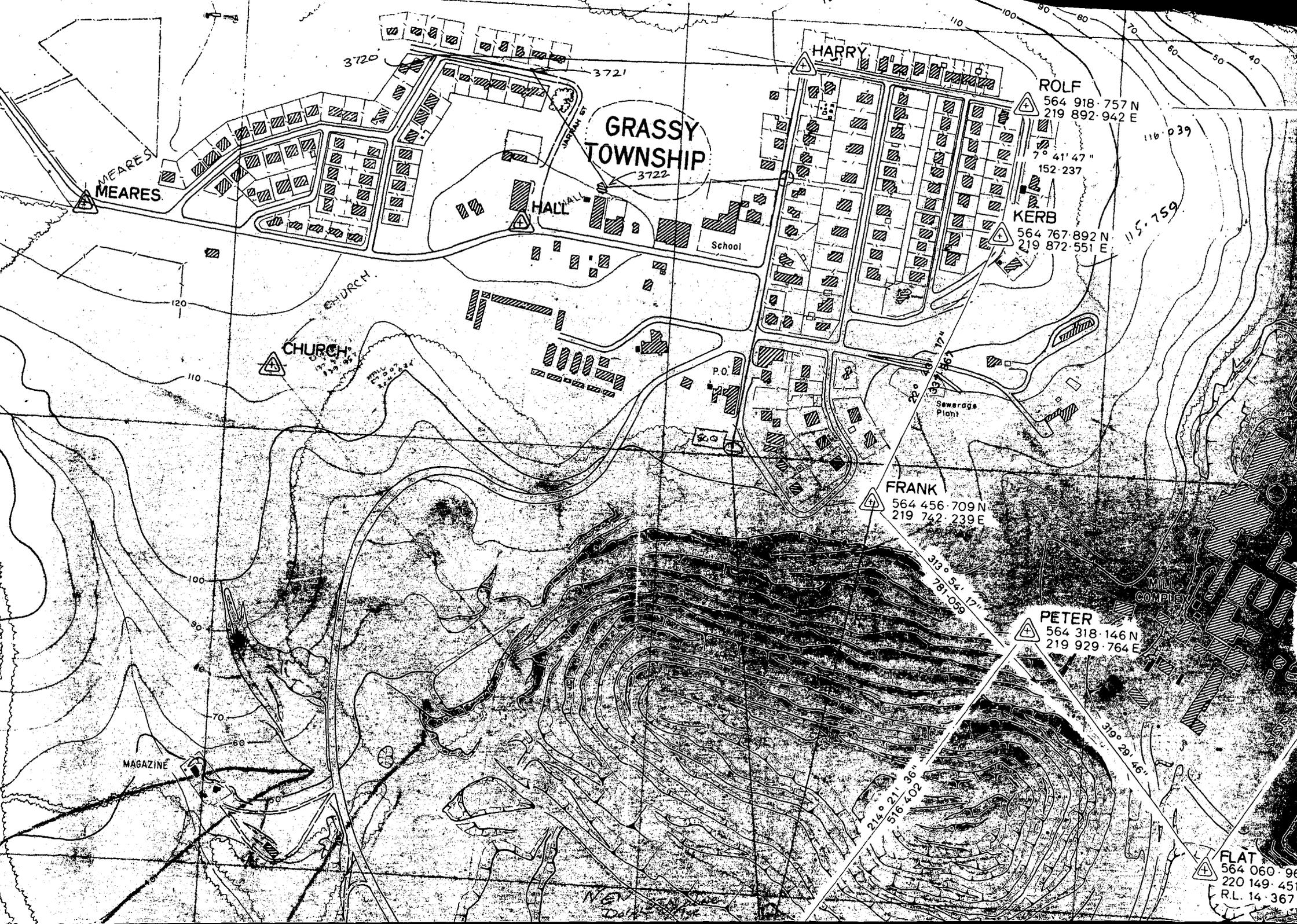


This print shows the portion of this traverse completed
& that remaining to be done

M. A. P.
19/11/02



GRASSY TOWNSHIP

MEARES

CHURCH

HALL

School

P.O.

Sewerage Plant

FRANK

PETER

FLAT

564 456 709 N
219 742 239 E

564 318 146 N
219 929 764 E

564 060 900 N
220 149 451 E
R.L. 14 367

564 918 757 N
219 892 942 E

564 767 892 N
219 872 551 E

313° 54' 17"
781.059

216° 21' 36"
516.402

319° 29' 46"
781.059

116.039

115.759

MILL COMPLEX

NEW

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M.I. CHAINAGE]

NOTE

INITIAL OR UNADJUSTED FIGURES

LOCATION Grassy - 100m x 100m - 100m x 100m
 GRID 4750 R.L. DATUM 1950 CLOSURE 1 in 4

SHEET N° 5
 LOCATION 6

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			E. D. M. I. Reading			BAROMETRIC PRESSURE			ATMOSPHERIC CORRECTION SETTING			TEMPERATURE			HORIZONTAL DISTANCE			H. I. H. T.			STATION CO-ORDINATES			INITIALS & DATE			REMARKS		
BS	IS	FS	o	'	"	o	'	"	o	'	"	o	'	"	o	'	"	o	'	"	o	'	"	m	m	m	m	m	m	m	m	m	FIELD	CALCS	CHECK			
	HAUGHEY	ROLF				267	56	59																														
	HAUGHEY	ROLF							88	02	39	260	662																									
	ROLF	HARRY	188	20	06	276	17	05				[260.658]	994.9	08	22	260.506	[260.510]						1.53	1.64														
	ROLF	HARRY							91	05	06	422	417																									
		3720	171	28	09	267	45	14				[422.415]	1019.0	08	18	422.338	[422.341]						1.58	1.49														
	HARRY	3720											108.584																									
		3721	203	59	06	297	44	20	89	54	39	(108.583)	1019.0	08	18	108.581	[108.583]						1.50	1.51														
	3720	3721											164.905																									
		3722	229	44	18	141	28	38	88	35	06	(164.904)	1018.0	08	18	164.852	[164.855]						1.50	1.53														

SURFACE CONTROL CALCULATION SHEET

NOTE

INITIAL OR UNADJUSTED FIGURES

~~CLOSED~~ TRAVERSE [E.D.M.I. CHAINAGE]

LOCATION SEA DUMP

SHEET N° 5

LOCATION SEA DUMP

GRID 1SG

R.L. DATUM TALLAROOK

~~CLOSURE~~

7	8		11			12			13		14		15	16	17	18		19	20	21-24			25-27			28	
	BS	IS	FS	HORIZONTAL ANGLE			BEARING			ZENITH ANGLE		E.D.M.I. Reading				HORIZONTAL DISTANCE				STATION CO-ORDINATES			INITIALS & DATE				REMARKS
			o	'	"	o	'	"	o	'	"	m	mm	mm	mm	m	m	m	m	TITLE	LATITUDE	DEPARTURE	R.L.	FIELD	CALCS	CHECK	
/	SPOIL	PAUL	/	/	/	157	43	01	/	/	/	/	/	/	/	492.825	/	/	PAUL	563 435.826	219 825.183	27.065	/	MGM	BL		Survey Calc Ledger & Index
SPOIL	PAUL	3570	70	05	37	47	48	38	93	18	11	314.057	/	08	/	313.535	1.50	1.50	3570	563 646.391	220 057.490	8.97	MGM	MGM			
"	"	3571	83	42	44	61	25	45	92	03	44	449.269	/	08	/	448.978	1.50	1.52	3571	563 650.547	220 219.487	10.88	"	"			
"	"	3572	87	47	10	65	30	11	91	43	23	532.996	/	08	/	532.755	1.50	1.44	3572	563 656.730	220 309.981	11.10	"	"			
"	PAUL	3573	84	03	29	61	46	30	91	24	54	516.152	/	08	/	515.995	1.50	1.61	3573	563 679.858	220 279.825	14.21	"	"		On mound near tank	
"	"	3574	86	02	20	63	45	21	91	26	12	596.941	/	08	/	596.753	1.50	1.59	3574	563 699.709	220 360.421	12.01	"	"			
SPOIL	PAUL	3575	82	59	01	60	42	02	91	20	27	641.150	/	08	/	640.974	1.50	1.55	3575	563 749.502	220 384.160	12.01	MGM	MGM	BL		
"	"	3576	76	46	03	54	29	04	91	06	57	676.526	/	08	/	676.398	1.50	1.54	3576	563 828.762	220 375.742	13.85	"	MGM			
SPOIL	PAUL	3577	69	57	36	47	40	37	91	06	09	697.779 697.807	/	08	20	697.650	1.45	1.68	3577	563 905.561	220 340.998	13.41	MGM	MGM		Atmos corr applied to Sd	
"	"	3578	69	15	42	46	58	43	91	06	50	665.996	/	08	/	665.870	1.45	1.67	3578	563 890.130	220 312.000	13.90	"	MGM			
"	"	3579	66	19	44	44	02	45	91	25	35	527.527	/	08	/	527.364	1.45	1.72	3579	563 814.886	220 191.824	13.66	"	"			
SPOIL	PAUL	3580	57	32	38	35	15	39	92	43	58	303.412 303.424	/	08	21	303.067	1.45	1.48	3580	563 683.290	220 000.143	12.57	MGM			Atmos corr applied to Sd	
"	"	3581	55	06	54	32	49	55	91	39	23	447.352 447.368	/	08	22	447.165	1.45	1.50	3581	563 811.563	220 067.626	14.08	"	"		Atmos corr applied to Sd	
/	3575	Collar peg D360/14	/	/	/	272	18	34	/	/	/	/	/	/	/	24.454	/	/	Collar peg D360/14	563 750.0	220 360.0	/	/	MGM			Tyline calc
SPOIL	PAUL	3582	62	09	38	39	52	39	92	08	07	394.014 394.030	/	08	21	393.740	1.45	1.56	3582	563 737.989	220 077.629	12.27	MGM	MGM		Atmos corr applied to Sd	
PAUL	3575	Tigerpost @ TOSH	172	41	30	53	23	32	/	/	/	/	/	/	/	/	/	Tigerpost @ TOSH	/	/	/	/	MGM	MGM			
PAUL	3573	Tigerpost @ TOSH	171	43	55	53	30	25	/	/	/	/	/	/	/	/	/	Tigerpost @ TOSH	/	/	/	/	MGM	MGM			

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M.I. CHAINAGE]

NOTE

INITIAL OR UNADJUSTED FIGURES

LOCATION Works Area - Port - Township

SHEET N° 5

LOCATION 6

GRID I.S.G. R.L. DATUM Tallarook CLOSURE 1 in 4

7 LINE			11 HORIZONTAL ANGLE			12 BEARING			13 ZENITH ANGLE			14 E.D.M.I. Reading			15 BAROMETRIC PRESSURE			16 ATMOSPHERIC CORRECTION SETTING			17 TEMPERATURE			18 HORIZONTAL DISTANCE			19 H.I.			20 H.T.			21 STATION CO-ORDINATES			25 INITIALS & DATE			28 REMARKS		
BS	IS	FS	o	'	"	o	'	"	o	'	"	m	Mb	°	'	"	m	m	m	TITLE	LATITUDE	DEPARTURE	R.L.	FIELD	CALCS	CHECK															
	Mike	Flat				211	53	42												Flat	564 060.961	220 14.9.451	14.607																		
Mike	Flat	Paul.	175	30	59	207	24	41	88	59	12	704.333								Paul.	563 435.806	219 825.244	21.07																		
Flat	Paul	Rick.	122	43	14	150	07	55	92	51	10	494.740								Rick.	563 007.311	220 071.321	2.37																		
Paul	Rick	Tom	231	36	21	201	44	16	89	45	11	625.890								Tom.	562 425.935	219 839.519	5.19																		
Rick	Tom	Oily	250	51	15	252	35	31	88	11	19	1427.211								Oily.	561 999.162	218 478.357	50.59																		
Tom	Oily	Frog.	311	03	34	23	39	05	92	26	23	705.252								Frog	562 614.590	218 761.027	20.48																		

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M.I. CHAINAGE]

NOTE

 INITIAL OR UNADJUSTED FIGURES

LOCATION Works Area
 GRID I.S.G. R.L. DATUM Tallarook CLOSURE 1 in 26 200

SHEET N° 5
 LOCATION 6

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			E. D. M. I. Reading			BAROMETRIC PRESSURE			ATMOSPHERIC CORRECTION SETTING			TEMPERATURE			HORIZONTAL DISTANCE			H. I. H. T.			STATION CO-ORDINATES				INITIALS & DATE			REMARKS	
BS	IS	FS	o	'	"	o	'	"	o	'	"	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	FIELD	CALCS	CHECK				
	OC27	Flat				140	15	29																														
												178.799																										
OC27	Flat	Plant	72	29	12	32	44	41	93	09	19	170.852	1022	-9	12	170.593																						
			72	29	12	32	44	41								170.595																						
Flat	Plant	Drain	83	53	40	296	38	21	89	45	13	88.446	1022	-9	12	88.445																						
			83	53	41	296	38	22								88.443																						
Plant	Drain	Rise	104	32	13	221	10	34	88	46	16	107.690	1022	-9	12	107.665																						
			104	32	03	221	10	25								107.662																						
Drain	Rise	Wire	190	06	28	231	17	02	88	28	21	26.199	1022	-9	12	26.190																						
			190	06	32	231	16	57								26.188																						
Rise	Wire	Flat	86	22	44	137	39	46	87	13	09	116.103	1022	-9	12	115.966																						
			86	22	34	137	39	31								115.967																						
Wire	Flat	OC27	2	35	43	320	15	29																														
			2	35	47	320	15	18																														

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [~~EDM~~ CHAINAGE]

NOTE

INITIAL OR UNADJUSTED FIGURES

LOCATION CEMENT FILL PLANT & SANDFILL PLANT AREA.

SHEET NO. 5

GRID 15G R.L. DATUM Tallavook CLOSURE 1 in 4

LOCATION 6

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			E.D.M.I. Reading			BAROMETRIC PRESSURE			ATMOSPHERIC CORRECTION SETTING			TEMPERATURE			HORIZONTAL DISTANCE			H.I.			H.T.			STATION CO-ORDINATES				INITIALS & DATE			REMARKS		
BS	IS	FS	o	'	"	o	'	"	o	'	"	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	FIELD	CALCS	CHECK					
	Safety	Ram				226	42	26																																		
	Safety	Ram																																								
	Safety	Ram																																								
	Flat	3429				36	47	25																																		
	Flat	3429																																								
	Flat	3429																																								
	3429	3433																																								
	3429	3433																																								
	3433	3434																																								
	3433	3434																																								

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M.I. CHAINAGE]

NOTE

INITIAL OR UNADJUSTED FIGURES

LOCATION LAKE ZAREMBA

SHEET N^o 5
LOCATION Lake Zaramba

GRID 15G R.L. DATUM Tallarook CLOSURE 1 in 4

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			E. D. M. I. Reading			BAROMETRIC PRESSURE			ATMOSPHERIC CORRECTION SETTING			TEMPERATURE			HORIZONTAL DISTANCE			H.I.			H.T.			STATION CO-ORDINATES				INITIALS & DATE			REMARKS							
BS	IS	FS	o	'	"	o	'	"	o	'	"	m	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	TITLE	LATITUDE	DEPARTURE	R.L.	FIELD	CALCS	CHECK											
	Mike	Flat				211	53	12																																							
	Mike	Flat	3429	4	53	13	36	17	25	92	12	51	258.563	1009	-10	7	258.370																														
	Mike	Flat	3430	5	57	17	37	50	59	90	54	54	402.668	1009	-10	7	402.617																														
	Mike	Flat	3431	34	25	25	56	22	08	92	13	51	268.462	1009	-10	7	268.259																														
	Mike	Flat	3432	30	48	36	62	42	18	93	19	40	162.612	1009	-10	7°	162.338																														

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M.I. CHAINAGE]

NOTE



INITIAL OR UNADJUSTED FIGURES

LOCATION Golf Course

SHEET NO. 1
LOCATION Golf Course

GRID I. S. G. R.L. DATUM Tallarook CLOSURE 1 in 103,578

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			E. D. M. I.	BAROMETRIC PRESSURE	ATMOSPHERIC CORRECTION SETTING	% TEMPERATURE	HORIZONTAL DISTANCE		H. I.	H. T.	STATION CO-ORDINATES			INITIALS & DATE			REMARKS	
BS	IS	FS	o	'	"	o	'	"	o	'	"	m	mb	"	%	m	f	f	TITLE	LATITUDE	DEPARTURE	R.L.	FIELD	CALCS	CHECK		
	Spoil	Paul				157	43	01											Paul	563 435.826	219 825.183						
Spoil	Paul	Par	276	25	57	254	08	58	90	30	28	676.519	1024	-10	13	676.492			Par	563 251.056	219 174.413						
			276	25	57	254	08	58								676.492				563 251.056	219 174.413						
Paul	Par	Garbage	294	02	37	8	11	35	87	07	31	466.818	1024	-9	14	466.231			Garbage	563 712.528	219 240.855						
			294	02	35	8	11	33								466.228				563 712.526	219 240.860						
Par	Garbage	Spoil	237	31	38	66	43	13	88	14	18	436.241	1024	-9	14	436.035			Spoil	563 891.822	219 638.322						
			237	31	35	65	43	06								436.038				563 891.835	219 638.314						
Garbage	Spoil	Paul	271	59	48	157	43	01	93	38	26	493.794	1017	-8	13	492.798			Paul	563 435.826	219 825.183						
			271	59	51	157	42	57								492.794				563 435.846	219 825.183						

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M. I. CHAINAGE]

NOTE

 INITIAL OR UNADJUSTED FIGURES

LOCATION Golf Course
 GRID I.S.G. R.L. DATUM Tallarook CLOSURE 1 in 4

SHEET No. 5
 LOCATION 6

7	8			11			12			13			14			15	16	17	18			19	20	21			22			23			24			25			26			27	28		
	BS	IS	FS	HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			E. D. M. I. Reading						HORIZONTAL DISTANCE					H. I. H. T.			TITLE	LATITUDE		DEPARTURE		R.L.	FIELD	CALCS	CHECK	INITIALS & DATE			REMARKS						
	KEY EAST	PAUL				325	59	22																PAUL	563	436.826	219	825.183	27.1																
KEY EAST	PAUL	4000	134	34	02	280	33	24	92	36	20	37.356									37.318	1.44	2.00	4000	563	442.663	219	788.497	24.85																
		4001	144	58	56	290	58	18	92	22	50	40.392									40.357	1.44	2.00	4001	563	450.270	219	787.499	24.85																
		4002	203	06	14	349	05	36	93	03	59	74.648									74.541	1.44	2.00	4002	563	509.021	219	811.079	22.55																
		4003	200	38	33	346	37	55	92	50	58	80.733									80.633	1.44	2.00	4003	563	514.274	219	806.540	22.53																
		4004	193	27	54	339	27	16	94	49	27	129.155									128.697	1.44	2.00	4004	563	556.338	219	780.016	15.68																
		4005	192	42	39	338	42	01	94	23	03	142.019									141.603	1.44	2.00	4005	563	567.757	219	773.746	15.68																
		4006	189	23	59	335	23	21	93	45	48	175.064									174.687	1.44	2.00	4006	563	594.644	219	752.434	15.05																
		4007	191	00	30	336	59	52	93	26	20	190.660									190.317	1.44	2.00	4007	563	611.011	219	750.814	15.10																
		4008	173	55	04	319	54	26	91	21	30	248.772									248.702	1.44	2.00	4008	563	626.084	219	665.012	20.64																
		4009	174	47	00	320	46	22	91	17	07	258.178									258.113	1.44	2.00	4009	563	635.772	219	661.953	20.75																
		4010	150	25	43	296	25	05	93	22	59	138.314									138.073	1.48	2.00	4010	563	497.257	219	701.529	18.42																
		4011	151	28	20	297	27	42	93	35	04	131.706									131.448	1.48	2.00	4011	563	496.444	219	708.546	18.35																
		4012	133	21	18	279	20	40	89	47	30	492.527									492.524	1.48	2.00	4012	563	515.797	219	339.195	28.37																
		4013	131	17	55	277	17	17	89	47	44	497.319									497.316	1.48	2.00	4013	563	498.914	219	331.885	28.35																
		4014	134	13	09	280	12	31	89	43	52	525.986									525.980	1.48	2.00	4014	563	529.047	219	307.530	29.05																
		4015	134	53	11	280	52	33	89	43	53	526.208									526.202	1.48	2.00	4015	563	535.111	219	308.432	29.05																
		4016	142	19	53	288	19	15	89	53	18	481.173									481.172	1.48	2.00	4016	563	587.077	219	368.401	27.52																

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M. I. CHAINAGE]

NOTE

 INITIAL OR UNADJUSTED FIGURES

LOCATION Golf Course
 GRID I. S. G. R.L. DATUM Tallarook CLOSURE 1 in 4

SHEET NO. 5
 LOCATION 6

7	8		11			12			13			14	15	16	17	18		19	20	21-24			25-27			28
	BS	IS	FS	HORIZONTAL ANGLE			BEARING			ZENITH ANGLE TARGET REFLECTOR			E. D. M. I. Reading	BAROMETRIC PRESSURE	ATMOSPHERIC CORRECTION SETTING	% TEMPERATURE	HORIZONTAL DISTANCE	H. I.	H. T.	TITLE	LATITUDE	DEPARTURE	R. L.	FIELD	CALCS	CHECK
KEY EAST	PAUL	4017	141	18	43	287	18	05	89	53	03	479.095				479.094	1.48	2.00	4017	563 578.308	219 367.766	27.55				6 th Tee
		4018	144	40	42	290	40	04	90	05	49	489.021				489.020	1.48	2.00	4018	563 608.425	219 367.635	25.75				7 th Green
		4019	146	36	54	292	36	16	90	04	39	492.465				492.465	1.48	2.00	4019	563 625.113	219 370.549	25.91				7 th Green
		4020	127	29	29	273	28	51	89	31	13	525.957				525.939	1.48	2.00	4020	563 467.758	219 300.215	30.98				13 th Tee
		4021	127	00	24	272	59	46	89	31	10	528.133				528.114	1.48	2.00	4021	563 463.430	219 297.791	31.01				13 th Tee
		4022	124	10	42	270	10	04	90	02	08	540.632				540.632	1.48	2.00	4022	563 437.409	219 284.553	26.24				4 th Tee
		4023	123	32	09	269	31	31	90	01	48	541.127				541.247	1.48	2.00	4023	563 431.342	219 283.955	26.30				4 th Tee
		4024	115	17	55	261	17	17	90	31	45	586.817				586.792	1.48	2.00	4024	563 346.946	219 245.161	21.16				3 rd Green
		4025	117	25	48	263	25	10	90	30	18	586.141				586.118	1.48	2.00	4025	563 368.657	219 242.926	21.41				3 rd Green
		4026	109	50	41	255	50	03	90	25	45	657.511				657.493	1.48	2.00	4026	563 274.918	219 187.684	21.66				1 st Green
		4027	108	00	49	254	00	11	90	30	32	654.616				654.590	1.48	2.00	4027	563 255.130	219 195.941	20.77				1 st Green
		4028	99	18	03	245	17	25	90	42	13	496.162				496.125	1.48	2.00	4028	563 228.435	219 374.485	20.49				2 nd Tee
		4029	99	49	09	245	48	31	90	42	04	494.004				493.967	1.48	2.00	4029	563 233.405	219 374.595	20.54				2 nd Tee
		4030	100	59	33	246	58	55	91	54	11	290.967				290.807	1.48	2.00	4030	563 322.115	219 557.530	16.92				3 rd Tee
		4031	102	11	55	248	11	17	91	54	40	289.349				289.188	1.48	2.00	4031	563 328.375	219 556.698	16.93				3 rd Tee
		4032	100	09	58	246	09	20	92	14	34	236.777				236.596	1.48	2.00	4032	563 340.181	219 608.782	17.31				14 th Tee
		4033	100	56	38	246	56	00	92	17	48	230.664				230.479	1.48	2.00	4033	563 345.524	219 613.131	17.34				14 th Tee
		4034	104	35	52	250	35	14	92	47	45	185.370				185.149	1.48	2.00	4034	563 374.288	219 650.560	17.54				5 th Tee

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M.I. CHAINAGE]

NOTE

INITIAL OR UNADJUSTED FIGURES

LOCATION Golf Course

SHEET No. 5

GRID I.S.G. R.L. DATUM Tallarook CLOSURE 1 in 4

LOCATION 6

7	8			11			12			13			14	15	16	17	18			19	20	21-24				25-27			28
	BS	IS	FS	HORIZONTAL ANGLE			BEARING			ZENITH ANGLE TARGET REFLECTOR			E. D. M. I. Reading				HORIZONTAL DISTANCE	H.I.	H.T.			TITLE	LATITUDE	DEPARTURE	R.L.	FIELD	CALCS	CHECK	
KEY EAST	PAUL	4035	105	31	58	251	31	20	92	52	05	180.993				180.766	1.48	2.00	4035	563 378.535	219 653.736	17.52							5th Tee
	PAUL	4029	194	18	03	260	06	34	90	57	03	118.851				118.835	1.61	2.00	4036	563 212.993	219 257.527	18.18							11th Tee
		4037	191	21	28	257	09	59	90	59	15	120.061				120.043	1.61	2.00	4037	563 206.741	219 257.551	18.08							11th Tee
		4038	15	13	13	81	01	44	90	16	15	182.980				182.978	1.61	2.00	4038	563 261.938	219 555.335	19.29							2nd Green
		4039	18	44	40	84	33	11	90	18	04	183.726				183.723	1.61	2.00	4039	563 250.845	219 557.489	19.18							2nd Green
		4040	11	53	23	77	41	54	89	33	53	214.877				214.871	1.61	2.00	4040	563 279.185	219 584.532	21.78							1st Tee
		4041	9	46	33	75	35	04	89	36	07	216.601				216.596	1.61	2.00	4041	563 287.327	219 584.371	21.65							1st Tee
		4042	341	09	37	46	58	08	90	59	23	187.661				187.633	1.61	2.00	4042	563 361.445	219 511.752	16.91							4th Green
		4043	337	31	10	43	19	41	91	03	56	203.059				203.024	1.61	2.00	4043	563 381.092	219 513.905	16.37							4th Green
		4044	357	54	27	63	42	58	90	23	55	371.729				371.720	1.61	2.00	4044	563 398.010	219 707.883	17.56							9th Green
		4045	354	38	33	60	27	04	90	16	28	359.803				359.799	1.61	2.00	4045	563 410.846	219 687.597	18.43							9th Green
		4046	310	03	00	15	51	31	89	45	42	429.379				429.375	1.61	2.00	4046	563 646.438	219 491.928	21.94							7th Dogleg
		4047	330	41	03	36	29	34	90	36	54	425.255				425.231	1.61	2.00	4047	563 575.261	219 627.489	15.59							6th Dogleg
		4048	332	00	13	37	48	44	90	29	44	343.054				343.041	1.61	2.00	4048	563 504.416	219 584.905	17.18							8th Dogleg
		4049	327	16	38	33	05	09	90	58	20	274.840				274.800	1.61	2.00	4049	563 463.648	219 524.607	15.49							Intersection 5th & 14th
		4050	291	56	13	357	44	44	94	55	13	74.738				74.463	1.61	2.00	4050	563 307.810	219 371.666	13.74							1st Dogleg
		4051	60	17	20	126	05	51	92	32	48	81.444				81.364	1.61	2.00	4051	563 185.469	219 440.338	16.53							11th Dogleg

SURFACE

~~UNDERGROUND~~ CONTROL CALCULATION SHEET
(EDM TRAVERSE)

SHEET NO. ERI

LOCATION

PERIOD

MINE LOCATION ARTIFICIAL SCHEELITE PLANT

GRID CLOSURE 1 in

LINE		BEARING			ZENITH ANGLE		SLOPE		HORIZONTAL DISTANCE		HEIGHT		CO-ORDINATES			STN.	INITIALS & DATE			REMARKS		
IS	FS	HORIZONTAL ANGLE			SLOPE		SLOPE		HORIZONTAL DISTANCE		INST.	TARGET	LATITUDE	DEPARTURE	R.L.		SURVEY	CALC	CHECK			
GOLF	MIKE				28	06	29							564 550.260	220 453.690	31.019 ✓	MIKE					
MIKE	ASP	70	02	48	278	09	17	94	26	56	227.818	227.191	1.510	1.525	564 582.486	220 226.796	13.341 ✓ 13.328 ✓	ASP	DOV 15.7.76	"	"	
LIGHTS	MIKE				37	40	16							564 550.260	220 453.690		MIKE					
MIKE	ACID	43	48	12	261	28	28	92	57	06	297.006	296.634	1.560	1.276	564 506.284	220 160.334	15.272 ✓ 16.261 ✓ 16.441 ✓	ACID	MGM 18.7.76	"	"	
ASP	ACID	Calcd			221	56	15							102.439			ACID		MGM 2.8.76	"		
MIKE	TAFY	337	32	14	195	12	30	92	57	30	517.339	516.650	1.560	1.595	564 051.754	220 318.158	4.28 ✓	TAFY	MGM 18.7.76	MGM 31.8.76	JC 1-9-76	
					51	14	57	01							516.650							
MIKE	STORE	333	24	26	191	04	42	95	29	15	283.952	282.651	1.56	0.994	564 272.876	220 399.378	3.999* ✓ 4.43 ✓	STORE	MGM 18.7.76	MGM 9.9.76		* SEE UNDOX.
MIKE	CORDY	14	13	00	222	19	29	94	04	33	351.028	350.140	1.510	1.515	564 291.387	220 217.930	6.06 ✓	CORDY	DMGM 18.7.76	MGM 9.9.76		
MIKE	WECKER	16	07	24	224	13	53	94	11	36	337.053	336.151	1.510	1.63	564 309.398	220 219.206	6.25 ✓	WECKER	"	"		
MIKE	ROD	12	27	26	220	33	55	93	10	09	467.144	466.430	1.516	1.505	564 195.930	220 150.364	5.20 ✓		"	"		
MIKE	FLAT	03	47	02	211	53	37	91	39	17	576.204	575.964	1.510	1.325	564 061.249	220 149.383	14.367 ✓ 14.57 ✓	FLAT	"	"		
MIKE	WIRE	15	22	16	223	28	45	92	21	24	556.217	555.747	1.510	1.150	564 146.997	220 071.286	8.51 ✓	WIRE	"	"		
MIKE	OC27	21	52	18	229	58	47	91	02	25	546.692	546.602	1.510	1.600	564 198.763	220 035.093	21.00 ✓	OC27	"	"		
ACID	24/43	190	31	4.8	232	28	03	144	51	35	1794	1033	1.475	0.000	564 505.555	220 159.515	16.279 ✓	24/43	RJH 6.11.76	RJH 6.11.76		Ramset in Concrete Flooring

CHAINAGE TRAVERSE CALCULATION SHEET

SHEET NO.
AREA
PERIOD

LOCATION OF TRAVERSE **ARTIFICIAL SCHEELITE PLANT**
PURPOSE OF TRAVERSE
GRID SYSTEM
ERROR OF CLOSURE

LINE	HORIZONTAL ANGLE		BEARING			DISTANCE	ZENITH ANGLE	CO-ORDINATES			STN.	INITIALS & DATE			LEVEL BOOK		REMARKS
								LATITUDE	DEPARTURE	R.L.		SURVEY	CALCS	CHECK	#	Pg	
TAFFY	ASP		350 13 17			539.297		564 051.024	220 320.390	4.28	TAFFY						507 Temp ON
ASP	Reg 1		73 40 58 243 54 15			62 + 2.616	86 03 25	564 554.144	220 170.933	13.34	ASP	AG	AS	AG			
Reg 1	Iron pin		130 15 05 194 09 18			47 + 2.242	91 36 25	564 506.429	220 158.899	17.81	3439	4-11-77	4-11-77	4-11-77			-0.033 +.001
Iron pin	Reg 2		96 05 30 110 14 50			30 + 2.066	97 17 35	564 495.423	220 188.738	17.81	3440						-0.014 +.001
Reg 2	Reg 3		115 28 22 45 43 07			37 + 2.108	89 36 00	564 522.722	220 216.731	16.32	3441						-0.004 +.001
Reg 3	ASP		145 41 52 11 25 04			59 + 2.002	90 51 15	564 582.484	220 228.798	12.154	3442						-0.007 +.001
ASP	Reg 1		52 29 20 243 54 24			64.430		(+0.002)	(-0.002)	12.282	ASP						-0.028 +.001
-9"/5 =																	
Iron Pin	R.O.		10 52 23														
Reg 3	A3438		241 42 42			18 + 1.750	88 20 20	564 513.368	220 199.345	13.023	3438						
3438	R.O.!		355 54 00			57 36 42											
Reg 3	A3437		3 30 37			18 + 0.542	93 47 00	564 541.191	220 217.868	12.693	3437						

UNDERGROUND CONTROL
PRECISE CHECK TRAVERSE

CALCULATION SHEET
[STEEL BAND CHAINAGE]

MINE LOCATION 2

GRID R.L. DATUM CLOSURE 1 in 20 396
3 4 5

NOTE — top figure = adjusted value

bottom figure = initial value

8 BS #	9 IS #	10 FS #	12 HORIZONTAL ANGLE			15 BEARING			18 ZENITH ANGLE			20 BAND READING	21 READER READING	22 BAND N°	23 TEMPERATURE °C	24 TENSION kg	25 HORIZONTAL DISTANCE m	26 H.I. SPAD FLOOR	27 H.T. SPAD FLOOR	28 STATION #	29 STATION CO-ORDINATES		31 R.L. LEVEL THEODOLITE	32 FLOOR R.L.	34 INITIALS & DATE			36 ENTERED IN INDEX	37 REMARKS
			0	1	2	0	1	2	0	1	2										LATITUDE	DEPARTURE			SURVEY	CALC'S	CHECK		
	7677	7676				223	39	25											7676	564 046.415	220 250.420								
																			7691	564 046.415	220 250.420	-197.085							
7677	7676	7691	239	53	14	283	32	39								100.524			7691	564 069.964	220 152.679								
																			7692	564 069.960	220 152.682	-181.825							
7676	7691	7692	60	56	48	164	29	27								39.946			7692	564 031.472	220 163.360								
																			7693	564 031.466	220 163.364	-184.737							
7691	7692	7693	154	00	57	138	30	24								43.806			7693	563 998.661	220 192.382								
																			8603	563 998.654	220 192.387	-185.833							
7692	7693	8503	270	06	09	228	36	33								64.894			8603	563 955.757	220 143.695								
																			8604	563 955.747	220 142.702	-194.693							
7693	8603	8604	168	40	07	217	16	40								43.439			8604	563 921.194	220 117.383								
																			8601	563 921.182	220 117.392	-201.003							
8603	8604	8601	100	51	16	138	07	56								29.292			8601	563 899.381	220 136.933								
																			8602	563 899.358	220 136.942	-202.643							
8604	8601	8602	121	57	32	80	05	28								19.947			8602	563 902.815	220 156.581								
																			8301	563 902.801	220 156.591	-202.893							
8601	8602	8301	8	02	31	263	07	59								18.370			8301	563 902.216	220 138.220								
																			8181	563 902.202	220 138.231	-202.849							
8602	8301	8181	202	00	43	290	08	42								16.554			8181	563 907.919	220 122.679								
																			8176	563 907.904	220 122.690	-202.362							
8301	8181	8176	235	13	45	345	22	27								14.937			8176	563 922.373	220 118.907								
																			8169	563 922.351	220 118.918	-200.481							
8181	8176	8169	222	59	09	28	21	36								16.571			8169	563 936.955	220 126.777								
																			8155	563 936.939	220 126.789	-198.554							
8176	8169	8155	197	24	47	45	46	24								26.331			8155	563 956.324	220 145.647								
																			8141	563 956.307	220 145.650	-194.207							
8169	8155	8141	180	01	51	45	48	15								27.598			8141	563 974.564	220 165.434								
																			8125	563 974.546	220 165.441	-190.282							
8155	8141	8125	179	41	46	45	30	01								38.017			8125	564 001.212	220 192.548								
																			8112	564 001.192	220 192.563	-186.085							
8141	8125	8112	89	10	34	314	40	35								34.699			8112	564 025.610	220 167.872								
																			7707	564 025.589	220 167.888	-184.990							
8125	8112	7707	206	44	33	340	25	08								43.071			7707	564 066.192	220 153.437								
																			7675	564 066.169	220 153.454	-181.962							
8112	7707	7675	121	59	38	282	24	46								38.811			7675	564 074.536	220 115.532								
																				564 074.511	220 115.550	-177.846							

UNDERGROUND CONTROL
PRECISE CHECK TRAVERSE

CALCULATION SHEET
[STEEL BAND CHAINAGE]

MINE LOCATION

GRID R.L. DATUM CLOSURE 1 in

NOTE — top figure = adjusted value

bottom figure = initial value

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			BAND READING	READER READING	BAND NO.	TEMPERATURE °C	TENSION	HORIZONTAL DISTANCE	H.I. SPAD FLOOR	H.T. SPAD FLOOR	STATION #	CO-ORDINATES		R.L. LEVEL THEODOLITE	FLOOR R.L.	INITIALS & DATE			ENTERED IN INDEX	REMARKS
BS #	IS #	FS #	o	'	"	o	'	"	o	'	"									LATITUDE	DEPARTURE			SURVEY	CALC'S	CHECK			
7707	7675	7676	359	21	55	101	46	41								137.793			7676	564 046.415	220 250.420								
																				7677	564 046.385	220 250.442	-197.085						
7675	7676	7677	121	52	44	43	39	25																					
																					0.030	0.022							
																754.615					0.037								

SURFACE CONTROL CALCULATION SHEET

CLOSED TRAVERSE [E.D.M.I. CHAINAGE]

NOTE

 INITIAL OR UNADJUSTED FIGURES

LOCATION -185 N13
 GRID I.S.G. R.L. DATUM Tallarook CLOSURE 1 in 4

SHEET N° 5
 LOCATION 6

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			E. D. M. I. Reading	BAROMETRIC PRESSURE	ATMOSPHERIC CORRECTION SETTING	TEMPERATURE	HORIZONTAL DISTANCE		H. I.	H. T.	STATION CO-ORDINATES				INITIALS & DATE			REMARKS
BS	IS	FS	o	'	"	o	'	"	o	'	"	m	Mb		°	m			TITLE	LATITUDE	DEPARTURE	R.L.	FIELD	CALCS	CHECK		
		7676				223	39	25											7676			-197.085					
		7691	239	53	13				82	11	02					100	534		7691			-181.83					
		7692	60	56	47				93	05	58					39	948		7692			-184.74					
		7693	154	00	56				92	55	19					43	806		7693			-185.84					
		8603	270	06	08				97	03	23					64	894		8603			-194.70					
		8604	168	40	06				97	32	38					43	439		8604			-201.01					
		8601	100	51	15				94	24	56					29	292		8601			-202.65					
		8602	121	57	31				93	35	14					19	947		8602			-202.90					
		8301	8	02	30				86	28	08					18	370		8301			-202.86					
		8181	202	00	42				85	52	08					16	554		8181			-202.37					
		8176	235	13	44				85	42	54					14	937		8176			-200.49					
		8169	222	59	08				83	55	12					16	571		8169			-198.56					
		8155	197	24	47				81	28	53					26	334		8155			-194.22					
		8141	180	01	51				81	29	11					27	598		8141			-190.29					
		8125	179	41	46				83	54	43					38	017		8125			-186.10					
		8112	89	10	34				86	46	41					34	699		8112			-185.00					
		7707	205	44	33				86	58	24					43	071		7707			-181.98					
		7675	121	59	38				82	01	55					38	811		7675			-177.86					

CONTROL CALCULATION SHEET

[STEEL BAND CHAINAGE]

MINE LOCATION RED HUT ROAD, D.D.H. INV. 2/3

GRID 1. S. G. R.L. DATUM CLOSURE 30" 1 in 18000

NOTE — top figure = adjusted value bottom figure = initial value

LINE			HORIZONTAL ANGLE			BEARING			ZENITH ANGLE			BAND READING	READER READING	BAND N°	TEMPERATURE °C	TENSION kg	HORIZONTAL DISTANCE m	H.I. SPAD FLOOR	H.T. SPAD FLOOR	STATION #	CO-ORDINATES		R.L. LEVEL THEODOLITE	FLOOR	INITIALS & DATE			ENTERED IN INDEX	REMARKS		
BS #	IS #	FS #	o	'	"	o	'	"	o	'	"									LATITUDE	DEPARTURE		Cap. Corr.	SURVEY	CALC'S	CHECK					
	GEORGE TRILBY					21	17	43							7					TRILBY	562756.27	214120.38			LT	LT					
	GEORGE TRILBY	3616	258	51	45	280	09	28	90	29	25	98.760	87.768			98.612			3616	797.579	213889.822		98.616					TRAMP. 0.015	CAT 0.129		
	TRILBY	3616	98	24	50	198	34	18	90	39	10	95.400				87.577			3617	707.280	859.483		87.663					0.014	0.091		
	3616	3617	218	21	35	236	55	53	93	44	50	99.500				88.553			3618	653.184	776.401		48.048					0.007	0.015		
	3617	3618	INV. 2/3 BRG ORIENTED			250	25	16												INV. 2/3	626.1	700.4								0.015	0.120
	3616	3617	58	28	20	77	02	38	91	42	-	(101.788)				99.500				(707.280)	213	(859.483)									REQUIRED
	3617	3619	159	46	05	56	48	43	90	19	-	(84.049)				99.500				730.091	213	958.636									562626.0, 214700.0
	3619	3620	225	25	55	102	14	38	89	33	-	(93.568)				99.500				776.098	214028.974										
	3620	TRILBY	99	03	35	21	18	13												756.255	214120.411		136.82								
			Misclosure (+30")																		(-0.015)	(+0.031)									
	3617	3618	146	27	45	203	23	38	91	02	-	85.760				85.746			T.S.	574.487	742.356										
	3618	7 S	254	20	30	277	44	08	93	45	-	58.675				58.549			(INV. 2/3)	582.367	684.339		129.0								

CHAINAGE TRAVERSE CALCULATION SHEET

SHEET NO
AREA
PERIOD

LOCATION OF TRAVERSE, INVESTIGATOR 18.

PURPOSE OF TRAVERSE, TO PICK UP DDH

GRID SYSTEM, I.S.G.

ERROR OF CLOSURE 1 in

LINE	HORIZONTAL ANGLE			BEARING			BAND #	TENSION (kg)	Zenith Angle		H.D.	CO-ORDINATES			STN.	INITIALS & DATE			LEVEL BOOK		REMARKS			
	1	2	3	4	5	6			7	8		9	10	LATITUDE		DEPARTURE	R.L.	SURVEY	CALCS	CHECK		#	Pg.	
TANK HILL	Rox			152	11	59					1173.844	565 006.304	216 467.782	139.926	Rox.	JC	JC							
Rox	3820	205	50	57	178	02	56	VI	7	100.000	100.000	91	10	52	99.979	564 906.383	216 471.186	137.856	3820	"	"			
3820	3821	159	23	33	151	06	59	VI	7	100.079	99.942	92	47	35	99.823	564 814.198	216 509.481	133.159 133.162	3821	JC	JC			
3821	3822	178	19	53	155	16	22	VI	7	100.217	100.109	90	42	32	100.101	564 722.913	216 550.558	131.706	3822	"	"			
3822	3823	171	36	44	147	25	06	VI	7	100.170	100.170	90	53	12	100.158	564 635.518	216 604.493	130.218	3823	"	"			
3823	3824	183	05	40	150	50	45	VI	7	56.950	56.950	94	16	37	55.791	564 583.083	216 632.447	125.961 125.962	3824	"	"			
3824	3825	180	32	31	151	03	17	VI	7	98.860	98.728	96	02	09	98.181	564 503.167	216 679.964	115.613 115.620	3825	JC	JC			
3825	3826	224	59	22	196	02	39	VI	7	29.610	29.606	90	50	34	29.603	564 474.717	216 671.782	115.29	3826	JC	JC			
3826	3827	190	28	56	206	31	35	VI	7	52.790	59.770	96	28	28	59.389	564 421.580	216 645.258	108.69	3827	"	"			
3827	D.D.H.	266	21	12	292	52	47	VI	7	56.49	56.47	100	58	30	55.44	564 443.14	216 594.18	98.78	D.D.H.	"	"			N564 450 E 216 598.5 (8.1m)
3827	D.D.H.	266	20	50	292	52	25	VI	7	56.116	56.024 56.003	101	06	10	55.039	564 442.97	216 594.55	98.79	D.D.H.	AG	AG			H.I. 1.49 HT 0.59 T=15°C
3820	3821				157	26	29								564 814.198	216 509.481	133.162	3821					Temp 30.5	
3821	DDH	157	08	28	184	34	57	VI	7	75+2.213	77.147	91	43	50	77.116	564 760.068	216 564.406	130.79	DDH	AG	AG			-0.004 -0.058 -2.35
3824	3825				151	03	17								564 503.167	216 679.964	115.613	3825	AG	AG				
3825	3607	84	58	45	56	02	02	VI	7	97.690	97.561	87	17	03	97.451	564 557.613	216 760.787	120.336	3607	"	"			v/c 4.623
3607	3608	174	51	20	50	53	22	VI	7	100.773	100.632	88	57	22	100.615	564 621.083	216 838.857	127.108	3608	"	"			1.833
3608	3609	180	18	05	51	11	27	VI	7	56.754	56.729	90	10	40	56.729	564 656.637	216 883.062	121.843	3609	"	"			0.176
3609	3610	187	45	12	58	56	39	VI	7	97.977	97.847	89	00	02	97.832	564 707.106	216 966.872	123.646	3610	"	"			1.707
3610	3611	182	50	07	61	46	46	VI	7	98.394	98.262	89	33	30	98.259	564 753.569	217 053.451		3611	"	"			0.757
3611	3612	104	02	12	342	58	51	VI	7	97.556	99.420	88	48	48	99.397	564 832.951	216 928.351	126.596	3612	"	"			2.059
3612	3613	140	37	30	303	36	21	VI	7	74.543	74.486	91	41	25	74.454	564 928.408	216 784.709	130.843	3613	"	"			0.945
3613	ROX	160	11	20	283	47	41	VI	7	98.026	97.896	88	16	55	97.852	565 006.170	216 467.994	139.926	ROX	"	"			2.058 0.127 2.935 2.148 2.905

Level traverse
172.170 (APs)

See To
Drill Site

UNDERGROUND CONTROL CALCULATION SHEET

SHEET NO.
 LOCATION
 PERIOD

MINE
 GRID

LOCATION
 CLOSURE 1 in

LINE		BEARING		ZENITH ANGLE		S. DIST.		HORIZONTAL STATION		HEIGHT IN FEET		CO-ORDINATES			STN.	INITIALS & DATE		REMARKS
												LATITUDE	DEPARTURE	R.L.		SURVEY	DATE	
S	FS																	
CURTAIN	WIRE		183 55 46					190.591				564 146.711	220 071.355	8.520	WIRE			
WIRE	3401	353 27 40	357 23 26	90 35 50	19.716	19.715	1.66	1.59			564 166.406	220 070.457	8.382	3401	MGM	MGM		
3401	3402	286 35 48	103 59 44	93 09 15	40.199	40.138		1.53			564 156.704	220 109.405	6.212	3402	MGM	MGM		
3402	3403	290 58 12	214 57 26	89 44 40	22.628	22.628	1.475	1.415			564 138.159	220 096.441	6.321	3403	MGM	"		
3403	WIRE	253 51 55	288 49 21	84 47 55	26.607	26.497	1.43	1.665			564 146.708	220 071.360	8.520	WIRE	MGM	"		
WIRE	CURTAIN	255 06 18	03 55 39															
3403	2444	46 53 12	335 42 33	102 13 10	28.728 28.725	28.662	1.635	1.485			564 163.755	220 085.959	0.389	2444	NJH	AJH		

CHAINAGE TRAVERSE CALCULATION SHEET

SHEET NO.
 AREA
 PERIOD

LOCATION OF TRAVERSE
 PURPOSE OF TRAVERSE
 GRID SYSTEM
 ERROR OF CLOSURE 1 in

LINE	HORIZONTAL ANGLE	BEARING	BAND #	TENSION (kg)	Zenith Angle	H.D.	CO-ORDINATES			STN.	INITIALS & DATE			LEVEL BOOK		REMARKS	
							LATITUDE	DEPARTURE	R.L.		SURVEY	CALCS	CHECK	#	Pg.		
GOLF MIKE		28 06 29	VI	7			564 550 . 260	220 453 . 690	31 . 019	MIKE	27 6/1/77	27 9/1/77					
MIKE 3601		342 33 16			93 200	93.081	94 13 53	92.827	564 638 . 818	220 425 . 863	29 . 373						11.069
3601 3602		74 41 28			83 802	83.718	89 00 07	83.705	660 . 914	506 . 599	23 . 916						1.458
3602 3603		81 05 18			44 . 562	44.548	89 39 50	44.547	667 . 812	550 . 608	25 . 893						0.261
3603 3604		56 43 08			92.325	92.218	89 47 13	92.217	718 . 408	627 . 705	26 . 360		27 7/1/77				0.313
3604 3605		97 36 53			96.868	96.748	89 02 07	96.730	705 . 580	723 . 581	28 . 196						1.627
3605 3606		71 55 05			36.959	36.952	83 22 15	36.705	564 716 . 968	220 758 . 475	32 . 265						4.261
3606 GOLF		213 56 35			(Cable Sag 213'57"02")			1861.311	563 166 . 290	219 714 . 470	20 . 304						
GOLF MIKE		28 06 29															
3605 3606		71 55 05							564 716 . 968	220 758 . 475	32 . 265						
3606 2348	161 22 00	53 17 05			(Steel tape) 15.350		89 26 05	15.349	726 . 1411	770 . 779	32 . 606						10.151
									564 726 . 181	771 . 080							(From CHAINAGE TRAV. 3-8-72)

CHAINAGE TRAVERSE CALCULATION SHEET

SHEET No.

AREA

PERIOD

LOCATION OF TRAVERSE

PURPOSE OF TRAVERSE LOCATED P/B/H No. 53

GRID SYSTEM

ERROR OF CLOSURE 1 in

LINE	HORIZONTAL ANGLE		BEARING			BAND #	TENSION (kg)	Catenary Length	Catenary Corr.	ZENITH ANGLE			H.D.	CO-ORDINATES			STN.	INITIALS & DATE			LEVEL BOOK		REMARKS	
														LATITUDE	DEPARTURE	R.L.		SURVEY	CALCS	CHECK	#	Pg.		
PAT	2429					3	7						2691.89	565 907.05	217 778.52	131.028	2428		RJH			GEO	1	
	1	03	01	02	89	45	53	73.283		92	24	45	99.195	565 922.68	217 877.73		1		RJH			GEO	2	
	2	137	54	59	99	42	51	77.123		90	46	48	99.114	565 901.53	217 976.63	127.034	2		RJH			GEO	3	Δ 2429 RJH 19-4-75 #2
	P/B/H	132	12	42	07	53	33	7.563		99	51	55	7.766	565 900.20	217 984.48	126.8	P 5/4		RJH			GEO	3	P/B/H No 53.
														565 907.46	217 877.81		1							
														565 890.73	217 976.51		2							
														565 889.40	217 983.16		PB/H							

22-4-75

CHAINAGE TRAVERSE CALCULATION SHEET

SHEET NO.
 AREA
 PERIOD

LOCATION OF TRAVERSE GRASSY TOWNSHIP.
 PURPOSE OF TRAVERSE CO-ORDS. FOR LOTS 1, 2, 3, 4, GRASSY - CURRIE RD.
 GRID SYSTEM I.S.G.
 ERROR OF CLOSURE 1 in

LINE	HORIZONTAL ANGLE	BEARING	BAND #	TENSION (kg)	Zenith Angle	H.D.	CO-ORDINATES			STN.	INITIALS & DATE			LEVEL BOOK		REMARKS
							LATITUDE	DEPARTURE	R.L.		SURVEY	CALCS	CHECK	#	Pg.	
3418							564.745	261	218.826	328	125.56	Mears				
Mears	269 23 10	17 23 41				34.840	778.508		836.744							From Survey Information
"	259 11 50	96 35 31				18.288	776.409		854.911							REF: C.T. 2506/56
"	" " "	" " "				36.576	774.309		873.078							(Percock, Dancy & Anderson)
"	" " "	" " "				54.864	772.210		891.245							
"	" " "	" " "				73.152	770.110		909.412							
S.E. CORNER Lot 4	90 34 40	07 10 11				36.677	800.547		913.241							
N.E. CORNER Lot 4	89 26 40	276 36 51				18.288	802.654		895.075							
"	" " "	" " "				36.576	804.760		876.909							
"	" " "	" " "				54.864	806.867		858.742							
"	" " "	" " "				73.152	808.973		840.576							
N.W. CORNER Lot 1	90 33 20	187 10 11				30.709	778.504		836.743							

STADIA TRAVERSE CALCULATION SHEET

LOCATION OF TRAVERSE OPEN CUT - East End
 PURPOSE OF TRAVERSE CONTROL FOR P2th PERIOD P/U
 GRID SYSTEM I.S.G.
 ERROR OF CLOSURE 1 in 1052

LINE	BEARING				ZENITH ANGLE				STADIA INTERCEPT	STAFF INTERCEPT	HEIGHT INST.	H.D.	CO-ORDINATES			STN.	INITIALS & DATE			REMARKS
	HORIZONTAL ANGLE												LATITUDE	DEPARTURE	R.L.		SURVEY	CALCS.	CHECK	
-1	-1	"	"	"	"	"	"	"	-2	-3	-1	-1	-1	-1	-1	-1	+	+	+	
1810				146 12 55									564 181.09	219 688.31	-27.92	1810	MGM 28/5		Calc Sheet 144	
1810	1809			146 12 55									564 090.84	219 748.69	-34.07	1809	"		" " " "	
1809	1841	81 24 35	47 37 20	99 00 53	58.1	1.291	1.56	56.67					564 129.04	219 790.56	-42.79	1841	MGM 28/5			
1841	1842	227 27 08	95 04 28	95 58 58	41.8	1.209	1.56	41.35					564 125.38	219 831.74	-46.77	1842	"			
1842	1843	187 57 25	103 01 53	96 26 53	59.4	1.299	1.52	58.65					564 112.16	219 888.88	-53.18	1843	"			
1843	1844	297 14 30	220 16 23	90 19 38	75.7	1.319	1.47	75.70					564 054.40	219 839.95	-53.52	1844	"			
1844	1845	223 13 10	263 29 33	106 34 18	67.5			62.01					564.047.37	219 778.34	-35.27	1845	"			
1845	1809	242 28 08	325 57 41	89 01 18	52.4	1.262	1.54	52.38					564 090.78	219 749.01	-34.10	1809	"			
1809	1810	180 14 50	326 12 31														JC 31/5	MGM 31/5		
								346.76											Σ	
		272 53 07						0.33					564 090.84	219 748.69	-34.07	1809	MGM 31/5		Closing line	
		280 37 10						1052					+0.06	-0.32	-0.03				Misclose	

STADIA TRAVERSE CALCULATION SHEET

SHEET No 59
 AREA.....
 PERIOD.....

LOCATION OF TRAVERSE SEA DUMP WEST
 PURPOSE OF TRAVERSE TOPO P/O CONTROL
 GRID SYSTEM 15G
 ERROR OF CLOSURE 1 in 577

LINE		HORIZONTAL ANGLE		BEARING		ZENITH ANGLE	STADIA INTERCEPT	STAFF INTERCEPT	HEIGHT INST.	H.D.	CO-ORDINATES			STN.	INITIALS & DATE			REMARKS
											LATITUDE	DEPARTURE	R.L.		SURVEY	CALCS.	CHECK	
SPOIL	LIGHTS			85	42	13					563 916.458	219 964.344	13.288	LIGHTS				
LIGHTS	2666	239	32	145	14				113.3	563 825.03	220 027.81	13.41	2666	JC				
2666	2667	275	32	240	46				77.69	563 787.09	219 960.02	12.97	2667					
2667	2668	200	59	261	45				101.77	563 772.48	219 859.30	10.73	2668					
2668	2669	110	42	192	27				99.34	563 675.48	219 837.89	9.70	2669					
2669	2670	113	46	126	13				98.44	563 617.32	219 917.31	8.34	2670					
2670	3307	25	01	171	14				53.79	563 564.15	219 925.51	5.03	3307					
									542.33									
				92	25				0.94	563 564.115	219 926.443	5.124	3307					

STADIA TRAVERSE CALCULATION SHEET

SHEET No. 514

AREA

PERIOD

LOCATION OF TRAVERSE ARTIFICIAL SCHEELITE PLANT

PURPOSE OF TRAVERSE P/O EARTHWORKS AND BLDG. ADDITIONS

GRID SYSTEM ISG

ERROR OF CLOSURE 1 in

LINE	STN.	BEARING			ZENITH ANGLE	STADIA INTERCEPT	STAFF INTERCEPT	HEIGHT INST.	H.D.	CO-ORDINATES			STN.	INITIALS & DATE			REMARKS
		HORIZONTAL ANGLE	1	2						LATITUDE	DEPARTURE	R.L.		SURVEY	CALCS.	CHECK	
	TAFFY									564 050.024	220 320.390	4.28	TAFFY			From COORDINATE INDEX	
TAFFY	ASP	Calc'd 350 14 22						540.283		564 582.486	220 228.796	13.341	ASP			Coords from -	
ASP	1870	75 46 20	246 00 42	85 41 40	56.68	0.25 +1.485	1.395	56.20		564 559.64	220 177.45	17.24	1870	MGM 18.5.77			
	ASP									564 582.486	220 228.796	13.341	ASP				
ASP	1751	158 45	328 58	89 31	30.5	1.500	1.47	30.5		564 608.63	220 213.06	13.55	1751	ASP 10/2/78		steel bar used on this leg	
1751	1752	240 38	29 36	96 35	35.4	-	1.58	35.2		564 639.25	220 230.44	11.09	1752	ASP 10/2/78			
1752	1753	126 16	355 52	85 33	34.1	0.00	1.53	34.0		564 670.29	220 216.53	15.27	1753	ASP 10/2/78			
1753	1754	62 59	218 51	82 59	51.3	1.259	1.46	50.9		564 630.65	220 184.59	21.68	1754	"			
1754	1755	146 50	185 41	93 27	31.9	1.159	1.37	31.8		564 599.03	220 181.43	19.55	1755	"			
1755	ASP	103 35	109 16	98 07	50.7	0.453	1.37	50.2		564 582.48	220 228.80	13.84	ASP	"		all RL's from level traverse	

CHAINAGE TRAVERSE CALCULATION SHEET

SHEET NO.
AREA
PERIOD

LOCATION OF TRAVERSE: WORKSHOPS AREA - SOUTH END
 PURPOSE OF TRAVERSE: Rough confirmation of Dolphin C Wedge Hydraulic Fill Hole Position
 GRID SYSTEM: I.S.G.
 ERROR OF CLOSURE: _____

LINE	HORIZONTAL ANGLE		BEARING	BRACKET	TENSION (kg)	Catenary Length	Catenary Corr.	ZENITH ANGLE			H.D.	CO-ORDINATES			STN	INITIALS & DATE			LEVEL BOOK		REMARKS
	Left	Right						Top	Bottom	Left		Right	Latitude	Departure		R.L.	Survey	Calcs	Check	#	
2027	2026		26 18	55							61.92	564 305.63	220 105.06	8.725	2026		MGM 21/3			Ex. Calc Sheet 24B	
2026	2651	31 54	158 13			55.01	—	93 03	—	54.93		564 254.62	220 125.45	7.326	2651		MGM 21/3				
2651	2652	27 20	195 33			21.50	—	93 26	—	21.46		564 233.96	220 119.63		Callar dd 418						
2651	2652	21 28	189 41			47.22	—	93 03	—	47.15		564 208.14	220 117.52	6.374	2652						
2652	2653	direct	40 03			39.23	—	92 01	—	39.21		564 238.15	220 142.75	6.566	2653		MGM 25/3	MGM 25/3		RAMSET	
2652	2654	direct	204 11			46.49	—	91 23	—	46.40		564 165.74	220 098.48	6.818	2654						
2653	2655	direct	20 35			47.36	—	92 36	—	47.31		564 214.08	220 183.48	5.749	2655						
2655	2431	37 55	17 08			100.578	—	90° 01' 25"		100.578		564 303.59	220 229.35		2431						