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APPENDIX A

Table A-1 Core log description of selected borehole for calculation model (after Thawat Japakasetr and Pakorn Suwanich, 1982).

K - 40
Wat Suthat, Chaturapakpiman District
Roi Et

Start drilling : July 25, 1976
Stop drilling : October 6, 1976
Start coring : 885 ft (269.75 m)
Core recovery : 98 percents

Elevation : 140 m
Depth : 2283 ft (695.86 m)
Thickness of potash : 73.58 m
Logged by : Prakorn Suwanich

Intervals (m)	Thickness (m)	Description
0 - 9.14	9.14	Sand - Light grey and pinkish orange color, composed mostly of quartz grains of rounded to subrounded shape, some black rock fragments.
9.14 - 39.62	30.48	Claystone - Reddish brown, with some greenish grey claystone. N.B. Depth as shown on gamma-ray log.
39.62 - 259.08	219.46	Siltstone - Reddish brown, with some greenish grey claystone interbedded. Gypsum and anhydrite as veins and veinlets along fractured surfaces.
259.08 - 269.75	10.67	Mudstone - Reddish brown, with some greenish grey mottling.
269.75 - 272.49	2.74	Anhydrite - Greyish white, black organic matter along bedding planes of nearly horizontal.
272.49 - 275.23	2.74	Rock salt - Mostly halite of colorless, partly smoky halite of organic matter association.
275.23 - 351.13	75.90	Clay - Reddish brown, with green clay as mottling and also as thin layers (2-3 cm) alternation. Brown halite as vein (up to 25 cm wide) showing fibrous structure of about 13 veins.
351.13 - 358.95	7.82	Clay - Dark grey, semiconsolidated, massive.
358.95 - 455.45	96.50	Rock salt - Mostly halite of colorles with smoky halite alternation, white gypsum and anhydrite as stringers of about 3 percents. Orange-red carnalite was found about 2-5 cm thick at depths of 439.52 m and 446.23 m

K - 40 (Continued)

Intervals (m)	Thickness (m)	Description
455.45 - 456.18	0.73	Anhydrite - White, with dark grey to black organic matter layers alternation.
456.18 - 469.94	13.76	Rock salt - Mostly halite of colorless, with smoky halite alternation, white gypsum and anhydrite as stringers and thin layer. The color of halite changed to orange-brown at the end of the interval.
469.94 - 528.52	58.58	Clay - Reddish brown, with green clay mottling, colorless halite and orange-red carnallite were found as veins and veinlets of fibrous structure. The thick carnallite-halite veins were found from 476.40-477.93 m, and 484.02-485.32m
528.52 - 529.62	1.10	Anhydrite - Grey color, decomposed, with greenish grey clay associated, and also halite-carnallite veins.
529.62 - 531.75	2.13	Rock salt - Mostly halite of colorless, with alternation of smoky halite layers and white gypsum stringers.
531.75 - 533.17	1.42	Sylvinite - Composed of about 80-85 percents of colorless halite and about 15-20 percents of cloudy white sylvite as irregular [illegible] growth with halite.
533.17 - 549.55	16.38	Halite & Carnallite - About 60 % halite of colorless, and about 40 % carnallite of colorless to pinkish shade as intergrowth with halite.
549.55 - 605.33	55.78	Halite & Carnallite - Mostly halite of colorless, carnallite as thin (30 cm thick) colorless to red layers at intervals, which is about 20 percents. The carnallite layers themselves associated with halite of about 40 percents.
605.33 - 695.86 (Hole was abandoned in rock salt)	90.53	Rock salt - Mostly halite of colorless, with alternation of smoky halite layers and white anhydrite stringers.

K - 41

Ban Na Srinuan, Phayakaphumphisai District

Mahasarakham

Start drilling : September 7, 1976
Stop drilling : November 10, 1976
Start coring : 540 ft (153.62 m)
Core recovery : 93 percents

Elevation : 140 m
Depth : 1605 ft (489.2 m)
Thickness of potash : 2.8 m(+)
Logged by : Parkorn Suwanich

Intervals (m)	Thickness (m)	Description
0 - 10.06	10.06	Clay - Grey color, top soil.
10.06 - 216.10	206.04	Mudstone - Reddish brown, with greenish grey mottling, locally siltstone interbedded, gypsum as veins and veinlets along fractured surfaces.
216.10 - 216.41	0.31	Anhydrite - Grey color, densed.
216.41 - 220.73	4.32	Rock salt - Mostly halite of colorless, partly black organic matter alternation, coarse grains.
220.73 - 221.38	0.65	Anhydrite - Grey color, with rock salt grains and crystals associated as breccia.
221.38 - 230.38	9.00	Rock salt - Mostly halite of colorless, partly black organic matter alternation, anhydrite as stringers.
230.38 - 307.69	77.31	Clay - Reddish brown, with greenish grey mottling. Halite as veins and veinlets of colorless and pale orange color. Gypsum and anhydrite as fragments and pods. Greenish grey clay as locally interbedded, which is abundant at the lowest part of the bed.

K - 41 (Continued)

Intervals (m)	Thickness (m)	Description
307.69 - 406.48	98.79	Rock salt - Mostly halite of colorless, partly black organic matter alternation as smoky halite, gypsum as stringers and thin layers of about 3 percents. Traces of red carnallite as small pods.
406.48 - 407.39	0.91	Anhydrite - White-grey color, black carbonaceous as film along bedding planes, few rock salt grains associated along fracture.
407.39 - 422.60	15.21	Rock salt - Same as 307.69 - 406.48 m.
422.60 - 483.95	61.35	Clay- Reddish brown, with greenish grey mottling. Red-orange carnallite and pale orange halite as veins filling along fractures of about 10 percents with thicknesses from 10 cm to 1.5 m, and also as veinlets. The carnallite veins are lesser than the halite veins. Anhydrite as grains and thin layers of about 2 percents.
483.95 - 484.10	0.15	Anhydrite - Grey, with dark carbonaceous of almost horizontal layers.
484.10 - 486.40	2.30	Rock salt - Mostly halite of orange to brown color, with anhydrite layers and traces of orange-red carnallite association.
486.40 - 489.20	2.80	Halite & Carnallite - About 70 % halite of colorless, and about 30 % carnallite of mostly colorless, and partly orange-red color associated together. N.B. Hole was abandoned in potash

K - 42
Wat That, Kasetwisai District
Roi Et

Start drilling : October 17, 1976
Stop drilling : November 14, 1976
Start coring : 502 ft (153 m)
Core recovery : 100 percents

Elevation : 130 m
Depth : 2102 ft (640.7 m)
Thickness of potash : 50.3 m
Logged by : Parkorn Suwanich

Intervals (m)	Thickness (m)	Description
0 - 12.19	12.19	Sand - Pinkish orange, red, white and colorless, very fine grained, composed mostly of quartz of subrounded grains.
12.19 - 25.91	13.72	Sandstone - Reddish brown, very fine grained, composed mostly of quartz grains with clay as cementing material, very brittle.
25.91 - 64.01	38.10	Siltstone - Dark reddish brown, with greenish grey mottling, gypsum and anhydrite also found as scale in cuttings.
64.01 - 79.86	15.85	Claystone - Reddish brown, with greenish grey mottling, slightly unconsolidated, anhydrite as filling along fractures in few places.
79.86 - 83.51	3.65	Anhydrite - White-grey with carbonaceous films alternation of almost horizontal (± 5°) layers. N.B. Depth and thickness as shown on gamma-ray log.
83.51 - 152.40	68.89	Claystone - Reddish brown, semi-consolidated, with greenish grey mottling, partly anhydrite fragments.
152.40 - 159.64	7.24	Claystone - Dark greenish grey, semi-consolidated, shows pink color near the bottom of the bed.
159.64 - 159.66	0.02	Anhydrite - Grey, core is broken in pieces.
159.66 - 242.21	82.55	Rock salt - Mostly halite of colorless, partly smoky halite of organic matter which is increasing at greater depth, anhydrite as stringers and thin layers of about 5 percents.
242.21 - 242.70	0.49	Anhydrite - White-grey, with carbonaceous films showing almost horizontal (± 5°) layers. Elongated halite grains were found as filling in anhydrite fractures.
242.70 - 256.41	13.71	Rock salt - Mostly halite of smoky shade, partly colorless, anhydrite as stringers and thin layers.

K 42 (Continued)

Intervals (m)	Thickness (m)	Description
256.41 - 319.31	62.90	Clay - Reddish brown, with greenish grey mottling, anhydrite grains were found locally, especially at the beginning of the interval. Pale orange to colorless halite and red-orange carnallite as veins filling along fractures, also showing fibrous structure and elongated crystals. Six halite veins of about 17 cm to 1.22 m wide were found at the upper half of the interval, while 3 carnallite veins of about 5 cm to 85 cm wide were found near the end of the interval. Veinlets of halite and carnallite were also found. Greenish grey clay as thin interbedded near the end of the interval.
319.31 - 319.51	0.20	Clay - Dark grey color, massive.
319.51 - 320.47	0.96	Anhydrite - Dark grey color, hard, with dark grey clay interbedded, halite and red carnallite associated as spots and grains.
320.47 - 321.41	0.94	Halite, & Carnallite - About 80 % halite of colorless to white, and about 20 % carnallite of orange-red color, and small amount of tachyhydrite and anhydrite association.
321.41 - 332.05	10.64	Tachyhydrite, Carnallite, & Halite - About 55 % tachyhydrite of honey yellow color. About 25 % carnallite of colorless. About 20 % halite of colorless. These are mixed together, only few places tachyhydrite were separately associated. Small amount of anhydrite was found.
332.05 - 373.07	41.02	Carnallite, & Halite - About 60 % carnallite of colorless in the upper half and orange-red to deep red in the lower half of the interval. About 35 % halite of colorless, and about 5 % of tachyhydrite.
373.07 - 433.73	60.66	Rock salt - Mostly halite of colorless, coarse grained, partly smoky halite of organic matter, anhydrite as stringer and layers of about 5 percents.

K-42 (Continued)

Intervals (m)	Thickness (m)	Description
433.73 - 434.40	0.67	Anhydrite - White, with halite of elongated grains filling along fractures, showing dip of nearly horizontal layers.
434.40 - 439.64	5.24	Rock salt - Mostly halite of colorless, partly smoky halite and anhydrite.
439.64 - 440.19	0.55	Clay - Dark greenish grey, very soft, pale orange halite band was found about 12 cm thick in the middle of the interval.
440.19 - 636.09	195.90	Rock salt - Mostly halite of colorless, partly smoky halite of organic matter, anhydrite and gypsum as stringers - grains and thin layers of about 5 percents. Greenish grey clay was found as few thin layers of about 15 cm thick from interval 451.7 to 459.3 m.
636.09 - 637.67	1.58	Anhydrite - Grey, with organic matter alternation as film, partly show bedding of almost horizontal, and partly show boudinage structure.
637.67 - 638.17	0.50	Siltstone - Greenish grey, massive, soft.
638.17 - 640.69	2.52	Siltstone - Reddish brown, massive, locally reddish brown mudstone fragments.

K - 64

Wat Plap Pla Chai, Ban Ta Yuak, Amphoe Suwanna Phum

Roi Et

Start drilling : December 28, 1978
Stop drilling : January 18, 1979
Start coring : 140.51 m
Core recovery : 100 percents

Elevation : 123 m
Depth : 297.18 m (975 ft)
Thickness of rock salt : 118.21 m
Logged by : Parkorn Suwanich

Intervals (m)	Thickness (m)	Description
0 - 7.62	7.62	Sandy clay - Mostly brown-yellowish grey clay, with about 10 % of very fine quartz sand, subrounded, well sorting, some black rock fragments were found.
7.62 - 9.14	1.52	Sand & Gravel - Very coarse sand and gravel, about 1 - 2 mm in size, angular to subrounded. About 50 % of reddish brown claystone grains
9.14 - 108.20	99.06	Sand - Mostly fine to medium sand of colorless quartz grains, with about 5 % of black rock fragments. Some coarser sand grains and gravels were found near the bottom of the interval. Reddish brown clay and claystone were found associated with sand at the bottom of the interval.
108.20 - 140.51	32.31	Clay - Reddish brown, some claystone grains in the cuttings, which is increasing near the bottom of the interval.
140.51 - 168.68	28.17	Claystone - Reddish brown, abundant of fractures of about 60° - to 80° tilted. Greenish grey clay filled along fractures. Greenish grey clay as mottling and interbedded. From 167.21 - 168.68 m Dark grey claystone, with thin layers of anhydrite of about 1 - 2 cm thick of nearly horizontal.
168.68 - 169.09	0.41	Anhydrite - White - grey, abundant of fractures, show folding, partly microfolding. Carbonaceous matter along fractured surfaces and bedding plane, especially in the upper part. The lower part is massive, no black carbonaceous matter associated.

K - 64 (Continued)

Intervals (m)	Thickness (m)	Description
169.09 - 170.89	1.80	Clay - Mostly greyish green clay, some anhydrite grains were found, small amount of reddish brown clay, few fractures, which are tilted about 60°- 70°
170.89 - 171.60	0.71	Anhydrite - White-grey, with about 5 % of dark bands of carbonaceous material of nearly horizontal bands. Some dark grey clay associated. Contact with the overlied clay is about 60 tilted.
171.60 - 220.27	48.67	Rock salt - Mostly colorless halite, with some smoky halite bands, milky white halite grains, and anhydrite small grains associated. The grains of halite oriented nearly horizontal. Locally, especially in tho lower part, the anhydrite changed to white gypsum.
220.27 - 220.32	0.05	Anhydrite - White - grey, massive, with some halite grains and black carbonaceous matter associated.
220.32 - 289.81	69.49	Rock salt - Mostly colorless halite, with some smoky halite bands, milky white halite grains, and white-grey gypsum grains associated. The anhydrite is increasing to about 5 - 10 %, from 233 - 244 m, and sometimes changed to white gypsum grains and locally formed thin layering (2 - 5 cm thick). The smoky halite is increasing at greater depth, white the milky white halite grains are decreasing to disappear at greater depth. The grains of halite is finer than above, and oriented nearly horizontal.
289.81 - 296.01	6.20	Anhydrite - White - grey, massive, with some black carbonaceous material, which is decreasing at gretor depth. Bedding is about 20°- 45° dipping.
296.01 - 296.08	0.07	Siltstone - Greyish green, irregular contact with the overlied anhydrite.
296.08 - 297.18	1.10	Sandstone - Reddish brown, fine grained, massive.

K - 66

Town Hall Area, Amphoe Borabou
Mahasarakham

Start drilling : February 14, 1979
Stop drilling : April 25, 1979
Start coring : 106.68 m
Core recovery : 106.7 - 793.7 m = 97 %
793.7 - 818 m = 15 %

Elevation : 172 m
Depth : 818.08 m (2648 ft)
Thickness of rock salt : 24.4 m (+)
Logged by : Parkorn Suwanich
Aran Sukwiwat

Intervals (m)	Thickness (m)	Description
0 - 32.00	32.00	Top soil - Clayey sand, color changed from dark brown in the upper part to brownish grey, greyish brown and greyish yellow in the bottoom. Sand grains composed mostly of colorless quartz, with some pink and orange color. Some white grey sandstone fragments were found near the bottom of the interval.
32.00 - 47.24	15.24	Clay - Reddish brown clay, with some sand grains, and chert fragments.
47.24 - 85.34	38.10	Silty clay - Mostly reddish brown clay, with some very fine grained sand or silt, well rounded, and well sorting.
85.34 - 106.68	21.34	Sand & Gravel - Mostly fine to medium reddish brown sand, about 0.2 - 0.3 mm, well sorting and rounded. Locally found some chert and quartz gravel (0.5 - 0.8 cm diam).
106.68 - 318.52	211.84	Sandstone - Reddish brown, fine to medium grained, semi-consolidated. Quartz grains are mainly colorless, some are pink and orange. Gypsum was found as small plate. Reddish brown claystone and siltstone were found as fragments and thin layers. Calcareous clay and silica as cementing materials. Cross bedding and graded bedding generally found. Locally greyish green mottling in both sandstone and claystone. Fractures were found about 70° - 80° tilted in sandstone, and nearly horizontal in claystone. Very fine white salt was found coated around core when it dried, especially in the lower part of the interval.

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K - 66 (Continued)

Intervals (m)	Thickness (m)	Description
318.52 - 793.62	475.10	Siltstone - Reddish brown, calcareous, abundant of cross bedding, some pores or small holes were found with some reddish brown clay associated. Colorless gypsum was found as veins, veinlets, in the upper part. White grey anhydrite was found in the lower part, as grains 0.2 - 3 cm in size, generally about 0.2 - 0.5 cm, which is increasing at greater depth. Locally, thin layers of very fine grained reddish brown sandstone were found, showing graded bedding. Some white salt was found coated around the core at some intervals.
793.62 - 793.70	0.08	Anhydrite - White-grey, densed, massive.
793.70 - 818.08	24.38	Rock salt - Mostly halite of colorless, some white grey anhydrite associated, (N.B. Hole was abundoned in rock salt)

Table A-2 Densities of sediments and sedimentary rock.

Rock type	Range (g/cm³)	Average (wet) (g/cm³)	Range (g/cm³)	Average (dry) (g/cm³)
Alluvium	1·96–2·0	1·98	1·5–1·6	1·54
Clays	1·63–2·6	2·21	1·3–2·4	1·70
Glacial drift	—	1·80	—	—
Gravels	1·7–2·4	2·0	1·4–2·2	1·95
Loess	1·4–1·93	1·64	0·75–1·6	1·20
Sand	1·7–2·3	2·0	1·4–1·8	1·60
Sands and clays	1·7–2·5	2·1	—	—
Silt	1·8–2·2	1·93	1·2–1·8	1·43
Soils	1·2–2·4	1·92	1·0–2·0	1·46
Sandstones	1·61–2·76	2·35	1·6–2·68	2·24
Shales	1·77–3·2	2·40	1·56–3·2	2·10
Limestones	1·93–2·90	2·55	1·74–2·76	2·11
Dolomite	2·28–2·90	2·70	2·04–2·54	2·30

(after Telford, Geldart and Keys, 1983)

Type	Density
Unconsolidated sediments	1.7–2.3, usually increasing with depth on account of compaction of the shales
Sandstones	2.0–2.5, varying principally with porosity
Salt, pure halite	2.16
In salt domes	2.20, including disseminated anhydrite
Limestone	2.5–2.7
Granite	2.6–2.8
Basalt (sial)	3.0
Dunite (sima)	3.3
Average density of crustal rocks above sea level	2.67

(after Nettleton, 1976)

Table A-2 (continued)

Formation	Age	Locality	Depth of sample, feet	Number of samples	Porosity, per cent Aver.	Min.	Max.	Sat'd. bulk density (average) g per cm^{-3}	Ref.	Porosity method: T (Total) A (Apparent)
			SANDSTONE							
"Mount Simon" ss.	Cambrian	W. Va., Wood County	13,005–13,065	9	.7	.2	2.5	2.70	30	A
Southern "Potsdam" ss.	Cambrian	Wis.	quarry	14	11.4	4.8	28.3	2.41	5	A
Northern "Potsdam" ss.	Cambrian	Wis.	quarry	16	19.4	10.4	22.6	2.32	5	A
St. Peter Ss.	Ordovician	Ark., Ozark Plateau	outcrop	12	8.8	3.6	14.1	2.50	4	T
Bradford ss.	Devonian	Pa.	≈600–≈2300	297	15.0	6.0	23.3	2.40	7	T
					(assumed grain density, 2.65 g cm^{-3})					
Chemung Formation (ss's.)	Devonian	Pa.	≈1700–≈2300	49	9.5	4.5	22.2	2.51	20, 21	T
Berea Ss.	Mississippian	Ohio, W. Va.	0–2160	18	14.1	4.7	19.5	2.39	20, 21 3, 36	T, A
Atoka Formation (and other ss's.)	Pennsylvanian	Ark.:								
		Ozark Plat.	outcrop	17	12.3	4.7	19.8	2.44	4	T
		Ark. Valley	outcrop	35	7.8	0	20.6	2.51	4	T
		Ouachita Mts.	outcrop	25	5.1	0	10.4	2.56	4	T
Bartlesville sand	Pennsylvanian	Okla.	1570–2680	26	18.3	7.6	32.0	2.40	20	T
Bunter Ss.	Triassic	Gt. Britain	outcrop	18	20.4	5.8	30.8	2.29	22	A
Keuper Ss.	Triassic	Gt. Britain	outcrop	16	22.6	16.5	28.6	2.25	22	A
Woodbine sand	Cretaceous	Tex.	2436–3701	10	24.7	19.0	32.0	2.25	28	A
Sandstones and siltstones	Cretaceous	Montana, eastern	outcrop	22	33.7	22.6	38.3	2.17	34	T
Sandstones	Cretaceous	Wyo.	0–3187	38	19.7	8.8	27.0	2.32	20, 21	T
Sandstones	Miocene	Switzerland	quarry	15	18.7	13.3	22.1	2.37	11	T
					(dips 7° or less)					
			LIMESTONE, DOLOMITE, CHALK, AND MARBLE							
Ellenburger Group (ls. and dol.)	Ordovician	Tex., Llano County	outcrop	57	3.0	.1	12.6	2.75	10	T
Beekmantown Group (dol.)	Ordovician	W. Va., Wood County	10,531–11,945	56	.4	.1	1.1	2.80	30	A
Black River Ls.	Ordovician	Ontario	quarry	11	.46	.07	1.67	2.72	26	A
Niagara Dolomite	Silurian	Wis.	quarry	14	2.9	.5	6.7	2.77	5	A

Table A-2 (continued)

Formation	Age	Locality	Depth of sample, feet	Number of samples	Porosity, per cent Aver.	Min.	Max.	Sat'd. bulk density (average) g per cm^{-3}	Ref.	Porosity method: T (Total) A (Apparent)
		LIMESTONE, DOLOMITE, CHALK, AND MARBLE *Continued*								
Limestone	Carboniferous	Gt. Britain, Midlands	outcrop	24	5.7	2.2	14.9	2.58	27	T
Marl	Carboniferous	Russia	subsurface	19	8.2	..	..	2.63	24	T
Oolites	Jurassic	Gt. Britain	outcrop	5	14.6	5.5	24.0	2.44	22	A
Limestones	Jurassic	Switzerland	quarry	114	3.6	.4	25.6	2.66	11	T
					(dips 8° or more)					
Glen Rose Ls.	Cretaceous	Tex.	20.5–30.5	10	16.8	16.0	18.8	2.37	28	A
Chalk	Cretaceous	Gt. Britain	outcrop	3	28.8	17.6	42.8	2.23	22	A
Limestone	Cretaceous	Switzerland	quarry	29	4.3	.4	18.3	2.65	11	T
					(dips 10° or more)					
Green River Fm. (marlstone)	Eocene	Colo.	mine	11	2.9	.2	12.0	2.26	36	A
		SHALE, CLAYSTONE, AND SLATE								
Shale	Pennsylvanian	Okla.	1000	..	17	..	..	2.42	1	graph
			3000	..	7	..	..	2.59	1	graph
			5000	..	4	..	..	2.66	1	graph
Shales	Cretaceous	Wyo., Mont.	outcrop	9	29.5	23.8	37.6	2.17	31	T
Shale, nearly horizontal and undisturbed	Oligocene and Miocene	Venezuela	≈600	6	33.5	31.3	35.8	2.06	15	T
			≈2500	9	25.4	22.9	28.9	2.25	15	T
			≈3500	9	21.1	17.8	25.6	2.35	15	T
			≈6100	3	9.6	9.1	10.6	2.52	15	T
			≈7850	2	10.4	10.3	10.4	..	15	T
		SAND, CLAY, GRAVEL, ALLUVIUM, AND SOILS								
Cape May Fm. (sd.)	Pleistocene	N.J.	mostly pits	12	38.9	30.8	45.3	1.93	34	T
Loess soil	Quaternary	Idaho	surface	3	61.2	53.2	69.4	1.61	34	T
Fine sand	Quaternary	Calif.	sea-floor sediments,	54	46.2	..	..	1.93	12	†
Very fine sand			0–1 inch below the	15	47.7	..	..	1.92	12	†
Sand-silt-clay			depositional surface	3	74.7	..	..	1.44	12	†
Mud	Quaternary	Hudson River	submerged crate	..	88.2	..	..	..	19	†

Table A-2 (continued)

Formation	Age	Locality	Depth of sample, feet	Number of samples	Porosity, per cent Aver.	Min.	Max.	Sat'd. bulk density (average) g per cm⁻³	Ref.	Porosity method: T (Total) A (Apparent)
		SAND, CLAY, GRAVEL, ALLUVIUM, AND SOILS *Continued*								
Silt	Quaternary	Hudson River	50 ft below river	..	55	..	..	..	16	†
Newly deposited material	Quaternary	Mississippi River Delta	..	..	80–90	..	..	..	32	A
Soft mud	Quaternary	Clyde Sea	0–2.5 cm in mud	9	82	80	87	..	23	A
			22.5–25 cm in mud	9	75	72	80	..	23	A
			MISCELLANEOUS							
Marble	?	U.S.A., Great Britain	quarry	112	.7 (43+ localities)	.4	2.1	2.75	18, 22	T, A

(after Daly, Manger and Clark, 1966)

Table A-2 (continued)

Material	Locality	Investigator	Density (δ)	Remarks
	Soil, Clay, and Various Formations			
Clay, potash-bearing		Ross & Kerr	2.46	
Marl, Lower Triassic	Scotland	McLintock & Phemister	2.4	Keuper Marl
Jurassic formations		Tuchel	2.3-2.5	
Marl, Lower Triassic		"	2.3-2.5	
Clay, Basal Pennsylvanian	Fulton, Mo.	Hedberg	2.37	White flint clay
Clay, grey	Malagash, N. S.	Miller	2.15	
Overburden	Kassel, Germany	Seblatnigg	2.1	
Soil, stamped wet		Reich	2.1-2.2	
Tertiary formations		Tuchel	2.0-2.4	
Sediments	Gulf coast	Barton	1.9-2.05	From surface to 500 ft.
Sediments	" "	"	2.20	From 2000-4000 ft.
Sediments	" "	"	2.25	From 4000-8000 ft.
Sediments	" "	"	2.30	From 8000-12,000 ft. (average values at these depths)
Drift	Leitrim, Ont.	Miller	1.8	0-70 ft.
Clays & sands	Glasgow, Scotland	McLintock & Phemister	1.72	
Loam, sandy wet		Reich	1.7-2.2	
Soil, stamped dry		"	1.6-1.9	
Clay, Mio-Pliocene	Crossley, N. J.	Hedberg	1.66	
Alluvium, recent	Missouri River, St. Charles Co., Mo.	"	1.54	Air dried
Soil		Reich	1.5-2.0	
Clay, Cretaceous	Richland Co., S. C.	Hedberg	1.51	Mittendorf white clay
Loess, Pleistocene	Collinsville, Ill.	"	1.43	
Clay, Miocene	Yorktown, N. J.	"	1.30	Yellow Alloway clay, depth 4′

Table A-2 (continued)

Material	Locality	Investigator	Density (δ)	Remarks
Soil, loose dry		Reich	1.3	
Top soil, wet		"	1.2–1.7	
Top soil, dry		"	1.1–1.2	
	Sands, Sandstones, and Conglomerates			
Carboniferous sandstone & ironstone	Glasgow, Scotland	McLintock & Phemister	2.38	
Black River, Chazy sandstone	Hazeldean, Ont.	Miller	2.7	
Sandstones		Barrell	2.67	
Sandstone	McLean Co., Ky.	Russel	2.64	
Sandstone		Reich	2.59–2.72	
Potsdam sandstone	Leitrim, Ont.	Miller	2.5	
Gravels & sand, compacted		Reich	2.5	
Conglomerate	Malagash, N. S.	Miller	2.35–2.38	
Sandstone, Triassic	Germany	Seblatnigg	2.35	
Sandstone	Malagash, N. S.	Miller	2.32–2.67	
Variegated sandstone		Tuchel	2.3	
Sandstone, Triassic	Beienrode salt dome, Germany	"	2.25	
Sandstone	Malagash, N. S.	Miller	2.25–2.45	
Quartz sand, wet		Reich	2.2–2.3	
Conglomerates		"	2.1–2.7	
Coarse gravel, dry		"	2.0–2.2	
Woodbine sand		Brankstone, Gealy & Smith	1.95	
Gravel, wet		Reich	1.9–2.1	
Sand, wet		"	1.7–1.9	
Sand, dry		"	1.4–1.7	
	Shales			
Shale, Permian	Salina, Kan.	Hedberg	2.39	Wellington shale
Shale, Pennsylvanian	Fulton, Mo.	"	2.29	Cherokee shale (weathered)
Shale, Pennsylvanian	Independence, Kan.	"	2.31	Chanute shale
Shale, Pennsylvanian	Bonner Springs, Kan.	"	2.28	Weston shale

Table A-2 (continued)

Material	Locality	Investigator	Density (δ)	Remarks
Shale, Black, Commanchean	Falun, Kan.	Hedberg	2.12	From Mentor beds
Shale, Upper Cretaceous	Hamilton Co., Kan.	"	1.98	Graneros shale
Shale, Devonian	Hannibal, Mo.	"	2.32	Hamilton shale
Shale, black	Irvine Field, Ky.	"	2.57	
Shale, red	Malagash, N. S.	Miller	2.56	
Shale, red	Malagash, N. S.	Miller	2.50	
Chazy shale & sandstone	Leitrim, Ont.	"	2.5	At 200 ft.
Shale		Brankstone, Gealy & Smith	2.36	
Shales		Reich	2.3-2.6	
Shales, yellow	Malagash, N. S.	Miller	2.17-2.30	
Shales	Venezuela	Hedberg	2.0-2.45	Increasing with overburden
Shales, Tertiary	Beienrode salt dome, Germany	Tuchel	1.9	
	Limestones and Dolomites			
Anhydrite	Beienrode salt dome, Germany	Tuchel	2.9	
Dolomite	Leitrim, Ont.	Miller	2.8	
Dolomite, Beekmantown	Hazeldean, Ont.	"	2.8	
Limestones		Barrell	2.76	
Limestone	Leitrim, Ont.	Miller	2.7	At 588 ft.
Limestones		Reich	2.68-2.84	
Limestones	Kansas	George	2.67	
Cap rock	Gulf coast	Barton	2.6	Average
Shales & limestone	Leitrim, Ont.	Miller	2.6	At 158 ft.
Gypsum & anhydrite	Beienrode salt dome, Germany	Tuchel	2.6	
Shell limestone		"	2.4-2.6	
Limestone		Brankstone, Gealy & Smith	2.07	
Chalk		Reich	1.8-2.6	

(after Heiland, 1946)

APPENDIX B

Principles of Gravity Survey.

The expression for the force of gravitation is given by Newton's law (The law of universal gravitation) which is the basis for gravity work. This law states that the force between two particles of mass m_1 and m_2 is directly proportional to the product of the masses and inversely proportional to the square of distance between the centers of mass. This force is given by the equation.

$$F = G\frac{m_1 m_2}{r^2}$$

where F = the force between two particles of mass m_1 and m_2

r = distance between m_1 and m_2

G = the universal gravitational constant which is $6.6732\text{x}10^{-8}$ $(g/cm^3)/s^2$

From Newton's second law of motion; that is, F = ma where "a" is the acceleration that would be caused by the gravitational attraction of the earth if the body were allowed to fall. Thus the force on the body m_1 is exactly the same as if it were being accelerated at a rate

$$a = \frac{F}{m_1} = G\frac{m_2}{r^2}$$

And if the earth is assumed that sphere of mass "M" and radius "R", the gravitational acceleration "g" at its surface is

$$g = \frac{GM}{R^2} = \frac{G}{R^2}\left(\tfrac{4}{3}\pi R^3\Delta\right) = \frac{4\pi R}{3}G\Delta$$

$$G\Delta = \frac{3g}{4\pi R}$$

The value of the gravitation constant "G" was measured by Cavendish and called that Cavendish experiment which has been repeated many times using modern apparatus to obtain the value.

$$G = 6.754x10^{-8}\ cm^{3}\ gm^{-1}\ sec^{-2} \quad \text{(by Cavendish)}$$

$$G = 6.6732x10^{-8}\ cm^{3}\ gm^{-1}\ sec^{-2} \quad \text{(by Heyl)}$$

or $$G = 6.6732x10^{-11}\ cm^{3}\ kg^{-1}\ sec^{-2}$$

The name "gal" (named for Galileo) is commonly used for the unit of acceleration in the literature of geophysical prospecting.

Thus $$1\ gal = 1\ cm/sec^{2}$$

Since the gal is a rather large unit in terms of the magnitudes usually of interest in geophysical prospecting, the milligal (mgal) is more commonly used; ie.,

$$1\ mgal = 0.001\ gal = 0.001\ cm/sec^{2}$$

The "gravity unit" (gu) equals 10^{-4} gal or 0.1 mgal and is used in this calculation of field gravity observation study.

Instrument.

Gravity on the earth can be measured in at least four different ways : with (1) a free-falling test mass, (2) a swinging pendulum, (3) a test mass that stretches a spring, and (4) a test mass attached to a vibrating fiber. For the instruments that are used to measured gravity in field which are called "Gravity meter" or "Gravimeter", such as Gulf gravity meter, Humble gravity meter, Worden gravity meter, LaCoste-Romberg gravity meter.

The LaCoste-Romberg G Series Gravimeter (Figure B1) is chosen to use in this study. Because it has suitable for various respect such as, it is easily moved from place to place on account of this instrument is much smaller and light weighs about 5 kg. (total weight). Beside that, it is high sensitivity, gravity differences as small as 0.01 mgal can be detected. Thus, it is accordingly high accurate gravity meter which appropriated to use in this study.

Survey.

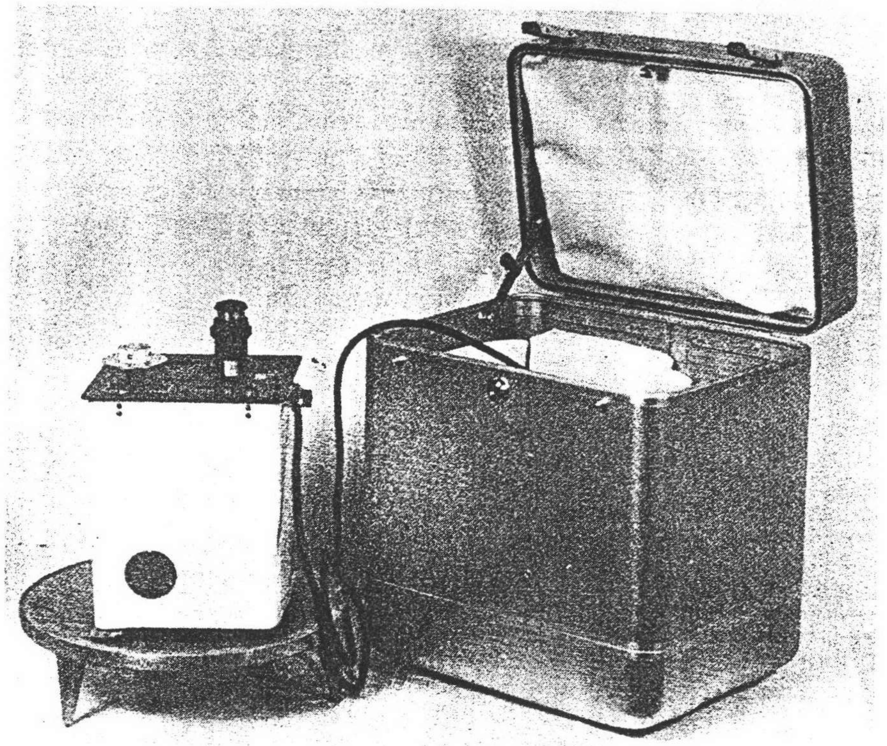
In this routine gravity field operation contains three step, the first step is using of aerial photographs for planning and observation line selection. The second step is to locate an observation stations for gravity meter reading. In this study, the spacing is used at 50 meters interval on mound and 100 meters interval outside mound. The elevation of each stations are measured by level transit during gravity field operations performed.

The third step is gravity meter reading at every station, in this case, that are used two practices (Figure B2) as the following.

a) The base station is on the observation line and one or two checked points. Figure B2a showing sequence of gravity meter reading following number of arrows, first reading at base station after that, respectively move. This practice is suitable for study area that is trivial movement of every thing on the observation line.

b) This practice is shown in Figure B2b that resembled to practice in Figure B2b but, the base station is outside the observation line and has one only checked point station. In this practice is used in case to avoid base station from trouble at that area.

(a)



(b)

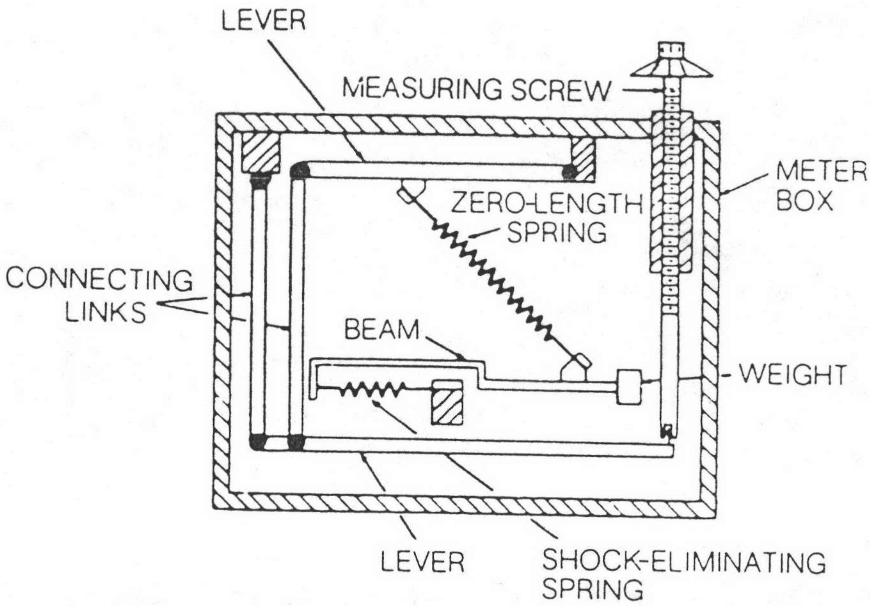


Figure B1 Showing photograph of the LaCoste-Romberg G series Gravimeter (a), and cross section (b) (after Robinson and Coruh,1988).

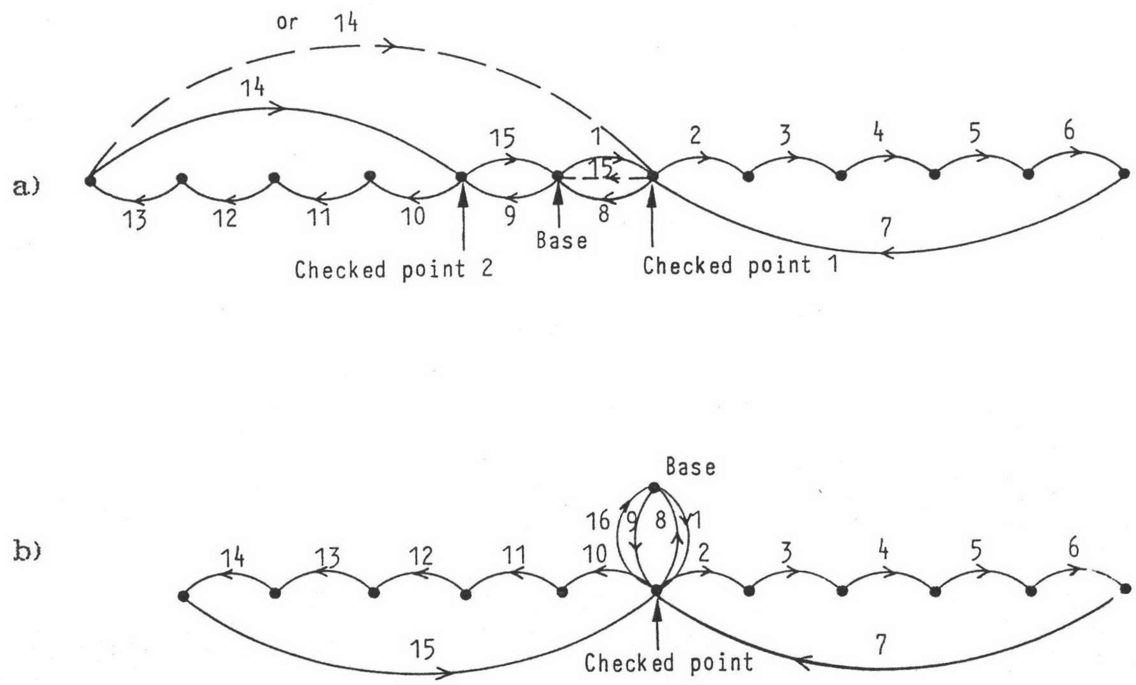


Figure B2 Sequence of looping gravity meter observations; a) type 1, base station is on observation line; b) type 2, base station is outside observation line.

The both practices are advantageous to drift correction that are discussed in section of drift correction.

Data Reduction.

The gravity difference between two station is in part due to factors other than the attraction of unknown anomalous masses. These factors and the corrections due to them are as follows.

Drift correction.

This drift is the result mainly of creep in the springs and under ideal static conditions the change is unidirectional. In addition, if the movement is not clamped between readings, or is subjected to sudden motion or jarring during transport, the change may be some what erratic. However, a recent LaCoste-Romberg portable instrument has very little drift under any conditions.

The net result of drift is that, over a period of days or even hours, repeated readings at one station will give a series of different gravity values. Consequently it is necessary to reoccupy some of the station periodically during a gravity survey in order to produce a drift curve for the instrument. The maximum time allowable between repeat readings depends on the accuracy desired in the survey, but would seldom be greater than two or three hours.

The intermediate gravity station, which are occupied only once, can then be corrected for the drift which has occurred during the appropriate fraction of the time interval between repeat stations. These corrections can be taken directly off the drift value, keeping in mind that positive drift requires negative correction and vice versa.

Latitude corrections.

The value of gravity increases with the geographical latitude. By differentiating equation.

$$g = 978.0318\ (1+0.0053024 \sin^2\phi - 0.0000059 \sin^2 2\phi\ \text{cm/sec}^2$$

$$\frac{dg}{d\phi} = 51\,859 \sin 2\phi \text{ g.u./rad}$$

If the latitude difference between two stations is small the correction becomes

$$g = 0.816875 \sin^2\phi \text{ mgal/km}$$

$$g = 0.0816 \sin^2\phi \text{ gu./m} \qquad \text{(north-south)}$$

Since the mean radius of the earth is "R" = 6378 km

If the north-south distance of a station from the base is known to within 10 m, an accuracy which it is normally not in the least difficult to achieve, the latitude correction will be known to better than one tenth of g.u.

Elevation correction.

The corrections to gravity values which must be made on account of differences in elevation take care of two effects : (1) the free-air effect and (2) the Bouguer effect.

The free-air correction.

The vertical decrease of gravity with increase of elevation, considered above, is taken care of by the free-air correction. As pointed out there, this variation has a magnitude of

$$\Delta g = 3.073 \text{ h} \quad \text{gu./m} \qquad \text{(at the equater)}$$

$$\Delta g = 3.088 \text{ h} \quad \text{gu./m} \qquad \text{(at the poles)}$$

The correction can be made to any arbitrary reference or datum level that is convenient, e.g., the elevation of a base station for a survey, or it may be made to sea level. Since a station at relatively higher elevation has a lower gravity (because it is farther from the center of the earth), the correction must be added to stations at a higher elevation and must be subtracted from station at a lower elevation than the reference level.

The Bouguer correction.

The attraction of the material between a reference elevation and that of the individual station is taken care of by the Bouguer correction. The term is used here in a rusticated sense to designate the correction for the attraction as approximated by considering the material as an infinite horizontal slab. The gravity attraction for a point on the surface of slab of thickness h and density (g/cc) " σ " is "g" = $2\pi G\sigma h$, which, for "G" = $6.6732\text{x}10^{-8}$ cm^3 g^{-1} sec^2, give

$$g = 0.04193 \ \sigma h \ \text{mgal/m}$$

$$g = 0.41928 \ \sigma h \ \text{gu/m}$$

If a given station is higher than the reference elevation, its gravity value is increased because of the attraction of the slab of material between it and the reference level and the correction is negative. If the station is lower than the reference elevation, its gravity value is decreased because of the lack of attraction of the absent material between it and the reference level and the correction is positive. Therefore, the Bouguer correction is always opposite in sign to free-air correction.

Combined free-air and Bouguer correction.

Since both the free-air and Bouguer correction are simple constants multiplied by the elevation, they are nearly always combined into single which is evident that

$$g = (0.3073 - (0.04193\,\sigma)\ h \quad \text{mgal/m}$$

Tide correction.

The attractions of the sun and the moon may change the gravity at a station cyclically with an amplitude of as much as 0.3 mgal and occur in a period as short as about 6 hr.

The theoretical tide correction can be calculated using equation based an the masses of the moon and sun and their position relative to and observation site,

Where "r" is the earth's radius, "M_m" and "M_s" are the lunar and solar masses, and their distances from the earth's center are "D_m" and "D_s". The value = 1.16 accounts for the earth itself is stretched elastically by the tidal force. Angles " α_m" and " α_s" between a line from the earth's center to the observation site and line from the earth's center to the moon and sun change with time. These angles can be calculated for any particular time from formulas based on astronomical measurements of the relative motions of the earth, moon and sun. Because these formulas are long and complicated, a computer program is ordinarily used to make the calculations.

Terrain correction.

This correction allows for surface irregularities in the vicinity of the station, that is , hills rising above the gravity station and valleys below it. From Figure B3, it is obvious that both of these topographic undulations affect the gravity measurement in the same sense, reducing the readings because of upward attraction (hills) or lack of downward attraction (valleys).Hence the terrain correction is always added to the station reading.

There are several graphical methods for calculating terrain correction. All of them require a good topographical map of the area extending if possible considerably beyond the survey (within which, of course, the elevations are known more precisely). The usual procedure is to divide the area into compartments and compare the average elevation within each compartment with the station elevation. This is best done by outlining the compartments on a transparent sheet which overlies the topographic map.

The most commonly used template is a set of concentric circles and radial lines, making sectors whose areas increase with distance from the center. The gravity effect of a single sector can

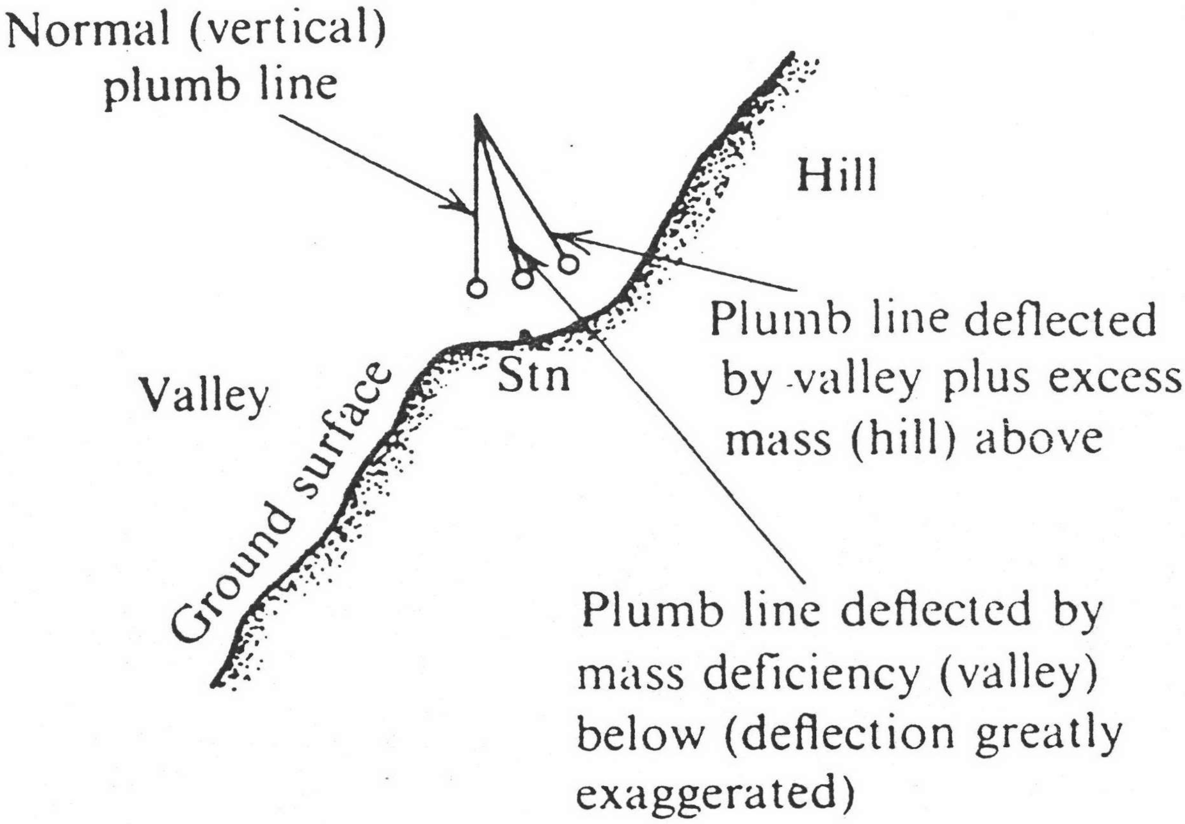


Figure B3 Terrain effect (after Telford et al., 1983).

be calculated from the following formula

$$d_{gT} = G\sigma\phi \, [(r_1-r_0)+(r_0^2+z^2)^{1/2}-(r_1^2+z^2)^{1/2}]$$

(eq. B1)

Where " ϕ " = sector angle (radians), "z" = $|e_s-e_a|$, e_s = station elevation, e_a = average elevation in sector, r_0, r_1 = inner and outer sector radii,

G = universal gravitational constant, σ = density

In another way, The terrain correction can be calculated by using template and terrain chart (The use of terrain chart of this type is illustrated in Figure B4. The transparent template is placed over the topographic map with the center of the circles at the gravity station. The average elevation within a single compartment is estimated from the contours within it and subtracted from the known station elevation. The difference is z in eq. B1, from which the contribution to "dg_T"can be calculated for the compartment. Tables of terrain correction for zone charts of particular dimensions, (Table B1) developed by Sigmund Hammer in 1939, facilitate this operation considerably.

From Table B1 which is used to calculate that terrain correction at the station by the following equation :

$$g_{(j)} = \sum_{i=1}^{n} T_{g(i)} \, [z_0-z_1]$$

where "n" = Number of compartment in that zone

$$g_{t(st)} = \sum_{j=1}^{n} g_{(j)}$$

where "m" = Number of zone

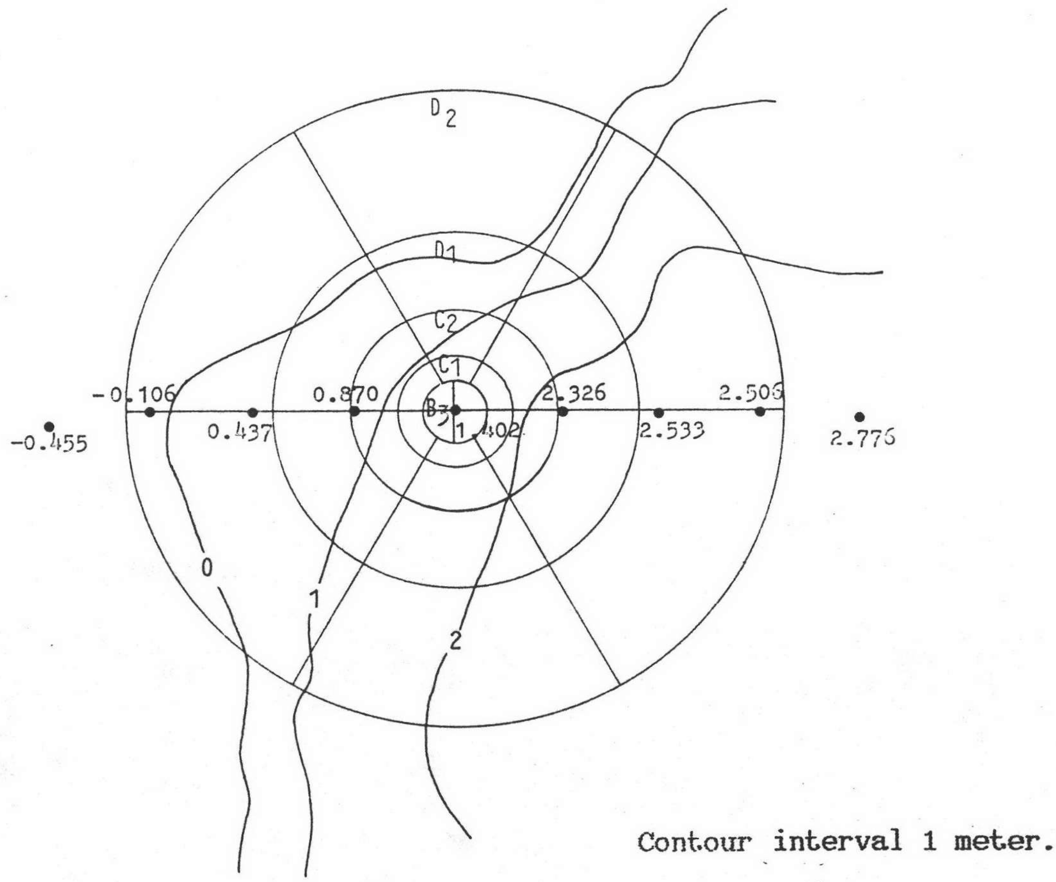


Figure B4 Use of terrain chart with topographic map (modified after Telford et al., 1983).

Table B1 Subdivided inner zones of Hammer's terrain correction tables for gravity (after Hammer, 1982).

Zone	B_1		B_2		B_3		C_1		C_2		D_1		D_2		Zone
Compatments	4		4		4		6		6		6		6		Compartments
inner radius	6.56		13.30		26.94		54.6		97.6		175		312		inner radius
outer radius	13.30		26.94		54.6		97.6		175		312		558		outer radius
(T)	(±h)		(±h)		(±h)		(±h)		(±h)		(±h)		(±h)		(T)
0	0	to 1.4	0	to 2.0	0	to 2.9	0	to 5.4	0	to 7.2	0	to 9.7	0	to 12.9	0
0.1	1.4	2.5	2.0	3.7	2.9	5.0	5.4	9.4	7.2	12.5	9.7	16.7	12.9	22.4	0.1
0.2	2.5	3.4	3.7	4.7	5.0	6.5	9.4	12.2	12.5	16.2	16.7	21.6	22.4	28.9	0.2
0.3	3.4	4.1	4.7	5.6	6.5	7.8	12.2	14.5	16.2	19.2	21.6	25.7	28.9	34.2	0.3
0.4	4.1	4.7	5.6	6.4	7.8	8.9	14.5	16.5	19.2	21.9	25.7	29.1	34.2	38.8	0.4
0.5	4.7	5.3	6.4	7.1	8.9	9.8	16.5	18.4	21.9	24.3	29.1	32.2	38.8	43.0	0.5
1	5.3	11	7.1	13	9.8	17	18.4	32	24.3	41	32.2	54	43	72	1
2	11	21	13	19	17	23	32	43	41	55	54	72	72	93	2
3	21	53	19	26	23	29	43	54	55	66	72	85	93	111	3
4	53		26	36	29	35	54	65	66	77	85	98	111	127	4
5			36	50	35	42	65	76	77	88	98	110	127	142	5
6			50	76	42	49	76	89	88	99	110	121	142	155	6
7			76	144	49	57	89	103	99	110	121	132	155	168	7
8			144	842	57	66	103	119	110	121	132	143	168	181	8
9			842		66	77	119	137	121	132	143	154	181	193	9
10					77	91	137	160	132	144	154	165	193	204	10
11					91	109	160	189	144	157	165	176	204	216	11
12					109	133	189	227	157	170	176	186	216	227	12
13					133	168	227	279	170	185	186	197	227	238	13
14					168	224	279	357	185	200	197	208	238	249	14
15					224	331	357	491	200	217	208	219	249	260	15
16					331	624	491	767	217	236	219	228	260	271	16
17					624	5079	767	1725	236	257	228	243	271	281	17
18					5079		1725		257	280	243	253	281	292	18
19									280	306	253	267	292	303	19
20									306	336	267	280	303	314	20

Zone rodii and compartment elevations are in feet. T is in 1/100 mg units with density 2.0

when $T_{g(i)}$ = Terrain correction in each compartment (from Table B1)

z_o = Station elevation

z_i = Average elevation within each compartment

$\Delta g_{(j)}$ = Terrain correction within that zone

$g_{t(st)}$ = Terrain correction at the station

The Bouguer Anomaly.

It will be seen now that the corrected gravity difference between a station and a base is

$$gcorr = obs + 0.3073\ h - 0.04193\ h\sigma + T\sigma \quad \text{(eq. B2)}$$

Where h is positive if the station is above the base and negative if it is below. The latitude and tidal corrections are included in the term obs. The last two terms on right-hand side will be replaced by a single topographic irregularity has been assumed to be the same as that infinite slab, namely σ .

Density Determination.

The average density of the survey area is determined by Paranis's method (Parasnis, 1986). In eq. B2, Obs + 0.3073 h plots against (-0.04193 h+T) and the slope of the straight line (determined by least square, Table B2) is adopted as the true density.

Estimation of density by Parasnis's method
Ban Nam Om Area

Elv.MSL	Obs.grv.	-0.04193h	Obs.+0.3073h
134.757	0.280	-5.65036	41.6908
133.733	0.530	-5.60742	41.6262
133.167	0.640	-5.58369	41.5622
132.691	0.740	-5.56373	41.5159
132.421	0.830	-5.55241	41.5230
132.448	0.820	-5.55354	41.5213
132.241	0.860	-5.54487	41.4977
131.317	1.070	-5.50612	41.4237
130.785	1.200	-5.48382	41.3902
130.352	1.270	-5.46566	41.3272
129.809	1.390	-5.44289	41.2803
129.460	1.470	-5.42826	41.2531
129.391	1.490	-5.42536	41.2519
129.358	1.480	-5.42398	41.2317
129.516	1.430	-5.43061	41.2303
129.627	1.410	-5.43526	41.2444
129.814	1.400	-5.44310	41.2918
129.914	1.390	-5.44729	41.3126
129.963	1.410	-5.44935	41.3476
129.977	1.420	-5.44994	41.3619
130.213	1.360	-5.45983	41.3745
130.000	1.380	-5.45090	41.3290
129.748	1.230	-5.44033	41.1016
130.068	1.190	-5.45375	41.1599
129.665	1.300	-5.43685	41.1461
129.654	1.300	-5.43639	41.1427
129.805	1.270	-5.44272	41.1591
129.709	1.310	-5.43870	41.1696
129.640	1.340	-5.43581	41.1784
129.810	1.270	-5.44293	41.1606
129.429	1.450	-5.42696	41.2235
129.482	1.430	-5.42918	41.2198
129.732	1.410	-5.43966	41.2766
129.915	1.380	-5.44734	41.3029
129.774	1.430	-5.44142	41.3096
130.761	1.180	-5.48281	41.3629
131.474	1.030	-5.51270	41.4320
131.705	0.980	-5.52239	41.4529
132.238	0.860	-5.54474	41.4967
132.633	0.760	-5.56130	41.5181
133.982	0.440	-5.61787	41.6127
135.466	0.060	-5.68009	41.6887

Regression Output:Total

Constant		29.48130
Std Err of Y Est		0.058054
R Squared		0.869480
No. of Observations		42
Degrees of Freedom		40
X Coefficient(s)	2.16	= Average bulk density
Std Err of Coef.	0.13	

Table B2 Average bulk density of surface rocks is estimated by Parasnis method (Parasnis, 1986) and detemated by least squares of two terms, -0.04193 h and Obs. +0.3073 h (h = elevation, Obs. = observation gravity). The density is equivarent to x coefficient (s).

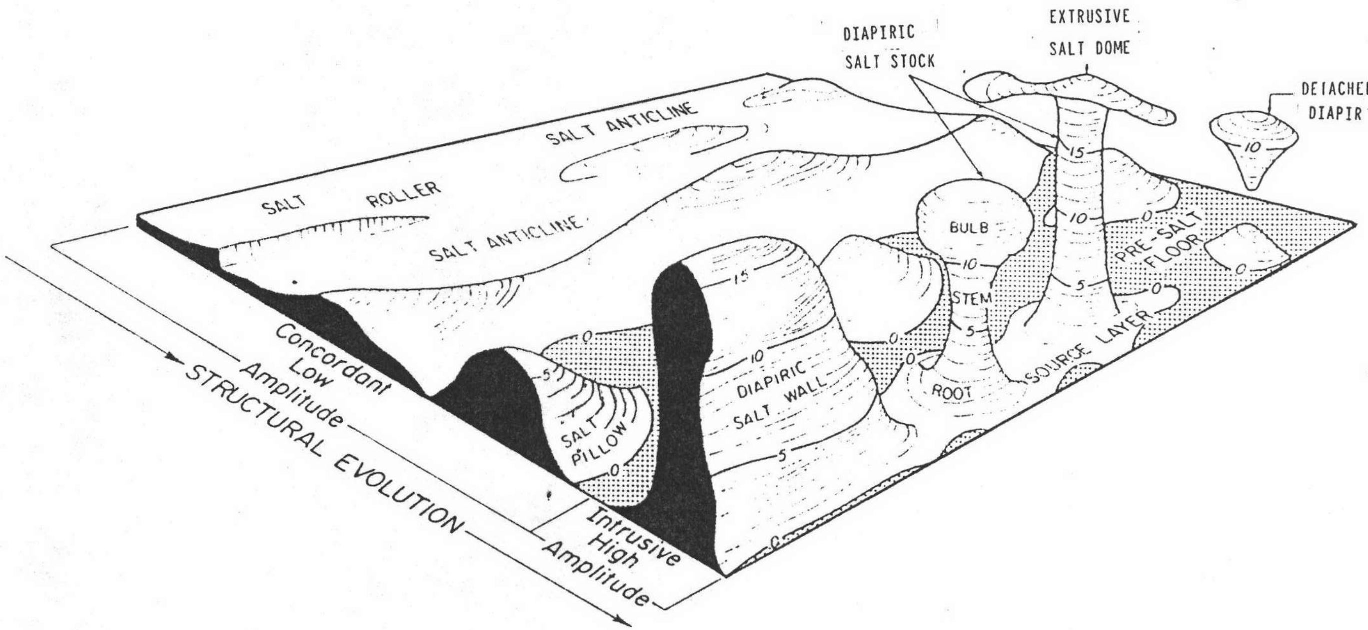


Figure B5 Shallow salt dome model diapiric salt stock and extusive salt dome (after Jackson and Talbot, 1986).

APPENDIX C

Table C1a Field gravity survey data of Ban Nam Om Area.

Ban Nam Om Area
Date=910225 GMT=-7 SC=1.03469 GB1=0000.
GB2=0000. Units=METR BD=2.0

Easting	Northing	Time	Reading	I.H.	Elev.	Zone
340655	1729200	1143	2030.790	0	0.085	48
340752	1729220	1138	2030.768	0	0.298	48
340851	1729232	1133	2030.820	0	0.062	48
340950	1729250	1127	2030.812	0	0.048	48
341049	1729265	1122	2030.785	0	-0.001	48
341147	1729281	1115	2030.790	0	-0.101	48
341245	1729298	1107	2030.800	0	-0.288	48
341345	1729312	1101	2030.815	0	-0.399	48
341443	1729330	1053	2030.855	0	-0.557	48
341492	1729333	1042	2030.865	0	-0.524	48
341540	1729345	1036	2030.838	0	-0.455	48
341590	1729350	1030	2030.759	0	-0.106	48
341640	1729352	1023	2030.640	0	0.437	48
341690	1729355	1017	2030.569	0	0.870	48
341742	1729352	1011	2030.445	0	1.402	48
341792	1729351	1005	2030.242	0	2.326	48
341841	1729350	959	2030.198	0	2.533	48
341891	1729349	949	2030.205	0	2.506	48
341940	1729345	941	2030.118	0	2.776	48
341990	1729343	931	2030.022	0	3.252	48
342040	1729342	925	2029.910	0	3.818	48
342090	1729341	921	2029.672	0	4.842	48
342140	1729340	913	2029.400	0	5.957	48
342190	1729340	1557	2029.658	0	5.551	48
342240	1729340	1552	2030.025	0	4.067	48
342290	1729341	1545	2030.335	0	2.718	48
342342	1729342	1539	2030.425	0	2.323	48
342391	1729345	1535	2030.542	0	1.790	48
342441	1729347	1528	2030.588	0	1.559	48
342490	1729348	1523	2030.738	0	0.846	48
342541	1729345	1516	2030.972	0	-0.141	48
342608	1729343	1510	2030.925	0	0.000	48
342640	1729350	1504	2030.955	0	-0.183	48
342732	1729388	1456	2030.972	0	-0.433	48
342818	1729416	1448	2030.980	0	-0.486	48
342925	1729450	1440	2030.805	0	-0.105	48
343020	1729477	1432	2030.869	0	-0.275	48
343118	1729503	1425	2030.838	0	-0.206	48
343211	1729531	1414	2030.790	0	-0.110	48
343309	1729560	1406	2030.812	0	-0.261	48
343403	1729582	1400	2030.808	0	-0.250	48
343501	1729615	1353	2030.698	0	0.153	48
343593	1729642	1345	2030.732	0	-0.167	48

Table C1b Reduction gravity data of Ban Nam Om Area.

Ban Nam Om Area

Date=910225 GMT=-7 SC=1.03469 GB1=0000. GB2=0000. Units=METR BD=2.0 Close=-0.050 Drift=-0.019

Easting	Northing	Time	Reading	I.H.	Elev.	Zone	TideCor.	Obs.Grv.	Bgr.Grv.	Terr.cor.	Bgr+Terr	Avg.bgr	Bgrt-Avg.	Avg.gu.	Spacing	Remarks
340655	1729200	1143	2030.790	0	0.085	48	0.051	1.380	1594.400	0.018	1594.418	1594.286	0.132	1.322	0	W
340752	1729220	1138	2030.768	0	0.298	48	0.053	1.360	1594.420	0.018	1594.438	1594.286	0.152	1.522	100	W
340851	1729232	1133	2030.820	0	0.062	48	0.056	1.420	1594.420	0.018	1594.438	1594.286	0.152	1.522	200	W
340950	1729250	1127	2030.812	0	0.048	48	0.058	1.410	1594.400	0.018	1594.418	1594.286	0.132	1.322	300	W
341049	1729265	1122	2030.785	0	-0.001	48	0.060	1.390	1594.360	0.018	1594.378	1594.286	0.092	0.922	400	W
341147	1729281	1115	2030.790	0	-0.101	48	0.063	1.400	1594.340	0.018	1594.358	1594.286	0.072	0.722	500	W
341245	1729298	1107	2030.800	0	-0.288	48	0.065	1.410	1594.310	0.018	1594.328	1594.286	0.042	0.422	600	W
341345	1729312	1101	2030.815	0	-0.399	48	0.067	1.430	1594.290	0.018	1594.308	1594.286	0.022	0.222	700	W
341443	1729330	1053	2030.855	0	-0.557	48	0.069	1.480	1594.300	0.018	1594.318	1594.286	0.032	0.322	800	W
341492	1729333	1042	2030.865	0	-0.524	48	0.072	1.490	1594.320	0.018	1594.338	1594.286	0.052	0.522	850	W
341540	1729345	1036	2030.838	0	-0.455	48	0.072	1.470	1594.300	0.018	1594.318	1594.286	0.032	0.322	900	W
341590	1729350	1030	2030.759	0	-0.106	48	0.073	1.390	1594.300	0.012	1594.312	1594.286	0.026	0.262	950	W
341640	1729352	1023	2030.640	0	0.437	48	0.074	1.270	1594.300	0.000	1594.300	1594.286	0.014	0.142	1000	W
341690	1729355	1017	2030.569	0	0.870	48	0.074	1.200	1594.330	0.000	1594.330	1594.286	0.044	0.442	1050	W
341742	1729352	1011	2030.445	0	1.402	48	0.074	1.070	1594.320	0.000	1594.320	1594.286	0.034	0.342	1100	W
341792	1729351	1005	2030.242	0	2.326	48	0.074	0.860	1594.320	0.000	1594.320	1594.286	0.034	0.342	1150	W
341841	1729350	959	2030.198	0	2.533	48	0.074	0.820	1594.320	0.000	1594.320	1594.286	0.034	0.342	1200	W
341891	1729349	949	2030.205	0	2.506	48	0.073	0.830	1594.330	0.010	1594.340	1594.286	0.054	0.543	1250	W
341940	1729345	941	2030.118	0	2.776	48	0.072	0.740	1594.300	0.000	1594.300	1594.286	0.014	0.142	1300	W
341990	1729343	931	2030.022	0	3.252	48	0.070	0.640	1594.310	0.000	1594.310	1594.286	0.024	0.242	1350	W
342040	1729342	925	2029.910	0	3.818	48	0.068	0.530	1594.320	0.000	1594.320	1594.286	0.034	0.342	1400	W
342090	1729341	921	2029.672	0	4.842	48	0.067	0.280	1594.310	0.000	1594.310	1594.286	0.024	0.242	1450	W
342140	1729340	913	2029.400	0	5.957	48	0.065	0.000	1594.280	0.000	1594.280	1594.286	-0.006	-0.058	1500	Base
342190	1729340	1557	2029.658	0	5.551	48	-0.070	0.060	1594.240	0.000	1594.240	1594.286	-0.046	-0.458	1550	E
342240	1729340	1552	2030.025	0	4.067	48	-0.070	0.440	1594.290	0.013	1594.303	1594.286	0.017	0.172	1600	E
342290	1729341	1545	2030.335	0	2.718	48	-0.070	0.760	1594.310	0.015	1594.325	1594.286	0.039	0.388	1650	E
342342	1729342	1539	2030.425	0	2.323	48	-0.070	0.860	1594.310	0.015	1594.325	1594.286	0.039	0.389	1700	E
342391	1729345	1535	2030.542	0	1.790	48	-0.069	0.980	1594.310	0.000	1594.310	1594.286	0.024	0.242	1750	E
342441	1729347	1528	2030.588	0	1.559	48	-0.068	1.030	1594.310	0.000	1594.310	1594.286	0.024	0.242	1800	E
342490	1729348	1523	2030.738	0	0.846	48	-0.067	1.180	1594.310	0.000	1594.310	1594.286	0.024	0.242	1850	E
342541	1729345	1516	2030.972	0	-0.141	48	-0.066	1.430	1594.330	0.012	1594.342	1594.286	0.056	0.562	1900	E
342608	1729343	1510	2030.925	0	0.000	48	-0.064	1.380	1594.310	0.018	1594.328	1594.286	0.042	0.422	1968	E
342640	1729350	1504	2030.955	0	-0.183	48	-0.063	1.410	1594.300	0.018	1594.318	1594.286	0.032	0.322	2000	E
342732	1729388	1456	2030.972	0	-0.433	48	-0.060	1.430	1594.250	0.018	1594.268	1594.286	-0.018	-0.178	2100	E
342818	1729416	1448	2030.980	0	-0.486	48	-0.057	1.450	1594.240	0.018	1594.258	1594.286	-0.028	-0.278	2190	E
342925	1729450	1440	2030.805	0	-0.105	48	-0.054	1.270	1594.130	0.018	1594.148	1594.286	-0.138	-1.378	2300	E
343020	1729477	1432	2030.869	0	-0.275	48	-0.050	1.340	1594.150	0.018	1594.168	1594.286	-0.118	-1.178	2400	E
343118	1729503	1425	2030.838	0	-0.206	48	-0.047	1.310	1594.130	0.018	1594.148	1594.286	-0.138	-1.378	2500	E
343211	1729531	1414	2030.790	0	-0.110	48	-0.041	1.270	1594.100	0.018	1594.118	1594.286	-0.168	-1.678	2600	E
343309	1729560	1406	2030.812	0	-0.261	48	-0.037	1.300	1594.080	0.018	1594.098	1594.286	-0.188	-1.878	2700	E
343403	1729582	1400	2030.808	0	-0.250	48	-0.033	1.300	1594.070	0.018	1594.088	1594.286	-0.198	-1.978	2800	E
343501	1729615	1353	2030.698	0	0.153	48	-0.029	1.190	1594.040	0.018	1594.058	1594.286	-0.228	-2.278	2900	E
343593	1729642	1345	2030.732	0	-0.167	48	-0.024	1.230	1593.990	0.018	1594.008	1594.286	-0.278	-2.778	3000	E

Table C2a Field gravity survey data of Ban Khi Lek Area.

Ban Khi Lek Area
Date=910228 GMT=-7 SC=1.03469
GB1=000000 GB2=000000 Units=METR BD=2.0

Easting	Northing	Time	Reading	I.H.	Elev.	Zone
365920	1705882	1103	2034.600	0	-0.548	48
366015	1705838	1057	2034.560	0	-0.701	48
366103	1705790	1052	2034.585	0	-0.467	48
366193	1705745	1044	2034.540	0	-0.475	48
366280	1705700	1038	2034.520	0	-0.547	48
366340	1705655	1031	2034.545	0	-0.659	48
366458	1705610	1023	2034.555	0	0.217	48
366545	1705565	1017	2034.580	0	-0.690	48
366592	1705540	1010	2034.540	0	-0.547	48
366635	1705515	1005	2034.490	0	-0.708	48
366680	1705400	958	2034.490	0	-0.481	48
366723	1705470	953	2034.455	0	-0.030	48
366750	1705442	946	2034.362	0	0.477	48
366800	1705458	941	2034.100	0	1.139	48
366848	1705470	935	2033.910	0	2.036	48
366895	1705485	930	2033.760	0	2.656	48
366940	1705500	918	2033.555	0	3.489	48
366950	1705600	1116	2033.780	0	2.248	48
367000	1705595	1123	2034.188	0	1.352	48
367050	1705600	1420	2034.525	0	0.248	48
367100	1705607	1425	2034.545	0	0.129	48
367150	1705610	1430	2034.578	0	0.147	48
367200	1705618	1436	2034.552	0	0.126	48
367250	1705625	1441	2034.570	0	0.157	48
367300	1705630	1446	2034.558	0	0.064	48
367350	1705635	1450	2034.585	0	0.051	48
367397	1705640	1456	2034.580	0	0.000	48
367445	1705655	1501	2034.578	0	0.117	48
367540	1705668	1508	2034.575	0	-0.032	48
367638	1705703	1513	2034.560	0	0.049	48
367732	1705725	1519	2034.530	0	0.187	48
367782	1705743	1606	2034.485	0	0.102	48
367835	1705743	1525	2034.495	0	0.377	48
367935	1705745	1532	2034.460	0	0.240	48
368035	1705748	1538	2034.435	0	0.243	48
368140	1705738	1544	2034.445	0	0.266	48
368238	1705735	1549	2034.400	0	0.128	48
368338	1705733	1554	2034.352	0	0.288	48
368440	1705730	1559	2034.352	0	0.278	48

Table C2b Reduction gravity data of Ban Khi Lek Area.

Easting	Northing	Time	Reading	I.H.	Elev.	Zone	TideCor.	Obs.Grv.	Bgr.Grv.	Ter.Cor.	Bgr+Ter	AVG.	set 0avg.	Avg.g.u.	Spacing	Remarks
365920	1705882	1103	2034.600	0	-0.548	48	0.136	1.150	1603.770	0.070	1603.840	1603.925	-0.086	-0.856	0	W
366015	1705838	1057	2034.560	0	-0.701	48	0.133	1.110	1603.710	0.085	1603.795	1603.925	-0.130	-1.298	100	W
366103	1705790	1052	2034.585	0	-0.467	48	0.130	1.130	1603.810	0.108	1603.918	1603.925	-0.007	-0.069	200	W
366193	1705745	1044	2034.540	0	-0.475	48	0.125	1.080	1603.770	0.108	1603.878	1603.925	-0.047	-0.473	300	W
366280	1705700	1038	2034.520	0	-0.547	48	0.121	1.060	1603.750	0.100	1603.850	1603.925	-0.075	-0.753	400	W
366340	1705655	1031	2034.545	0	-0.659	48	0.116	1.080	1603.770	0.082	1603.852	1603.925	-0.073	-0.732	500	W
366458	1705610	1023	2034.555	0	0.217	48	0.110	1.090	1603.990	0.034	1604.024	1603.925	0.099	0.985	600	W
366545	1705565	1017	2034.580	0	-0.690	48	0.105	1.110	1603.820	0.084	1603.904	1603.925	-0.021	-0.211	700	W
366592	1705540	1010	2034.540	0	-0.547	48	0.099	1.060	1603.820	0.072	1603.892	1603.925	-0.033	-0.332	750	W
366635	1705515	1005	2034.490	0	-0.708	48	0.095	1.010	1603.740	0.141	1603.881	1603.925	-0.044	-0.443	800	W
366680	1705400	958	2034.490	0	-0.481	48	0.089	1.000	1603.830	0.093	1603.923	1603.925	-0.002	-0.022	850	W
366723	1705470	953	2034.455	0	-0.030	48	0.084	0.960	1603.860	0.025	1603.885	1603.925	-0.040	-0.397	900	W
366750	1705442	946	2034.362	0	0.477	48	0.077	0.860	1603.890	0.015	1603.905	1603.925	-0.020	-0.204	950	W
366800	1705458	941	2034.100	0	1.139	48	0.072	0.580	1603.760	0.026	1603.786	1603.925	-0.139	-1.395	1000	W
366848	1705470	935	2033.910	0	2.036	48	0.066	0.380	1603.750	0.028	1603.778	1603.925	-0.147	-1.467	1050	W
366895	1705485	930	2033.760	0	2.656	48	0.061	0.220	1603.720	0.045	1603.765	1603.925	-0.160	-1.599	1100	W
366940	1705500	918	2033.555	0	3.489	48	0.049	0.000	1603.680	0.121	1603.801	1603.925	-0.124	-1.242	1150	Base
366950	1705600	1116	2033.780	0	2.248	48	0.142	0.310	1603.670	0.124	1603.794	1603.925	-0.131	-1.310	1150	E
367000	1705595	1123	2034.188	0	1.352	48	0.144	0.730	1603.890	0.000	1603.890	1603.925	-0.035	-0.350	1200	E
367050	1705600	1420	2034.525	0	0.248	48	0.069	1.030	1603.940	0.000	1603.940	1603.925	0.015	0.150	1250	E
367100	1705607	1425	2034.545	0	0.129	48	0.064	1.050	1603.930	0.096	1604.026	1603.925	0.101	1.013	1300	E
367150	1705610	1430	2034.578	0	0.147	48	0.058	1.080	1603.960	0.227	1604.187	1603.925	0.262	2.621	1350	E
367200	1705618	1436	2034.552	0	0.126	48	0.052	1.050	1603.930	0.377	1604.307	1603.925	0.382	3.818	1400	E
367250	1705625	1441	2034.570	0	0.157	48	0.047	1.070	1603.940	0.290	1604.230	1603.925	0.305	3.049	1450	E
367300	1705630	1446	2034.558	0	0.064	48	0.042	1.050	1603.910	0.176	1604.086	1603.925	0.161	1.612	1500	E
367350	1705635	1450	2034.585	0	0.051	48	0.037	1.080	1603.930	0.122	1604.052	1603.925	0.127	1.269	1550	E
367397	1705640	1456	2034.580	0	0.000	48	0.031	1.070	1603.910	0.076	1603.986	1603.925	0.061	0.605	1600	E
367445	1705655	1501	2034.578	0	0.117	48	0.025	1.060	1603.920	0.109	1604.029	1603.925	0.104	1.045	1650	E
367540	1705668	1508	2034.575	0	-0.032	48	0.018	1.060	1603.870	0.077	1603.947	1603.925	0.022	0.220	1750	E
367638	1705703	1513	2034.560	0	0.049	48	0.012	1.040	1603.860	0.080	1603.940	1603.925	0.015	0.155	1850	E
367732	1705725	1519	2034.530	0	0.187	48	0.006	1.000	1603.850	0.128	1603.978	1603.925	0.053	0.532	1950	E
367782	1705743	1606	2034.485	0	0.102	48	-0.041	0.940	1603.750	0.118	1603.868	1603.925	-0.057	-0.574	2050	E
367835	1705743	1525	2034.495	0	0.377	48	0.000	0.960	1603.840	0.154	1603.994	1603.925	0.069	0.694	2150	E
367935	1705745	1532	2034.460	0	0.240	48	-0.008	0.920	1603.770	0.142	1603.912	1603.925	-0.013	-0.125	2250	E
368035	1705748	1538	2034.435	0	0.243	48	-0.014	0.900	1603.740	0.158	1603.898	1603.925	-0.027	-0.268	2350	E
368140	1705738	1544	2034.445	0	0.266	48	-0.020	0.900	1603.760	0.160	1603.920	1603.925	-0.005	-0.050	2450	E
368238	1705735	1549	2034.400	0	0.128	48	-0.025	0.850	1603.680	0.130	1603.810	1603.925	-0.115	-1.150	2550	E
368338	1705733	1554	2034.352	0	0.288	48	-0.030	0.800	1603.660	0.162	1603.822	1603.925	-0.103	-1.032	2650	E
368440	1705730	1559	2034.352	0	0.278	48	-0.035	0.800	1603.660	0.159	1603.819	1603.925	-0.106	-1.060	2750	E

Table C3a Field gravity survey data of Ban Sra Hong Area.

Ban Sra Hong Area
Date=910226 GMT=-7 SC=1.03469
GB1=000000 GB2=000000 Units=METR BD=2.40

Easting	Northing	Time	Reading	I.H.	Elev.	Zone
340745	1718560	1145	2036.370	0.000	-0.905	48
340812	1718482	1139	2036.375	0.000	-0.780	48
340880	1718405	1130	2036.438	0.000	-0.819	48
340945	1718330	1125	2036.452	0.000	-0.716	48
341010	1718258	1116	2036.502	0.000	-0.741	48
341075	1718185	1110	2036.588	0.000	-0.711	48
341113	1718148	1104	2036.710	0.000	-1.018	48
341145	1718115	1059	2036.620	0.000	-0.571	48
341188	1718090	1055	2036.592	0.000	-0.451	48
341235	1718063	1047	2036.605	0.000	-0.415	48
341280	1718050	1043	2036.648	0.000	-0.500	48
341332	1718045	1037	2036.702	0.000	-0.767	48
341387	1718035	1032	2036.668	0.000	-0.557	48
341435	1718022	1025	2036.450	0.000	0.280	48
341482	1718012	1020	2036.365	0.000	0.708	48
341530	1718000	1356	2036.610	0.000	0.000	48
341578	1717990	1407	2036.725	0.000	-0.530	48
341624	1717980	1412	2036.745	0.000	-0.729	48
341675	1717983	1419	2036.730	0.000	-0.651	48
341725	1717985	1423	2036.765	0.000	-0.921	48
341775	1717990	1428	2036.788	0.000	-1.051	48
341825	1717992	1434	2036.738	0.000	-0.923	48
341875	1717995	1439	2036.625	0.000	-0.826	48
341925	1718000	1445	2036.715	0.000	-0.985	48
341977	1718002	1450	2036.640	0.000	-1.109	48
342023	1718005	1456	2036.652	0.000	-1.144	48
342075	1718010	1503	2036.538	0.000	-0.942	48
342125	1718008	1508	2036.508	0.000	-0.945	48
342227	1718000	1518	2036.552	0.000	-1.207	48
342325	1717995	1524	2036.490	0.000	-1.179	48
342425	1717988	1530	2036.468	0.000	-1.223	48
342525	1717985	1537	2036.425	0.000	-1.230	48

Table C3b Reduction gravity data of Ban Sra Hong Area.

Easting	Northing	Time	Reading	I.H.	Elev.	Zone	TideCor.	Obs.Grv.	Bgr.Grv.	Avg.Bgr.	Bgr.-Avg	Avbgr.gu	Spacing	Remark
340745	1718560	1145	2036.370	0.000	-0.905	48	0.094	-0.160	1597.140	1597.545	-0.405	-4.047	0	W
340812	1718482	1139	2036.375	0.000	-0.780	48	0.096	-0.150	1597.210	1597.545	-0.335	-3.350	100	W
340880	1718405	1130	2036.438	0.000	-0.819	48	0.099	-0.080	1597.300	1597.545	-0.245	-2.450	200	W
340945	1718330	1125	2036.452	0.000	-0.716	48	0.100	-0.060	1597.370	1597.545	-0.175	-1.750	300	W
341010	1718258	1116	2036.502	0.000	-0.741	48	0.102	-0.010	1597.460	1597.545	-0.085	-0.850	400	W
341075	1718185	1110	2036.588	0.000	-0.711	48	0.103	0.090	1597.590	1597.545	0.045	0.450	500	W
341113	1718148	1104	2036.710	0.000	-1.018	48	0.104	0.220	1597.670	1597.545	0.125	1.250	550	W
341145	1718115	1059	2036.620	0.000	-0.571	48	0.104	0.130	1597.680	1597.545	0.135	1.350	600	W
341188	1718090	1055	2036.592	0.000	-0.451	48	0.104	0.100	1597.690	1597.545	0.145	1.450	650	W
341235	1718063	1047	2036.605	0.000	-0.415	48	0.104	0.120	1597.730	1597.545	0.185	1.850	700	W
341280	1718050	1043	2036.648	0.000	-0.500	48	0.104	0.160	1597.760	1597.545	0.215	2.150	750	W
341332	1718045	1037	2036.702	0.000	-0.767	48	0.103	0.220	1597.770	1597.545	0.225	2.250	800	W
341387	1718035	1032	2036.668	0.000	-0.557	48	0.103	0.190	1597.780	1597.545	0.235	2.350	850	W
341435	1718022	1025	2036.450	0.000	0.280	48	0.102	-0.040	1597.740	1597.545	0.195	1.950	900	W
341482	1718012	1020	2036.365	0.000	0.708	48	0.101	-0.120	1597.740	1597.545	0.195	1.950	950	W
341530	1718000	1356	2036.610	0.000	0.000	48	0.002	0.000	1597.720	1597.545	0.175	1.750	1000	Base
341578	1717990	1407	2036.725	0.000	-0.530	48	-0.007	0.110	1597.730	1597.545	0.185	1.850	1050	E
341624	1717980	1412	2036.745	0.000	-0.729	48	-0.011	0.130	1597.710	1597.545	0.165	1.650	1100	E
341675	1717983	1419	2036.730	0.000	-0.651	48	-0.017	0.110	1597.700	1597.545	0.155	1.550	1150	E
341725	1717985	1423	2036.765	0.000	-0.921	48	-0.020	0.140	1597.680	1597.545	0.135	1.350	1200	E
341775	1717990	1428	2036.788	0.000	-1.051	48	-0.025	0.160	1597.670	1597.545	0.125	1.250	1250	E
341825	1717992	1434	2036.738	0.000	-0.923	48	-0.029	0.100	1597.640	1597.545	0.095	0.950	1300	E
341875	1717995	1439	2036.625	0.000	-0.826	48	-0.033	-0.020	1597.530	1597.545	-0.015	-0.150	1350	E
341925	1718000	1445	2036.715	0.000	-0.985	48	-0.038	0.070	1597.590	1597.545	0.045	0.450	1400	E
341977	1718002	1450	2036.640	0.000	-1.109	48	-0.042	-0.010	1597.480	1597.545	-0.065	-0.650	1450	E
342023	1718005	1456	2036.652	0.000	-1.144	48	-0.046	0.000	1597.480	1597.545	-0.065	-0.650	1500	E
342075	1718010	1503	2036.538	0.000	-0.942	48	-0.051	-0.120	1597.400	1597.545	-0.145	-1.450	1550	E
342125	1718008	1508	2036.508	0.000	-0.945	48	-0.054	-0.160	1597.360	1597.545	-0.185	-1.850	1600	E
342227	1718000	1518	2036.552	0.000	-1.207	48	-0.060	-0.120	1597.350	1597.545	-0.195	-1.950	1700	E
342325	1717995	1524	2036.490	0.000	-1.179	48	-0.064	-0.190	1597.290	1597.545	-0.255	-2.550	1800	E
342425	1717988	1530	2036.468	0.000	-1.223	48	-0.067	-0.210	1597.260	1597.545	-0.285	-2.850	1900	E
342525	1717985	1537	2036.425	0.000	-1.230	48	-0.071	-0.260	1597.210	1597.545	-0.335	-3.350	2000	E

Table C4a Field gravity survey data of Ban Phri Khla.

Ban Phrai Khla Area
Date=910221 GMT=-7 SC=1.03469
GB1=000000 GB2=000000 Units=METR BD=2.40

Easting	Northing	Time	Reading	I.H.	Elev.	Zone
343270	1696562	1415	2024.365	0.000	-0.162	48
343315	1696575	1409	2024.428	0.000	-0.364	48
343365	1696582	1402	2024.430	0.000	-0.380	48
343413	1696598	1349	2024.455	0.000	-0.383	48
343512	1696620	1339	2024.460	0.000	-0.416	48
343607	1696640	1155	2024.570	0.000	-0.391	48
343705	1696660	1147	2024.590	0.000	-0.423	48
343803	1696682	1140	2024.525	0.000	-0.396	48
343902	1696705	1132	2024.642	0.000	-0.419	48
344000	1696725	1123	2024.660	0.000	-0.346	48
344950	1696747	1116	2024.715	0.000	-0.237	48
344190	1696768	1106	2024.664	0.000	0.015	48
344290	1696790	1426	2024.605	0.000	0.000	48
344390	1696810	1434	2024.609	0.000	0.078	48
344488	1696835	1444	2024.592	0.000	0.349	48
344583	1696860	1451	2024.715	0.000	-0.276	48
344680	1696880	1505	2024.790	0.000	-0.448	48
344778	1696900	1513	2024.845	0.000	-0.417	48
344878	1696925	1519	2024.850	0.000	-0.435	48
344972	1696945	1528	2024.855	0.000	-0.392	48
345070	1696965	1535	2024.880	0.000	-0.355	48
345168	1696988	1541	2024.891	0.000	-0.424	48
345262	1697010	1547	2024.950	0.000	-0.408	48
345362	1697030	1553	2024.955	0.000	-0.398	48
345460	1697050	1602	2024.990	0.000	-0.379	48
345555	1697070	1609	2025.068	0.000	-0.379	48
345654	1697092	1617	2025.130	0.000	-0.410	48
345752	1697113	1623	2025.130	0.000	-0.448	48

Table C4b Reduction gravity data of Ban Phri Khla.

Easting	Northing	Time	Reading	I.H.	Elev.	Zone	TideCor.	Obs.Grv.	Bgr.Grv.	Avg.	Bgr.-Agv	Avbgr.gu.	Spacing	Remarks
343270	1696562	1415	2024.365	0.000	-0.162	48	0.060	-0.250	1606.400	1606.620	-0.220	-2.204	0	W
343315	1696575	1409	2024.428	0.000	-0.364	48	0.057	-0.190	1606.420	1606.620	-0.200	-2.000	50	W
343365	1696582	1402	2024.430	0.000	-0.380	48	0.053	-0.180	1606.410	1606.620	-0.210	-2.100	100	W
343413	1696598	1349	2024.455	0.000	-0.383	48	0.045	-0.160	1606.430	1606.620	-0.190	-1.900	150	W
343512	1696620	1339	2024.460	0.000	-0.416	48	0.039	-0.160	1606.420	1606.620	-0.200	-2.000	250	W
343607	1696640	1155	2024.570	0.000	-0.391	48	-0.018	-0.100	1606.430	1606.620	-0.190	-1.900	350	W
343705	1696660	1147	2024.590	0.000	-0.423	48	-0.021	-0.080	1606.430	1606.620	-0.190	-1.900	450	W
343803	1696682	1140	2024.525	0.000	-0.396	48	-0.024	-0.160	1606.360	1606.620	-0.260	-2.600	550	W
343902	1696705	1132	2024.642	0.000	-0.419	48	-0.027	-0.040	1606.450	1606.620	-0.170	-1.700	650	W
344000	1696725	1123	2024.660	0.000	-0.346	48	-0.030	-0.030	1606.480	1606.620	-0.140	-1.400	750	W
344950	1696747	1116	2024.715	0.000	-0.237	48	-0.032	0.020	1606.550	1606.620	-0.070	-0.700	850	W
344190	1696768	1106	2024.664	0.000	0.015	48	-0.035	-0.040	1606.560	1606.620	-0.060	-0.600	950	W
344290	1696790	1426	2024.605	0.000	0.000	48	0.066	0.000	1606.590	1606.620	-0.030	-0.300	1050	Base
344390	1696810	1434	2024.609	0.000	0.078	48	0.070	0.010	1606.600	1606.620	-0.020	-0.200	1150	E
344488	1696835	1444	2024.592	0.000	0.349	48	0.076	0.000	1606.640	1606.620	0.020	0.200	1250	E
344583	1696860	1451	2024.715	0.000	-0.276	48	0.079	0.130	1606.630	1606.620	0.010	0.100	1350	E
344680	1696880	1505	2024.790	0.000	-0.448	48	0.086	0.210	1606.670	1606.620	0.050	0.500	1450	E
344778	1696900	1513	2024.845	0.000	-0.417	48	0.090	0.270	1606.720	1606.620	0.100	1.000	1550	E
344878	1696925	1519	2024.850	0.000	-0.435	48	0.092	0.280	1606.720	1606.620	0.100	1.000	1650	E
344972	1696945	1528	2024.855	0.000	-0.392	48	0.096	0.290	1606.730	1606.620	0.110	1.100	1750	E
345070	1696965	1535	2024.880	0.000	-0.355	48	0.098	0.310	1606.750	1606.620	0.130	1.300	1850	E
345168	1696988	1541	2024.891	0.000	-0.424	48	0.101	0.330	1606.740	1606.620	0.120	1.200	1950	E
345262	1697010	1547	2024.950	0.000	-0.408	48	0.103	0.390	1606.800	1606.620	0.180	1.800	2050	E
345362	1697030	1553	2024.955	0.000	-0.398	48	0.104	0.400	1606.800	1606.620	0.180	1.800	2150	E
345460	1697050	1602	2024.990	0.000	-0.379	48	0.107	0.430	1606.830	1606.620	0.210	2.100	2250	E
345555	1697070	1609	2025.068	0.000	-0.379	48	0.109	0.520	1606.910	1606.620	0.290	2.900	2350	E
345654	1697092	1617	2025.130	0.000	-0.410	48	0.111	0.580	1606.960	1606.620	0.340	3.400	2450	E
345752	1697113	1623	2025.130	0.000	-0.448	48	0.112	0.580	1606.940	1606.620	0.320	3.200	2550	E

APPENDIX D

Table D1 Data of Ban Sra Hong Model.

a) Calculated gravity model and observed Bouguer gravity of Ban Sra Hong Area.
units:Meters P-azim:90 Rho_1:1.8 1/2-strike_1:295000 Rho_2:2.21 1/2-strike_2:295000 Rho_3:2.1 1/2-strike_3:2950

x	Observed	Calculate	model_1	model_2	model_3	model_4	model_5	model_6	model_7	model_8	model_9	model_10	model_11	model_12	model_13	model_14	model_15
0	-4.047	-3.902	46.762	13.882	33.421	17.584	208.446	475.882	124.643	692.096	0.069	-0.004	0.204	0.235	-0.045	-0.018	-0.008
100	-3.35	-3.479	46.764	13.882	33.416	17.590	208.450	475.883	124.642	692.100	0.102	-0.006	0.405	0.399	-0.057	-0.024	-0.011
200	-2.45	-2.621	46.761	13.895	33.417	17.585	208.453	475.887	124.650	692.099	0.166	-0.015	0.858	0.725	-0.072	-0.034	-0.015
300	-1.75	-1.800	46.758	13.883	33.419	17.591	208.445	475.882	124.637	692.103	0.327	-0.035	1.198	1.100	-0.092	-0.049	-0.022
400	-0.85	-0.888	46.768	13.892	33.410	17.593	208.452	475.884	124.652	692.109	0.889	-0.050	1.322	1.329	-0.119	-0.076	-0.032
500	0.45	0.138	46.763	13.888	33.422	17.582	208.443	475.868	124.638	692.096	1.884	-0.054	1.376	1.439	-0.155	-0.126	-0.050
550	1.25	0.701	46.748	13.895	33.422	17.584	208.453	475.880	124.642	692.099	2.437	-0.056	1.392	1.471	-0.178	-0.168	-0.063
600	1.35	1.224	46.759	13.894	33.428	17.581	208.443	475.873	124.645	692.104	3.004	-0.056	1.404	1.494	-0.203	-0.227	-0.080
650	1.45	1.702	46.760	13.894	33.425	17.583	208.446	475.887	124.644	692.083	3.573	-0.057	1.413	1.511	-0.231	-0.303	-0.104
700	1.85	2.116	46.760	13.872	33.421	17.594	208.446	475.874	124.644	692.093	4.122	-0.057	1.420	1.524	-0.262	-0.392	-0.137
750	2.15	2.420	46.766	13.877	33.418	17.586	208.454	475.874	124.634	692.103	4.558	-0.057	1.425	1.533	-0.295	-0.487	-0.181
800	2.25	2.422	46.764	13.889	33.421	17.579	208.439	475.882	124.646	692.113	4.697	-0.057	1.428	1.539	-0.328	-0.581	-0.239
850	2.35	2.267	46.768	13.894	33.416	17.588	208.457	475.877	124.639	692.103	4.698	-0.057	1.430	1.543	-0.359	-0.666	-0.312
900	1.95	1.992	46.754	13.878	33.415	17.582	208.439	475.875	124.637	692.088	4.655	-0.057	1.431	1.545	-0.385	-0.735	-0.395
950	1.95	1.859	46.757	13.890	33.419	17.592	208.445	475.880	124.631	692.102	4.590	-0.057	1.431	1.544	-0.402	-0.779	-0.468
1000	1.75	1.742	46.762	13.887	33.416	17.574	208.446	475.882	124.639	692.107	4.510	-0.057	1.430	1.542	-0.408	-0.790	-0.498
1050	1.85	1.759	46.767	13.881	33.415	17.593	208.460	475.883	124.645	692.113	4.414	-0.056	1.427	1.537	-0.402	-0.765	-0.468
1100	1.65	1.750	46.758	13.886	33.419	17.583	208.451	475.882	124.636	692.096	4.297	-0.056	1.423	1.529	-0.385	-0.708	-0.395
1150	1.55	1.808	46.759	13.888	33.426	17.580	208.448	475.885	124.645	692.099	4.146	-0.055	1.416	1.517	-0.359	-0.626	-0.312
1200	1.35	1.735	46.756	13.884	33.423	17.588	208.448	475.880	124.626	692.085	3.917	-0.054	1.408	1.500	-0.328	-0.530	-0.239
1250	1.25	1.464	46.759	13.888	33.421	17.587	208.450	475.881	124.639	692.090	3.445	-0.052	1.395	1.476	-0.295	-0.428	-0.181
1300	0.95	0.715	46.755	13.886	33.426	17.582	208.446	475.877	124.641	692.103	2.553	-0.049	1.376	1.442	-0.262	-0.331	-0.137
1350	-0.15	-0.139	46.761	13.871	33.427	17.593	208.447	475.883	124.639	692.091	1.610	-0.042	1.347	1.395	-0.231	-0.247	-0.104
1400	0.45	-0.814	46.765	13.888	33.417	17.590	208.458	475.868	124.637	692.098	0.892	-0.030	1.298	1.332	-0.203	-0.183	-0.080
1450	-0.65	-1.211	46.755	13.888	33.421	17.588	208.460	475.879	124.635	692.113	0.508	-0.017	1.224	1.256	-0.178	-0.137	-0.063
1500	-0.65	-1.470	46.764	13.890	33.415	17.595	208.462	475.874	124.641	692.103	0.328	-0.010	1.133	1.170	-0.155	-0.104	-0.050
1550	-1.45	-1.710	46.755	13.879	33.422	17.593	208.442	475.883	124.648	692.099	0.232	-0.007	1.033	1.076	-0.136	-0.082	-0.040
1600	-1.85	-1.917	46.761	13.881	33.417	17.590	208.448	475.874	124.640	692.102	0.174	-0.005	0.929	0.979	-0.119	-0.065	-0.032
1700	-1.95	-2.267	46.764	13.895	33.421	17.579	208.454	475.884	124.643	692.104	0.108	-0.003	0.719	0.777	-0.092	-0.043	-0.022
1800	-2.55	-2.661	46.746	13.883	33.416	17.590	208.460	475.878	124.646	692.100	0.073	-0.002	0.514	0.574	-0.072	-0.030	-0.015
1900	-2.85	-3.013	46.756	13.884	33.428	17.589	208.446	475.873	124.628	692.094	0.052	-0.001	0.328	0.384	-0.057	-0.022	-0.011
2000	-3.35	-3.248	46.763	13.888	33.415	17.577	208.455	475.890	124.634	692.094	0.039	-0.001	0.185	0.233	-0.045	-0.016	-0.008

Table D1 b) Description of polygons for Ban Nam Om Model.

Ban Nam Om Model. Number of polygon : 11

Polygon No.	Side	1/2 strike	Density	Coordinate x	Coordinate z
1	14	400000	1.9	-10200	0
				13300	0
				13300	400
				2350	200
				2250	210
				2150	210
				1950	150
				1700	150
				1000	150
				950	150
				850	190
				750	190
				700	175
				-10200	175
2	10	295000	2.32	-10200	175
				700	175
				750	190
				850	150
				950	150
				1075	350
				1000	400
				850	400
				650	375

Ban Nam Om Model.   Number of polygon : 11

Polygon No.	Side	1/2 strike	Density	Coordinate x	z
				-10200	375
3	10	295000	2.32	13300	400
				13300	600
				2350	400
				2250	420
				2050	420
				1825	350
				1950	150
				2150	210
				2250	210
				2350	200
4	10	500000	2.52	-10200	375
				650	375
				850	400
				1000	400
				1075	350
				1075	650
				1000	680
				850	680
				650	645
				-10200	645
5	10	400000	2.52	13300	600
				13300	870
				2350	670
				2250	750

Ban Nam Om Model. Number of polygon : 11

Polygon No.	Side	1/2 strike	Density	Coordinate x	Coordinate z
				2050	750
				1825	650
				1825	350
				2050	420
				2250	420
				2350	400
6	4	400000	2.32	950	150
				1950	150
				1825	350
				1075	350
7	4	500	-0.12	950	150
				1950	150
				1825	350
				1075	350
8	4	400000	2.52	1075	350
				1825	350
				1825	650
				1075	650
9	4	500	-0.32	1075	350
				1825	350
				1825	650
				1075	650
10	12	500000	2.2	-10200	645
				650	645
				850	645

Ban Nam Om Model.   Number of polygon : 11

Polygon No.	Side	1/2 strike	Density	Coordinate x	Coordinate z
				1000	680
				1075	650
				1825	650
				2050	750
				2250	750
				2350	670
				13300	870
				13300	1010
				-10200	1010
11	15	300000	0.3	950	150
				760	140
				760	130
				850	130
				950	110
				1300	61
				1450	67
				1550	67
				1750	82
				1850	114
				2000	115
				2200	135
				2200	145
				2000	145
				1950	150

Table D2 Data of Ban Khi Lek Model.

a) Calculated gravity model and observed Bouguer gravity of Ban Khi Lek Area.
units:Meters P-azim:90 Rho_1:2.35 1/2-strike_1:295000 Rho_2:2.35 1/2-strike_2:295000 Rho_3:2.4 1/2-strike

x	Observed	Calculat	model_1	model_2	model_3	model_4	model_5	model_6	model_7	model_8	model_9	model_10	model_11
0	0.853	1.491	174.575	11.322	221.343	28.88	9.671	-0.269	22.331	-0.742	307.61	142.498	0.271
100	0.402	1.414	171.355	12.196	216.175	31.097	11.78	-0.356	26.21	-0.932	307.034	142.48	0.375
200	1.631	1.235	166.816	13.211	209.741	33.65	14.67	-0.485	31.06	-1.185	306.328	142.881	0.547
300	1.227	0.857	160.024	14.412	201.679	36.562	18.78	-0.681	37.155	-1.523	305.556	144.025	0.868
400	0.947	0.445	150.155	15.785	191.664	39.966	24.833	-0.991	44.789	-1.973	304.808	145.846	1.562
500	0.968	0.949	137.888	17.468	179.505	43.936	34.149	-1.499	54.29	-2.561	304.142	146.446	3.187
600	2.685	2.109	123.82	19.486	165.24	48.603	48.794	-2.341	65.711	-3.302	303.637	143.344	5.118
700	1.489	1.437	105.838	21.969	149.237	54.175	70.108	-3.608	78.582	-4.168	303.315	137.017	4.972
750	1.368	1.106	95.166	23.461	140.784	57.351	81.942	-4.318	85.168	-4.621	303.187	133.931	5.056
800	1.257	0.831	84.333	25.112	132.242	60.835	92.957	-4.979	91.568	-5.063	303.103	131.47	5.252
850	1.678	0.56	74.192	27.009	123.735	64.687	102.298	-5.538	97.474	-5.475	303.029	129.656	5.492
900	1.303	0.314	65.233	29.173	115.443	68.905	109.685	-5.977	102.651	-5.838	302.948	128.35	5.741
950	1.496	0.219	57.542	31.687	107.512	73.555	115.185	-6.301	106.903	-6.135	302.857	127.439	5.976
1000	0.305	0.154	51.041	34.586	100.041	78.672	118.935	-6.521	110.029	-6.355	302.749	126.8	6.175
1050	0.233	0.19	45.578	37.988	93.077	84.293	121.111	-6.648	111.96	-6.489	302.627	126.365	6.329
1100	0.101	0.284	40.97	41.994	86.64	90.468	121.825	-6.69	112.599	-6.535	302.452	126.101	6.46
1150	0.457	0.551	37.088	46.763	80.743	97.187	121.111	-6.648	111.944	-6.489	302.236	125.999	6.617
1150	0.39	0.551	37.088	46.763	80.743	97.187	121.111	-6.648	111.944	-6.489	302.236	125.999	6.617
1200	1.35	1.111	33.781	52.467	75.391	104.47	118.925	-6.521	110.037	-6.355	302.026	126.023	6.865
1250	1.85	1.91	30.953	59.299	70.504	112.302	115.172	-6.301	106.895	-6.135	301.769	126.205	7.247
1300	2.713	2.885	28.515	67.479	66.054	120.551	109.688	-5.977	102.667	-5.838	301.48	126.568	7.696
1350	4.321	3.906	26.391	77.161	62.01	129.182	102.298	-5.538	97.474	-5.475	301.207	127.135	8.06
1400	5.518	4.65	24.525	88.333	58.353	137.975	92.958	-4.979	91.552	-5.063	300.942	127.995	8.06
1450	4.749	4.514	22.883	100.598	55.007	146.778	81.955	-4.318	85.176	-4.621	300.707	129.247	7.103
1500	3.312	3.464	21.438	113.011	51.964	155.371	70.121	-3.608	78.574	-4.168	300.5	130.945	5.315
1550	2.969	2.681	20.145	124.285	49.186	163.626	58.725	-2.928	72.033	-3.724	300.37	133.034	3.928
1600	2.305	2.224	19.004	133.704	46.645	171.446	48.794	-2.341	65.711	-3.302	300.318	135.255	2.99
1650	2.745	1.861	17.956	141.255	44.314	178.736	40.65	-1.868	59.766	-2.913	300.353	137.313	2.298
1750	1.92	1.494	16.154	152.667	40.198	191.737	28.961	-1.213	49.298	-2.248	300.689	139.931	1.32
1850	1.855	1.696	14.657	161.66	36.682	202.617	21.498	-0.817	40.757	-1.732	301.339	140.251	0.785
1950	2.232	2.117	13.407	168.565	33.679	211.519	16.548	-0.572	33.93	-1.342	302.226	139.646	0.511
2050	1.126	2.307	12.331	173.162	31.069	218.568	13.109	-0.414	28.504	-1.05	303.177	139.494	0.356
2150	2.394	2.326	11.4	176.21	28.783	224.081	10.644	-0.308	24.158	-0.83	304.074	139.855	0.26
2250	1.575	2.227	10.594	178.352	26.78	228.399	8.808	-0.236	20.687	-0.664	304.831	140.479	0.197
2350	1.432	2.077	9.874	180.027	24.999	231.833	7.42	-0.184	17.877	-0.538	305.368	141.248	0.153
2450	1.65	1.917	9.254	181.358	23.433	234.61	6.34	-0.146	15.58	-0.44	305.72	142.087	0.122
2550	0.55	1.687	8.689	182.46	22.021	236.917	5.47	-0.118	13.685	-0.364	305.869	142.96	0.098
2650	0.668	1.419	8.175	183.375	20.742	238.885	4.773	-0.097	12.087	-0.304	305.837	143.865	0.081
2750	0.64	1.216	7.729	184.163	19.606	240.583	4.194	-0.08	10.761	-0.256	305.663	144.785	0.067

Table D2 b) Description of polygons for Ban Khi Lek Model.

Ban Khi Lek Model. Number of polygon : 11

Polygon No.	Side	1/2 strike	Density	Coordinate x	Coordinate z
1	10	295000	2.35	-10650	250
				350	175
				500	215
				600	215
				700	150
				775	350
				700	400
				500	400
				400	375
				-10650	450
2	10	295000	2.35	12850	310
				12850	510
				1900	370
				1800	400
				1600	400
				1425	350
				1500	150
				1700	190
				1800	190
				1900	170
3	10	500000	2.4	-10650	450
				400	375
				500	400

Ban Khi Lek Model.

Polygon No.	Side	1/2 strike	Density	Coordinate x	Coordinate z
				700	400
				775	350
				775	650
				700	700
				500	700
				-10650	720
4	10	40000	2.4	12850	510
				12850	780
				1900	640
				1800	730
				1600	730
				1425	650
				1425	350
				1600	400
				1800	400
				1900	370
5	4	400000	2.35	700	150
				1500	150
				1425	350
				775	350
6	4	500	-0.5	700	150
				1500	150
				1425	350
				775	350
7	4	400000	2.4	775	350

Ban Khi Lek Model.

Polygon No.	Side	1/2 strike	Density	Coordinate x	Coordinate z
				1425	350
				1425	650
				775	650
8	4	500	-0.2	775	350
				1425	350
				1425	650
				775	650
9	12	500000	2.2	-10650	720
				350	645
				500	700
				700	700
				775	650
				1425	650
				1600	730
				1800	730
				1900	640
				12850	780
				12850	1010
				-10650	1010
10	12	275000	1.9	-10650	0
				12850	0
				12850	310
				1900	170
				1800	190
				1700	190

Ban Khi Lek Model.

Polygon No.	Side	1/2 strike	Density	Coordinate x	Coordinate z
				1500	150
				700	150
				600	215
				500	215
				350	175
				-10650	250
11	12	1000	0.3	700	150
				500	140
				500	115
				600	50
				650	110
				1000	90
				1200	90
				1450	40
				1500	123
				1700	130
				1700	140
				1500	150

Table D3 Data of Ban Sra Hong Model.

a) Calculated gravity model and observed Bouguer gravity of Ban Sra Hong Area.
units:Meters P-azim:0 Rho_1:1.8 1/2-strike_1:295000 Rho_2:2.21 1/2-strike_2:295000 Rho_3:2.1 1/2-strike_3:29500

x	Observed	Calculat	model_1	model_2	model_3	model_4	model_5	model_6	model_7	model_8	model_9	model_10	model_11	model_12	model_13	model_14	model_15
0	-4.047	-3.452	46.762	13.882	33.421	17.584	208.446	475.882	124.643	692.096	-0.003	0.155	0.207	-0.018	-0.008	-0.073	0.073
100	-3.35	-3.18	46.764	13.882	33.416	17.59	208.45	475.883	124.642	692.1	-0.005	0.28	0.337	-0.024	-0.011	-0.09	0.105
200	-2.45	-2.537	46.761	13.895	33.417	17.585	208.453	475.887	124.65	692.099	-0.011	0.604	0.618	-0.034	-0.015	-0.113	0.167
300	-1.75	-1.611	46.758	13.883	33.419	17.591	208.445	475.882	124.637	692.103	-0.029	1.069	1.022	-0.049	-0.022	-0.142	0.322
400	-0.85	-0.654	46.768	13.892	33.41	17.593	208.452	475.884	124.652	692.109	-0.048	1.275	1.293	-0.076	-0.032	-0.18	0.856
500	0.45	0.309	46.763	13.888	33.422	17.582	208.443	475.868	124.638	692.096	-0.054	1.355	1.421	-0.126	-0.05	-0.23	1.794
550	1.25	0.816	46.748	13.895	33.422	17.584	208.453	475.88	124.642	692.099	-0.055	1.377	1.457	-0.168	-0.063	-0.259	2.305
600	1.35	1.247	46.759	13.894	33.428	17.581	208.443	475.873	124.645	692.104	-0.056	1.393	1.484	-0.227	-0.08	-0.292	2.798
650	1.45	1.571	46.76	13.894	33.425	17.583	208.446	475.887	124.644	692.083	-0.057	1.405	1.503	-0.303	-0.104	-0.328	3.233
700	1.85	1.81	46.76	13.872	33.421	17.594	208.446	475.874	124.644	692.093	-0.057	1.414	1.517	-0.392	-0.137	-0.367	3.628
750	2.15	2.025	46.766	13.877	33.418	17.586	208.454	475.874	124.634	692.103	-0.057	1.421	1.528	-0.487	-0.181	-0.407	3.998
800	2.25	2.182	46.764	13.889	33.421	17.579	208.439	475.882	124.646	692.113	-0.057	1.426	1.535	-0.581	-0.239	-0.447	4.313
850	2.35	2.203	46.768	13.894	33.416	17.588	208.457	475.877	124.639	692.103	-0.058	1.43	1.539	-0.666	-0.312	-0.484	4.51
900	1.95	2.082	46.754	13.878	33.415	17.582	208.439	475.875	124.637	692.088	-0.058	1.432	1.542	-0.735	-0.395	-0.514	4.642
950	1.95	2.086	46.757	13.89	33.419	17.592	208.445	475.88	124.631	692.102	-0.058	1.434	1.542	-0.779	-0.468	-0.534	4.733
1000	1.75	2.039	46.762	13.887	33.416	17.574	208.446	475.882	124.639	692.107	-0.058	1.434	1.539	-0.79	-0.498	-0.541	4.739
1050	1.85	1.966	46.767	13.881	33.415	17.593	208.46	475.883	124.645	692.113	-0.057	1.433	1.534	-0.765	-0.468	-0.534	4.568
1100	1.65	1.81	46.758	13.886	33.419	17.583	208.451	475.882	124.636	692.096	-0.057	1.431	1.527	-0.708	-0.395	-0.514	4.316
1150	1.55	1.718	46.759	13.888	33.426	17.58	208.448	475.885	124.645	692.099	-0.057	1.428	1.515	-0.626	-0.312	-0.484	4.025
1200	1.35	1.511	46.756	13.884	33.423	17.588	208.448	475.88	124.626	692.085	-0.057	1.424	1.498	-0.53	-0.239	-0.447	3.67
1250	1.25	1.247	46.759	13.888	33.421	17.587	208.45	475.881	124.639	692.09	-0.056	1.418	1.475	-0.428	-0.181	-0.407	3.211
1300	0.95	0.887	46.755	13.886	33.426	17.582	208.446	475.877	124.641	692.103	-0.055	1.409	1.441	-0.331	-0.137	-0.367	2.71
1350	-0.15	0.475	46.761	13.871	33.427	17.593	208.447	475.883	124.639	692.091	-0.054	1.398	1.394	-0.247	-0.104	-0.328	2.206
1400	0.45	0.036	46.765	13.888	33.417	17.59	208.458	475.868	124.637	692.098	-0.052	1.381	1.331	-0.183	-0.08	-0.292	1.712
1450	-0.65	-0.416	46.755	13.888	33.421	17.588	208.46	475.879	124.635	692.113	-0.049	1.357	1.255	-0.137	-0.063	-0.259	1.242
1500	-0.65	-0.875	46.764	13.89	33.415	17.595	208.462	475.874	124.641	692.103	-0.042	1.318	1.169	-0.104	-0.05	-0.23	0.82
1550	-1.45	-1.308	46.755	13.879	33.422	17.593	208.442	475.883	124.648	692.099	-0.03	1.254	1.076	-0.082	-0.04	-0.203	0.496
1600	-1.85	-1.633	46.761	13.881	33.417	17.59	208.448	475.874	124.64	692.102	-0.017	1.158	0.978	-0.065	-0.032	-0.18	0.312
1700	-1.95	-2.118	46.764	13.895	33.421	17.579	208.454	475.884	124.643	692.104	-0.007	0.912	0.776	-0.043	-0.022	-0.142	0.163
1800	-2.55	-2.615	46.746	13.883	33.416	17.59	208.46	475.878	124.646	692.1	-0.004	0.652	0.574	-0.03	-0.015	-0.113	0.103
1900	-2.85	-3.06	46.756	13.884	33.428	17.589	208.446	475.873	124.628	692.094	-0.003	0.412	0.384	-0.022	-0.011	-0.09	0.071
2000	-3.35	-3.371	46.763	13.888	33.415	17.577	208.455	475.89	124.634	692.094	-0.002	0.228	0.232	-0.016	-0.008	-0.073	0.052

Table D3 b) Description of polygons for Ban Sra Hong Model.

Ban Sra Hong Model. Number of polygon : 15

Polygon No.	side	1/2 strike	Density	Coordinate x	Coordinate z
1	4	295000	1.8	-100000	0
				100000	0
				100000	62
				-100000	62
2	4	295000	2.21	-100000	62
				100000	62
				100000	77
				-100000	77
3	4	295000	2.1	-100000	77
				100000	77
				100000	115
				-100000	115
4	4	295000	2	-100000	115
				100000	115
				100000	136
				-100000	136
5	4	295000	2.35	-100000	136
				100000	136
				100000	348
				-100000	348
6	4	295000	2.4	-100000	348
				100000	348
				100000	823

Ban Sra Hong Model.

Polygon No.	side	1/2 strike	Density	Coordinate x	z
				-100000	823
7	4	295000	2.2	-100000	823
				100000	823
				100000	959
				-100000	959
8	4	295000	2.35	-100000	959
				100000	959
				100000	1668
				-100000	1668
9	4	1000	-0.01	350	62
				1550	62
				1550	77
				250	77
10	4	1000	0.1	250	77
				1550	77
				2000	115
				200	115
11	4	1800	0.2	200	115
				2000	115
				1350	136
				300	136
12	4	700	-0.15	600	136
				1350	136
				1025	160
				975	160

Ban Sra Hong Model.

Polygon No.	side	1/2 strike	Density	Coordinate x	z
13	4	200	-0.15	975	160
				1025	160
				1025	348
				975	348
14	8	200	-0.2	975	348
				1025	348
				1025	500
				1050	750
				1100	823
				900	823
				950	750
				975	500
15	6	1000	0.4	350	62
				600	43
				800	33
				1000	30
				1200	37
				1550	62

BIOGRAPHY

Mr.Krisanapol Vichapan was born in Bangkok on July 4, 1962. He graduated with a B.Sc.degree in Geology from Khon Kaen University in 1985. He was employed as research assistant in The Ancient Settlements in Thailand Research Project, Chulalongkorn University from 1985-1987. He then was on leave for higer degree study at Chulalongkorn University from 1987-1991.

During his study at graduate school, he worked with his family own company Mathuros Co.,Ltd., and has been appointmented as managing director, since 1989 to present.