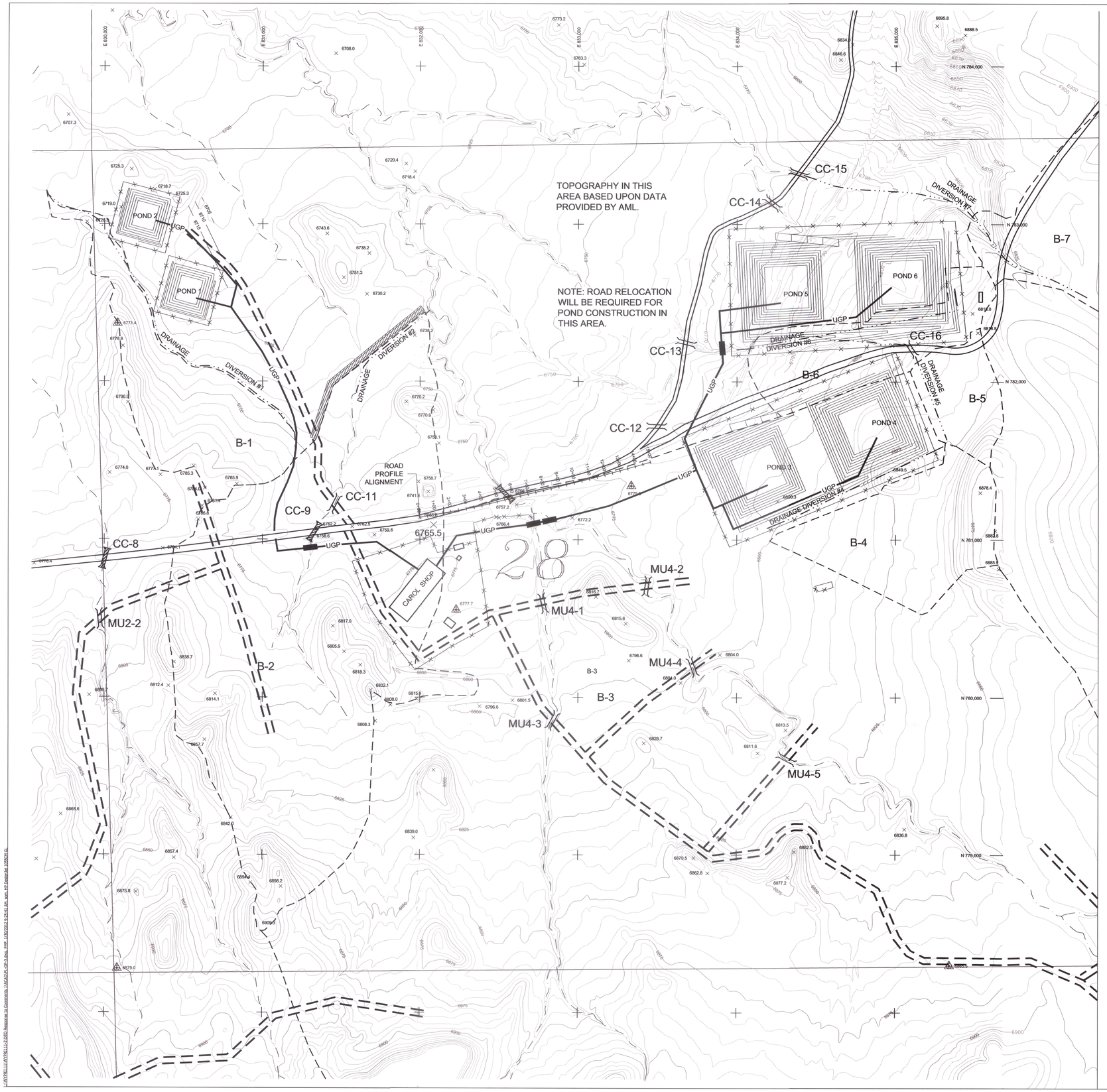

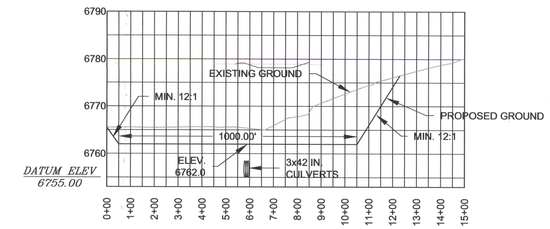

ROAD PROFILE
(DRAINAGE DIVERSION #3)
HORIZONTAL SCALE 1 IN.=300 FT.
VERTICAL SCALE 1 IN.=5 FT.

Hydrologic Data

Basin	Area	Basin Relief	Hydraulic Length	Time of Concentration	Rainfall Intensity	Cumulative Peak Flow
	ac	ft	ft	min	in/hr	CFS
B-1	19.5	65	2375	13	26.5	520
B-2	91.5	180	4275	17	22.5	2125
B-3	1515	600	14600	44	NA	12750
B-4	18.5	85	1540	7	32.0	590
B-5	6.5	65	800	4	34.0	220
B-6	21.1	95	1890	8	30.5	645
B-7	41.2	150	2750	10	28.0	1155

1. Kirpich equation utilized for time of concentration estimates.
2. PMP Rainfall calculated using HMR-55 A, 1 HR PMP = 8.93 inches.
3. PMF peak flow was calculated with the Rational Method, for Basins B-1, B-2, B-4, B-5, B-6, and B-7
   Q = CiA.
   C = Runoff coefficient 1.0
   i = Rainfall Intensity in in/hr
   A = Basin Area in acres
4. PMF peak flow was calculated with the COE HEC-1 model for Basin B-3

Hydraulic Data

Drainage Diversion	Flow Rate	Conveyance Analysis			
		Mannings n	Flow Depth	Velocity	Freeboard
	CFS		ft	fps	ft
1	520	0.045	3.15	7.7	1.85
2	2125	0.045	5.20	8.9	1.80
3*	12750	NA	2.90	4.3	NA
4	590	0.045	3.73	6.8	1.77
5	220	0.045	2.20	5.4	1.80
6	645	0.045	3.23	8.1	1.77
7	1155	0.045	4.19	8.5	1.31

Drainage Diversion Schedule

Drainage Diversion	BW	D	Channel Slope
	ft	ft	%
1	12	5.0	2.0%
2	30	7.0	1.25%
3*	1000	2.9	0%
4	12	5.5	1.3%
5	12	4.0	1.5%
6	12	5.0	2.0%
7	20	5.5	1.55%

Drainage Diversion #3 is the weir structure along the Carol Shop Road - See road profile alignment detail.

LEGEND

- DRAINAGE DIVERSION
- DRAINAGE
- MAIN ROADS, PIPELINE AND POWER LINE CORRIDORS
- SECONDARY ROADS, PIPELINE AND POWER LINE CORRIDORS
- RUNOFF CONTROL BERM
- PROPOSED CULVERT
- EXISTING CULVERT
- B-1 DRAINAGE BASIN BOUNDARY
- PROCESS WATER PIPELINE CARRIER PIPE AND CONCRETE ENCASEMENT
- UGP PROCESS WATER PIPELINE
- FENCE

SCALE: 1"=300'
0 150 300 600

REVISIONS		
NO.	DATE	BY

CAMECO
Cameco Resources
NRC SOURCE MATERIAL
LICENSE SUA-1548

GAS HILLS REMOTE SATELLITE

FIGURE 3.40
PMF DIVERSIONS AND EVAPORATION PONDS

PAGE SIZE	SCALE	DEPARTMENT:	REV
24"X36"	SEE GRAPHIC SCALE	DEPARTMENT	0

DRN BY: DATE:
CHK BY: DATE:
APPV BY: DATE: 2005