

4. COST ANALYSIS

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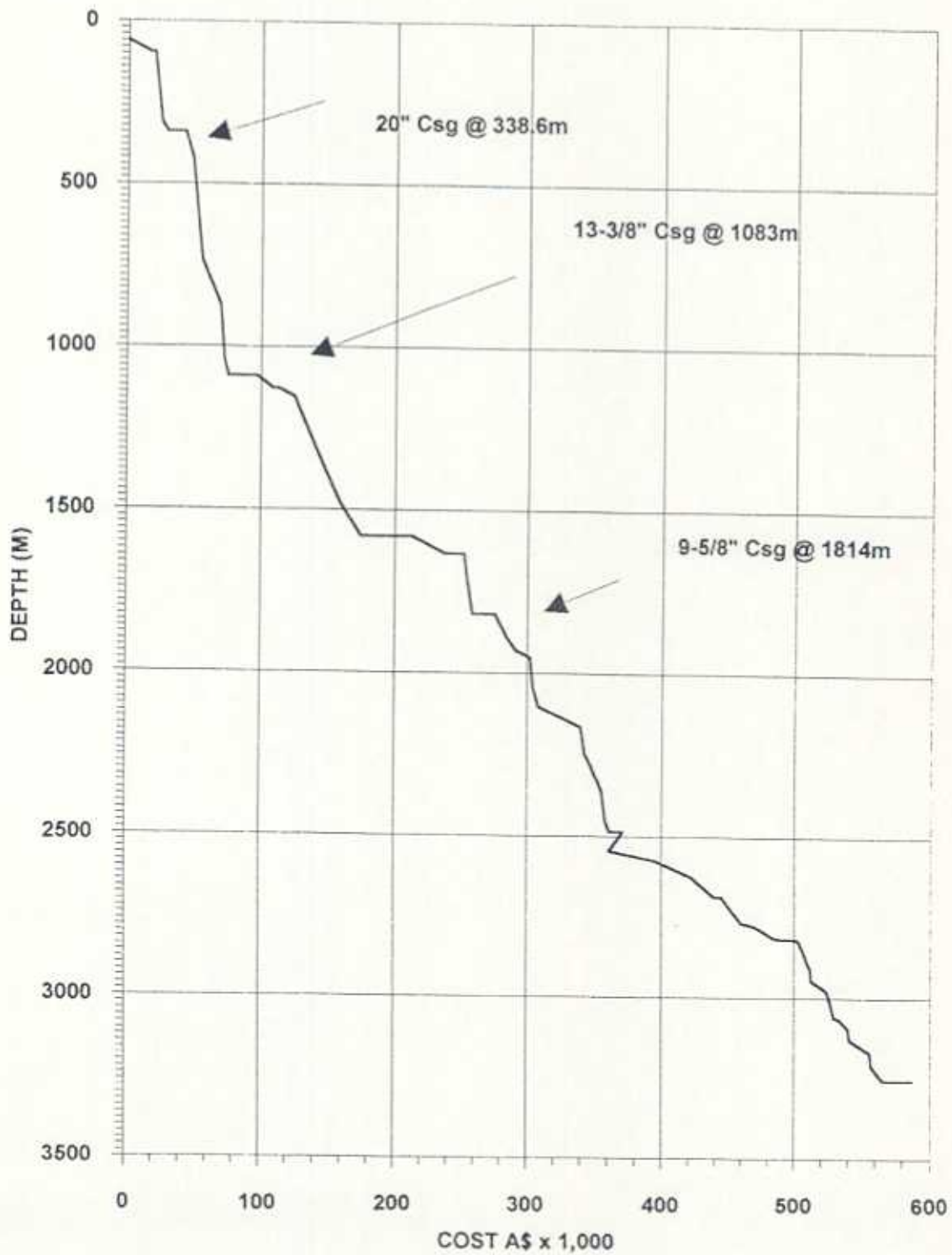
4.1 Total Cost Analysis

COST ANALYSIS - 4.1 - KINGFISHER #1

ITEM	UNIT	UNIT COST	36" & 26"		17 1/2"		12 1/4"		8 1/2"		TOTALS		
			UNITS	COST	UNITS	COST	UNITS	COST	UNITS	COST	UNITS	COST	%
BARITE													
MIL-BAR (bulk)	100 lb	\$18.30			130	2,119.00	45	733.50	8270	134,801.00	8445	137,653.50	23.4
BENTONITE													
MILGEL	50 kg	\$24.12	25	603.00	20	482.40	12	289.44			57	1,374.84	0.2
MILGEL (bulk)	100 lb	\$23.64	1085	25,866.40	635	15,138.40	650	15,496.00	445	10,606.80	2815	87,109.60	11.4
VISCOSIFIERS													
MILGUAR	25 kg	\$107.35					46	4,938.10	12	1,288.20	58	6,226.30	1.1
XCD POLYMER	25 kg	\$414.68			14	5,805.52	81	33,589.08	72	29,856.96	167	89,251.56	11.8
FILTRATION CONTROL													
BIO-LOSE	50 lb	\$117.98			71	8,376.58	32	3,775.36			103	12,151.94	2.1
MIL-PAC	25 kg	\$181.08			60	10,864.80	134	24,264.72	119	21,548.52	313	56,878.04	9.7
MIL-PAC	50 lb	\$164.62							15	2,469.30	15	2,469.30	0.4
PHPA													
NEW DRILL-PLUS	25 kg	\$220.22			1	220.22	105	23,123.10	191	42,082.02	297	65,405.34	11.1
pH MODIFIERS													
CAUSTIC SODA	25 kg	\$37.27	22	819.94	46	1,714.42	4	149.08	4	149.08	76	2,832.52	0.5
CITRIC ACID	25 kg	\$79.97					57	4,558.29	3	239.91	60	4,798.20	0.8
LIME	25 kg	\$16.64	7	116.48					19	316.16	26	432.64	0.1
KOH	25 kg	\$51.41					32	1,645.12	117	6,014.97	149	7,660.09	1.3
SODA ASH	25 kg	\$20.18	24	484.32	48	968.64	9	181.62	13	262.34	94	1,896.92	0.3
SODA BICARB	25 kg	\$20.80					123	2,558.40	8	166.40	131	2,724.80	0.5
SALTS													
CaCO ₃	25 kg	\$17.47	24	419.28			6	104.82			30	524.10	0.1
KCl	1.5 MT	\$750.45					40	30,018.00	75	56,283.75	115	86,301.75	14.7
BACTERIACIDE													
MILBIO	5 gal	\$133.07					35	4,657.45	20	2,661.40	55	7,318.85	1.2
SURFACTANTS													
LUBRISAL	25kg	\$107.00							7	749.00	7	749.00	0.1
MILPARK MD	5gl	\$26.34							8	210.72	8	210.72	0.0
MILPARK MD	55 gal	\$289.71					1	289.71	4	1,158.84	5	1,448.55	0.2
TEEPOL	200L	\$396.00							2	792.00	2	792.00	0.1
WO DEFOAM	5 gal	\$70.99							18	1,277.82	18	1,277.82	0.2
LCM MATERIALS													
KWIKSEAL M	40 lb	\$41.02					330	13,536.60			330	13,536.60	2.3
MICA (M)	25 kg	\$19.62					240	4,708.80			240	4,708.80	0.8
MIL-SEAL	40 lb	\$37.10					89	3,301.90			89	3,301.90	0.6
MUD FIBRE	40 lb	\$49.22					5	246.10			5	246.10	0.0
NUT PLUG C & M	50 lb	\$21.84					300	6,552.00			300	6,552.00	1.1
WO 30	25 kg	\$12.66					198	2,506.68	10	126.60	208	2,633.28	0.4
CORROSION CONTROL													
AMI-TEC	55 gal	\$776.26			0.5	388.13			1	776.26	1.5	1,164.39	0.2
NOXYGEN L	5 gal	\$60.82	27	1,642.14	27	1,642.14	38	2,311.16	158	9,609.56	250	15,205.00	2.6
OTHER													
AQUA MAGIC	55gl	\$822.00							3	2,466.00	3	2,466.00	0.4
SUGAR	25 kg	\$20.05			2	40.10					2	40.10	0.0
TOTALS				29,951.56		47,780.35		183,535.03		325,895.61		587,142.55	100.0

4.2 Depth Vs Mud Cost

Kingfisher #1
4.2 Depth vs Cost



4.3 Average lb/bbl of Major Use Chemicals

AVERAGE lb/bbl OF MAJOR USE CHEMICALS - 4.3 - KIGFISHER #1

INTERVAL	ACTUAL ESTIMATED		17 1/2" Section				12 1/4" Section				8 1/2" Section			
			units	lb	lb/bbl	lb/bbl	units	lb	lb/bbl	lb/bbl	units	lb	lb/bbl	lb/bbl
FROM			339				1090				1817			
TO			1090				1817				3257			
ELAPSED			751				727				1440			
VOLUME (bbl)			4100 BBL				6665 BBL				3843 BBL			
			5300 BBL				2570 BBL				1090 BBL			
ITEM	PERCENT OF WELL COST	lb/unit	units	lb	lb/bbl ACT	lb/bbl EST	units	lb	lb/bbl ACT	lb/bbl EST	units	lb	lb/bbl ACT	lb/bbl EST
BIO - LOSE	2.1	50	71	3550	0.9	1.0	32	1600	0.2	0.0				
KCL	14.7	3,300					40	132000	19.2	18.0	75	247500	64.4	18.0
MIL - BAR	23.4	100	130	13000	3.2	0.0	45	4500	0.7	0.0	8270	827000	215.2	0.0
MILGEL	11.6	100	635	63500	15.5	15.0	650	65000	9.5	0.0	445	44500	11.6	0.0
MIL - PAC	10.1	55	60	3300	0.8	1.0	134	7370	1.1	2.5	132.5	7287.5	1.9	2.5
NEW - DRILL PLUS	11.1	55	1	55	0.0	0.0	105	5775	0.8	1.0	191	10505	2.7	1.0
XCD POLYMER	11.8	55	14	770	0.2	0.0	61	4455	0.6	1.25	72	3960	1.0	1.25

4.4 Interval Analyses

- 4.4.1 36" & 26" Section
- 4.4.2 17 1/2" Section
- 4.4.3 12 1/4" Section
- 4.4.4 8 1/2" Section

INTERVAL COST AND VOLUME ANALYSIS

4.4.1

WELL	Kingfisher #1		INTERVAL MUD		36" & 26" SW/GEL SWEEPS		
	ACT	EST					
FROM (m)	55	45	START INTERVAL		20-May-94		
TO (m)	339	325	END INTERVAL		23-May-94		
LENGTH (m)	284	280	ROTATING HOURS		21		
DAYS	4	6					
VOLUME MIXED	2700	4280	VOLUME USED		2700		
TOTAL COST	\$29,951.56	\$39,906.87					
COST/METER	\$105.46	\$142.52					
COST/BBL	\$11.09	\$9.32					
INTERVAL MATERIAL USAGE							
PRODUCT	UNIT	UNIT COST	UNITS USED		COST		COST VARIANCE
			ACT	EST	ACT	EST	
AMI-TEC	55 gal	\$776.26		0.5		388.13	-100.00%
CALCIUM CHLORIDE	25 kg	\$17.47	24		419.28		
CAUSTIC SODA	25 kg	\$37.27	22	51	819.94	1,900.77	-56.86%
LIME	25 kg	\$16.64	7	31.2	116.48	519.09	-77.56%
MIL-BAR (bulk)	100 lb	\$16.30		405		6,601.50	-100.00%
MILGEL (bulk)	100 lb	\$23.84	1085	1185	25,866.40	28,250.40	-8.44%
MILGEL (sack)	50 kg	\$24.12	25		603.00		
NOXYGEN L	5 gal	\$60.82	27	25	1,642.14	1,520.50	8.00%
SODA ASH	25 kg	\$20.18	24	36	484.32	726.48	-33.33%
TOTAL					\$29,951.56	\$39,906.87	-24.95%
VOLUME RECONCILIATION							
INITIAL VOLUME		BBL					
NEW VOLUME MIXED		2700					
TOTAL VOLUME		2700					
HOLE VOLUME							
CASING VOLUME							
OPEN HOLE VOLUME							
SURFACE LOSSES							
DOWN HOLE LOSSES		2700					
SOL. CONT. LOSSES							
VOLUME DUMPED							
SANDTRAPS							
PIT VOLUME							
TOTAL		2700					

INTERVAL COST AND VOLUME ANALYSIS

4.4.2

WELL	Kingfisher #1		INTERVAL		17 1/2"		
	ACT	EST	MUD TYPE		Gel/Polymer		
FROM (m)	339	325	START INTERVAL		24-May-94		
TO (m)	1090	1125	END INTERVAL		31-May-94		
LENGTH (m)	751	800	ROTATING HOURS		69		
DAYS	8	8					
VOLUME MIXED	4100	5300	VOLUME USED		3800		
TOTAL COST	\$47,760.35	\$56,278.00					
COST/METER	\$63.60	\$70.35					
COST/BBL	\$11.65	\$10.62					
INTERVAL MATERIAL USAGE							
PRODUCT	UNIT	UNIT COST	UNITS USED		COST		COST VARIANCE
			ACT	EST	ACT	EST	
AMI-TEC	55 gal	\$776.26	0.5	0.5	388.13	388.13	
BIO-LOSE	50 lb	\$117.98	71	106	8,376.58	12,505.88	-33.02%
CAUSTIC SODA	25 kg	\$37.27	46	73	1,714.42	2,720.71	-36.99%
MIL-BAR (bulk)	100 lb	\$16.30	130	150	2,119.00	2,445.00	-13.33%
MILGEL (bulk)	100 lb	\$23.84	635	795	15,138.40	18,952.80	-20.13%
MILGEL (sack)	50 kg	\$24.12	20		482.40		
MIL-PAC	25 kg	\$181.08	60	97	10,864.80	17,564.76	-38.14%
NEW-DRILL PLUS	25 kg	\$220.22	1		220.22		
NOXYGEN L	5 gal	\$60.82	27	20	1,642.14	1,216.40	35.00%
SODA ASH	25 kg	\$20.18	48	24	968.64	484.32	100.00%
SUGAR	25 kg	\$20.05	2		40.10		
XCD POLYMER	25 kg	\$414.68	14		5,805.52		
		TOTAL			\$47,760.35	\$56,278.00	-15.13%
VOLUME RECONCILIATION							
		BBL					
INITIAL VOLUME							
NEW VOLUME MIXED		<u>4100</u>					
TOTAL VOLUME		4100					
HOLE VOLUME							
CASING VOLUME		90					
OPEN HOLE VOLUME							
SURFACE LOSSES		373					
DOWN HOLE LOSSES		24					
SOL. CONT. LOSSES		1527					
VOLUME DUMPED		1306					
SANDTRAPS		480					
PIT VOLUME		<u>300</u>					
TOTAL		<u>4100</u>					

INTERVAL COST AND VOLUME ANALYSIS

4.4.3

WELL	Kingfisher #1		INTERVAL	12 1/4" O.H.			
	ACT	EST	MUD TYPE	KCI/New-Drill Plus			
FROM (m)	1090	1125	START INTERVAL	1-Jun-94			
TO (m)	1817	2525	END INTERVAL	19-Jun-94			
LENGTH (m)	727	1400	ROTATING HOURS	112.5			
DAYS	19	17					
VOLUME MIXED	6865	2570	VOLUME USED	6140			
TOTAL COST	\$183,535.03	\$74,154.90					
COST/METER	\$252.46	\$52.97					
COST/BBL	\$26.73	\$28.85					
INTERVAL MATERIAL USAGE							
PRODUCT	UNIT	UNIT COST	UNITS USED		COST		COST VARIANCE
			ACT	EST	ACT	EST	
AMI-TEC	55 gal	\$776.26		0.5		388.13	-100.00%
BIO-LOSE	50 lb	\$117.98	32		3,775.36		
CALCIUM CHLORIDE	25 kg	\$17.47	6		104.82		
CAUSTIC SODA	25 kg	\$37.27	4		149.08		
CITRIC ACID	25 kg	\$78.97	57		4,558.29		
FIBRE	40 lb	\$49.22	5		246.10		
KCL	1.0 MT	\$497.93		22		10,954.46	-100.00%
KCL	1.5 MT	\$750.45	40		30,018.00		
KOH	25 kg	\$51.41	32	24	1,645.12	1,233.84	
KWIKSEAL	40 lb	\$41.02	330		13,536.60		
MICA (m)	25 kg	\$19.62	240		4,708.80		
MIL-BAR (bulk)	100 lb	\$16.30	45	150	733.50	2,445.00	-70.00%
MIL-BIO	5 gal	\$133.07	35	15	4,657.45	1,996.05	133.33%
MILGEL (bulk)	100 lb	\$23.84	650		15,496.00		
MILGEL (sack)	50 kg	\$24.12	12		289.44		
MILGUAR	25 kg	\$107.35	46		4,938.10		
MIL-PAC	25 kg	\$181.08	134	117	24,264.72	21,186.36	14.53%
MILPARK MD	55 gal	\$289.71	1		289.71		
MILSEAL	40 lb	\$37.10	89		3,301.90		
NEW-DRILL PLUS	25 lb	\$100.10		103		10,310.30	-100.00%
NEW-DRILL PLUS	25 kg	\$220.22	105		23,123.10		
NOXYGEN L	5 gal	\$60.82	38	15	2,311.16	912.30	153.33%
NUT PLUG C&M	50 lb	\$21.84	300		6,552.00		
SODA ASH	25 kg	\$20.18	9	13	181.62	262.34	-30.77%
SODA BICARB	25 kg	\$20.80	123		2,558.40		
WO 30	25 kg	\$12.66	198		2,506.68		
XCD POLYMER	25 kg	\$414.68	81	59	33,589.08	24,466.12	37.29%
		TOTAL			\$183,535.03	\$74,154.90	147.50%
VOLUME RECONCILIATION							
		BBL					
INITIAL VOLUME		300					
NEW VOLUME MIXED		<u>6865</u>					
TOTAL VOLUME		7165					
HOLE VOLUME							
CASING VOLUME							
OPEN HOLE VOLUME							
NOTE: TRANSFERRED 1025 bbls TO 8 1/2" SECTION.							
SURFACE LOSSES		593					
DOWN HOLE LOSSES		3906					
SOL. CONT. LOSSES		796					
VOLUME DUMPED		190					
SANDTRAPS		655					
PIT VOLUME		<u>1025</u>					
TOTAL		<u>7165</u>					

INTERVAL COST AND VOLUME ANALYSIS

4.4.4

WELL	Kingfisher #1		INTERVAL		8 1/2"		
	ACT	EST	MUD TYPE	KCI/New-Drill Plus			
FROM (m)	1817	2525	START INTERVAL	20th Jun 94			
TO (m)	3257	3525	END INTERVAL	13th Aug 94			
LENGTH (m)	1440	1000	ROTATING HOURS	624.5			
DAYS	42	27					
VOLUME MIXED	3843	1090	VOLUME USED	4868			
TOTAL COST	\$325,895.61	\$33,693.80					
COST/METER	\$225.85	\$41.25					
COST/BBL	\$84.80	\$30.91					
INTERVAL MATERIAL USAGE							
PRODUCT	UNIT	UNIT COST	UNITS USED		COST		COST VARIANCE
			ACT	EST	ACT	EST	
AMI-TEC	55 gal	\$776.26	1	0.5	776.26	388.13	100.00%
AQUA MAGIC	55gal	\$822.00	3		2,466.00		
CAUSTIC SODA	25 kg	\$37.27	4		149.08		
CITRIC ACID	25 kg	\$79.97	3		239.91		
KCL	1.0 MT	\$497.93		9		4,481.37	-100.00%
KCL	1.5 MT	\$750.45	75		56,283.75		
KOH	25kg	\$51.41	117	10	6,014.97	514.10	1070.00%
LIME	25 kg	\$16.64	19		316.16		
LUBRISAL	25 kg	\$107.00	7		749.00		
MIL-BAR (bulk)	100 lb	\$16.30	8270	150	134,801.00	2,445.00	5413.33%
MIL-BIO	5 gal	\$133.07	20	10	2,661.40	1,330.70	100.00%
MILGEL (bulk)	100 lb	\$23.84	445		10,608.80		
MILGUAR	25 kg	\$107.35	12		1,288.20		
MIL-PAC	25 kg	\$181.08	119	50	21,548.52	9,054.00	138.00%
MIL-PAC	50 lb	\$164.62	15		2,469.30		
MILPARK MD	55 gal	\$289.71	4		1,158.84		
MILPARK MD	5gl	\$26.34	8		210.72		
NEW-DRILL PLUS	25lb	\$100.10		44		4,404.40	-100.00%
NEW-DRILL PLUS	25kg	\$220.22	191		42,062.02		
NOXYGEN L	5 gal	\$60.82	158	10	9,609.56	608.20	1480.00%
SODA ASH	25 kg	\$20.18	13	5	262.34	100.90	160.00%
SODA BICARB	25 kg	\$20.80	8		166.40		
TEEPOL	200 lit	\$396.00	2		792.00		
WO 30	25 kg	\$12.66	10		126.60		
WO DEFOAM	5 gal	\$70.99	18		1,277.82		
XCD POLYMER	25 kg	\$414.68	72	25	29,856.96	10,367.00	188.00%
		TOTAL			\$325,895.61	\$33,693.80	867.23%
VOLUME RECONCILIATION							
		BBL					
INITIAL VOLUME		1025					
NEW VOLUME MIXED		<u>3843</u>					
TOTAL VOLUME		4868					
HOLE VOLUME\		685					
CASING VOLUME							
OPEN HOLE VOLUME							
SURFACE LOSSES		2147					
DOWN HOLE LOSSES		91					
SOL. CONT. LOSSES		697					
VOLUME DUMPED		483					
SANDTRAPS		465					
PIT VOLUME		<u>300</u>					
TOTAL		4868					