

Name of Project: Midterm Review (Slide 18)				
EOY	0	1	2	3
Initial cost & Salvage Value	-2000000	0	0	0
Annual Revenues (AR) (Actual \$)	0	940000	958800	977976
Annual Costs (AC) (Actual\$)	0	565000	585000	605000
BTCF "Operations" (Actual\$)	-2000000	375000	373800	372976
BTCF "SV" (Actual\$)	0	0	0	0
BTCF "Working Capital" (Actual\$)	0	0	0	0
Total BTCF(Actual\$)	-2000000	375000	373800	372976
Initial Investment & SV(Constant Dollars)	-2000000	0	0	0
BTCF "Operations" (Constants\$)	-2000000	364078	352342	341326
BTCF Working Capital (Constant\$)	0	0	0	0
Total BTCF (Constant\$)	-2000000	364078	352342	341326
Annual Depreciation	0	150000	277500	235875
Interest on Loan	0	120000	108000	84000
Taxable Operating Income	0	105000	-11700	53101
Taxes payable on Operating Income	0	42000	-4680	21240
Capital Gain	0	0	0	0
Taxes On Capital Gain	0	0	0	0
Recaptured Depreciation	0	0	0	0
Taxes on Recaptured Depreciation	0	0	0	0
ATCF "Operations" (Actual\$)	0	333000	378480	351736
ATCF"Working Capital"(Actual\$)	0	0	0	0
ATCF "Capital Gains"(Actual\$)	0	0	0	0
Net Salvage Value(Actual\$)	0	0	0	0
Total ATCF(Actual\$)	-2000000	333000	378480	351736
Total ATCF (Constant\$)	-2000000	323301	356754	321888
(=R13) Interest on Loan (Interest Expense)	0	120000	108000	84000
Loan Repayment	0	120000	240000	360000
CFOE (Actual\$)	-800000	93000	30480	-92264
CFOE (Constants\$)	-800000	90291	28730	-84435

ATCF "Operations" (Constant\$)	0	323301	356754	321888
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Answer Key

AA	997535.5
BB	605000.0
CC	372535.5
DD	375000.0
EE	2572535.5
FF	330993.0
GG	-2000000.0
HH	341325.9
II	0.0
JJ	120000.0

KK	-11700.0
LL	200000.0
MM	80000.0
NN	863868.8
OO	345547.5
PP	351735.6
QQ	323301.0
RR	-2000000.0
SS	323301.0
TT	321887.9
UU	108000.0
VV	360000.0
WW	-800000.0
XX	1689371.3
YY	-800000.0
ZZ	-84435.0

Long Answer Questions DB

27. Book Value after 4 years	1233013.0
28. NPW From a 4 year ownership perspective	229000-231000 (maybe)
29. IRR After tax & inflation free from operations	0.163 16.3%
30. AEW EOY4 tax savings from depreciation	84825.0
31. P before tax savings from annual depreciation	-2000000.0
32. P after tax savings from annual depreciation	1,600,000&1,800,000 (maybe)

-2000000	333000	378480
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BTCF form operations		333000.00	378480.00	351735.60
EOY 0	-2000000.0			
EOY 1	333000.00			
EOY 2	378480.00			
EOY 3	351735.60			
EOY 4	2217371.00			
IRR for aftertax and inflation free from operations	0.163		16.3%	

4	
2200000	
997536	
625000	
372536	
2200000	
0	
2572536	
1954672	
330993	
0	
2285664	
200494	
48000	
124042	
49617	
200000	
80000	
863869	
345548	
322919	
0	
120000	
1774453	
2217371	
1970106	
48000	
480000	
1689371	
1500985	

Legend		EOY 1
Operating Cost - C	565000	565000
DB Depreciation rate - d	0.15	
Inflation rate - f	0.2	
Loan - L	1200000	EOY 1
% of loan repaid at EOY n - LRP		0.1
Life (duration) of Project - N	4	
Initial Cost - P	2000000	
Interest on Loan - r	0.1	EOY 1
Revenues in year n - R	940000	940000
Selling Price of Asset - Salvage Value	2200000	
Working Capital - WC	0	
Tax	0.4	

	BTCF	ATCF
Discrete Cash Flow and Discrete Compounding	15%	8%
(P/F,i%,n)		
EOY 0		
EOY 1	0.8696	0.9259
EOY 2	0.7561	0.8573
EOY 3	0.6575	0.7938
EOY 4	0.5718	0.7350
EOY 5		
EOY 6		

Marr at 3% for inflation	n(years)	(P/F,f%,n)
	1	0.9709
	2	0.9426
	3	0.9151
	4	0.8885

= cell w/ depreciation

286909

From 4 year ownership perspective, NPW
735571

= preferred answer

351736	2217371
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322918.81

EOY 2	EOY 3	EOY 4	EOY 5
585000	605000	625000	

EOY 2	EOY 3	EOY 4	EOY 5	EOY 6
0.2	0.3	0.4		

EOY 2	EOY 3	EOY 4	EOY 5	EOY 6
958800	977976	997535.5		

BTCF (actual)	ATCF (actual)
18%	11%
0.8475	0.9009
0.7182	0.8116
0.6086	0.7312
0.5158	0.6587

= From E financial table