3/16 x 1 1/2	Cotter Pin		
27		4	3/4"	Socket 1/2 Coupling		
28		4	3/4"	Sq. St. Bar Stock Slug 2 1/2		
29						
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31						
32				END USE: 191 TK SWING LINE J.J. Mansfield		
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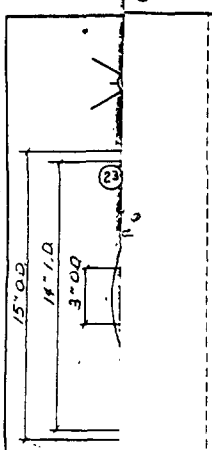

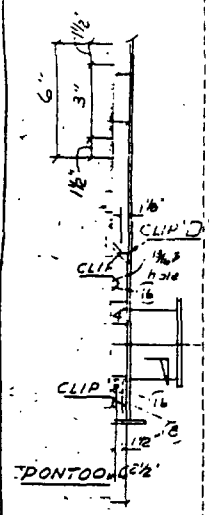

EWO

WORK RE

To Maintenance Plann

Plant or Section: Plan

Equip. No. or Description: 191

Date of Process:

Instructions: Pl

In 191 Td

Brass Rol

BY FILLING

WILL WITNE

DELIVE

(MOUNTIN

INSTALL

Piping

SSIF. E

n U.S.A. Inc.

finery

TK-191 SWING LINE

Pumping And Storage

Plant 13

DATE 8-19-85 APPROVED

DR. APP.

ENGR.

ENG. DEPT.

L

W.O.

S.O.

PD-13-29921-O

SHEET NO. 131

CHEV
BB 011493

Sheet 1 of 2

Bill of Materi

Date	Originator	Phone	Order No.	Rev.
1/22/87	DJ Pillsbury	X324	RLBIM 87123	0

Vendor	Job No.	Priority	Date Required
	87-018		2/15/87 FIRM

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
	T-7101-0171-XX-360		

Deliver to	Org. Unit	ETA	VIA
SRL/T&U/Amine S/U Storage Area			

Item	Quantity	Unit	Description of Material and Remarks	Purchasing Use Only
1	2	ea	1½" - 150# R.F. - Weld Neck Flange - C.S. - Sch 80 Bore	
2	1	ea	1½" - 150# Gate Valve - R.F. - C.S Body - 12 Chr. Trim - B.B.	
3	8	ea	Stud Bolt - B-7 - ½" O.D. x 2¾" long w/ 2 Nuts	
4	2	ea	1½" Flexitallic Gasket - 150# - R.F. - 304/Asbestos	
5	2	ea	Ditto above - 3"	
6	2	ea	3" - 150# R.F. - Weld Neck Flange - C.S. - R.F.	
7	1	ea	3" - 150# Gate Valve - C.S. Body - B.B - ~~C.S.~~ 12 Chr Trim - B.B.	CHEV BB 011494
8	8	ea	Stud Bolt - B-7 - ⅝" O.D. x 3½" long	

Date Received	Received VIA	Inspected by	Complete	Partial

Tallied by	Freight Bill No.	Car No.	Picked up by	Date

Bill of Material

Date	Originator	Phone	BM No.	Rev.
[illegible]	[illegible]	[illegible]	BM 86602	

Vendor	Job No.	Priority	Date Required
	[illegible]		[illegible]

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
[illegible]	[illegible] 05-270		[illegible]

Deliver to	Org Unit	ETA	VIA

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
1	1	EA	[illegible]		
			[illegible]		
			[illegible]		
			[illegible]		
			[illegible]		
2	2	EA	[illegible]		
			[illegible]		
3	70	[illegible]	[illegible]		
4	2	[illegible]	[illegible]		
			[illegible]		
5	1	[illegible]	[illegible]		
			[illegible]		
			[illegible]		
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			[illegible]		
			[illegible]		

CHEV
BB 011495

Date Received	Received VIA	Inspected by	Complete	Partial

Tallied by	Freight Bill No.	Car No.	Picked up by	Date

Sheet 1 of 1 Sheets

MFG-334 (05-3-76)
Printed in U.S.A.

LI T OF MATEF ALS

Engineer's Job File No. 113-664 BM – 88591 Accounting Charge No. TK167-0113-xx-5

Draftsman G.T.A. x388 DATE REQUIRED: 8-1-88 Date 7-18-8

Engineer: C.H. x311 Lead Engr.: V.A.S. x357

MK. NO.	ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P. O. No.	ES DE DA
1		100ft	2"	Smls. Stl. Pipe Sch 40		
2		4	2"	Stl. B.W. 90° L.R Sch. 40		
3		2	2	" " Tee Sch. 40		
4		2	2"	150# FS W.N. Flg. 1/16" RF Sch 40		
5		1	2"x11"	150# FS Red. W.N. Flg. 1/16" RF Sch 40		
6		1	2"x3/4"	3000# CS Threadolet		
7		1	2"	800# Stl. Scd. Gate Valve Blf Bnt.		
8		1	3/4"	Stl. Scd. Bar Stock, Plug		
9		2	2"	150# Spiral Wound Gasket		
10		1	〃	〃 〃 〃 〃		
11		8	5/8"ø x 4"	Stud Bolt Gr B7 W/2 Hex Nuts		
12		8	5/8"ø x 4"	〃 〃 〃 〃		
13		1	2"	150# CS Flg. 1/16" RF Gate Valve Blf Bnt.		
14		1	2"	150# Std. Spectacle Blind		
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18				END USE: 1167 TK CAUSTIC LINE		
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CHEV
BB 011496

P&S

Bill of Material

Date	Originator	Phone	BM No.	Rev.
9/28/88	THM	312	88456	

Vendor	Job No.	Priority	Date Required
	06-006		10/17/88
Interim Storage Location	**Appropriation**	**Date Placed**	**Sched. Ship Date**
	6106-03-360		
Deliver to	**Org. Unit**	**ETA**	**VIA**
HOLD FOR CALL			

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
1	1	EA	6"-300# RF SLIP-ON FLG		
			316L		
2	1	EA	10"-300# RF SLIP-ON FLG		
			316L		
3	1	EA	10"x6" CONC REDUCER, BW,		
			STD WT, 316L		
4	1	EA	6"-300# RF 304/ASB SPIRAL		
			WOUND GASKET		
5	1	EA	10"-300# RF 304/ASB SPIRAL		
			WOUND GASKET		
6	12	EA	3/4"x5" STUD BOLT W/NUTS		
7	16	EA	1"x6 1/4" " " "		
			K.R. Hunt 9/28/88		
			END USE: REPLACE REACTOR	J.W. Mansfield	
			EFFLUENT SPOOL		
			ALKY PLT S/D ITEM		
					CHEV BB 011497

Date Received	Received VIA	Inspected by	Complete	Partial
Tallied by	Freight Bill No.	Car No.	Picked up by	Date

ESTIMATE SHEET

FOR F-201 (Stm Velocity & Recycle Collector Tray) FILE 102-370

ITEM TITLE S.O. ITEM

SHEET OF

REQUESTED BY	MADE BY	CHECKED BY	APPROVED BY
	JHA 8-31-89		

DATE

DRWG. NO.

DESCRIPTION	UNIT	QUANT.	PRICE	LABOR	MAT'L	TOTAL
300# RF WN Flange (304L)	each	2	120		240	
2" 90° elbows (304L)	✓	2	20		40	
2" sch 80 pipe (304L)	ft	10	1300/100ft		130	
spiral wound flexatallic ASB gasket bolts w/2 nuts	each	4	7.50		30	
SS shop welds (3 mhrs/inch × #36/hr)	each	5	108	540		
Flange installation (1.35 hrs/set × #36/hr)	each	2	48.50	97		
				640	425	
②						
150' 2" sch 80 CS pipe		150'	321/100'		482.00	
150' insulation (2")		150	$4.44/ft		666.00	Vendor Quote
1½ tee SW 6000# CS		1	31.75		31.75	
1½ x 2 reducer		1	47.23		47.23	
2" gate valves 300# RF WN CS		7	300		2100	
2" RF WN flange CS 300#		36	19.00		684	
orifice plates & flanges 2"		2	181.65		363	
spiral wound flexatallic ASB gasket bolts w/2 nuts		35	7.50		262.50	
FIC valve		2	1200		2400	
PIC valve		1	1000		1000	
XS CS BW tee		7	21.38		150	
check valves						
TC 1 (controller (3.0 mhrs)		1	1400	500	1400	
FIC controller (16.1 mhrs)		2	7900	1160	3600	
[illegible]	$50/mhr	53	41 mhrs/100	221.40		
flange installation		36	1.35 mhrs/set	1,750		
insulation installation		150	.26 mhrs/ft	1,404		
staging for installation				3,020		

CHEV BB 011498

Bill of Material

Date	Originator	Phone	BM No.	Rev.
8/23/99	JHA	ex 352	99624	

Vendor	Job No.	Priority	Date Required
	102-370	1	9/29/99

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
	0102-XX-360		

Deliver to	Org. Unit	ETA	VIA
Hold for Maintenance			

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
1	2"		36"-3"x2" elbowlet XS CS		
2	3"		300# 2" RF WN CS Flange Bore sch 40		
3	3"	"	300# 2" Blind Flange RF CS		
4	3"		2" 300# RF Gate Valve BB CS Stellite		
5	8		300# RF Spiral wound gasket 304 ASB		
6	1	"	2" Tee XS 304L Stainless Steel BW		
7	1		[illegible] RF WN Flange 300# [illegible] Bore sch 30		
8	1		2" 300# RF Gate Valve (304L) BB Stellite		
9	1		2" 300# RF Blind Flange (304L)		
10	64		Studbolt B-7 w/2 Nuts CS		
			(5/8" Diameter x 3 1/2" long)		
11	1		36 2"- x 2" Weldolet CS BW		
			standard weight		
			est cost (including taxes and		
			delivery charges): $3,500.00		
			End Use: F-201 Steam Velocity		

CHEV
BB 011499

Vernon A [illegible] 8/24/99

Date Received	Received VIA	Inspected by	Complete	Partial

Tallied by	Freight Bill No.	Car No.	Picked up by	Date

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Bill of Material

Date	Originator	Phone	BM No.	Rev.
8/29/88	JHA	ex 352	88624	1

Vendor	Job No.	Priority	Date Required
	102-370	1	9/12/88
Interim Storage Location	**Appropriation**	**Date Placed**	**Sched. Ship Date**
	0102-XX-300		
Deliver to Hold for Maintenance	**Org. Unit**	**ETA**	**VIA**

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
12			4 ft of 2" sch 80 304L (stainless steel)		
13			2" 300# RF Gate valve (304 SS) BB Stellite trim to item 7 on original BM		
			est cost (including taxes and delivery charges) = $ 900.00		
			End Use: F-201 stm velocity		
			Vernon A Sch 8/29/88		

Date Received	Received VIA	Inspected by	Complete	Partial
Tallied by	Freight Bill No.	Car No.	Picked up by	Date

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CHEV
BB 011500

Bill of Material

Date	Originator	Phone	BM No.	Rev.
8-31-89	JHA	ex 352	88624	2

Vendor	Job No.	Priority	Date Required
	102-370	1	
Interim Storage Location	**Appropriation**	**Date Placed**	**Sched. Ship Date**
	0102-XX-360		
Deliver to	**Org. Unit**	**ETA**	**VIA**

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
2	4		CS Flange increase from 3 to 4		
3	4		CS Blind flange, increase from 3 to 4		
4	4		Gate valve with stellite trim, from 3 to 4		
5	10		baskets, increase from 8 to 10		
11	80		Studbolt B-7 w 2 nuts increase from 64 to 80		
14	1		2" tee CS XS BW sch 80		
			est additional cost (including taxes and delivery charges) $700.00		
			[signature] 1/31		
			[illegible]		
					CHEV BB 011501

Date Received	Received VIA	Inspected by	Complete	Partial
Tallied by	**Freight Bill No.**	**Car No.**	**Picked up by**	**Date**

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JOB FILE NO. [illegible] CH. [illegible] NO. [illegible]

NGR JHA EXT. 352 LEAD ENGR. VAJ EXT. 357 DRAFTSMAN D.J EXT. 388

NOTE: "OR EQUALS" TO BE APPROVED BY ENGINEER PRIOR TO PLACING ORDER.

RK No.	QTY.	SIZE	DESCRIPTION	B/M No.	CHAMPS No.	PURCHASING USE ONLY
	20'	2"	PIPE SMLS, SCH 80, 304			
			S.S. BFW			
	2	2"	FLANGE, 300# 304SS,			
			RF WN BORE SCH 80			
	5	2"	ELBOW XS, 304SS BW			
			90°, LR			
	2	2"	GASKET 300# 304/ASB			
			SPIRAL WND			
	16	5/8 X 3 1/4	STUD BOLT - B-7 W/2 NUTS			
	1		8" X 8" X 1/4" PLATE			
	3'		3" X 3" X 1/4"			
	1	2"	U BOLT			
	20'	2"	PIPE INSULATION - 1 1/2" THK			
			"CAL SIL" HIGH TEMP W/			
			ALUMINUM WEATHER JACKET			

CHEV
BB 011502

H | J | K

LIST OF MATERIALS

neer's File No. 05-002 BM – [illegible] SHT 3 OF 13 Accounting Charge No. LOMP-6105-04-360

tsman [illegible] DATE REQUIRED: 6/15/88 Date 5/25/88

neer: THM Lead Engr.: KRA

ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P.O. No.	EST. DEL. DATE
600073	1'	1"	PIPE SMLS CS SCH 80 PE		
600033	30	2"	" " " " 40 BFW		
100089	1	1"	GATE VALVE CS 800# SW 12CR TK		
—	1	1"X3"	PIPE NIPPLE CS SCH 80 PE		
—	1	1"X3"	" " " " " POE-TOE		
101296	2	1"	ELBOW 90° FS 3000# SW		
140019	10	2"	" " CS SCH 40 BW		
140034	1	2"	" 45° " " " "		
920067	6	2"	FLANGE WN FS RF 150# SCH 80		
—	1	2"	" " " 'FF' " " "		
103412	6	2"	GASKET 150# RF 304 S.S. SPIRAL WND		
—	1	2"	" " 'FF' ASB. COMP.		
120025	4	5/8"X3"	STUD BOLT B-7 W/2 HEX NUTS		
120027	24	5/8 X3 1/2	" " " " " "		
—	2	2"	GATE VALVE CS 150# RF		
0648	1	2 1/2"-2"-3/4"	THREDOLET FS 3000#		
101906	1	3/4"	PLUG FS NPT BAR STOCK		
	1	EA	LUBE OIL FILTER - BANCO INC	BM 88174	
			K.R. Austin 5/25/88		
			END USE: RELOCATE E-520 & E-524 J.L. Mansfield		
	2	3/8"	NEEDLE VALVE 316 S.S. NPT		
	15'	1/2"	TUBING 304 S.S.		
	2	3/4"	GATE VALVE 800# NPT CS		
	3	3/4"X3"	PIPE NIPPLE CS SCH 80 TBE		
	1	3/4"	TEE CS 3000# NPT		
	1	1/2"X3/4"	SWAGE NIPPLE CS SCH 80 CONC. TBE		
	1	1/2"	COUPLING CS 3000# NPT		
	1	2"	GATE VALVE CS NPT		
	1	2"	ELBOW 90° CS NPT		

CHEV
BB 011503

LIST OF MATERIALS

neer's 05-002 File No. _____ BM – BB058 SHT 4 OF 13 Accounting Charge No. LDPIP-6105-84-360

sman MAM C388 DATE REQUIRED: 6/15/88 Date 5/25/88

neer: THM Lead Engr.: KRA

ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P. O. No.	EST. DEL. DATE
100073	35'	2"	PIPE SMLS CS SCH 40 BFW		
20067	2	2"	FLANGE WN FS RF 150# SCH 40		
—	2	2"	" " " FF " "		
40019	11	2"	ELBOW 90° LR CS SCH 40 BW		
40049	1	2"	TEE STRGHT CS SCH 40 BW		
—	2	3/4" X 2"	ELBOLET FS 3000# NPT		
101906	1	3/4"	PLUG FS NPT BAR STOCK		
740120	2	3/4" X 6"	THERMOWELL (304) S.S. ASHCROFT CAT. No. 25W0250LHT2605 OR EQ.		
709019	2	1/2" NPT X 5" DIA	TEMP. INDICATOR 50-300°F ASHCROFT TYPE BL CAT. No. 50EL60R060 50-300°F OR EQ.		
03412	2	2"	GASKET 150# RF 304 S.S. SPIRAL WND		
—	2	2"	" " FF ASB. COMP. 1/16"		
20025	8	5/8" X 3"	STUD BOLT B-7 W/2 HEX NUTS		
20027	8	5/8" X 3 1/2"	" " " " " "		
—	6'	3" X 3" X 1/4"	STRUCT. STL ANGLE PER ASTM A-36		
10648	1	2 1/2" - 2" X 3/4"	THREDOLET FS 3000#		
	1	2"	AMOT THERMOSTATIC VALVE	BM 88267	
			K.R. Arista 5/25/88		
			END USE: RELOCATE E-520 & E-524 J. N. Mansfield		

CHEV
BB 011504

Bill of Material

Date	Originator	Phone	BM No.	Rev.
[illegible]	[illegible]	[illegible]	BM - 88071	[illegible]

Vendor	Job No.	Priority	Date Required
			[illegible]

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
	[illegible]		

Deliver to	Org. Unit	ETA	VIA
[illegible]			

Stock Item 252

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
1	5	FT	PIPE SMLS SCH 80 CS PE 3/4"		STOCK
2	(4)	EA	ELBOW 3000 LB CS SW 90 DEG 3/4"		1901919
3	(1)	EA	TEE 3000 LB CS SW 3/4"		1901390
4	[illegible]	EA	NIPPLE SCH 80 CS PE 3/4 x 5		(1)
5	(2)	EA	GATE VALVE 800 LB CS SW 12 CR WELD 3/4		2900055
6	2	EA	GATE VALVE 150 LB CS RF 3/4"		(1)
7	(1)	EA	GATE VALVE 800 LB MAF/SW SCRD 3/4		2900135
8	(4)	EA	~~[illegible]~~ FLANGE 150 LB L WN RF SCH 80 3/4"		1920275
9	(4)	EA	GASKET 150 LB 304 ASB SPIRAL WND 3/4		1502408
10	(16)	EA	STUD BOLT B7 W/2 NUTS 1/2 x 2 1/2 LG		1420018
			[illegible] 5/20/88		
			END USE D-651 PRESSURE GAGE PIPING		
			[illegible]		
(1)	RLBM - 80786 X 88071 Cont to Dean 5-27-88				
	Keena - Supply [illegible]				
	(3/4 x 6 nipples for BM 88070)				

CHEV
BB 011505

Date Received	Received VIA	Inspected by	Complete	Partial

Tallied by	Freight Bill No.	Car No.	Picked up by	Date

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LIST OF MATERIALS

Engineer's Job File No. 05-002 BM – B8058 SHT 8 OF 13 Accounting Charge No. JWP18-6105-04-360

Draftsman MM C388 DATE REQUIRED: 6/15/88 Date 5/25/88

Engineer: THM Lead Engr.: KRA

MK. NO.	ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P. O. No.	EST. DEL. DATE
1	2600041	22'	4"	PIPE SMLS CS SCH 40 BEVD		
2	1920070	4	4"	FLANGE WN FS RF 150# SCH 40		
3	—	2	4"	" " " FF " " "		
4	1940022	7	4"	ELBOW 90° LR CS SCH 40 BW		
5	1940036	3	4"	" 45° " " " "		
6	—	2	3/4" X 4"	ELBOLET FS 3000# NPT		
7	6740120	2	3/4 X 6"	THERMOWELL 304 S.S. ASHCROFT CAT. NO. 75W0259 LHT 2405 OR EQ.		
8	6709019	2	1/2" NPT X 5"	TEMP. INDICATOR 50-800°F ASHCROFT CAT. NO. (TYPE B4) 5" DIA. 50EL06E06050-300°F OR EQ.		
9	1503415	3	4"	GASKET 150# RF 304 S.S. SPIRAL WND		
10	—	2	4"	" " FF 1/16" ASB. COMP.		
11	1420028	24	5/8 X 4	STUD BOLT B-7 W/2 HEX NUTS		
12	1420027	16	5/8 X 3 1/2"	" " " " " "		
13	1900650	1	5-3"X3/4"	THREDOLET FS 3000#		
14	1901906	1	3/4"	PLUG FS NPT BAR STOCK		
15		1	4"	AMOT THERMOSTATIC VALVE	BM88267	
16						
17						
18				K.R. Anderson 5/25/88		
19						
20				END USE: RELOCATE E-520 & E-524 J. W. Mansfield		
21						
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CHEV
BB 011506

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LIST OF MATERIALS

eer's File No. 05-002 BM – BB058 SHT 4 OF 13 Accounting Charge No. LDPIP-6105-44-360

sman MPM @ 388 DATE REQUIRED: 6/15/88 Date 5/25/88

eer: THM Lead Engr.: KRA

ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P. O. No.	EST. DEL. DATE
100073	35'	2"	PIPE SMLS CS SCH 40 BFW		
20067	2	2"	FLANGE WN FS RF 150# SCH 40		
—	2	2"	" " " 'FF' " "		
40019	11	2"	ELBOW 90° LR CS SCH 40 BW		
40049	1	2"	TEE STRGHT CS SCH 40 BW		
—	2	3/4" X 2"	ELBOLET FS 3000# NPT		
01906	1	3/4"	PLUG FS NPT BAR STOCK		
740120	2	3/4 X 6"	THERMOWELL 304 S.S. ASHCROFT CAT. No. 75W0250LHT260S OR EQ.		
709019	2	1/2" NPT X 5" DIA	TEMP. INDICATOR 50-300°F 5" DIA. ASHCROFT TYPE 'EL' CAT. No. 50EL60E06050-300°F OR EQ.		
03412	2	2"	GASKET 150# RF 304 S.S. SPIRAL WND		
—	2	2"	" " 'FF' ASB. COMP. 1/16"		
120025	8	5/8" X 3"	STUD BOLT B-7 w/2 HEX NUTS		
120027	8	5/8" X 3 1/2	" " " " " "		
—	6'	3 X 3 X 1/4	STRUCT. STL ANGLE PER ASTM A-36		
0648	1	2 1/2-2 X 3/4	THREDOLET FS 3000#		
	1	2"	AMOT THERMOSTATIC VALVE	BM 88267	
			K.R. Austin 5/25/88		
			END USE: RELOCATE E-520 & E-524 J. H. Mansfield		

CHEV
BB 011507

LIST OF MATERIALS

Engineer's Job File No. 05-002 BM – 88058 SHT 10 OF 13 Accounting Charge No. JWPIP-6105-04-360

Draftsman MAM @ 388 DATE REQUIRED: 6/15/88 Date 5/25/88

Engineer: THM Lead Engr.: KRA

ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P. O. No.	EST. DEL. DATE
26000041	35'	4"	PIPE SMLS CS SCH 40 BFW		
2920023	1	4"	GLOBE VALVE 150 # RF CS 12 CL TH		
1920070	2	4"	FLANGE WN FS RF 150# SCH 40		
—	1	4"	" " " FF " "		
1940022	4	4"	ELBOW 90° LR CS SCH 40 BW		
1940042	1	4"x3"	REDUCER CONC CS SCH 40 BW		
1920069	1	3"	FLANGE WN FS RF 150# SCH 40		
—	1	3/4"x4"	ELBOLET FS 3000# NPT		
6740120	1	3/4"x6	THERMOWELL 304 S.S. ASHCROFT CAT. No. 75 W0250 LHT 2605 OR EQ.		
6709019	1	1/2"NPTF x 5"DIA	TEMP. INDICATOR ASHCROFT TYPE EL 5" DIA CAT. No. 50 EL 60 E 06050 -300°F OR EQ.		
900077	1	3/4"	GATE VALVE 800 # CS NPT		
1900650	3	3"x3/4	THREDOLET FS 3000# NPT		
1900359	1	3/4"x3"	PIPE NIPPLE CS SCH80 TBE		
503415	2	4"	GASKET 150 # RF 304 S.S. SPIRAL WND		
503414	1	3"	" " " " " " "		
—	1	4"	" " 'FF' ASB. COMP. 1/16"		
1420028	20	5/8 x 4	STUD BOLT B-7 w/2 HVY NUTS		
420027	8	5/8 x 3 1/2"	" " " " " "		
—	1	4"	COUPLING, DRESSER TYPE 38 CRMYY		
—	1'-4"	C6X13	STRUCT. STL CHAN. PER ASTM A-36		
—	1	9"x2"x1/4"	" " PLATE " " "		
—					
901906	1	3/4"	PLUG FS NPT BAR STOCK		
900494	1	3/4" x 1/2"	SWAGE NIPPLE CS CONC. SCH80 TBE		
900760	1	1/2"	COUPLING CS NPT 3000 #		
	3	4"	ELBOW 45° CS SCH 40 BW		
			K. R. Austin 5/25/88		
			END USE: RELOCATE E-520 & E-524 J. W. Mansfield		

CHEV
BB 011508

Bill of Material

Date	Originator	Phone	BM No.	Rev.
6-3-88	HENRY DOMINGUEZ	304	BM-88078	

Vendor	Job No.	Priority	Date Required
			6-17-88

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
BIN	6106-03-360	6-3-88	

Deliver to	Org. Unit	ETA	VIA
HOLD FOR CALL			

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
1	10	FT.	3/4" PIPE SMLS 80 CS PE		260072
2	4	EA	3/4" ELBOW 3000 LB CS SW 90 DEG		190117
3	1	EA	3/4" GATE VALVE 800 LB CS SW 12CR WELDED	BB	2900088
4	2	EA	3/4" FLANGE 150 LB CS RF WN SCH 80		1920075
5	4	EA	1/2" ϕ x 2 1/2" LG STUD BOLT B-7 W/2 NUTS		1420018
6	1	EA	3/4" GASKET 150 LB 304/ASB SPIRAL WND		150340x
7	2	EA	3/4" NIPPLE SCH 80 CS TOE-POE 3" LG		≠ Use 3/4x6 TBE
			END USE:		
			G-635A PUMP CASE VENT PIPING		Cut IN HALF
			Henry Dominguez		From Stock
			K.R. Hunter 6/13/88		

CHEV
BB 011509

Date Received	Received VIA	Inspected by	Complete	Partial
Tallied by	Freight Bill No.	Car No.	Picked up by	Date

MFG-334 (OS-3-86)

ESTIMATE SHEET

FOR Recovered oil at Manifold

ITEM TITLE

FILE 116-678

S.O. _____ ITEM _____

SHEET _____ OF _____

DATE _____

DRWG. NO. _____

REQUESTED BY	MADE BY	CHECKED BY	APPROVED BY
	JHA		

DESCRIPTION	UNIT	QUANT.	PRICE	LABOR	MAT'L	TOTAL
3" T Std WT CS BW		16	25.65		410	
3" 150# -RF WN flange ground S40		18	19.50		351	
SW AS&B (304) gaskets		18	4.49		81	
Bolt sets 10 sbolts 6-7 w/nuts		18				
Installation of bolts (.84 MH/set)		18	$36/hr	544		
150# RF CS 12 cr gate valve [illegible] type		9	385.60		3470	
3" 130' CS pipe sch 40 CS BFW			$461.20/100'		600	
4" x 3" weldolet		1	15.00		15.	
field welds (4.0 MH/weld)		50	$34/MH	7200		
shop welds (3.5 MH/weld)		45	$36/MH	5670		
3" CS. ells BW		25	11.73		293	
			13,500		5000	
2¼ indirect expense			300		113	
8% tax on material					400	
15% Engr (Drafting)			2025			
10% CFE MAT'L					500	
20% CFE Labor			2700			
			18525		6000	
another 4M for [illegible]	total = 24,525					
	Say → 25,000					

I&S

Bill of Material

Date	Originator	Phone	BM No.	Rev.
9/28/88	THM	312	88456	

Vendor	Job No.	Priority	Date Required
	06-006		10/17/88

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
	6106-03-360		

Deliver to	Org. Unit	ETA	VIA
HOLD FOR CALL			

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
1	1	EA	6"-300# RF SLIP-ON FLG		
			316L		
2	1	EA	10"-300# RF SLIP-ON FLG		
			316L		
3	1	EA	10"x6" CONC REDUCER, BW,		
			STD WT, 316L		
4	1	EA	6"-300# RF 304/ASB SPIRAL		
			WOUND GASKET		
5	1	EA	10"-300# RF 304/ASB SPIRAL		
			WOUND GASKET		
6	12	EA	3/4"x5" STUD BOLT W/NUTS		
7	16	EA	1"x6 1/4" " " "		
			K.R. [illegible] 9/28/88		
			END USE: REPLACE REACTOR	J. H. Mansfield	
			EFFLUENT SPOOL		
			ALKY PLT S/D ITEM		
					CHEV BB 011511

Date Received	Received VIA	Inspected by	Complete	Partial

Supplied by	Freight Bill No.	Car No.	Picked up by	Date

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LIST OF MATERIALS

Engineer: J. Job File No. 13-667 BM - BM-88664 Accounting Charge No. TK113-513-90-360 TK113-513-90-360

Draftsman G.T.A. x 383 DATE REQUIRED 10/24/88 Date 9-23-88

Engineer C.M. x 311 Lead Engr. V.A.B. x 357

MK NO	ITEM NO.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P.O. No.	EST. DEL. DATE
1	STOCK	15 Ft.	3/4"	SML. STL. PIPE, S/80 P.E.		
2		320 Ft.	2"	" " " S/80 B.E. ONE END	(3)	
3		140 Ft.	2"	" " " S/80 " "	(3)	
4		33 Ft.	10"	" " " S/80 STD. W. SCH 30 BEVEL ONE	(3)	
5	1901919	(3)	3/4"	3000# FS SW 90° ELBOW	QB	
6	STOCK	10	2"	STL. S.W. 90° L.R. SCH 40		
7	1940028	(4)	2"	" " " 90		
8	1940049	(1)	2"	" " TEE SCH 40		
9	1920067	(5)	2"	150# FS W.N. FLG 1/16 RF SCH 40		
10	1920195	(2)	2"	" " " SCH 80		
11	2900040	(2)	2"	150# CS FLG 1/16 R.F. GATE VALVE S.W. ENT		
12	1503412	(2)	2"	150# SPIRAL WOUND GASKET		
13	1420027	32	5/8 x 3 1/2	STUD BOLT GR B7 W/2 HEX NUTS		
14		1	2" x 3/4"	STL ECC. SWAGE BLE-PSE SCH 80	(6)	
15		1	3/4"	600# STL. SW "Y" TYPE STRAINER	(6)	
16		1	1/2" x 3"	SMLS. STL. PIPE NIPPLE TOE-POE SCH 80	(6)	
17	SURPLUS	(1)	1/2"	800# STL. SCD-SW GATE VALVE S.I.T. BRT.		
18		1	3/4"	YARWAY STL. SW. STM. TRAP	(7)	
19				Series 720		
20	1900760	(1)	1/2"	SCD. STL. BAR STOCK. PLUG		
21		21 Ft.	ST 9.2	Structural Tee ASTM-A36	(5)	
22		2	8" x 1/4" x 3'	STL. PLATE ASTM-A36	(5)	
23		12	4" x 1/4" x 2 1/2"	" " "	(5)	
24		5	8" x 1/4" x 7'	" " "	(5)	
25		7 Ft.	L2x2x1/4"	Angle Iron ASTM A36	(5)	
26		5 Ft.	C6x8.2	CHANNEL ASTM A-36	(5)	
27	STOCK	7 Ft.	6"	SMLS. STL. PIPE SCH 40		
28		2	2"	STL. B.W. 180° RETURN BENDS S.R. SCH 40	(6)	
29		1 Ft.	1/8"	STL. RODS	(5)	
30		150 Ft.	4 x 4	Galv. Wire Cloth 0.080" Wire	(5)	
31	1900655	(2)	12-6" x 3/4"	3000# FS THREDOLET		
32		100 ~~Sq. Ft.~~	-	0.010" Thick Stainless STL. Sheet	(4)	
33				W/ Moisture Barrier Backing		
34		320 ~~250 Ft.~~	-	0.016" Thk. Flat Aluminum Pipe	(4)	
35				Jacket W/ Moisture Barrier		
36				BANDING - CHILDERS, PREMETCO, or		
37				PABCO		
38		~~400~~ 350 Ft.	1/2", 0.015	Type 302 Stainless STL Strapping - GERRARD	(4)	
39		250 ~~EA.~~		Type 302 Stainless STL. Buckle for	(4)	
40				1/2" x 0.015" Strapping - GERRARD		
41		520 Ft.	2"	1 1/2" Thick Hydrous Calcium Silicate	(4)	
42				(Asbestos Free) Pipe Insulation		
43		3/4	C.Y.d.	3000 psig Concrete	FIELD	
44	1900761	(2)	3/4"	Scd. STL. Bar Stock. Plug		
45		~~2~~ 3	rolls	6" Wide TapeCoat-20 50 mils Thk	(1)	3 CARTONS (4/ea.) @ $125.00 Carton
46	913200	(2)	Gal.	TC Primecoat		
47		STL	4" x 1/2"	STL. PLATE ASTM A36	(5)	
48						
49				OCT 12 '88 SCT		
50						
51		1	8" x 2"	Weldolet FS Sch. 40	(6)	
52		1	6" x 10"	"Z" Type Seal T.D. Williamson	(2)	$1200.00 EA
53				Bulletin No. 801.0 Jan. 1-1989		
54				"Z-2 Seal Stock No. 10-0010-0007		
55						
56	1940034	(1)	2"	STL 2H 45° ELBOW L.R. SCH 40		
57	1920003	(1)	2"	150# FS Blind Flg. 1/16" R.F.		
58	5500028	(2)	3/4"	STD U-Bolt For 3/4" Pipe		
59						
60						

(1) RLBQ-88664-NC
Conf to Peggy 10-17-88
Mason-Kelly UPS
713-688-9551

(2) RLBQ-88664-NC
Conf to Mike 10-17-88
To D. Williamson % James S. Kane

(3) RLBV-80803X88664
Conf. to Hector 10-17-88
El Paso Pipe

(4) RLBV-80751X 88664
Conf to Angelica 10-18
Selle Insulation

(5) RLBV-80765X 88664
Conf to George 10-18-88
Futureally

(6) RLBV-80786X88664
Conf to Dean 10-18-88
Keenan Supply

(7) RLBV 80769X88664
Conf. to DAVE
UPS Reg. SCT 10/19/88

CHEV
BB 011512

PM-53664

ITEM NO	QUAN	SIZE	DESCRIPTION	CO PRT STOCK OR PRINT	EST DEL DATE

Bill of Material

Date	Originator	Phone	BM No.	Rev.
9/27/88	Carlo Hermosillo	x 311	BM 88 654	

Vendor	Job No.	Priority	Date Required
	113-667		10/14/88

Interim Storage Location	Appropriation	Date Placed	Sched. Ship Date
	TK118-2113-03-360		

Deliver to	Org Unit	ETA	VIA
Hold for Contractor			

Item	Quantity	Unit	Description of Material and Remarks	Quantity Received	Purchasing Use Only
1	10	LF	3/4" PIPE SCH 80 SMLS CS PE		STOCK
2	4	EA	3/4" GATE VLV 800# CS SW 12CR TR		[illegible]
3	2	EA	3/4" EL BOW CS 3000# SW 90-DEG		[illegible]
4	4	EA	3/4" FLGS CS WN RF 150# BORE SCH 80		[illegible]
5	2	EA	3/4" GASKET SPIRAL WND 304/ASB 150#		[illegible]
6	8	EA	1/2" ϕ x 2 1/2 STUD BOLTS w/2 HEX NUTS B-7		142 5019
			END USE: TK 118 PSV PIPING		
			ESTIMATED COST: $500.00		
			Carlos Hermosillo 9/27/88		
			[illegible] 9/27/88		

STOCK IN BM

CHEV
BB 011514

Date Received	Received VIA	Inspected by	Complete	Partial

Tallied by	Freight Bill No.	Car No.	Picked up by	Date

Sheet 1 of 1 Sheets

MFG-334 (OS-3-86)
Printed in U.S.A.

LIST OF MATERIALS

Engineer's Job File No. 113-663 BM - 59987 Accounting Charge No. TK 113-8113-01

Draftsman G.T.A. x 380 DATE REQUIRED 9-1-88 Date 9-26-88

Engineer C.N. Lead Engr V.A.S.

MK. NO	ITEM NO	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P.O. No.	EST. DEL. DATE
1		15FT	3/4"	Smls Stl. Pipe Sch 80 PE		
2		100 FT	2"	" " " 40		
3		40	2'	" " " 80		
4		3	3/4"	3000# FS SW 90° Elbow		
5		4	2"	Stl. B.W. 90° Elbow LR Sch 40		
6		4	2"	" " " 80		
7		1	2"	" " 45° " 40		
8		2	2"	150# US Flg 1/16" R.F Gate Valve BW Bnt		
9		3	2"	150# FS WN. Flg. 1/16 RF Sch 40		
10		2	2"	150# FS " " 80		
11		5	2"	150# Spiral Wound Gasket		
12		20	5/8" x 3 1/2"	Stud Bolt Gr B7 W/2 Hex Nuts		
13		1	2" x 3/4"	Stl. Ecc. Swage BLE-PSE Sch 80		
14		1	3/4"	600# Stl. SW "Y" Type Strainer		
		1	1/2" x 3"	Smls Stl. Pipe Nipple TOE-POE Sch 80		
		1	1/2"	800# Stl. Scd-Sm ate Valve BW Bnt.		
17		1	1/2"	Scd Stl. Bar Stock, Plug		
18		1	3/4"	YARWAY Stl. SW. Stm Trap		
				Series 720		
		9 FT	STR x 9.2	Structural Tee STM - A36		
21		2	8" x 1/4" x 9"	Stl. Plate ASTM A36		
23		6	4" x 1/4" x 2 1/8	" " " "		
23		1	8 1/2" x 1/4" x 7	" " " "		
24		10 FT	L2 x 2 x 1/4	Angle Iron " "		
25		5 FT	MC6 x 8.3	Miscellaneous Channel ASTM - A36		
26		70 FT		0.016" Thk. Flat Aluminum Pipe		
27				Jacket W/Moisture Barrier		
28				Backing - CHILDERS, PREMETCO. OR		
29				PABCO. FOR 2" PIPE		
30		100 FT	1/2" x 0.015	Type 302 stainless Stl. Strapping -		
31				GARRARD		
32		60 EA		Type 302 Stainless Stl Buckle for		
33				1/2" x 0.015" Strapping GARRARD		
34		100 LF	2"	1 1/2" thk Hydrous Calcium Silicate		
35				(Asbestos Free) Pipe Insulation		
36		1	6"	Smls. Stl. Pipe Sch. 40		
37		1	3/4"	Std. U-Bolt for 3/4" Pipe		
38		1/4	Cu. yd.	3000 psig Concrete	Contractor	
39		80 EA	3/4	DITTO ITEM #34, EXCEPT 1" THK		
40		20 EA		DITTO ITEM #26 FOR 8" PIPE		
41						
42				END USE: Tk 113 Steam Line &		
43				Coil		
44				Carlos Vergara		
45				Jesse R. 9/26/88		
46						
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WORK R

To Maintenance Plann

Plant or Station:

Equip. No. or Description:

Date of Process:

Instructions:

SSIF. HI

P&I.D. Tank
PIPING PL
ORIENTATION OF

n U.S.A. Inc.
finery

13-SL-003-2"-H1-N15
75# Steam to T-113
Plant 13 Pumping & Storage

DATE 9-26-88 APPROVED

DR. APP. [illegible] ENGR 10/5/88

ENG. DEPT.

L

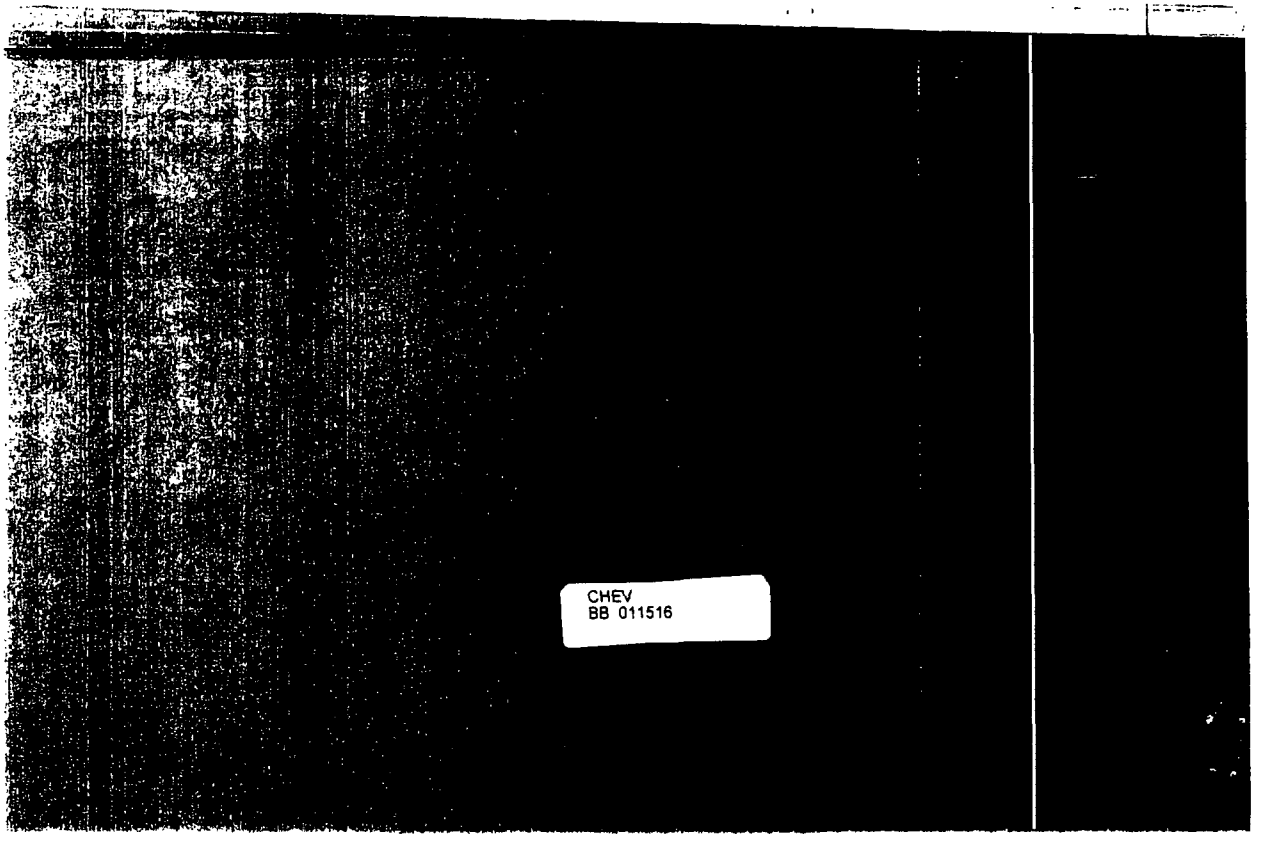
W.O. 113-663 PD-13-29921-0

S.O. 8113-01 SHEET NO. 194

CW - 2041 (11/87)

CHEV
BB 011515

113-668
6-16-88
REPAIR 113 TANK



LIST OF MATERIALS

Engineer's Job File No. 113-663 BM- 80-J87 Accounting Charge No. TK 118-8113-01-

Draftsman G.T.A. x388 DATE REQUIRED: 9-1-88 Date 9-26-88

Engineer: C.H. Lead Engr.: V.A.S.

MK. NO.	ITEM N'O.	QUAN.	SIZE	DESCRIPTION	SOURCE STOCK OR P. O. No.	EST. DEL. DATE
1		15ft.	3/4"	Smls. Stl. Pipe Sch 80 PE		
2		100 ft	2"	" " " 40		
3		40	2"	" " " 80		
4		3	3/4"	3000 # FS SW 90° Elbow		
5		4	2"	Stl. B.W. 90° Elbow LR Sch 40		
6		4	2"	" " " " 80		
7		1	2"	" " 45° " 40		
8		2	2"	150# CS Flg. 1/16" R.F. Gate Valve Blt Bnt		
9		3	2"	150 # FS W.N. Flg. 1/16" R.F. Sch 40		
10		2	2"	150# FS " " " 80		
11		5	2"	150# Spiral Wound Gasket		
12		20	5/8 x 3 1/2"	Stud Bolt Gr. B7 W/2 Hex Nuts		
13		1	2" x 3/4"	Stl. Ecc. Swage BLE-PSE Sch 80		
14		1	3/4"	600# Stl. SW "Y" Type Strainer		
15		1	1/2 x 3"	Smls Stl. Pipe Nipple TOE-POE Sch. 80		
16		1	1/2"	800# Stl. Scd-SW Gate Valve Blt. Bnt.		
17		1	1/2"	Scd. Stl. Bar stock, Plug		
18		1	3/4"	YARWAY Stl. SW Stm Trap		
19				Series 720		
20		9ft.	ST4 x 9.2	Structural Tee ASTM-A36		
21		2	8" x 1/4" x 9"	Stl Plate ASTM A36		
22		6	4" x 1/4" x 2 1/2	" " " "		
23		1	8 1/2" x 1/4" x 7	" " " "		
24		10ft.	L2x2x1/4	Angle Iron " "		
25		5ft	MC6 x 15.3	Miscellaneous Channel ASTM-A36		
26		70ft.		0.016" Thk. Flat Aluminum Pipe		
27				Jacket W/Moisture Barrier		
28				Backing - CHILDERS, PREMETCO, OR		
29				PABCO. FOR 2" PIPE		
30		100ft	1/2" x 0.015"	Type 302 stainless Stl. Strapping -		
31				GARRARD		
32		60ea.		Type 302 Stainless Stl. Buckle for		
33				1/2" x 0.015" Strapping GARRARD		
34		100LF	2"	1 1/2" thk Hydrous Calcium Silicate		
35				(Asbestos Free) Pipe Insulation		
36		1	6"	Smls. Stl. Pipe Sch. 40		
37		1	3/4"	Std. U-Bolt for 3/4" Pipe		
38		~~1/4~~	~~Cu. yd.~~	~~3000 psig Concrete~~	Contractor	
39		20LF	3/4	DITTO ITEM #34, EXCEPT 1" THK		
40		20LF		DITTO ITEM #26 FOR 3/4" PIPE		
41						
42				END USE: TK 113 STEAM LINE &		
43				COIL		
44					CHEV BB 011517	
45						
46						
47						
48						

9/15/89