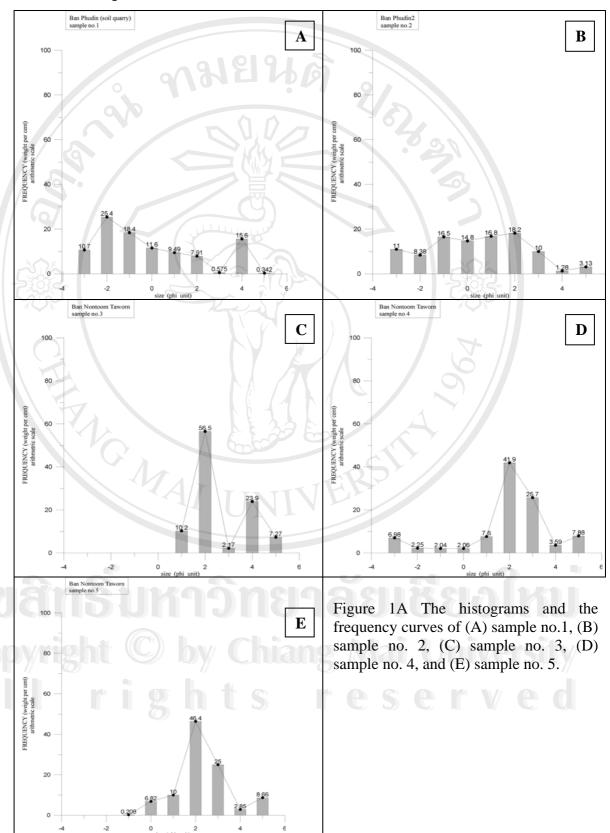
APPENDIX A

HISTOGRAM, FREQUENCY CURVE, CUMULATIVE FREQUENCY CURVE AND INTERPRETATIVE TABLES

The appendix A correlates to the Chapter 4. They comprise 15 sets of 15 locations. Each set composes of the figures of histograms and frequency curves, the cumulative curves and descriptive tables.



Location 1 Ban Phu Din Pattana (sample nos. 1-2) and Location 2 Ban Nontoom - Taworn (sample nos. 3 - 5)



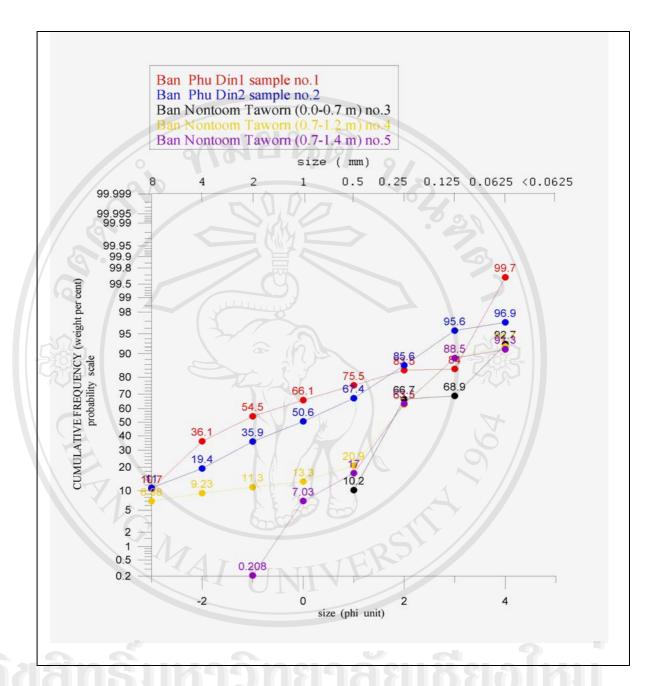


Figure 1B The cumulative frequency curves of sample nos. 1-5.

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Table 1 The Histograms, Frequency and Cumulative curves of the samples of location 1 -2 (sample nos. 1-5) (Figure 1).

iple iber	Histogram and	Cumulative	Graph	ic measur distrib	e of frequution	iency	
Sample number	Frequency curve	frequency curve	Mz	(σI)	SK1	(KG)	
	The histogram is the graphic representation of frequency distribution data. The line which joins from point of each peak of the bars is frequency curve, which is used for interpreting the tendency of whether normal distribution or not and characteristic of the samples. The histograms and the frequency curved were illustrated in the Figure 4.3A.	The curves of sample no.1 and no.2 are concordance. Both of them reveal gentle slopes comparing to the standard slope (the 45 ° line). It reflects the poorly sorted sediments Comparing to the plot of Vishes (1989) (Figure 4.4), the curves reflect their sediments deposited by rolling, sliding, and some parts by suspension.	Very coarse sand	Very poory sorted	Very negative phi values, coarse	Platy- kurtic	
2	The sample no. 2 comprise the gravel to fine sand (size -4 to 3 \varnothing) being the major mode meanwhile the fine sand to silt (3-5 \varnothing) being the minor mode.		Very coarse sand	Very poorly sorted	Very negative phi value, coarse	Meso - kurtic.	
3	The sample No. 3 exhibits the particle size since 0-5 Ø (very coarse sand-silt). The asymmetry-frequency curve show that they are composed of 2	The curve of sample no.3 reveal composing of fine particles. It reflects rather well sorted. The curve is implied the sediments	Fine sand	Poorly sorted	Very nega - tive	Platy - kurtic.	
byri	subpopulations, which were presumed those had been derived from the different parent deposits.	deposited by saltation.	Mai e s	Uni e r	vers v e	ity d	

Table 1 The Histograms, Frequency and Cumulative curves of the samples of location 1 -2 (sample nos. 1-5) (Figure 1) (continued).

Sample	Histogram and	Cumulative		c measur distrib		·
Sar	Frequency curve	frequency curve	$M_{\rm Z}$	(σI)	SK1	(KG)
4	composed of fine pebble to very coarse silt. It is dominant as fine sand. The curve skews to finer particles, rather leptokurtic and	same bed but slightly different at the first segment of sample no. 4. The curve of sample no. 4 reflects very	Medium sand	Very poorly sorted	Positive phi values	Lepto-kurtic.
500	composed of very coarse sand to very coarse silt. It is dominant as fine sand. The curve	saltation and suspension. The curve of sample no. 5 reflects poorly sorted. The sediments are	Medium sand size		Negative phi values	Very lepto- kurtic.

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Location 3 Wang Yai waterfall, Ban Lalai Noi (sample nos. 6 - 7) Location 4 and Location 5 Huai Ka Yung floodplain, Ban Lalai Noi (sample nos. 8-9 and sample nos. 10-11)

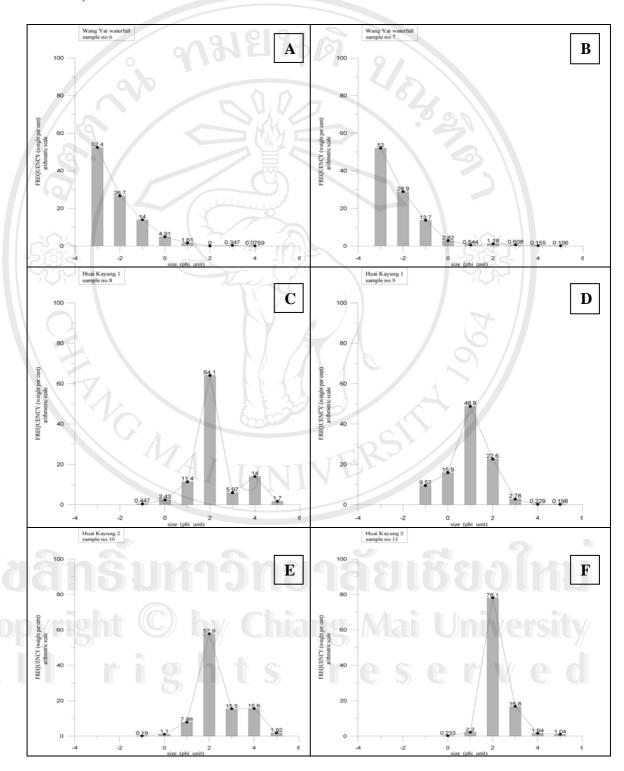


Figure 2A The histograms and the frequency curves of (A) sample no. 6, (B) sample no. 7, (C) sample no. 8, (D) sample no. 9, (E) sample no. 10 and (F) sample no. 11.

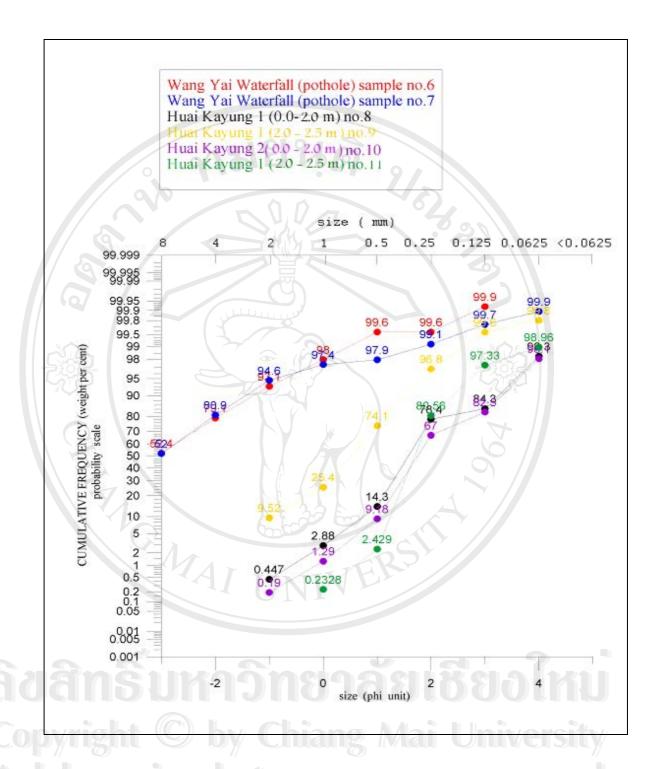


Figure 2B The cumulative frequency curves of sample nos. 6-11.

Table 2A The Histograms, Frequency and Cumulative curves of the samples of location 3 (sample nos. 6-7) (Figure 2).

ple ber	History and	Cumulative	Graphi	ic measur distrib	e of frequ	ency
Sample	Histogram and Frequency curve	frequency curve	M _Z	(σΙ)	SK1	(KG)
6	The histogram and	Both of the curves	Gravel	Poorly	Negative	Meso -
	the frequency curve	are concordance.	size	sorted	phi	kurtic
	of the sample no.6	They are rather	4		values	
7	and no.7 have	smooth. However,	Gravel	Poorly	Symme	Meso -
1/5	almost the same	the curve of	size	sorted	-trical	kurtic
	pattern. Most of			505	phi	
	particles are pebble	slightly different			values	
	to coarse sand,	that the coarse				
/	minor in very less	sand - very fine		\		
30%	amount of medium	sand has a little		35	2/2	
- 10 to	to very fine sand.	more than of		-51		
1	Not normal	sample no. 7.		1 8		
\	distribution, but the	Their gentle slopes				
	frequency curves of	indicate the				
	the samples	deposition by				
	illustrate one mode	rolling and sliding.				
	of the particles. It					
	may hypothesize			1		
	that the sediments,	1 23 60		\		
	concluding the	(p)C				
	gemstones		05>			
	discovered in the	TITITIE				
	potholes, had					
	derived from one					
	source, and the					
	minor of particles					
. 9	which is smaller					
	size than the very	9118118		55	7)] [
	fine sand grain, is removed out					
		Chiana	A 41-2	11 11	1.040	24
O	greatly. The frequency curve	y Unlang	Mal	uni	vers	
- //	still shows the	4				//
	leptokurtic		es	er	WA	
	characteristic					
	indicating well					
	sorting.					
	sorung.					

Table 2B The Histograms, Frequency and Cumulative curves of the samples of location 4(sample no. 8-9) and location 5(sample no. 10-11) (Figure 2)

Sample number	Histogram and	Cumulative	Graph	nic measur distrib	e of freque	ency
Sample	Frequency curve	frequency curve	$M_{\rm Z}$	(σΙ)	SK1	(KG)
8	The histogram of	The samples can be	Medium	Poor	Strongly	Very
	sample nos.8 and 10		sand	sorting	positive,	lepto -
	which both of them	the similarlity of	7	0.1	coarse	kurtic
9	from the bank have the similar	locations: the sample no. 8 and sample	Coarse	Poor	Symme	Lepto
1/ 5	histograms. They are		sand	sorting	-trical	-kurtic
10	composed of 2	banks of the stream	Medium	Poor	Negative	
	modes, the medium		sand	sorting	phi	kurtic
	sand size and the very	no. 9 and no. 11 are		\	values,	
	fine sand size are	also in - channel			coarse	
11	dominant. Totally,	sediments.	Medium	1 7.3	Negative	Very
7	the curves have	The curves of	sand	ately	phi	lepto -
200	tendency to the	sample no.8 and		well	values,	kurtic
	negative skewness	no.10 are accordant.		sorting	coarse	
	(finer sizes), showing low energy	Each of them reveals 2 breaks. First			- /	
	low energy deposition 2 modes	segment is almost				
	of the histogram and	moderately sorted.		0)		
	frequency curve	The sediments are				
	reflecting 2 sources.	deposited by rolling		1 /		
	It is hypothesized the	and sliding. The		Y //		
	sources of the	second segment	~()			
	particles are derived	shows gentle slope,	05°			
	both from the running	reflecting well sorted.				
	- water, and sheet					
	washing from the decayed surface of	deposit by rolling and sliding. The third				
	higher hard rocks. The	segment reflects				
	sample nos.9 and	poorly sorted. The				100
9	no.11 from channel	sediments are				7.0
	deposits are slightly				D) LK	NUL
	different. The curves	suspension.				
	are almost normal	The samples no. 9	A Alai		1010	24
U W I'l	distribution, showing	and no.11 exhibit	Mell		VEIS	ILY/
-//	one mode implying	normal distribution.				// lin
	one source.	The curve of sample	ASI	ar	WA	
		no. 9 reflects rather				

Table 2B The Histograms, Frequency and Cumulative curves of the samples of location 4(sample nos. 8-9) and location 5(sample nos. 10-11) (Figure 2) (continued).

ple	Histogram and	Cumulative	Graphic measure of frequency distribution				
Sample	Frequency curve	frequency curve	$M_{\rm Z}$	(σΙ)	SK1	(KG)	
11 (cont.)	Although they have tendency to be the finer particles the samples have mixing of the gravel to coarse sand dominantly, even though the sample no.9 reveals coarse sand size dominantly and the sample no.11 reveals medium sand size dominantly. In comparison, the location of the sample no.8 and no.9 should have high energy than of the sample nos.10 and no.11 during deposition because the coarser paticles are more quantity here	no. 9 has some very fine pebble in the composition but not in sample no. 11. It is possible that the location of sample no.9 has higher energy during deposition. In conclusion, their sediments	RSII	1967 SSSS 136			

Location 6 Ban Khok Charoen (sample nos. 12 – 14)

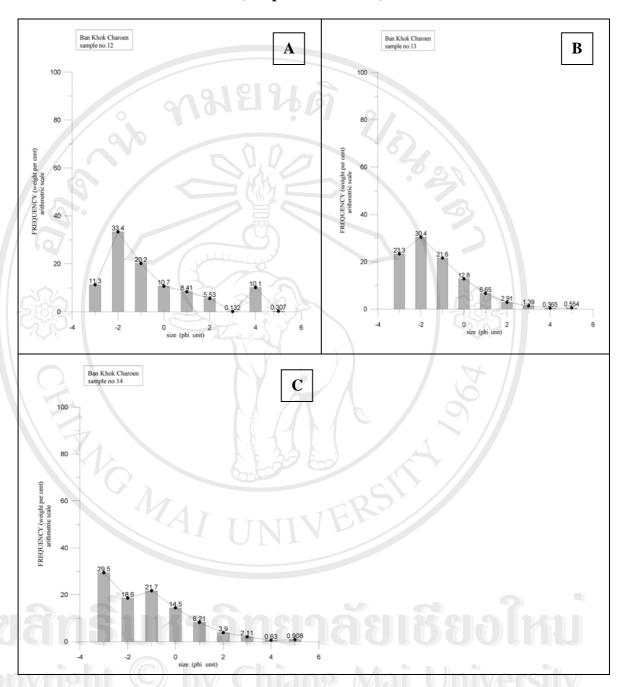


Figure 3A The histograms and the frequency curves of (A) sample no. 12,. (B) sample no. 13 and (C) sample no. 14.

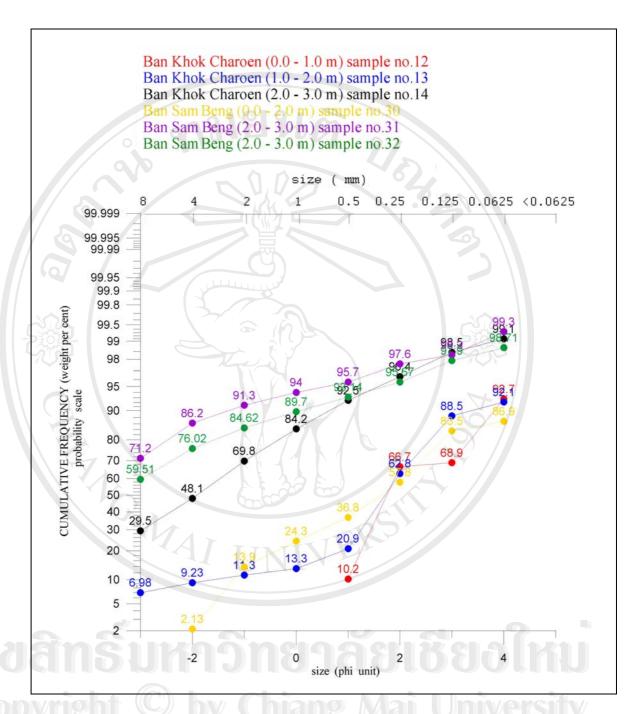


Figure 3B The cumulative frequency curves of sample nos. 12 - 14 and sample nos. 30 - 32 which are the similar deposits. They are plotted for comparison.

Table 3 The Histograms, Frequency and Cumulative curves of the samples of location 6 (sample nos. 12 - 14) (Figure 3).

Sample	Histogram and	Cumulative	Graphi	ic measur distrib	re of frequoution	ency
San	Frequency curve	frequency curve	$M_{\rm Z}$	(σI)	SK1	(KG)
12	The curve of sample no.12 shows 2 modes of the particles. The peaks occur at granule size mainly and very	14 came from the	Medium sand	Poor sorting	Very negative phi values, coarse	Meso - kurtic
13	fine sand size minority whereas the sample no.13 shows only one	distribution of sizes.	sand	Poor sorting	Negative phi values	Meso - kurtic
	mode which peaks at granule size. It is hypothesized that the sediments of the sample no.12 were derived from 2 sources, own residual-basaltic soil and the flood plain deposit or sheet washing whereas the deeper sediments of sample no.13 is derived from only own residual-basaltic soil. The particles of sample no.14 has tendency to have 2 modes which peak at pebble size and granule size but not different much in percentile and the curve skew to coarser grain. On the other hand the amount of gravel to coarse sand is more than the amount of smaller particles. It can explain that the coarse particles come from the	The sample no. 12 has the member from medium sand – very fine sand. The curve reveals poor sorted. The depositional mechanism cannot be stated decisively. Most of particles should come from in – situ weathering. The sample no.13 consists of the coarse to fine particle. The curve reflects poor sorting. Most of particles should come from in – situ weathering. The curve of sample no. 14 cluster in same position of comparing samples no. 31 – 32 which are basaltic soil. Most of sample	sand National States of the S	Poor sorting Ball Uni Prince of the service of t	Sym – metrical Vers	Meso - kurtic

Location 7 Huai Dan Ai floodplain, Ban Lalai (sample nos. 15 – 18) and Location 8 Spillway of Huai Dan Ai Reservoir, Ban Lalai (sample nos. 19 - 21)

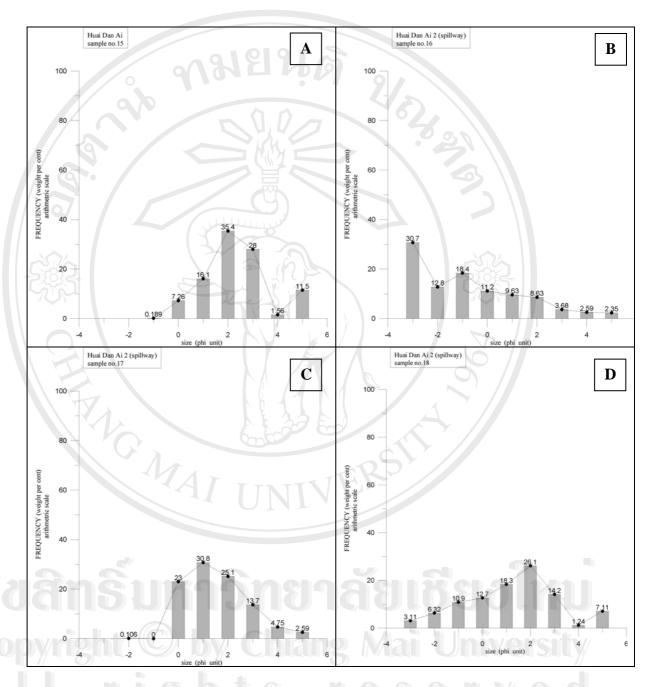


Figure 4A The histograms and the frequency curves of (A) sample no.15, (B) sample no. 16, (C) sample no. 17, and (D) sample no.18.

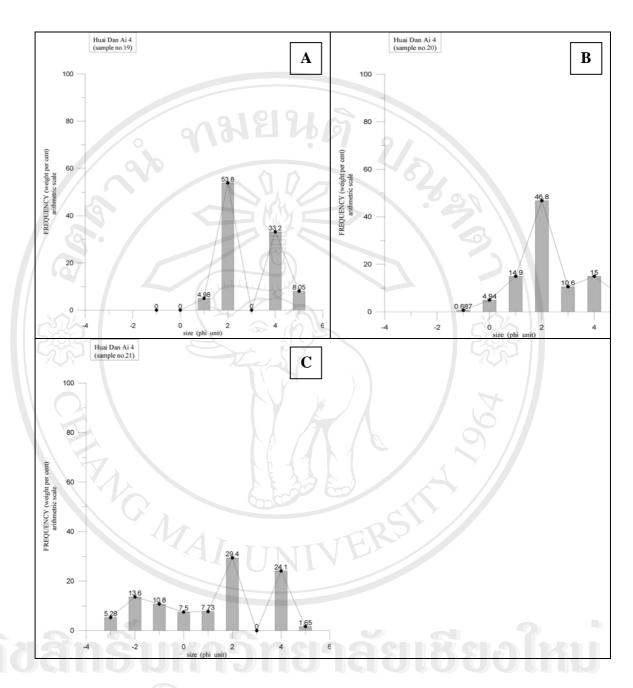
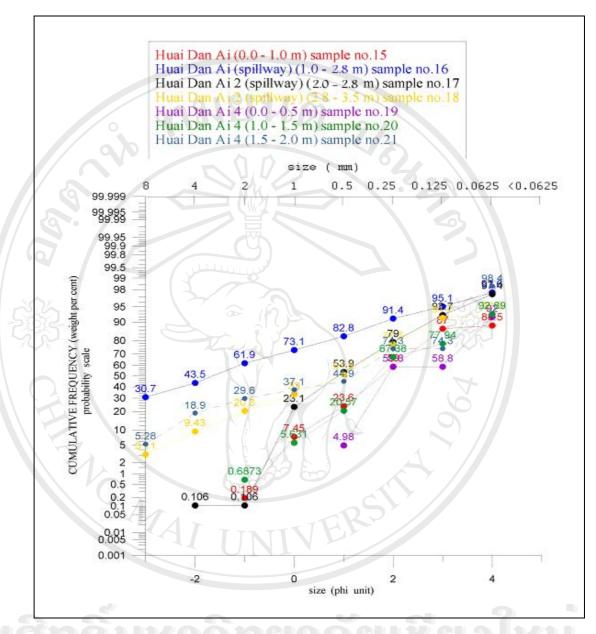


Figure 4B The histograms and the frequency curves of (A) sample no. 19, (B) sample no. 20, and (C) sample no. 21.



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Table 4 The Histograms, Frequency and Cumulative curves of the samples of location 7 (sample nos. 15 - 18) and location 8 (sample nos. 19 - 21) (Figure 4).

Sample number	Histogram and Frequency curve	Cumulative frequency curve	Graphic distribution M _Z	measure (σI)	of f	requency (KG)
15	The histograms and frequency curves of 2 sets (sample nos.15-18 and sample nos.19-21) show the different tendency of particle sizes, the former is closed to the coarser size than the later generally. The first set, the sample no.15, granule size to silt size being population, seems to be almost 2 modes which peak more distinguishingly at very coarse sand size, and at silt size. The 2 modes reflect 2 sources of particles but it seems one supply more quantity of sediments than the others.	The sample no. 15 has a break, dividing the curve into 2 segments. The first segment reflects slightly poorly sorted whereas the second segment reflects very poory sorted. The sediments forming to be this bed are deposited by saltation and suspension.	Medium sand	Poor sorting	Symme-trical	Lepto - kurtic
	The histogram and frequency curve of sample no.16 are different. The gravel size beginning at pebble size is the most quantity comparing the very coarse sand to silt. Almost being the single mode, but they shows 2 peaks which both are in the granule size at	comprises wide range sediments which most of them is coarse particles. The	Gravel Mai	Very poorly sorted	Negative phi values	Platy - kutic

Table 4 The Histograms, Frequency and Cumulative curves of the samples of location 7 (sample nos.15 – 18) and location 8 (sample nos.19 – 21) (Figure 4)(continued).

Sample number	Histogram and	Cumulative	Graph	nic measur distrib	e of freque	ncy
San	Frequency curve	frequency curve	M _Z	(σΙ)	SK1	(KG)
16 (cont.)	the pebble size and the granule size. It reflects 2 parental sources comparing to the curves patterns of sample no.15 and the following sample no.17. The sediments of sample no.16 should be the gravel bed of channel deposit.	range sediments which most of them	Gravel	Very poorly sorted	Negative phi values	
	The sample no.17 reveals the histogram and frequency curve skewing the finer particles, even thought the granule size and very coarse sand size appear slightly. However, the amount of gravel to coarse sand sizes is more than of sample no.15 distinguished. The curve of sample no.17 reveals single mode, reflecting one source.	The sample no.17, even though underlying the sample no. 16, reveals different curve. It is composed of fine sediments mixing a few of coarser sediments. The curve has a break, dividing curve into 2 segments. The first segment reflects poorly sorted and sediments deposited by rolling and sliding. The second segment reflects slightly poorly sorted and sediments deposited by saltation. The second segment overlies the sample no.18 refecting association of this set.	Coarse sand Alli Mai Coarse sand	Poorly sorted Ball Umi	Negative phi values	Meso - kurtic

Table 4 The Histograms, Frequency and Cumulative curves of the samples of location 7 (sample nos. 15-18) and location 8 (sample nos. 19-21) (Figure 4) (continued).

iple iber	Histogram and	Cumulative	Graph	nic measui distrib	re of freque	ency
Sample	Frequency curve	frequency curve	$M_{\rm Z}$	(σΙ)	SK1	(KG)
18	The sample no.18 is composed of pebble to silt size. The curve skews to finer part, showing 2 modes which peak at medium sand size and silt size, reflecting 2 sources. The curve of sample no.18 is different from the adjacent bed (sample no.17). It reflects the different depositional energy.	characteristics similar to sample no.16, there is a little difference that the less amount of coarse sediments. The curve reflects poorly sorted. The sediments are deposited by rolling, sliding and suspension. In conclusion, the samples nos. 15 – 18 are a series of fining – upward – gravelly bed. The lower subset has more finer sediments than the upper subset. It implies the sediments deposited by less violent current or smaller channel, are overlain by sediments from larger channel.	Coarse sand	Very poorly sorted	Positive phi values	Lepto - kurtic
	The curve of sample no.19 skews to finer particles, showing 2 modes which peak at medium sand size and very fine sand size dominantly. It reflects that the sediments of sample no.19 come from 2 sources.	The curve of sample no.19 illustrates the narrower range of grain size comparing to the others. There are no coarse grain in composition. Two breaks on the curve divided it into 3 segments. The first segment is implied	Fine sand State Mai State State	Poorly sorted	Very Negative phi values, coarse	Platy - kutic

Table 4 The Histograms, Frequency and Cumulative curves of the samples of location 7 (sample nos. 15-18) and location 8 (sample nos. 19-21) (Figure 4) (continued).

ple			Graph	nic measur distrib	re of freque	ency
Sample number	Histogram and Frequency curve	Cumulative frequency curve	$M_{\rm Z}$	(σI)	SK1	(KG)
19 (cont.)		that the particles has rather well sorted and deposited by saltation. The second segment has no population. The third segment reflects moderately sorted and sediments are deposited by saltation.	2/2	9 8		
20	The sample no.20 has coarser particles and granule coarse sand size than of sample no.19 while the last bar occupied the silt size position. The curve of sample no.20 shows 2 modes peaking at the medium sand size and very fine sand size. It reflects 2 sources.	The curve of sample no. 20 is slightly gentle slope comparing to the standard curve (line 45°). It implies the slightly poorly sorted. And the sediments are deposited by saltation. It is noticed that (Figure 4.6 C) its curve is almost fit to the position of sample no. 15. It implies the according or both of them can be correlated.	Medium sand	Poorly sorted	Negative phi values	Lepto - kurtic
	Beyond the sample no.21 has wide range of particles, pebble to silt size, it also shows the curve having 3 modes which peak at pebble size, medium sand size, and the very fine sand size respectively. It can hypothesize that the sediments come from 3 sources. The sample no.21 should be related to the sample	The curve of sample no. 21 is gentle slope, reflecting poorly sorted. The sediments are deposited by rolling, sliding, and saltation. The curve of sample no. 21 is closed to that of sample no. 18 and they have similar pattern too. Thus they can be correlated together.	Coarse sand	Very poorly sorted	Positive phi values	Platy - kurtic
	no.18 in lateritization and being gravel bed.					

Location 9 Ban Kham Proi (sample nos. 22 - 24)

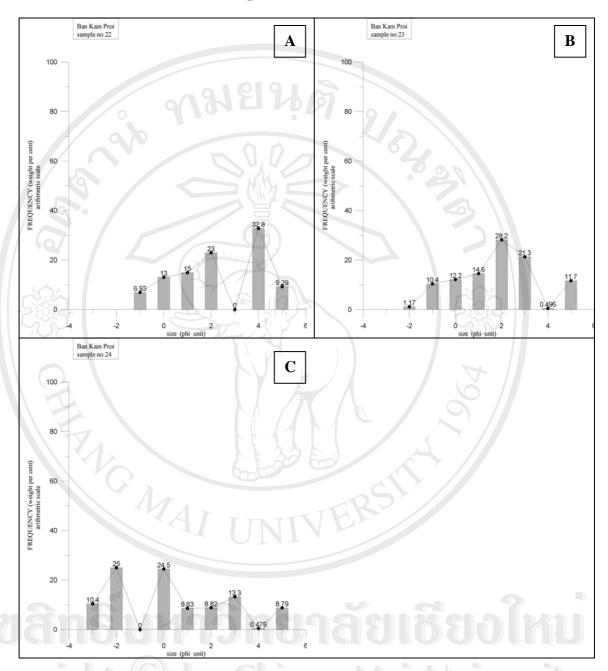


Figure 5A The histograms and the frequency curves of (A)sample no. 22, (B) sample no. 23, and (C) sample no. 24.

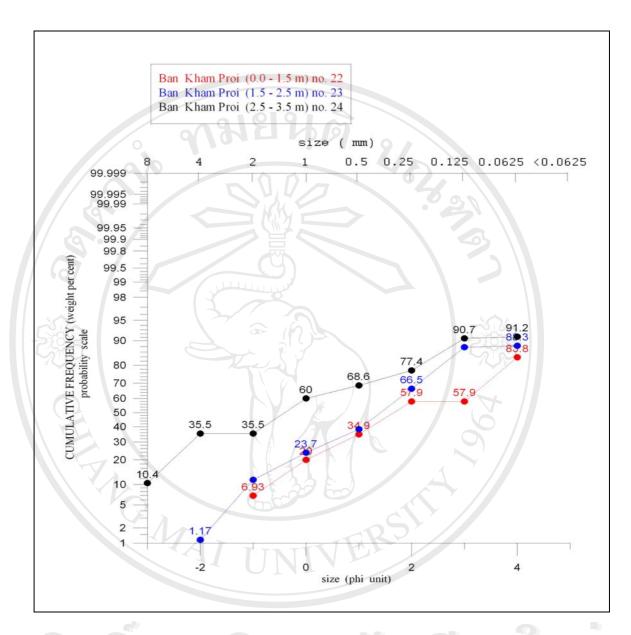


Figure 5B The cumulative frequency curves of sample no. 22 – 24.

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Table 5 The Histograms, Frequency and Cumulative curves of the of location 9 (sample nos . 22-24) (Figure 5).

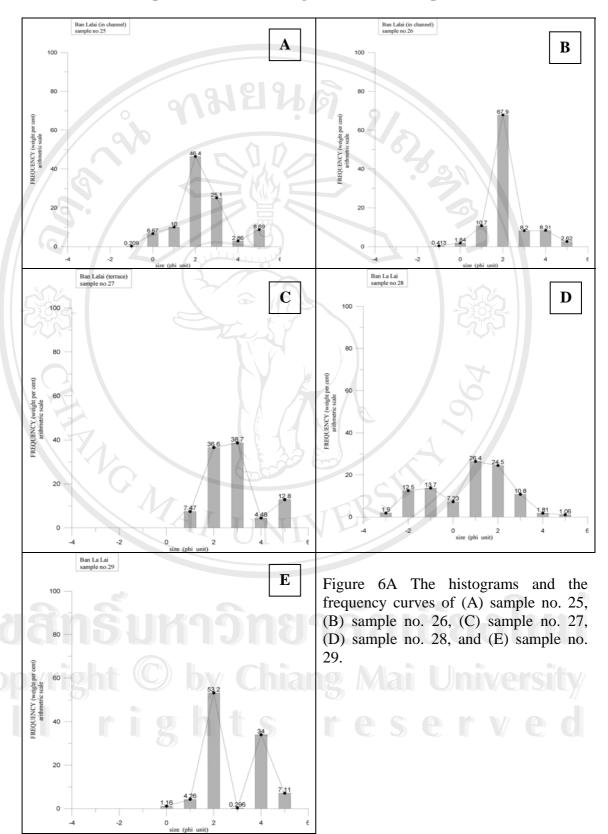
iple Iber	Histogram and	Cumulative	Graphic measure of frequency distribution			
Sample number	Frequency curve	frequency curve	$M_{\rm Z}$	(σΙ)	SK1	(KG)
22	The particles are composed of very coarse sand to silt. The curve shows 2 modes which peak at medium sand and silt sizes. It reflects 2 sources of sediments	The curve of samp;e no. 22 reveals the bed of sands which lack of fine sand size. The curve consists of 2 segments. The first segment is slightly gentle slope, reflecting poorly sorted. The sediments are deposited by saltation.	Medium sand	Poorly sorted	Sym- metrical	Platy - kurtic
23	This sample has wider range of sediments than the sample no. 22. The pebble to silt size are seen. The curve shows 2 modes peaking at medium sand and silt. It reflects 2 sources of sediments	The curve of sample no. 23 reveals mixing of very fine pebble size, reflecting more energy. The curve shows a break dividing it into 2 segments. Both of the segments reflect poorly sorted and the sediments are deposited by rolling, sliding and saltation.	Medium sand	Poorly sorted	Sym - metrical	Lepto- kurtic
24 3	The histogram begins at pebble to silt size. The curve illustrates 4 modes peaking at pebble, very coarse sand, fine sand, and silt sizes respectively. It implies 4 sources which drive the sediments out.	The curve of sample no. 24 reveals the same interpretation as sample no.23 but the particles has more gravels. And there are 2 breaks reflecting the sediments come from 3 sources. In conclusion, the curves of sample no. 22 – 24	Very coarse sand	Very poorly sorted	Negative phi values	Platy - kurtic

Table 5 The Histograms, Frequency and Cumulative curves of location 9 (sample nos. 22 - 24) (Figure 5) (continued).

Sample number	Histogram and	Cumulative	Graphic measure of frequency distribution				
San	Frequency curve	frequency curve	M_{Z}	(σI)	SK1	(KG)	
24		imply that they are	2/2				
(cont.)		a set of fining upward – gravelly					
		bed. Their		91/			
// 5		sediments come					
/ 9		from 3 sources					
		during the sample					
		no.24 has been		\	\ \ \		
		setting. And the sediments come					
		from 2 sources			4		
Const		during the sample		137	5		
006		no. 23 and 22 have		1 0	ь		
		been setting. It is					
(}		hypothesized that					
1		the location of this					
		sedimentary set is			//		
		the junction of $2-3$ channels		1 /			
		Chaineis		Y //			

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Location 10 Floodplain of Huai Ka Yung, Ban La Lai (sample nos. 25 - 29)



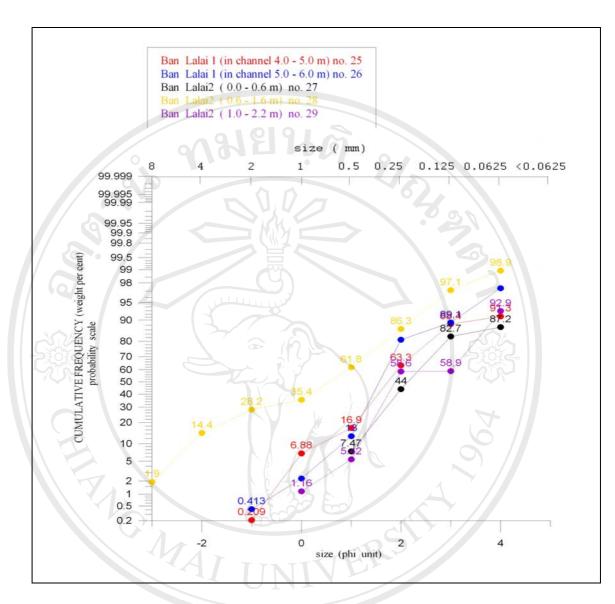


Figure 6B The cumulative frequency curves of sample nos. 25 - 29.

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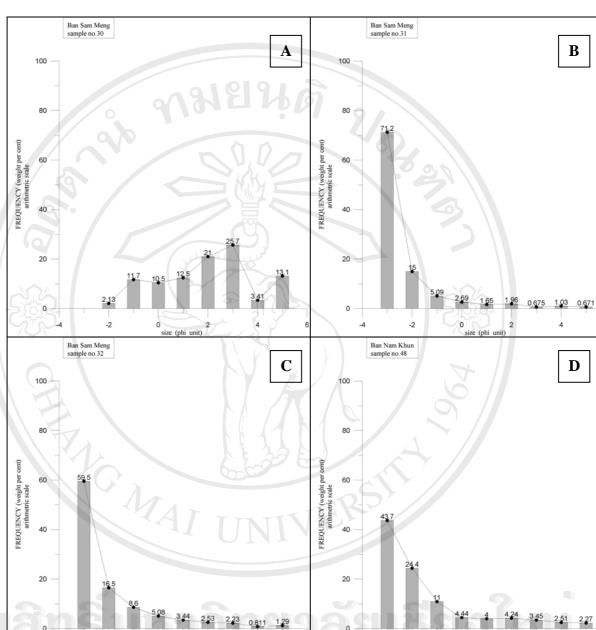
Table 6A The Histograms, Frequency and Cumulative curves of the samples of location 10 (samples nos. 25 - 29) (Figure 6).

iple iber	Histogram and	Cumulative	Graphic measure of frequence distribution			
Sample	Frequency curve	frequency curve	M _Z	(σΙ)	SK1	(KG)
25	The curve seems to be normal distribution, however it skews to finer size slightly. The curve illustrates 2 modes peaking at medium sand and silt sizes. It mentions 2 sources of sediments.		Medium	Poorly sorted	Negative phi values	Very Lepto - kurtic
26	The curve shows normal distribution pattern with a single mode which is very dominant at medium sand. It implies 1 source of sediments.		Medium sand	Moder- ately sorted	Negative phi values	
27	The histogram and curve show fine particles mostly. The curve illustrates 2 modes at fine sand and silt size, reflecting 2 sources of parents.	The curve of sample no. 27 shows narrow range of sands. It reflects rather poorly sorted. The sediments are deposited by saltation.	Fine sand	Poorly sorted	Negative phi values	Lepto - kurtic
28	The histogram and curve of sample no. 28 are different from the upper and lower beds dominantly. It implies different processing of deposition. The graph shows wide range range from pebble to		Coarse sand	Poorly sorted	Positive phi values	Platy - kurtic
	silt size.	ts r	es	er	w e	d

Table 6B The Histograms, Frequency and Cumulative curves of the samples of location 10 (sample nos. 25 - 29) (Figure 6) (continued).

Sample	Histogram and Frequency curve	Cumulative frequency curve	Graphic measure of frequency distribution			
			$M_{\rm Z}$	(σI)	SK1	(KG)
28	The histogram and curve of sample no. 28 are different from the upper and lower beds dominantly. It implies different processing of deposition. The graph shows wide range range from pebble to silt size.	composed of gravel to sand size. The curve reflects rather poorly sorted. The sediments are deposited by rolling,	Coarse sand	Poorly sorted	Positive phi values	Platy - kurtic
29	The particles comprise very coarse sand to silt sizes. The curve shows 2 modes peaking at medium sand and very fine sand sizes. It reflects 2 sources of sediments.	no. 29 is closed to the	Fine sand	Poorly sorted	Very Negative phi values, coarse	Platy- kurtic

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Location 11 Basaltic flow at Ban Sam Beng (sample nos. 30 - 32)

Figure 7A The histograms and the frequency curves of (A) sample no. 30, (B) sample no. 31, (C) sample no. 32 and (D) sample no. 48. They are from the section of weathered basalts. It is noticed that (B) – (D) are similar patterns. (A) is different because there is the mixing of fluvial sediments.

0

0

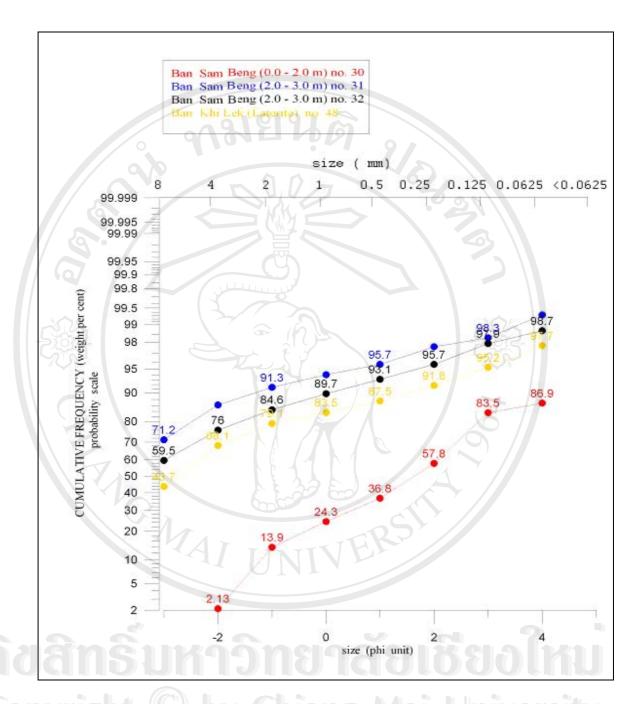


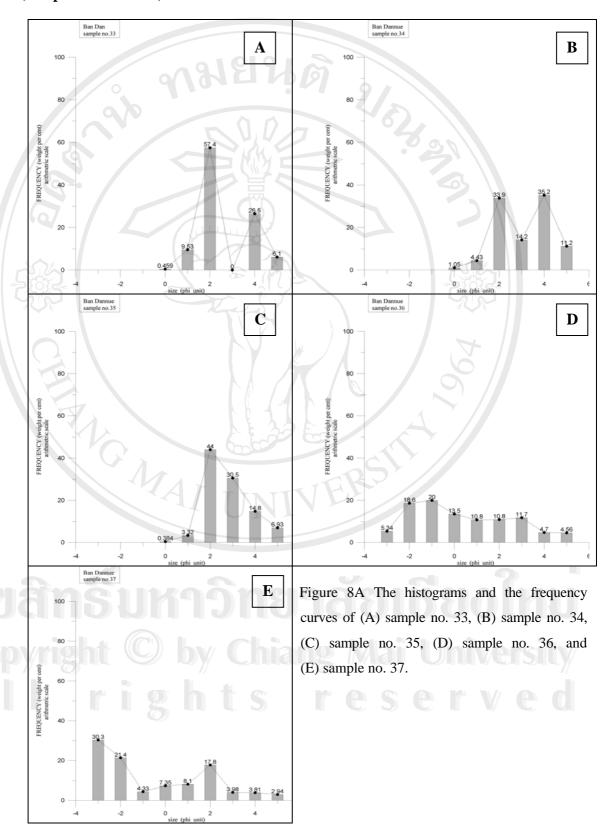
Figure 7B The cumulative frequency curves of sample nos. 30 - 32 and sample no. 48 which are the similar deposits. It is plotted for comparison.

Table 7 The Histograms, Frequency curves and Cumulative curves of the samples of location 11 (sample 30 - 32) (Figure 7).

Sample	Histogram and Cumulative Frequency curve frequency curve	Cumulative	Graphic measure of frequency distribution			
San		frequency curve	$M_{\rm Z}$	(σΙ)	SK1	(KG)
30	The histogram reveals wide range of sediments, from very fine pebble to silt size. The curve shows 2 modes, reflecting 2 sources of sediments.	The curve of sample no. 48 is presented together the curves of samples no. 30 – 32 because they are also from the weathered basalts.	Medium sand	sorted	Positive phi values	Meso - kurtic
31	The histograms show the distinguish amount	The curve of sample no. 30 is different from the	Gravel	Very poorly sorted	Negative phi values	Meso - kurtic
32	of pebble size. The curve shows only one mode, meaning the unity of sedimentary source. Thus both of them should change from basaltic rock.	different from the others in narrower range of particles, which are also fine particles. Whereas the curves of sample no. 31 -32 and no. 48 are similar patterns. They show wider ranges of particle sizes. It implies that the sediments of sample no.30 has mixing of the other sediments out of own – basaltic soil.	Gravel	Very poorly sorted	Negative phi values	Lepto- kurtic
	กริบหา			K 91	9 2	KILL

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Location 12 Ban Dan Nue (sample nos. 33 - 37) and Location 13 Ban Dan Tai (sample nos. 38 - 39)



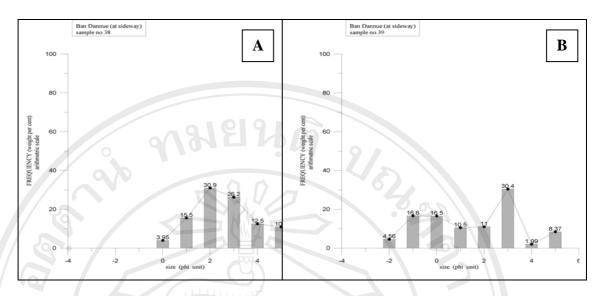


Figure 8B The histograms and the frequency curves of (A) sample no. 38 and (B) sample no. 39.

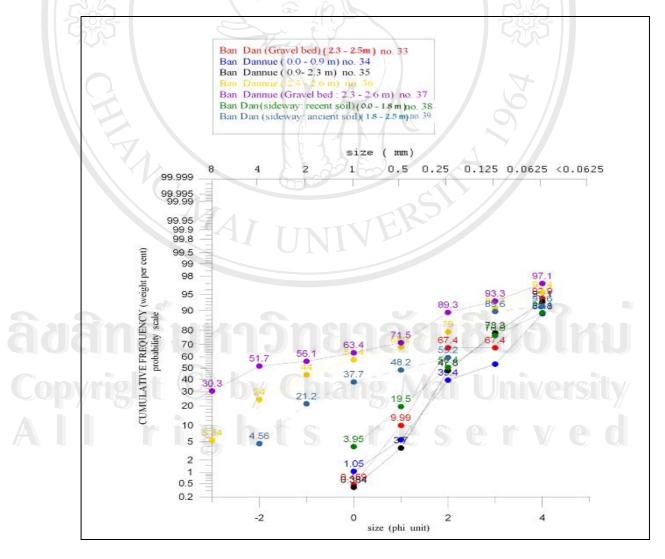


Figure 8C The cumulative frequency curves of sample nos. 33 - 39.

Table 8 The Histograms, Frequency and Cumulative curves of the samples of location 12-13 (samples no. 33-37 and no. 38-39) (Figure 8).

ple ber	Histogram and	Cumulative	Graphic measure of frequency distribution			
Sample number	Frequency curve	frequency curve	$M_{\rm Z}$	(σΙ)	SK1	(KG)
33	The histogram reveals silt to very coarse sand sizes. The curve shows 2 modes of the particles. It implies 2 sources of sediments.	members are sands. The curve reflects poorly sorted. The sediments are deposited by saltation and suspension. The curve is closed to that of the samples nos. 34, 35, 38.	Fine sand	Poorly sorted	Very Negative phi values, coarse	Platy - kurtic
34	The histogram reveals silt to coarse sand sizes. The curve shows 2 modes of the particles. It implies 2 sources of sediments.	The curve of samples no. 34 – 35 reveal sands are poorly sorted and deposited by saltation and suspension. The	Fine sand	Poorly sorted	Symme - trical	Platy kurtic
35	The histogram reveals silt to coarse sand sizes. The curve shows 1 mode of the particles. It implies 1 source of sediments.	curves are closed to those of the samples no. 33, 38.	Fine sand	Poorly sorted	Very Negative phi values, coarse	Lepto - kurtic
36	The histogram reveals silt to pebble sizes. The curve shows 2 mode but not distinguished. It implies 2 sources of sediments.	comprising gravels	Very coarse sand	Very poorly sorted	Negative phi values	Platy - kurtic
37	The histogram reveals silt to pebble sizes. The curve shows 2 modes clearly. It implies 2 sources of sediments.	very poorly sorted. The sediments are deposited by rolling, sliding, saltation, and suspension. The curves are closed to those of sample no.39.	Gravel Mail	Very poorly sorted	Very Nega- tive phi values, coarse	Platy - kurtic

Table 8 The Histograms, Frequency and Cumulative curves of the samples of location 12-13 (samples no. 33-37 and no. 38-39) (Figure 8) (continued).

Sample	Histogram and Frequency curve	Cumulative frequency curve	Graphic measure of frequency distribution			
			$M_{\rm Z}$	(σI)	SK1	(KG)
38	The histogram reveals silt to coarse sand sizes. The curve shows 1 mode, implying 1 source of sediments.	that of samples no. 33, 34, 35. The	Fine sand	Poorly sorted	Nega - tive phi values	Meso - kurtic
39	The histogram reveals silt to very fine pebble sizes, which wider range than of sample no. 38. The curve shows 2 modes, implying 2 sources of sediments.	The curve of sample no. 39 is closed to that of samples no.36,37. The members are gravels to very fine sand, reflecting very poorly sorted. They are deposited by rolling, saltation and suspension.	Coarse sand	Very poorly sorted	Symme - trical	Platy - kurtic

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Location 14 Ban Non Saeng Phet (sample nos. 40 - 47) and Location 15 Basalt flow, Ban Nam Khun (sample no. 48)

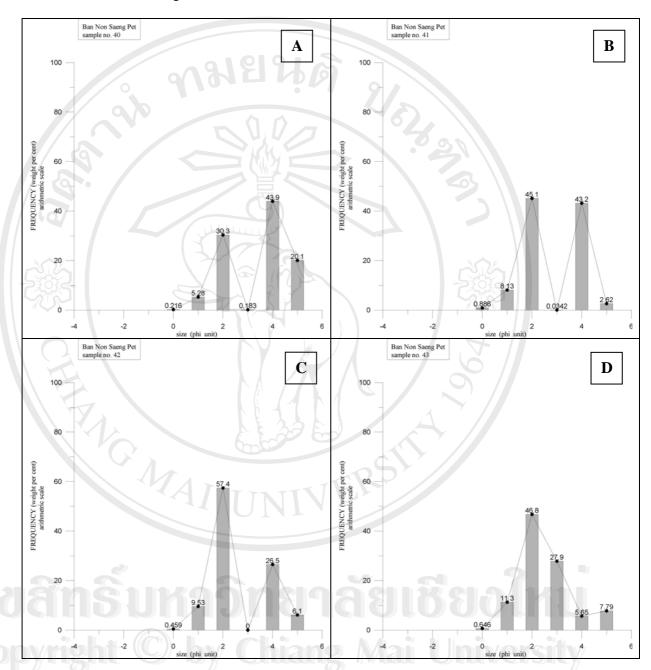


Figure 9A The histograms and the frequency curves of (A) sample no. 40, (B) sample no. 41, (C) sample no. 42, and (D) sample no. 43.

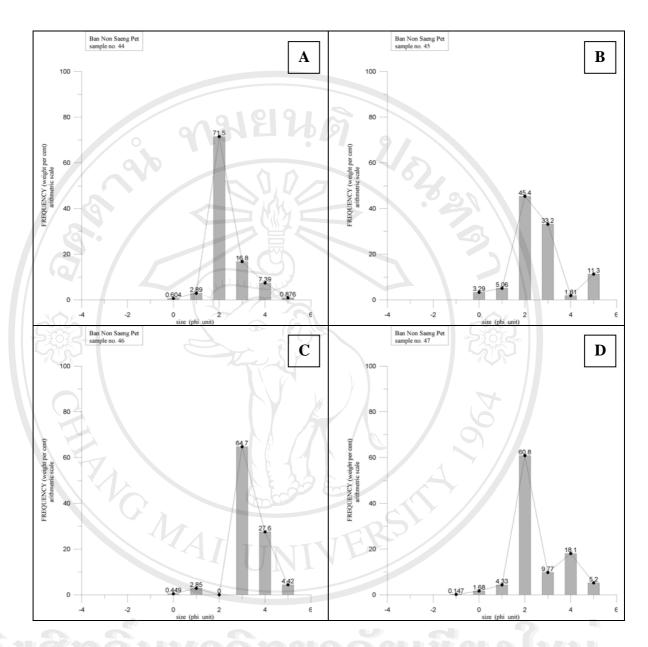


Figure 9B The histograms and the frequency curves of (A) sample no. 44, (B) sample no. 45, (C) sample no. 46, and (D) sample no. 47. The histograms and the frequency curves of sample no. 48 is shown in Figure 7A.

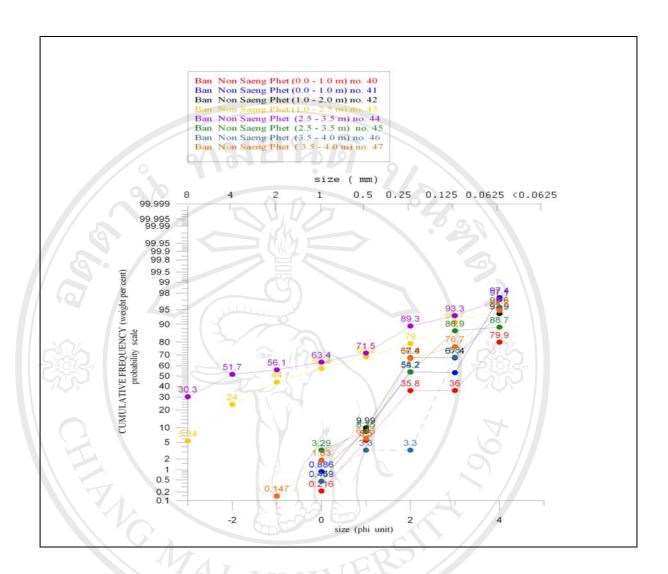


Figure 9C The cumulative frequency curves of sample nos. 40 - 47, the curve of sample no. 48 can be seen from Figure 7B.



Figure 9 D The relicted gravel bed of paleo Lam Som stream in the area of Location 14. The gravels and sands have been cemented by Fe – oxide and changing to lateritic boulder. The gemstones sometimes have been discovered embedding in.

Table 9 The Histograms, Frequency and Cumulative curves of the samples of location 14 (sample nos. 40 - 47) (Figure 9).

Sample number	Histogram and	Cumulative	Graph		ure of frequent	uency
Sar	Histogram and Frequency curve	frequency curve	$M_{\rm Z}$	(σI)	SK1	(KG)
40	The histogram reveals very fine sand to coarse sand sizes. The curve is rather negative skew, showing 2 modes of medium sand and very fine sand sizes. It implies 2 sources of sediments.	The curves of them reflect poorly sorted. The sediments are deposited by saltation.	Fine sand	Poorly sorted	Positive phi values	Platy - kurtic
41	The histogram reveals very fine sand to coarse sand sizes. The curve is slightly positive skew, showing 2 modes of medium sand and very fine sand sizes. It implies 2 sources of sediments.		Fine sand	Poorly sorted	Very Negative phi values, coarse	Platy - kurtic
42	The histogram reveals coarse sand to silt sizes. The curve is rather positive skew, showing 2 modes peaking at medium sand and silt sizes. It implies 2 sources of sediments.	Both of their curves have slightly different depths but the curves are in different position. The curve of sample no. 42 is in the cluster of sand curves (samples no. 40- 42, 45 - 47). It reflects poorly sorted.	Fine sand	Poorly sorted	Very Negative phi values, coarse	Platy - kurtic
43 0 / Mi	The histogram reveals coarse sand to silt sizes. The curve is rather positive skew, showing 2 modes peaking at medium sand and silt sizes. It implies 2 sources of sediments.	The sediments are deposited by saltation. The curve of sample no. 43 has the gravels to very fine sand being the members. It reflects very poor sorted. The sediments are deposited by rolling, saltation and suspension	Mal	Poorly sorted	Negative phi values	Lepto - kurtic

 M_Z = Graphic mean (σI) = Inclusive graphic standard deviation (SK1) = Inclusive graphic skewness (KG) = Graphic kurtosis

Table 9 The Histograms, Frequency and Cumulative curves of the samples of location 14 (sample nos. 40 - 47) (Figure 9) (continued).

iple lber	Histogram and	Cumulative	Graph	nic measui distrib	re of freque	ency
Sample number	Frequency curve	frequency curve	$M_{\rm Z}$	(σΙ)	SK1	(KG)
44	The histogram reveals coarse sand to silt sizes. The curve shows almost normal distribution. It exhibits one mode peaking at fine sand, implying one source of sediments.	The curves of sample no. 44 reveals the composition of gravels and sands. It reflects very poorly sorted. The sediments are deposited by rolling, sliding, saltation and	Medium sand	Moder -ately sorted	Very Negative phi values, coarse	Very Lepto- kurtic
45	The histogram reveals coarse sand to silt sizes. The curve shows rather negative skew. It exhibits 2 modes peaking at fine sand and silt sizes, implying 2 sources of sediments.	suspension. The curves of sample no. 45 reveals the composition of sands. It reflects poorly sorted. The sediments are deposited by rolling, sliding, saltation and suspension.	Medium sand	Poorly sorted	Negative phi values	Very Lepto - kurtic
46	The histogram reveals coarse sand to silt sizes. The curve shows 2 modes peaking at medium sand and fine sand sizes, implying 2 sources of sediments.	Both of them are in the cluster of sand curves, showing similar bed. The curves reflect well sorted (sample no. 46) and slightly poor sorted (sample no.	Fine sand	Moder- ately well sorted	Negative phi values	
47 61	The histogram reveals very fine gravel to silt sizes. The curve shows 2 modes peaking at fine sand and silt sizes, implying 2 sources of sediments.	47). The sediments are deposited by saltation.	Fine sand	Poorly sorted	Very Negative phi values, coarse	Meso - kurtic

 M_Z = Graphic mean (σI) = Inclusive graphic standard deviation (SK1) = Inclusive graphic skewness (KG) = Graphic kurtosis

Table 9 The Histograms, Frequency and Cumulative curves of the samples of location 15 (sample no. 48) (Figure 9).

Sample	Histogram and	Cumulative	Graphi	c measur distrib	re of frequotion	ency
Sample	Frequency curve	frequency curve	M _Z	(σI)	SK1	(KG)
48	The histogram reveals pebble to silt sizes. The curve shows positive skew with 1 mode. It implies 1 source of sediments.		Gravel	Very poorly sorted	Very negative phi value, coarse	Lepto -kurtic

 $M_Z=G$ raphic mean $(\sigma I)=I$ nclusive graphic standard deviation (SK1)=Inclusive graphic skewness (KG)=Graphic kurtosis



APPENDIX B

BOREHOLE - DRILLING AND PIT LOGGING

For the according to the correct meaning in logging pages, the words using in logging pages are provided the meaning as follows:

Ban: Village

Tambon: Subdistrict

Amphoe: District

Changwat: Province

The names of each page are established concording on their names from the root data. For example, the log DMR A1 is meaning it is from the bore – drilling data of DMR. Some names are absent because they are not selected to use in this thesis, i. e., the DMR D7, F6. Sources of the data, as stating in the Chapter 5. The description of symbols and abbreviations are also in the Chapter 5. The following is the brief.

Symbols	Refer to the lithofacies	Symbols	Refer to the lithofacies	Symbols	Refer to the lithofacies
	G1		S1		Bs
	G1(a)		S1(a)		Bs(a)
	G2 0	1	S2S	e r	v e d
	G2(a)		S2(a)		
	G3	-	F		
	G3(a)		F(a)		

Sedimentary log: DMR A1 Ban: Non Son Boon Tambon: Kanoon
Grid: 480400 m E 16100260 mN Amphoe: Kantaralak Changwat: Si Sa Ket
Map sheet: 5938 II Total thickness: 7.5 meters (From basement - rock surface)

scale (m)	Lithology	pnu	sand es	gravel	texture	process interpretation	facies code	environment interpretation
sca O	Lit	clay silt	very fine fine medium coarse	granule pebble cobble	H 15/19/	pro interj	faci	envir
-1-					Dark yellowish orange interbedded and mixing moderate yellowish brown, laminated sand, silt and mud	Wanning flood deposit	F	Overbank environment
-2- -3- -4-					Very pale orange having dark yellowish orange mottles, <medium (20%),="" (80%),="" -="" breccia<="" containing="" fine="" lateritic="" lateritized="" medium="" partly,="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Formed on low angle bed in channel low violence</td><td>S1(a)</td><td>Channel</td></medium>	Formed on low angle bed in channel low violence	S1(a)	Channel
5 _6_ _7_					Very pale orange having dark yellowish orange mottles, <medium (15%),="" (85%),="" -="" breccia<="" containing="" fine="" lateritic="" lateritized="" medium="" partly,="" pebbles="" sands="" sorted,="" td="" very="" well=""><td>Minor channel fills, low flow condition</td><td>G3(a)</td><td>Channel</td></medium>	Minor channel fills, low flow condition	G3(a)	Channel
7.5— —8— —9—	7							
10 _11_				7 1				
-12-		2				?		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2 Ripple - laminated,				generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: DMR A2 Ban: Nong Doom Tambon: Phai Boon

Grid: 481200 m E 1609940 mN Amphoe: Nam Yuen Changwat : Ubon Ratchathani

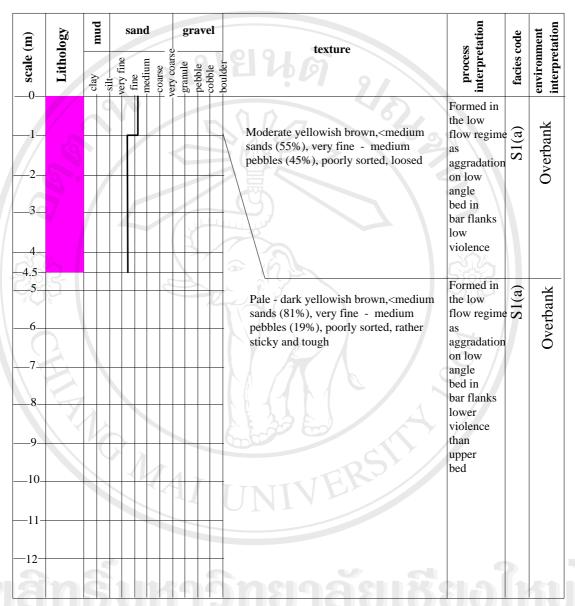
Map sheet: 5938 II Total thickness: 5.5 meters (From basement - rock

scale (m)	Lithology	clay mud	very fine fine medium coarse	gravel gravel de cobple cobple	texture description of the second of the sec	process interpretation	facies code	Overbank environment interpretation
1			70		Dark yellowish orange, clay, sand, and silt, sticky	Wanning flood deposit	F	Overbank
					Very pale orange having dark yellowish orange mottles, <medium (20%),="" (80%),="" -="" breccia<="" containing="" fine="" lateritic="" lateritized="" medium="" partly="" partly,="" pebbles="" poorly="" sands="" sorted,="" sticky,="" td="" very=""><td>Formed on low angle bed in channel low violence</td><td>S1(a)</td><td>Channel</td></medium>	Formed on low angle bed in channel low violence	S1(a)	Channel
5_ _5.5_ 6_ 7_					Very pale orange having dark yellowish orange mottles, <medium (20%),="" (80%),="" -="" fine="" lateritized="" medium="" moderately="" partly,="" pebbles="" sands="" sorted,="" sticky<="" td="" very=""><td>Minor channel fills, low flow condition</td><td>G3(a)</td><td>Channel</td></medium>	Minor channel fills, low flow condition	G3(a)	Channel
8		12			Yellowish gray, <medium (15%),="" (85%),="" -="" fine="" medium="" pebbles="" sands="" sorted<="" td="" very="" well=""><td>Wanning flood deposit</td><td>F(a)</td><td>Overbank</td></medium>	Wanning flood deposit	F(a)	Overbank
-11-								
-12-	n	66			กยาลัยเสีย			<u>41</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	matrix cupported		Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely			Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		der age	racteristics but

Sedimentary log: DMR A3 Ban: Nong Doom Tambon: Phai Boon

Grid: 481740 m E 1609690 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 3.5 meters (From basement - rock surface)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely	S2 Ripple - laminated,				generate gemstones			
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:] -		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having		
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log: DMR A4 Ban: Nong Doom Tambon: Phaiboon

Grid: 482530 m E 1609900 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	granule de	texture	process interpretation	facies code	environment interpretation
-1-					Light brown, <medium (20%),="" (80%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Minor channel fills</td><td>G3(a)</td><td>Channel</td></medium>	Minor channel fills	G3(a)	Channel
	3				Yellowish gray having dark yellowish orange mottles, <medium (10%),="" (90%),="" -="" fine="" medium="" pebbles="" sands="" sorted,="" sticky<="" td="" very="" well=""><td>Formed as flow waned near the limit of sand bedload transport in bar flanks</td><td>S2(a)</td><td>Overbank</td></medium>	Formed as flow waned near the limit of sand bedload transport in bar flanks	S2(a)	Overbank
					Pale reddish brown, <medium (15%),well="" (85%),="" -="" fine="" lateritized<="" medium="" pebbles="" sands="" sorted,="" td="" very=""><td>Wanning flood deposit</td><td>S3(a)</td><td>Overbank</td></medium>	Wanning flood deposit	S3(a)	Overbank
10 11								
-12-	n	S				i de la constant de l		41

EXPLAN	ATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	L	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)	Graver stratifica		F(a)	and silt - Sand, silt, mud		ame cnar der age	racteristics but

Sedimentary log: DMR A5 Ban: Nong Doom Tambon: Phaiboon

Grid: 483300 m E 1609700 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 3.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine -medium -coarse	gravel granule cobble	texture	process interpretation	facies code	environment interpretation
—1— —1.4—	(3)				Moderate orange pink, <medium (30%),="" (70%),poorly="" -="" fine="" loosed<="" medium="" pebbles="" sands="" sorted,="" th="" very=""><th>Minor channel fills</th><th>G3</th><th>Channel</th></medium>	Minor channel fills	G3	Channel
					Yellowish gray, <medium (20%),poorly="" (80%),="" -="" fine="" medium="" pebbles="" sands="" sorted,="" sticky<="" td="" very=""><td>Wanning flood deposit</td><td>S1(a)</td><td>Overbank</td></medium>	Wanning flood deposit	S1(a)	Overbank
5			8			303		
6 7						794		
-8-		12						
10				17				
—11— —12—		650				4.5		K

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely bedded gravel Gravel stratified		S2	Ripple - laminated,			generate gemstones
	G2(a)			S2(a)	very fine to fine sand	Note:		
	G3			F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ame chai der age	racteristics but

Sedimentary log: DMR A6 Ban: Nong Doom Tambon: Phaiboon

Grid: 484000 m E 1609750 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 5.0 meters (From basement - rock surfac

scale (m)	Lithology	clay mud		medium medium	-coarse	-	-pebble ave	1	texture	process interpretation	facies code	environment interpretation
1_									Moderate orange pink, <medium (50%),="" (50%),poorly="" -="" fine="" loosed<="" medium="" pebbles="" sands="" sorted,="" td="" very=""><td>Minor channel fills</td><td>G3</td><td>Channel</td></medium>	Minor channel fills	G3	Channel
3_	9/		4						Moderate yellowish brown, <medium (20%),poorly="" (80%),="" -="" fine="" medium="" pebbles="" sands="" sorted,="" sticky<="" td="" very=""><td>Scour fills</td><td>S1(a)</td><td>Channel</td></medium>	Scour fills	S1(a)	Channel
5-6-	3				8			Z	Dark yellowish orange, <medium (15%),poorly="" (85%),="" -="" fine="" medium="" pebbles="" sands="" sorted,="" sticky<="" td="" very=""><td>Scour fills</td><td>S1(a)</td><td>Channel</td></medium>	Scour fills	S1(a)	Channel
				2								
—10- —11-			1		1							
-12-	n	162	1		子 子					11		

G1 Massive, matrix supported gravel; weaky imbricated G2 G2 G3 Massive, matrix supported gravel; weaky imbricated G3 G4 G5 G6 G7 G8 G8 G9 G9									
symbol		lithofacies	symbol		lithofacies	symbol		lithofacies	
	G1	matrix supported	//	S1			Bs	Hard rock, seen on surface	
	G1(a)	a) gravel; weaky imbricated		S1(a)			Bs(a)	Clay, very sticky most of them	
	G2			S2	1			generate gemstones	
	G2(a)	bedded gravel Gravel stratified		S2(a)	very fine to fine sand	Note:	gemeterios		
	G3			F	1	` ′		5	
	G3(a)			F(a)				acteristics but	

Sedimentary log: DMR A7 Ban: Nong Doom Tambon: Phaiboon

Grid: 484800 m E 1609600 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 4.0 meters (From basement - rock surface

scale (m)	Lithology	pnu	sand	gravel	texture	process interpretation	facies code	environment interpretation
	Lith	clay	very fine fine medium coarse	granule pebble cobble	2/2	process interpreta	facie	enviro interp
1					Light brown mixing grayish orange, <medium (55%),="" -<br="" fine="" sands="" very="">medium pebbles (45%), poorly sorted, loosed</medium>	Scour fills	S1(a)	Channel
3_	7				Light brown having dark yellowish orange dots, <medium (45%),="" (55%),="" -="" fine="" lateritozed="" medium="" partly<="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Minor channel fills</td><td>G2 (a)</td><td>Channel</td></medium>	Minor channel fills	G2 (a)	Channel
5	3		8					
6 7						796		
8		1				,		
10				4				
—11—								
-12		33						41

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	a) gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	hedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ime chai der age	acteristics but

Sedimentary log: DMR A8 Ban: Nong Doom Tambon: Phaiboon

Grid: 485300 m E 1609700 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 7.0 meters (From basement - rock surface)

scale (m)	Lithology	clay mud		-medium	-coarse	_	avel eldeo-	boulder	texture	process interpretation	facies code	environment interpretation
	3		A) N	33)			Moderate yellowish brown, <medium (20%),="" (80%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Filling channel Scours</td><td>F</td><td>Channel i</td></medium>	Filling channel Scours	F	Channel i
-2 -3 -4 -5-							7		Light brown and pale greenish yellow, <medium (45%),="" (55%),="" -="" fine="" medium="" pebbles="" poorly="" sands="" sorted,<="" td="" very=""><td>Fills concave - up scours cut into corser gravel lithofacies</td><td>G3(a)</td><td>Channel</td></medium>	Fills concave - up scours cut into corser gravel lithofacies	G3(a)	Channel
6 7 8		1							Yellowish gray, <medium (35%),="" (65%),="" (at="" -="" -7="" 6="" containing="" depth)<="" fine="" fining="" grains="" m="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" upward,="" very="" zircon=""><td>Lag deposits</td><td>G2(a)</td><td>Channel</td></medium>	Lag deposits	G2(a)	Channel
10_												
-12-	n	679	1		<u> </u>	9			กยาลัยเสีย	a s		K

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified	F		- Laminated very fine to fine grained sand	` '	hofacies having		
	G3(a)	Graver stratified	F(a)		and silt - Sand, silt, mud		me characteristics but der age		

Sedimentary log: DMR B1/1 Ban: Tha Sawang Tambon: Non Samran Grid: 479990 m E 1608850 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 5.0 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine -medium -coarse	granule garante cobble	texture	process interpretation	facies code	environment interpretation
1	(9)				Grayish orange pink, sand, silt and mud, loosed, rootlet containing	Scour fills and creavasse splays	S2	Overbank
3_		1			Very pale orange and moderate pink, <medium (85%),="" -<br="" fine="" sands="" very="">medium pebbles (15%), poorly sorted,</medium>	Scour fills	S 1	Overbank Overbank Overbank
	3				Very pale orange having dark yellowish orange mottles, <medium (15%),="" (85%),="" -="" breccia<="" coarese="" containing="" corse="" lateritic="" lateritized="" mixed="" partly,="" pebbles="" sand,="" sands="" sorted,="" td="" very="" well=""><td>Low flow aggradation on low angle bed in bar flanks</td><td>S2(a)</td><td>Overbank</td></medium>	Low flow aggradation on low angle bed in bar flanks	S2(a)	Overbank
		1				705		
10				1/	UNIVERSI			
-12-				95	ัทยาลัยเชีย	Hai		<u> </u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel ; weaky imbricated	I	S1(a)			Bs(a)	Clay, very sticky
	G2	Massive or crudely		S2	Ripple - laminated,		•	generate gemstones
	G2(a)	bedded gravel Gravel stratified		S2(a)	very fine to fine sand	Note:		
	G3			F	- Laminated very fine to fine grained sand		refer to lithofacies hav	
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char der age	aracteristics but

Sedimentary log: DMR B2 Ban: Tha Sawang Tambon: Non Samran Grid: 480000 m E 1608900 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	granule cobble cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—	907				Grayish orange pink, sand, silt and mud, very fine - medium pebbles (10%), loosed	Formed as wanned near the limit of sand bedload transport, on top of bars	S2	Channel
4_ 5_ 6_			3		Grayish orange - pale yellowish brown, <medium (5%),="" (95="" (size="" -="" 100%),="" 7="" 8="" and="" at="" containing="" fine="" m<="" medium="" peat="" pebbles="" rootlet="" sand)="" sands="" silt="" sorted,="" td="" to="" very="" well=""><td>Lag deposits</td><td>G2(a)</td><td>Channel</td></medium>	Lag deposits	G2(a)	Channel
—7— —8—						95/		
10								
-12-		30		300		ela Ela		K 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	and as	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very stick most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel Gravel stratified		S2(a)	very fine to fine sand	Note:		
	G3			F	- Laminated very fine to fine grained sand	٠,		hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char Ider age	aracteristics but

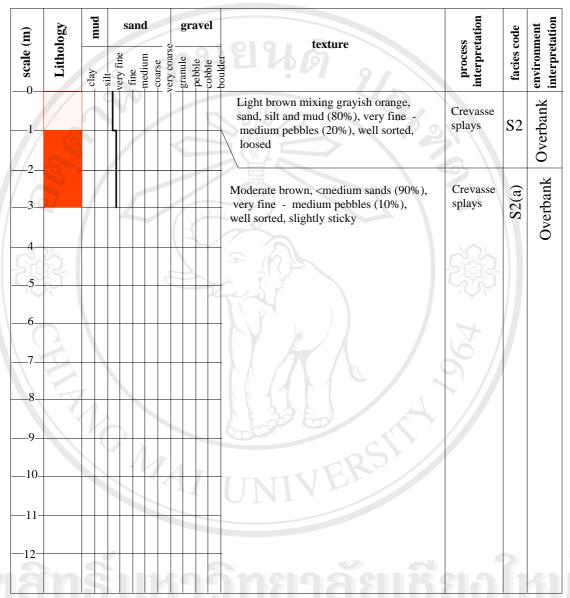
Sedimentary log: DMR B3 Ban: Non Khamkaew Tambon: Phaiboon

Grid: 482000 m E 1609100 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 2.0 meters (From basement - rock surface

(m)	ology	pnu	sand	gravel	texture	ss etation	code	ment
scale (m)	Lithology	clay	wery fine fine medium coarse	-granule -pebble -cobble		process interpretation	facies code	environment
—1— —2—	3				Pale yellowish brown - grayish orange pink, sand, silt and mud (100%), loosed	Crevasse splays	S2	Overbank
56	Ś		8					
7 8						7967		
10 _11_					UNIVERS			
-12-	m				inggăgu X	ela (<u> </u>

symbol	facies code	lithofacies	symbol	facies	lithofacies	symbol	facies code	lithofacie
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surfac
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very stick
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)	Graver stratilled		F(a)	and silt - Sand, silt, mud	same cha older age		racteristics but

Sedimentary log: DMR B4 Ban: Non Khamkaew Tambon: Phaiboon
Grid: 481900 m E 1607800 mN Amphoe: Nam Yuen Changwat: Ubonratchathani
Map sheet: 5938 II Total thickness: 3.0 meters (From basement - rock surface)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: DMR B5 Ban: Non Khamkaew Tambon: Phaiboon

Grid: 482600 m E 1607600 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 7.5 meters (From basement - rock surfac

(B)	logy	pnu	sand	gravel	texture	ss	code	ment
scale (m)	Lithology	clay	very fine fine medium coarse	granule pebble cobble		process interpretation	facies code	environment interpretation
1					Light brown mixing grayish orange, sand, silt and mud (80%), very fine - medium pebbles (20%), well sorted, loosed	Crevasse splays	S2	Overbank
-3- -4- -5- -6- -7-5- -8- -10- -11-					Pale greenish yellow having moderate red mottles, <medium (15%),="" (85%),="" -="" 1="" 3="" 7="" 7.5="" and="" at="" dominant="" fine="" m="" m<="" medium="" pebbles="" sand="" sands="" sticky="" td="" tough,="" very=""><td>The remnant of in situ - weathered ancient basalts</td><td>bs(a)</td><td>Basalt flow</td></medium>	The remnant of in situ - weathered ancient basalts	bs(a)	Basalt flow
12-			1 114		กตรอัญสี	913	6	

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: DMR B6 Ban: Non Khamkaew Tambon: Phaiboon Grid: 483500 m E 1607500 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 7.0 meters From basement - rock surface

scale (m)	Lithology	pnm	sand	gravel	texture	process interpretation	facies code	environment interpretation
o scale	Lith	clay	very fine fine medium coarse	granule pebble cobble		process interpret	facies	environment interpretatio
-1-					Dark yellowish orange, sand, silt and mud (60%), very fine - medium pebbles (20%), medium sorted, loosed, containing rootlet	Formed as high velocity flow diverged over bar tops	S1	Channel
3					Light brown, <medium (50%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Minor channel fills</td><td>G3</td><td>Channel</td></medium>	Minor channel fills	G3	Channel
5_ 6_	5		8	1	Grayish orange having very pale orange mottles, <medium (30%),="" (70%),="" -="" breccia<="" containing="" fine="" lateritic="" lateritized="" medium="" partly,="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Low flow aggradation on low angle bed in bar flanks</td><td>S1(a)</td><td>Overbank</td></medium>	Low flow aggradation on low angle bed in bar flanks	S1(a)	Overbank
		1/2			Light greenish gray having dusky yellow mottles, <medium (5%),="" (95%),="" -="" -medium="" fine="" pebbles="" sands="" sticky="" td="" tough<="" very=""><td>The remnan of in situ - weathered ancient basalts</td><td>bs(a)</td><td>Basalt flow</td></medium>	The remnan of in situ - weathered ancient basalts	bs(a)	Basalt flow
—10— —11— —12—					UNIVE			24

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` ′		hofacies having
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ame char der age	racteristics but

Sedimentary log: DMR B7 Ban: Non Khamkaew Tambon: Phaiboon Grid: 483500 m E 1607800 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani

Map sheet: 5938 II Total thickness: 4.0 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	granule garanule cobble	texture texture	process interpretation	facies code	environment interpretation
0 1 2 3	9		A A A A A A A A A A A A A A A A A A A		Pale olive having dark yellowish orange mottles, <medium (25%),="" (75%),="" -medium="" fine="" pebbles="" poorly="" sands="" sorted,="" sticky<="" td="" very=""><td>Formed as low flow regimes as aggradation on low angle bed in bar flanks</td><td>S1</td><td>Overbank</td></medium>	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1	Overbank
	3					The remnan of in situ - wearthered ancient basalts	bs(a)	Basalt flow
9 10 11					UNIVERSIT			
-12-	'n	199			โทยจลัยเสีย			Æ 1

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	٠,		hofacies having
	G3(a)	a) Gravel stratified		F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but

Sedimentary log: DMR B8 Ban: Huai Yang Tambon: Ta Kao

Grid: 484400 m E 1607400 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine -medium -coarse very coarse	granule dar- pebble cobble	texture	process interpretation	facies code	environment interpretation
					Grayish orange pink to light brown, <medium (70%),="" -<br="" fine="" sands="" very="">medium pebbles (30%), poorly sorted, loosed, containing rootlet</medium>	Formed as high velocity flow diverged over bar tops	S1	Channel
	\$		8		Light brown and grayish orange having light gray mottles, stratified gravelly sand and mud, sillt, fine sand, <medium (10%),="" (90%),="" -="" fine="" medium="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky<="" td="" very=""><td>Minor channel fills</td><td>G3(a)</td><td>Channel</td></medium>	Minor channel fills	G3(a)	Channel
6				1	Very pale orange mixing grayish orange, stratified gravelly sand, <medium (10%),="" (90%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Lag deposits</td><td>G2(a)</td><td>Channel</td></medium>	Lag deposits	G2(a)	Channel
—11- —12-		\$				10		41

LAI LAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)			Bs(a)	Clay, very stick most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F - Laminated very fine to fine grained sand				hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ame cnar der age	acteristics but

Sedimentary log: DMR B9 Ban: Huai Yang Tambon: Ta Kao Grid: 484900 m E 1607400 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule garacter cobble cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—	937				Light brown- very light gray, coarsening upward, <medium (40="" (60="" -="" 15%),="" 85%),="" containing="" fine="" grains<="" medium="" pebbles="" poorly="" sands="" slightly="" sorted,loosed="" sticky,="" td="" very="" zircon=""><td>Scour fills</td><td>S1</td><td>Overbank</td></medium>	Scour fills	S1	Overbank
4_ 5_ 6_	35.							
					Yellowish gray, <medium (40%),="" (60%),="" -="" containing="" fine="" grains<="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very="" zircon=""><td>Lag deposits</td><td>G2(a)</td><td>Channel</td></medium>	Lag deposits	G2(a)	Channel
9_ 10_ 11_					Yellowish gray, <medium (20%),="" (80%),="" -="" containing="" fine="" grains<="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very="" zircon=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>S1(a)</td><td>Channel</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S1(a)	Channel
-12-		3/0/	1 124	98	inยาลัยเสีย	14		K

EXPLAIN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)	Graver stratifica		F(a)	and silt - Sand, silt, mud		ime char der age	acteristics but

Sedimentary log: DMR B10 Ban: Ta Em Tambon: Phai Boon
Grid: 486000 m E 1607400 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani
Map sheet: 5938 II Total thickness: 4.0 meters (From basement - rock surfac

scale (m) Lithology	pnu	sand	gravel	texture	process interpretation	facies code	environment interpretation
Cith Lith	clay	fine medium coarse	granule pebble cobble	Pomide Promise	process interpreta	facie	enviro
1-				Light olive gray mixing moderate yellowish brown, fining upward, <medium (45%),="" (55%),="" -="" fine="" loosed="" medium="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky<="" td="" very=""><td>Scour fills</td><td>S1</td><td>Overbank</td></medium>	Scour fills	S 1	Overbank
1-5-5-5		8		Medium light gray having dark yellowish orange, <medium (40%),="" (60%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Lag deposits</td><td>G2(a)</td><td>Channel</td></medium>	Lag deposits	G2(a)	Channel
7					704		
9	1						
10			1/	UNIVERS			
12					9		

7	symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
		G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
		G1(a)	gravel ; weaky imbricated	T	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
		G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
		G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
		G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies h		•
		G3(a)	Graver stratified	F(a) and silt - Sand, silt, mud			same characteristics but older age		

Sedimentary log: DMR C1 Ban: Chan Hom Tambon: Non Samran Grid: 481900 m E 1605700 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 4.5 meters (From basement - rock surfac

scale (m)	Lithology	y mud	very fine -fine -medium -coarse	granule garanule cobble	texture	process interpretation	facies code	environment interpretation
0 _1_		clay	rice fin	gra pet cob	Light brown mixing grayish orange, sand, silt and mud (90%), very fine - medium pebbles (10%), well sorted, loosed	Crevass splays	S2	Overbank env
-2- 2.5- -3-					Grayish orange pink having grayish orange mottles, sand, silt and mud (75%), very fine - medium pebbles (25%), moderately sorted, loosed	Crevasse splays	S2(a)	Overbank
4.5				12	Pale brown - dark yellowish brown, <medium (10%),="" -<br="" fine="" sands="" very="">medium pebbles (90%), well sorted, loosed</medium>	Deposited during sustained, relatively low flow conditions on the	G3(a)	Channel
_7 _8 _9						flanks of bars		
_10 _11				17	UNIVERS			
-12-		183a			inยาลัยเ ม ี	ยล์		<u>K1</u>

	IATION		1	I					
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
IJ	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Cravel stratified		F	- Laminated very fine to fine grained sand	. ,	refer to lithofacies havir		
	G3(a)	Gravel stratified		F(a)	and silt - Sand, silt, mud		same characteristics older age		

Sedimentary log: DMR C2 Ban: Ta Sek Tambon: Non Samran

Grid: 482800 m E 1605200 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine rmedium coarse	rety coarse granule pebble cobble builder	El 9 texture	process interpretation	facies code	environment interpretation
0					Pale reddish brown, sand, silt and mud (70%), very fine - medium pebbles (10%), poorly sorted, loosed	Crevasse splays	S2	Overbank
					Dark yellowish orange, <medium (45%),="" (55%),="" -="" fine="" lateritized="" medium="" partly<="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky,="" td="" very=""><td>Formed as low flow regimes as aggradation on low angle bed in bar flanks</td><td>S1</td><td>Overbank</td></medium>	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1	Overbank
6 7 8					Dark yellowish orange mixing grayish red, sand, silt and mud (75%), very fine - medium pebbles (25%), poorly sorted, loosed, stratified clayey sandy lens at 5 - 7 m	Crevasse splays	S2(a)	Overbank
10 _11_			40					
-12-	n			13	ายาลัยเชีย	10		KA

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofaci
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surfa
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very stick most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies have same characteristics be older age		
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud			

Sedimentary log: DMR C3 Ban: Ta Sek Tambon: Non Samran

Grid: 483400 m E 1605350 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 3.0 meters (From basement - rock surface

scale (m)	Lithology	- clay mud	very fine fine fine medium coarse	granule de cobble cobble	texture	process interpretation	facies code	Overbank interpretation
—1— —2— —3—			No.		Dark yellowish orange, sand, silt and mud (85 - 90%), very fine - medium pebbles (10 - 15%), well sorted, loosed	Crevasse splays	S2	Overban
-4 -5- -6-								
						7067		
—10— —11—					UNIVERSI			
-12-	'n				ົກຍາລັຍເຮື	818		K 1

	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very stick most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` ′	hofacies having		
	G3(a)	Graver stratilled		F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but	

Sedimentary log: DMR C4 Ban: Na Charoen Tambon: Khok Sa-ard Grid: 483900 m E 1604900 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine -medium -coarse very coarse	granule granule cobble	El 21 texture	process interpretation	facies code	environment interpretation
	Since Since				Light brown mixing grayish orange, sand, silt and mud (70 - 80%), very fine - medium pebbles (20 - 30%), moderately sorted, slightly sticky, fining upward, 0 - 2 m silt - very fine sand domonant	Formed as waned near the limit of sand bedload transport, on top of bars	S2	nel
—6 <u>—</u> —7—					Very pale orange, <medium (10%),="" (90%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Minor channel fills</td><td>G3(a)</td><td>Channel</td></medium>	Minor channel fills	G3(a)	Channel
					Light greenish gray having pale reddish brown mottles, sand, silt and mud (85%), very fine - medium pebbles (15%), poorly sorted, sticky - tough	Creavasse splay	S2(a)	Overbank
-12-		65			า กยาลัยเชีย	ela Ela		4 1

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surfac
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very stic
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics bolder age	

Sedimentary log: DMR C5 Ban:Khok Sa-ard Tambon: Khok Sa-ard Grid: 484800 m E 1605300 mN Amphoe: Nam Yuen Changwat: Ubonr Rtchathani Map sheet: 5938 II Total thickness: 4.0 meters (From basement - rock surface

scale (m)	Lithology	pnu		nd	arse	_	vel	process interpretation	facies code	environment interpretation
-0-	Lit	clay	very fine	mediui	⊤coarse very coarse	-granule	cobble	pro	facie	envire
-1- -2- -3-	(9)							Light brown , sand, silt and mud (50%), very fine - medium pebbles (50%), poorly sorted, loosed Formed as waned near the limit of sand bedload transport, on top of bars	S2	Channel
-4- -5-	3				8		Z	Very light gray having grayish orange mottles, <medium (30%),="" (70%),="" -="" and="" clay="" fine="" medium="" pebbles="" poorly="" sand="" sands="" sorted,="" supported,<="" td="" very=""><td>G2(a)</td><td>Channel</td></medium>	G2(a)	Channel
6 _7_ _8_								Note: Based on color and sticky clay supported, sticky bulk of sediments, it is presumed that there are the remant of ancient basalt.		
		12								
-10-			1	1				TERS		
-11-								UNIVE		
-11-										
2	h					1		โกยาลัยเหียกใ		<u> </u>

EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,	refer to lithofacies having		
	G3(a)			F(a)	and silt - Sand, silt, mud		ame cnar der age	racteristics but	

Sedimentary log: DMR D1 Tambon: Phu Pha Mok Ban: Dan Grid: 484500 m E 1602700 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 9.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud silt very fine	medium pu coarse very coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—					Grayish orange - dark yellowish orange, coarsening upward, <medium (30="" (70="" -="" 0="" 1="" 15%),="" 2="" 3="" 85%),="" at="" containing<="" dominant="" fine="" loosed,="" m="" m,="" medium="" pebbles="" poorly="" sand="" sands="" sorted,="" td="" very=""><td>Formed as flow wanned near the limit of sand bedload transport, on top of bars</td><td>S2(a)</td><td>Channel</td></medium>	Formed as flow wanned near the limit of sand bedload transport, on top of bars	S2(a)	Channel
5_ 6_ 7_ 8_					Dark yellowish orange having very light gray mottles, <medium (15%),="" (85%),="" ,="" -="" -7="" 6="" <medium="" at="" dominant="" fine="" gravel,="" lateritic="" lateritized="" loosed<="" m,="" medium="" orange="" pale="" partly,="" pebbles="" pink="" poorly="" sand="" sands="" sorted,="" sticky,containing="" td="" very=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>S1(a)</td><td>Channel</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S1(a)	Channel
					UNIVERS	Deposited as flow decreased from higher discharge associated Gms (a)	G2(a)	Channel

symbol	facies		symbol	facies	1141 611-	symbol	facies	?:
Symbol	code	lithofacies	Symbol	code	lithofacies	Symbol	code	lithofacie
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very stick most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	Note:	
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	٠,,		hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but

Sedimentary log: DMR D2 Tambon: Non Samran Ban: Ta Sek Grid: 484500 m E 1602700 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 10.0 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine medium coarse	gravel grannle copple	texture	process interpretation	facies code	environment interpretation
-1-					Pale yellowish brown - yellowish orange, , <medium (80%),="" -="" fine="" medium<br="" sands="" very="">pebbles (20%), well sorted, slightly sticky, containing rootlet</medium>	Scour fills	F	Overbank
	3				Light gray mixing very pale orange, fining upward, <medium (40="" (60="" -="" 40%),="" 60%),="" fine="" loosed="" medium="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky<="" td="" very=""><td>Lag deposits</td><td>G2</td><td>Channel</td></medium>	Lag deposits	G2	Channel
					Light gray - light brown, <medium (40%),="" (60%),="" ,sticky,="" -="" fine="" medium="" moderately="" pebbles="" sands="" sorted<="" td="" very=""><td>near the and bedload</td><td>S21(a)</td><td>Channel</td></medium>	near the and bedload	S21(a)	Channel
					Olive gray - black, very fine, very sticky, <medium (20%),="" (80%),="" -="" ancient-="" basaltic="" containing="" fine="" gravels<="" medium="" more="" poorly="" repebbles="" sands="" sorted,="" td="" very=""><td>Formed as ow flow egimes as aggradation on low angle bed in chann</td><td></td><td>Channel</td></medium>	Formed as ow flow egimes as aggradation on low angle bed in chann		Channel
—10— —11— —12—	'n				Dusky yellow - light olive gray , <medium (25%),="" (75%),="" -="" 10="" 9="" at="" dominant="" fine="" fining="" gravel="" loosed="" m,="" medium="" pebbles="" poorly="" sands="" slight="" sorted,="" sticky,="" td="" upward<="" very=""><td>Deposited as flow decreased from higher discharge associated Gms (a)</td><td>G2(a)</td><td>Channel</td></medium>	Deposited as flow decreased from higher discharge associated Gms (a)	G2(a)	Channel

18	n	511149					Gms	(a)	
EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having	
	G3(a)	Graver stratifica		F(a)	and silt - Sand, silt, mud		ame characteristics bu Ider age		

Sedimentary log: DMR D3 Ban: Khok Sa - ard Tambon: Khok Sa - ard Grid: 484800 m E 1603600 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine -medium -coarse	gravel de copple copple	texture	process interpretation	facies code	environment interpretation
		3 8	T T T T T T T T T T T T T T T T T T T	5 d. S.	Moderate yellowish brown, <medium (5%),="" (95%),="" -="" containing="" fine="" medium="" pebbles="" rootlet<="" sands="" slightly="" sorted,="" sticky,="" td="" very="" well=""><td>Crevasse splays</td><td>F</td><td>Overbank e</td></medium>	Crevasse splays	F	Overbank e
					Dark yellowish orange, <medium (10%),="" (90%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Formed as flow wanned near the lim of sand bedload transport, on top of bars</td><td></td><td>Channel</td></medium>	Formed as flow wanned near the lim of sand bedload transport, on top of bars		Channel
6_ 7_ 8_					<medium (30%),="" -<br="" fine="" sands="" very="">medium pebbles (70%), poorly sorted, loosed</medium>	Deposited as flow decreased from higher discharge associated Gms (a)	G2(a)	Channel
—10— —11—				17	UNIVERSIT			
-12-					กิทยาลัยเห็	613	2	K

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having		5	
	G3(a)	Graver stratified	F(a		and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR D4 Ban: Khok Sa - ard Tambon: Khok Sa - ard Grid: 485700 m E 1604200 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	granule granule cobble	texture de la constant de la constan	process interpretation	facies code	environment interpretation
1_					Moderate yellowish brown, <medium (5%),="" (95%),="" -="" containing="" fine="" medium="" pebbles="" rootlet<="" sands="" slightly="" sorted,="" sticky,="" td="" very="" well=""><td>Crevasse splays</td><td>F</td><td>Overbank</td></medium>	Crevasse splays	F	Overbank
					Dark yellowish orange, <medium (10%),="" (90%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Formed as flow waned near the lim of sand bedload transport, on top of bars</td><td>F(a)</td><td>Channel</td></medium>	Formed as flow waned near the lim of sand bedload transport, on top of bars	F(a)	Channel
—6— —7— —8—					<medium (30%),="" -<br="" fine="" sands="" very="">medium pebbles (70%), poorly sorted, loosed</medium>	Deposited as flow decreased from higher discharge associated Gms (a)	G2(a)	Channel
10				11	UNIVERSI			
—11— —12—					กยาลัยเชิ	SIA		X 1

	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having	
	G3(a)	Graver stratifica		F(a)	and silt - Sand, silt, mud	sa ol	acteristics but		

Sedimentary log: DMR D5 Ban: Khok Sa - ard Tambon: Khok Sa - ard Grid: 485700 m E 1604200 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathan Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine	e im	- Se	pravel -copple -copple	texture texture	process interpretation	facies code	environment interpretation
1	9						Light brown mixing pale yellowish brown, <medium (15%),="" (85%),="" -="" containing="" fine="" loosed,="" medium="" moderately="" pebbles="" rootlet="" rootlet<="" sands="" sorted,="" td="" very=""><td>Crevasse splays</td><td>S2</td><td>Overbank</td></medium>	Crevasse splays	S2	Overbank
							Dark yellowish orange, <medium (40%),="" (60%),="" ,="" -="" coarsening="" fine="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" upward<="" very=""><td>Formed as flow waned near the lim of sand bedload transport, in the banks</td><td>sit S1</td><td>Overbank</td></medium>	Formed as flow waned near the lim of sand bedload transport, in the banks	sit S1	Overbank
6							Dark yellowish orange having very pale orange mottles, <medium (15%),="" (5%),="" (85%),="" -="" -7="" 5="" at="" boulder="" coarse="" containing="" fine="" fining="" grains="" lateritized="" loosed<="" m="" medium="" partly,="" pebble="" pebbles="" poorly="" sands="" sorted,="" td="" upward,="" very="" zircon=""><td>Formed as flow waned near the limit of sand bedload transport, on the banks</td><td>S2(a)</td><td>Overbank</td></medium>	Formed as flow waned near the limit of sand bedload transport, on the banks	S2(a)	Overbank
—10— —11— —12—		990			4		UNIVERS			21

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	t	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies have		J	
	G3(a)	Graver Stratifica		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR D6 Ban: Non Sa - nga Tambon: Khok Sa - ard Grid: 486700 m E 1604100 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	granule garante cobble	texture 9	process interpretation	facies code	environment interpretation
1	(9				Light brown, <medium (45%),="" (55%),="" -="" 0="" 1="" at="" containing="" fine="" grains="" loosed,="" m<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very="" zircon=""><td>Minor channel fills</td><td>G3</td><td>Channel</td></medium>	Minor channel fills	G3	Channel
	27 Kg				Dark yellowish orange having grayish orange pink mottles, <medium (15%),="" (80%),="" -="" fine="" medium="" pebbles="" sands="" very=""> coarse sand - pebbles(5%), poorly sorted, loosed, containing</medium>	Formed as flow wanned near the lim of sand bedload transport, in emerging chutes along bar flanks	S2(a) ti	Channel
					Light greenish gray - light gray, <medium (20%),="" (80%),="" -="" ancient="" and="" are="" basalt<="" based="" bulk="" color="" fine="" is="" it="" medium="" note:="" of="" on="" pebbles="" poorly="" presumed="" remants="" sands="" sediments,="" sorted,="" sticky="" td="" that="" the="" there="" very=""><td>Formed as flow waned near the limit of sand bedload transport, on the banks</td><td>G2(a)</td><td>Channel</td></medium>	Formed as flow waned near the limit of sand bedload transport, on the banks	G2(a)	Channel
—11- —12-					ากรเวลัรแลี	ery.		<i>X</i> 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand (a) refer to lithofac		J		
	G3(a)			F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR D8 Ban: Khok Sa - ard Tambon: Khok Sa - ard Grid: 485100 m E 1602950 mN Amphoe: Nam Yuen Changwat Ubon Ratchathani Map sheet: 5938 II Total thickness: 5.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse	gravel granule cobble	texture	process interpretation	facies code	environment interpretation
1-1-					Dark yellowish orange, <medium (5%),="" (90%="" -="" containing="" fine="" loosed,="" medium="" pebbles="" rootlet<="" sands="" sorted,="" td="" very="" well=""><td>), Scour fills</td><td>F</td><td>Overbank</td></medium>), Scour fills	F	Overbank
-2- -3- -4- -5- -6- -7- 8 -9- -10- -11-					Grayish orange - dark yellowish orange, fining upward, <medium (25%),="" (75%),="" -="" be="" changing="" containing="" decaying="" fine="" loosed="" loosed,="" medium="" peat<="" pebbles="" plant="" poorly="" sands="" slightly="" sorted,="" td="" to="" very=""><td>Lag deposits</td><td>G2</td><td>Channel</td></medium>	Lag deposits	G2	Channel
-12-		99		ka ĉ	โทยเจลัยเสีย			<i>K</i> 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having		J	
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age		

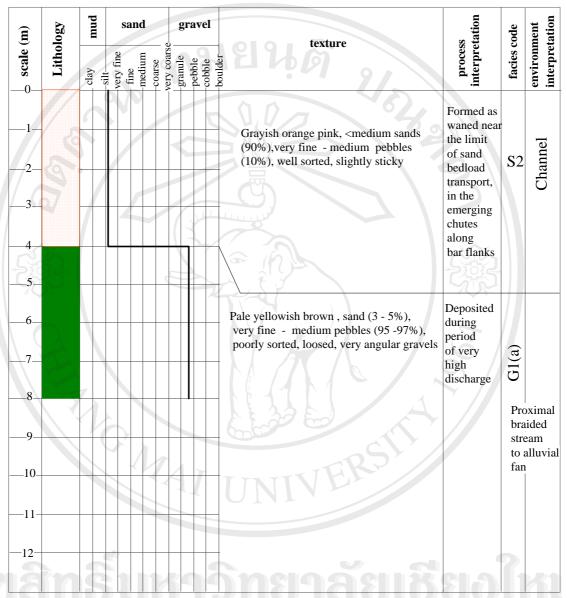
Sedimentary log: DMR D9 Ban: Khok Sa-ard Tambon: Khok Sa-ard

Grid: 483950 m E 1604300 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathan Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surfac

scale (m)	Lithology	pnm		and E	ie	.—	rave		texture	process interpretation	facies code	environment interpretation
S0_	T	clay	very fine	nne medium	coarse	granule	pebble	-cobble		pr inte	fac	envi inte
									Moderate yellowish brown - dark yellowish orange, stratified fine to medium sandy gravel, <medium (20="" (80="" -="" 15%),="" 85%),="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Minor channel fills</td><td>G3</td><td>Channel</td></medium>	Minor channel fills	G3	Channel
4	3				M							
6 7 8										796		
9 10-									Pale yellowish brown, sand (3 - 5%), very fine - medium pebbles (95 -97%), poorly sorted, loosed, very angular gravels	Deposited during period of very high discharge	G1(a)	
—11- —12-										1.5	brai stre	ximal ded am lluvial

EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofa	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surf	
	G1(a)	gravel ; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very st most of ther	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			o lithofacies havir	
	G3(a)			F(a)	and silt - Sand, silt, mud	same characterist older age		racteristics bu	

Sedimentary log: DMR D10 Ban: Khok Sa-ard Tambon: Khok Sa-ard Grid: 484150 m E 1604310 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 8.0 meters (From basement - rock surface



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having				
	G3(a)	Gravor stratimoa		F(a)	and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log: DMR D11 Ban: Khok Sa-ard Tambon: Khok Sa-ard Grid: 484500 m E 1604300 mN Amphoe: Nam Yuen Changwat: Ubonratchathani Map sheet: 5938 II Total thickness: 10.8 meters (From basement - rock surfac

scale (m) Lithology	clay mud	very fine fine medium coarse very coarse	granule granule cobble coble	et exture	process interpretation	facies code	environment interpretation
—1— —2— —3—	9			Grayish orange pink, <medium (40="" (55="" -="" 45%),="" 60%),="" fine="" medium="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky<="" td="" very=""><td>Formed as high velocity flow diverged over bar tops</td><td>S1</td><td>Channel</td></medium>	Formed as high velocity flow diverged over bar tops	S1	Channel
				Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (13="" (15="" -="" 1="" 20%),="" 3="" 4="" 7="" 80%),="" 9="" 90%),very="" boulder="" boulder(5="" clay="" coarse="" cobble="" dominant="" dominant<="" fine="" loosed="" m="" medium,="" pebble="" pebbles="" poorly="" sand="" sands="" silt="" slightly="" sorted,="" sticky,="" td="" very=""><td>Fill concave - up scour cut into coarser gravel lithofacies</td><td>G3</td><td>Braided stream</td></medium>	Fill concave - up scour cut into coarser gravel lithofacies	G3	Braided stream
—10— —10.8——11———————————————————————————————				Grayish orange mixing light brown, sand (5-10%), very fine - medium pebbles (30%), coarse pebble - boulder (60%), very poorly sorted, loosed, very angular gravels, cotainning zircon grains at 10 - 10.8 m	Deposited during period of very high discharge	bra stre	oximal ided eam alluvial

EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very stick	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		ime cnar der age	racteristics but	

Sedimentary log: DMR D12 Ban: Khok Sa-ard Tambon: Khok Sa-ard Grid: 484500 m E 1604300 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 10.8 meters (From basement - rock surface)

clay silt very fine	medium coarse	granule pebble cobble boulder	El 21 texture	process interpretation	facies code	environment interpretation
			Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (25="" (75="" -="" 20%),="" 80%),="" fine="" loosed="" medium,="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky,<="" td="" very=""><td>Fill concave - up scour cut into coarser gravel lithofacies</td><td>Gt</td><td>braided stream</td></medium>	Fill concave - up scour cut into coarser gravel lithofacies	Gt	braided stream
	8		0 - 2 m pebble dominant 2 - 4 m clay - silt dominant 4 - 6 m pebble dominant 6 - 9 m sand dominant			
16				796		
		1/	Moderate yellowish brown, sand (30%), very fine - medium pebbles (5%), coarse pebble - boulder (65%), very poorly sorted, loosed, very angular gravels	Deposited during period of very high discharge	bra stre	ximal ided am illuvial
				Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (25="" (30%),="" (5%),="" (65%),="" (75="" -="" 0="" 2="" 20%),="" 4="" 6="" 80%),="" 9="" boulder="" brown,="" clay="" coarse="" dominant="" fine="" loosed="" loosed,<="" m="" medium="" medium,="" moderate="" pebble="" pebbles="" poorly="" sand="" sands="" silt="" slightly="" sorted,="" sticky,="" td="" very="" yellowish=""><td>Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (25="" (5%),="" (65%),="" (75="" -="" 0="" 2="" 20%),="" 4="" 6="" 80%),="" 9="" angular="" boulder="" clay="" coarse="" deposited="" dominant="" during="" fine="" gravels="" high<="" loosed="" loosed,="" m="" medium="" medium,="" of="" pebble="" pebbles="" period="" poorly="" sand="" sands="" silt="" slightly="" sorted,="" sticky,="" td="" very=""><td>Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (25="" (75="" -="" 0="" 2="" 20%),="" 4="" 6="" 80%),="" 9="" clay="" dominant="" dominant<="" fine="" loosed="" m="" medium,="" pebble="" pebbles="" poorly="" sand="" sands="" silt="" slightly="" sorted,="" sticky,="" td="" very=""></medium></td></medium></td></medium>	Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (25="" (5%),="" (65%),="" (75="" -="" 0="" 2="" 20%),="" 4="" 6="" 80%),="" 9="" angular="" boulder="" clay="" coarse="" deposited="" dominant="" during="" fine="" gravels="" high<="" loosed="" loosed,="" m="" medium="" medium,="" of="" pebble="" pebbles="" period="" poorly="" sand="" sands="" silt="" slightly="" sorted,="" sticky,="" td="" very=""><td>Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (25="" (75="" -="" 0="" 2="" 20%),="" 4="" 6="" 80%),="" 9="" clay="" dominant="" dominant<="" fine="" loosed="" m="" medium,="" pebble="" pebbles="" poorly="" sand="" sands="" silt="" slightly="" sorted,="" sticky,="" td="" very=""></medium></td></medium>	Grayish orange - light brown, stratified fine to medium sandy gravel, <medium (25="" (75="" -="" 0="" 2="" 20%),="" 4="" 6="" 80%),="" 9="" clay="" dominant="" dominant<="" fine="" loosed="" m="" medium,="" pebble="" pebbles="" poorly="" sand="" sands="" silt="" slightly="" sorted,="" sticky,="" td="" very=""></medium>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	e:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having		
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log : DMR D13 Ban: Ta Sek Tambon: Non Samran Grid: 482900 m E 1604400 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 6.0 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine medium roadium roadium roadium roadium roadium	gravel de copple copple	texture	process interpretation	facies code	environment interpretation
	100				Grayish orange - dark yellowish orange, sand, silt and mud (85%), very fine - medium pebbles (15%), moderately sorted, loosed - slightly sticky, containing rootlet	Crevasse splays	S2	Overbank
3					Very light gray interbeded with pale reddish brown and dark yellowish orange, sand, silt and mud (80%), very fine - medium pebbles (20%), poorly sorted, sticky, containing rootlet at 2 - 3 m	Crevasse splays	S2(a)	Overbank
-12-	m				โทยเวลัยเสี	ela		X 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	lte:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		thofacies having		
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log : DMR D14 Ban: Ta Sek Tambon: Non Samran Grid: 483390 m E 1604300 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 6.8 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine -medium -coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
—1— —2—	(9)		70		Light brown - dark yellowish orange, sand, silt and mud (50 - 65%), very fine - medium pebbles (35 - 50%), poorly sorted, slightly sticky - sticky, containing rootlet	Formed as waned near the limit of sand bedload transport, on top	S2	
3	7				Light brown mixing dark yellowish orange, sand, silt and mud (30 - 70%), very fine - medium pebbles (30 - 70%), poorly sorted, slightly sticky - sticky, containing rootlet at 1 -2m	of bars Fill concave - up scour cut into	G3	braided stream
6					Grayish brown having greenish gray mottles, sand, silt and mud (90%), very fine - medium pebbles (10%), moderately sorted, sticky	gravel lithofacies	S2(a)	Overbank
					A A	splays	S	Ove
10_					UNIVERS			
-12-	h	8			กตาลัยเชี	BLA		<u>K1</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	<u> </u>			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having		J		
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log: DMR D15 Ban: Ta Sek Tambon: Non Samran Grid: 483550 m E 1604300 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 5.0 meters (From basement - rock surface

scale (m)	Lithology	- clay mud	very fine fine -medium -coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—					Light brown - light gray, sand, silt and mud (90%), very fine - medium pebbles (10%), poorly sorted, sticky, containing rootlet	Formed as waned near the limit of sand bedload transport, on top of bars	S2	Channel
					very fine - medium pebbles (90%), well sorted, loosed,	Fill concave - up scour cut into coarser gravel lithofacies	G3	braided stream
9					JNIVERSI			
-12-	n		1 128	95	ัทยาลัยเชีย		1	KN

EXPLAN	IATION		1						
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand		refer to lithofacies havir same characteristics bur older age		
	G3(a)			F(a)	and silt - Sand, silt, mud				

Sedimentary log: DMR E1 Ban: Khok Sa-ard Tambon: Khok Sa-ard Grid: 486000 m E 1603100 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 7.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine	u	-coarse very coarse	_	avel ecopple	process interpretation	facies code	environment
1							T)	Pale yellowish brown - light brown, sand, silt and mud (90%), very fine - medium pebbles (10%), well sorted, very sticky	F	Overbank
2 _3_ _4_ _5_ _6_ _7_					8		Z	Light - dark yellowish brown having interbedded light gray, <medium (15="" (3="" (80="" -="" 3="" 30%,="" 5="" 5%),="" 65%),="" ancient="" and="" angle="" are="" at="" basalt<="" based="" boulder="" bulk="" clay="" coarse="" color="" containing="" fine="" grains="" grains,="" is="" it="" lateritized="" low="" m="" medium="" note:="" of="" on="" partly,="" pebble="" pebbles="" poorly="" presumed="" remant="" sands="" sediments="" sorted,="" sticky="" supported,="" td="" that="" the="" there="" tough,="" very="" vey="" zircon=""><td>S1(a)</td><td>Overbank</td></medium>	S1(a)	Overbank
								Light greenish gray, <medium (18%),="" (82%),="" -="" ancient="" basalts<="" in="" of="" remnant="" sand="" sands="" situ="" sticky="" td="" the="" tough="" very="" weathered=""><td>bs(a)</td><td>Basalt flow</td></medium>	bs(a)	Basalt flow
-12-		020				1	1	โทยเวลียเสียลใ		K 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	ol	racteristics but		

Sedimentary log: DMR E2 Ban: Khok Sa-ard Tambon: Khok Sa-ard

Grid: 486000 m E 1603000 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 6.0 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	verv fine	fine	_	-coarse	- Se	-granule ga	-peppie			facies code	environment interpretation
—1— —2—	9										Pale yellowish brown - grayish orange, sand, silt and mud (65 - 80%), very fine - medium pebbles (5 - 10%), coarse pebble cobble (15 - 20%), poorly sorted, slightly sticky, containing rootlet at 0 - 1 m, containing a zircon grain at 1 -2 m	S 1	Overbank
3_ 4_ 5_ 6_								3		11 / 2	Pale - moderate reddish brown having yellowish gray mottles, <medium (15%),="" (85%),="" -="" aggradation="" angle="" as="" bank<="" bed="" fine="" flow="" formed="" lateritized="" low="" medium="" on="" over="" partly="" pebbles="" poorly="" regimes="" sands="" slightly="" sorted,="" sticky,="" td="" very=""><td>S1(a)</td><td>Overbank</td></medium>	S1(a)	Overbank
					1						Light greenish gray, <medium (18%),="" (82%),="" -="" ancient="" basalts<="" in="" of="" remnant="" sand="" sands="" situ="" sticky="" td="" the="" tough="" very="" wearthered=""><td>bs(a)</td><td>Basalt flow</td></medium>	bs(a)	Basalt flow
-12-		663					K				การเกล้าแล็กเก		K 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	L	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Graver stratified		F(a) and silt - Sand, silt, mud		sa ol	racteristics but		

Sedimentary log: DMR E3

Ban: Khok Sa-ard Tambon: Khok Sa-ard

Grid: 486000 m E 1602700 mN

Amphoe: Nam Yuen Changwat: Ubon Ratchathani

Map sheet: 5937 I

Total thickness: 9.0 meters (From basement - rock surface)

environment interpretation mud interpretation sand gravel Lithology facies code scale (m) texture siltvery fine
fine
medium
coarse
very coarse
granule
pebble
cobble Grayish orange mixing light brown, Lag G2 Channel <medium sands (50%), very fine deposits medium pebbles (50%), very poorly sorted, loosed, containing zircon grains at 2 - 3 m Basalt flow The remnant of Light gray - greenish yellow, in situ clay (90 - 95%), sand (10 - 5%), weathered very sticky - tough ancient basalts -10 -11-12

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:				
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having		5		
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	sa ol	racteristics but			

Sedimentary log: DMR E4 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485900 m E 1602300 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 7.0 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule granule cobble	el 2 texture	process interpretation	facies code	environment interpretation
-1-	<u> </u>				Dark - moderate yellowish brown , sand, silt and mud (90%), very fine - medium pebbles (10%), well sorted, slightly sticky	Crevasse splays	S2	Overbank
					Dark yellowish orange mixing light brown, <medium %,="" (15)="" (3="" (80%),="" -="" 1="" 2="" 5%),="" at="" boulder="" coarse="" containing="" fine="" grains="" lateritized="" m<="" medium="" partly,="" pebble="" pebbles,="" poorly="" sands="" sorted,="" sticky,="" td="" very="" zircon=""><td>Formed as low flow regimes as aggradation on low angle bed over bank</td><td>S1(a)</td><td>Overbank</td></medium>	Formed as low flow regimes as aggradation on low angle bed over bank	S1(a)	Overbank
6					(82%), sand (18%), very sticky - tough	The remnant of in situ - weathered ancient basalts	bs(a)	Basalt flow
-12		30			กตาลัตเลิ	era (<i>3</i> 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		chofacies having
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age		

Sedimentary log : DMR F1 Ban: Dan Tambon: Phu Pha Mok Grid: 485300 m E 1601900 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 10.0 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse	very coarse -granule -pebble -cobble	texture	process interpretation	facies code	environment interpretation
	9			30	Dark yellowish orange, <medium (20%),="" (80%),very="" -="" fine="" medium="" moderately="" pebbles="" sands="" slightly="" sorted,="" sticky<="" td=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>S1</td><td>Channel in</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S1	Channel in
4_ 5_ 6					Dark yellowish orange mixing light brown, <medium (40%),="" (5="" (50="" -="" 10%),="" 55%),="" boulders="" coarse="" fine="" lateritized="" loosed,="" medium="" partly<="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky="" td="" very=""><td>Deposited as flow decreased from higher discharge associated Gms (a)</td><td>G2(a)</td><td>Channel</td></medium>	Deposited as flow decreased from higher discharge associated Gms (a)	G2(a)	Channel
				47	LINUXERSITA			
-11- -12-					inclo ocus	CI S		Æ1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	ol	racteristics but		

Sedimentary log: DMR F2 Ban: Dan Tambon: Phu Pha Mok

Grid: 485450 m E 1601900 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 5.0 meters (From basement - rock surface

scale (m) Lithology	ш	fine -medium -coarse very coarse	gravel grannle copple	texture	process interpretation	facies code	environment interpretation
	c) Sis.	m co	р ф	Moderate yellowish brown, <medium (10="" (25="" (60%),="" -="" 15%),="" 30%),="" boulders="" coarse="" fine="" lateritized="" loosed,="" medium="" partly<="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>S1(a)</td><td>Channel in</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S1(a)	Channel in
				Moderate yellowish brown - pale brown, <medium (10%),="" (5%),="" (85%),="" -="" angular="" bed="" boulders="" coarse="" fine="" gravel,="" lateritized="" loosed,="" medium="" partly<="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Deposited during period of very high discharge</td><td>bra stre</td><td>lluvial</td></medium>	Deposited during period of very high discharge	bra stre	lluvial
				UNIVERSIT			Æ1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	U	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified	F		- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: DMR F3 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485500 m E 1601900 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 5.0 meters (From basement - rock surface

scale (m)	Lithology	- clay mud -silt	very fine f fine medium coarse	granule de copple copple	process interpretation	facies code	environment interpretation
—1— —2— —3—					Grayish orange mixing light brown , <medium (15="" (80%),very="" (<="" -="" 20%),="" 5%),="" aggradation="" angle="" bed="" boulders="" channel<="" coarse="" fine="" in="" lateritized="" loosed,="" low="" medium="" on="" partly="" pebbles="" poorly="" sands="" sorted,="" td=""><td>S1(a)</td><td>Channel</td></medium>	S1(a)	Channel
					Light greenish gray, <medium (10%),="" (80%),="" (a)<="" -="" ancient="" and="" angular="" are="" as="" associated="" basalts="" based="" boulders="" bulk="" clay="" coarse="" color="" decreased="" deposited="" discharge="" fine="" flow="" from="" gms="" gravel,="" higher="" is="" lateritized="" medium="" note:="" of="" on="" partly="" pebbles="" poorly="" presumed="" remant="" sands="" sediments,="" sorted="" sorted,="" sticky="" sticky,="" supported,="" t="" td="" that="" the="" there="" very="" vey=""><td>G2(a)</td><td>Channel</td></medium>	G2(a)	Channel
-12-		30			โทยาลัยเซียก์		K1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand		Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand (a) refer to lithofacies h			J		
	G3(a)		F(a)		and silt - Sand, silt, mud	same characteristics but older age				

Sedimentary log: DMR F4 Ban: Dan Nue Tambon: Phu Pha Mok Grid: 484800 m E 1601000 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 8.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	granule granule cobble	texture texture	process interpretation	facies code	environment interpretation
—1— —2— —3—					Dark yellowish orange, <medium (40%),="" (60%),very="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted="" sorted,="" td=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>S1</td><td>Channel</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S1	Channel
					Grayish orange pink having light brown mottles, <medium %),="" (10="" (5="" (83="" -="" -15%),="" 85%),="" boulders="" coarse="" fine="" lateritized="" loosed,="" medium="" moderately="" partly<="" pebbles="" poorly="" sands="" slightly="" sorted="" sorted,="" sticky="" td="" very=""><td>Deposited as flow decreased from higher discharge associated Gms (a)</td><td>G2(a)</td><td>Channel</td></medium>	Deposited as flow decreased from higher discharge associated Gms (a)	G2(a)	Channel
					D 233 E 33 E 3 E 3 E 3 E 3 E 3 E 3 E 3 E	5		
—10— —11—					UNIVER			
-12					กยาลัยเชิ	SIA		K 1

				I					
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		ame characteristics but lder age		

Sedimentary log : DMR F5 Ban: Dan Nue Tambon: Phu Pha Mok Grid: 484200 m E 1600430 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 8.0 meters (From basement - rock surface

Moderate yellowish brown , <medium (10%),="" (5-10%),="" (5-7%),="" (50%),="" (85-90%)="" (90-95%),="" -="" <medium="" alluvia="" boulders="" braided="" coarse="" fan<="" fine="" loosed="" loosed,="" medium="" orange,="" pale="" pebbles="" poorly="" proximal="" sands="" sorted="" sorted,="" stream="" th="" to="" very="" well=""><th>scale (m) Lithology</th><th>clay mud</th><th>wery fine fine -medium -coarse</th><th>granule again coopple coopple</th><th>texture</th><th>process interpretation</th><th>facies code</th><th>environment interpretation</th></medium>	scale (m) Lithology	clay mud	wery fine fine -medium -coarse	granule again coopple coopple	texture	process interpretation	facies code	environment interpretation
very fine - medium pebbles (90 -95%), loosed, well sorted Very pale orange, <medium (10%),="" (5="" (85="" -="" 7%),="" 90%)="" alluvia="" boulders="" braided="" coarse="" deposited="" discharge="" during="" fan<="" fine="" high="" loosed,="" medium="" of="" output="" pebbles="" period="" poorly="" proximal="" sands="" sorted="" stream="" td="" to="" very=""><td>-1-</td><td></td><td></td><td></td><td>Moderate yellowish brown, <medium (50%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>during sustained, relatively low flow condition on the flanks</td><td>G3</td><td>Channel</td></medium></td></medium>	-1-				Moderate yellowish brown, <medium (50%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>during sustained, relatively low flow condition on the flanks</td><td>G3</td><td>Channel</td></medium>	during sustained, relatively low flow condition on the flanks	G3	Channel
very fine - medium pebbles (5 - 7%), coarse pebbles - boulders (85 - 90%) loosed, very poorly sorted very fine - medium pebbles (5 - 7%), coarse pebbles - boulders (85 - 90%) loosed, very poorly sorted period of very high discharge Proximal braided stream to alluvia fan	6			Z	very fine - medium pebbles (90 -95%),	as flow decreased from higher discharge associated		Channel
	9				very fine - medium pebbles (5 - 7%), coarse pebbles - boulders (85 - 90%)	during period of very high	Pro bra stre	aided eam alluvia

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR F7 Ban: Dan Nue Tambon: Phu Pha Mok Grid: 484090 m E 1601420 mN Amphoe: Kantaralak Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 6.0 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule are cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—	99		70		Dark yellowish orange - light brown , <medium (30%),="" (70%),very="" ,="" -="" fine="" medium="" pebbles="" poorly="" sands="" sorted="" sticky<="" td=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>Sh</td><td>Channel</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	Sh	Channel
4-5-			8		Grayish orange, <medium (25%),="" (75%),="" -="" fine="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted<="" td="" very=""><td>Lag deposits</td><td>Gm</td><td>Channel</td></medium>	Lag deposits	Gm	Channel
6_ 7_ 8_					Light gray having light brown mottles,<medium (10%),<="" (90%),="" li="" sand="" sands="">very sticky - tough,some part changing to be laterite</medium>	The remnant of in situ - weathered ancient basalts	bs(a)	Basalt flow
9_ 10_				1/	INIVERSITY			
—11— —12—					mengens	cla		Z1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand		Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand (a) refer to lithofacies h			J		
	G3(a)		F(a)		and silt - Sand, silt, mud	same characteristics but older age				

Sedimentary log: DMR G1 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485650 m E 1600800 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 5.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	and -medium	-coarse		vel eldoo-	 texture texture	process interpretation	facies code	environment interpretation
1_ 2_ 3_ 4_	861						Pale yellowish brown, <medium (35%),="" (65%),="" -="" 0.0="" 1.0="" fine="" having="" loosed,="" m="" medium="" moderately="" pebbles="" rootlet,="" sands="" sorted<="" td="" very=""><td>Formed as low flow regimes as aggradation on low angle bed in bar flanks</td><td>S1</td><td>Channel</td></medium>	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1	Channel
5_ 6_ 7_ 8_ 9_ 10_ 11_			1				Yellowish gray - light brown, <medium (30%),="" (70%),="" -="" angular="" breccia,="" containing="" fine="" lateritic="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted<="" td="" very=""><td>Formed as flow waned near the limit of sand bedload transport, in emerging chutes along bar flanks</td><td>S2(a)</td><td>Channel</td></medium>	Formed as flow waned near the limit of sand bedload transport, in emerging chutes along bar flanks	S2(a)	Channel
-12-		89						21.9		<u> 41</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand		Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand (a) refer to lithofacies h			J		
	G3(a)		F(a)		and silt - Sand, silt, mud	same characteristics but older age				

Sedimentary log: DMR G2 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 486300 m E 1600300 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 5.5 meters (From basement - rock surface)

Moderate yellowish brown, <medium (25="" (30%),="" (40%),="" (70%),="" (75="" (<="" -="" -boulder="" -medium="" 20%),="" 5%)="" 80%),="" <medium="" aggradation="" angle="" angular="" as="" bed="" breccia,="" brown,="" channel<="" coarse="" containing="" dark="" fine="" flow="" formed="" in="" lateritic="" loosed,="" low="" moderate="" on="" orange,="" pebbles="" poorly="" regimes="" sands="" sorted="" th="" very="" yellowish=""><th>Litnology</th><th>clay mud -silt</th><th>very fine fine medium coarse</th><th>granule granule cobble</th><th>texture</th><th>process interpretation</th><th>facies code</th><th>environment interpretation</th></medium>	Litnology	clay mud -silt	very fine fine medium coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
Section Sanda (70%), very fine as flow wanned near the limit of sanda (70%), very fine near the limit of sanda bedload transport, in emerging chutes along bar flanks Section Section Sanda Section Sanda Section Section Sanda Section Section Sanda Section Section Sanda Section Sanda Section Section Sanda Section S	 9				Moderate yellowish brown, <medium (40%),<="" (60%),="" -="" fine="" medium="" pebbles="" sands="" td="" very=""><td></td><td>S1</td><td>Channel</td></medium>		S1	Channel
Formed as low flow regimes as aggradation on low angle bed in channel					<medium (25="" (30%),="" (70%),="" (75="" (<="" -="" 20%),="" 5%)="" 80%),="" <medium="" angular="" boulder="" breccia,="" coarse="" containing="" dark="" fine="" lateritic="" loosed,="" loosed,<="" medium="" orange,="" pebbles="" poorly="" sands="" sorted="" td="" very="" yellowish=""><td>as flow wanned near the limit of sand bedload transport, in emerging chutes along bar</td><td>S2(a)</td><td>Channel</td></medium>	as flow wanned near the limit of sand bedload transport, in emerging chutes along bar	S2(a)	Channel
					UNIVERSIT	low flow regimes as aggradation on low angle bed in		Channel

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR G3 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 486200 m E 1599900 mN Amphoe: Nam Khun Changwat: Ubon Ratchathar Map sheet: 5937 I Total thickness: 5.5 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
					Light brown - moderate brown, <medium %),="" (55="" -="" 60="" fine<br="" sands="" very="">- medium pebbles (40 - 45%), loosed, poorly sorted</medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S 1	Channel
-5- -5.5- -6-					Moderate brown having moderate yellowish brown, hard - lateritic pan composing many particle sizes, from clay- silt to > medium pebbles, very poorly sorted, containing zircon grain	Deposited during period of very high discharge	G1(a)	Alluvial fan
	7							
—10- —11- —12-					JNIVER			
	m			95	ทยาลัยเสีย	lai		3

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	to line drained Sand \'		hofacies having		
	G3(a)			F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR G4re Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 483600 m E 1600000 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 5.8 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	gravel granule cobble cobble	texture	process interpretation	facies code	environment interpretation
					Grayish orange pink - grayish orange , <medium (30%),very="" (70%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted="" sorted,="" td=""><td>Deposited during sustained, relatively low flow condition on the flanks of bars</td><td>G3</td><td>Channel</td></medium>	Deposited during sustained, relatively low flow condition on the flanks of bars	G3	Channel
4	5		8		Grayish orange - light brown, <medium (50%),="" -="" 3="" 4="" at="" containing="" fine="" grains="" loosed,="" m<="" medium="" pebbles="" poorly="" sands="" sorted="" sorted,="" td="" very="" zircon=""><td>Fills concave - up scours cut into coarser gravel lithofacies</td><td>G3(a)</td><td>Channel</td></medium>	Fills concave - up scours cut into coarser gravel lithofacies	G3(a)	Channel
		1		1/	Grayish brown, <medium (20%),="" (25%),="" (40%)="" -="" bed<="" boulders="" coarse="" fine="" lateritized="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Deposited during period of very high discharge</td><td>G1(a)</td><td>Alluvial fan</td></medium>	Deposited during period of very high discharge	G1(a)	Alluvial fan
-12-	m				ัทยาลัยเ ชิ ่	14		K 1

	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
G	G3(a)			F(a)	and silt same cha			aracteristics but	

Sedimentary log: DMR G5 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 486600 m E 1599900 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 4.5 meters (From basement - rock surfac

scale (m)	Lithology	pnu	sand e =			avel	texture	process interpretation	facies code	environment interpretation
Sca	Lit	clay	very fine fine medium	-coarse	granule	-pebble -cobble		pro interl	facio	envire interg
-1-							Grayish orange - light brown, stratified clayey sands and sandy gravel <medium (45%),="" (55%),="" -="" fine="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted<="" td="" very=""><td>Minor channel fills</td><td>G3</td><td>Channel</td></medium>	Minor channel fills	G3	Channel
							<medium (75="" -="" 80%),<br="" sands="">very fine - medium pebbles (25 - 20%), coarse pebbles - boulder (< 5%) containing angular lateritic breccia, loosed, poorly sorted, containing zircon grains at 3-4 m</medium>	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1(a)	Channel
-8		1	1		11/		INIVERSITA			
-11-										
					4		กตาลัยเสีย			<u>K1</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand (a) refer to lithofac		J		
	G3(a)	Graver stratified		F(a) and silt - Sand, silt, mud			same characteristics but older age		

Sedimentary log: DMR G7 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485400 m E 1599800 mN Amphoe: Nam Khun Changwat: Ubon Ratchathan Map sheet: 5937 I Total thickness: 4.0 meters (From basement - rock surfac

	0	pnu	sand	gravel		s tation	ode	nent
scale (m)	Lithology	clay	very fine fine medium coarse	granule -pebble -cobble	texture	process interpretation	facies code	environment
-0— -1— -2— -3— -4— -5— -6— -7— -8— -10— -11—					Dark yellowish orange mixing light brown, <medium (10%),="" (90%),="" -="" fine="" medium="" pebbles="" sands="" sorted,<="" sticky,="" td="" very="" well=""><td>Formed as ow flow regimes is regardation on low regimes red in region of the region of</td><td>S1(a)</td><td>Overbank</td></medium>	Formed as ow flow regimes is regardation on low regimes red in region of the region of	S1(a)	Overbank
-12	n		1 124	48	โทยเวลัยเสีย			Kî

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofaci
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char Ider age	acteristics but

Sedimentary log: DMR G11 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485400 m E 1600600 mN Amphoe: Nam Khun Changwat: Ubon Ratchathan Map sheet: 5937 I Total thickness: 5.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	sand very fine fine		granule gb	texture s	facies code	environment interpretation
						Moderate yellow brown , <medium (10%),="" (40%),="" (50%),="" -="" -3="" 0="" 1="" 2="" as="" asso<="" associated="" boulders="" coarse="" containing="" decrease="" deposi="" dischart="" dominant="" fine="" flow="" from="" his="" loosed="" m="" medium="" pebbles="" poorly="" rootlet="" sands="" sorted="" sorted,="" td="" the="" very=""><td>ed gher ge</td><td>Channel</td></medium>	ed gher ge	Channel
				W		Very pale orange having dark yellowish orange mottles, <medium %),="" (30%),="" (70="" (<="" -="" -4="" 3="" 5%),="" a="" at="" boulders="" coarse="" containing="" fine="" grain="" lateritized="" loosed,="" m<="" medium="" partly,="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky="" td="" very="" zircon=""><td>G1(a)</td><td>Alluvial fan</td></medium>	G1(a)	Alluvial fan
89		12	1			2517		
—10- —11- —12-						UNIVER		
	n	60	1			โทยจลัยเสียล	B	K1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	U	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	to line drained Sand ` '		hofacies having		
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR G13 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485700 m E 1600300 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 7.0 meters (From basement - rock surface)

(m)	logy	pnm	sand	gravel	texture	ss	code	ment
scale (m)	Lithology	clay	silt- very fine fine medium coarse	granule pebble cobble	ponide	process interpretation	facies code	environment interpretation
—1— —2—					Light brown - grayish orange, <medium (40%),="" (60%),="" -="" -3="" 2="" boulders="" dominant<="" fine="" loosed="" m="" medium="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky="" td="" very=""><td>Deposited as flow decreased from highe discharge associated Gms</td><td>G2</td><td>Channel internretation</td></medium>	Deposited as flow decreased from highe discharge associated Gms	G2	Channel internretation
-4- -5- -6-					Very light gray, <medium %),="" (15="" (25%),="" (60="" -="" -4="" 20%),="" 3="" at="" boulders="" coarse="" containing="" fine="" grains="" lateritized="" loosed,="" m<="" medium="" partly,="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky="" td="" very="" zircon=""><td>Deposited during period of very high discharge</td><td>G1(a)</td><td>Alluvial fan</td></medium>	Deposited during period of very high discharge	G1(a)	Alluvial fan
.6.7_ _7_ _8_ _9_					Very light gray, clay (100%), very sticky - tough,	The remnant of in situ - weathered ancient basalts	bs(a)	Basalt flow
10					UNIVERSI			
-11- -12-	n				กตาลัยเสีย	21.2		kn

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:				
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand (a) refer to lithofac		J			
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log : DMR H1 Ban: Dan Tambon: Phu Pha Mok Grid: 484100 m E 1599460 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 9.5 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine fine medium coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
					Moderate yellowish brown - light brown, <medium %),="" (10%),="" (90="" -="" fine="" medium="" pebbles="" sands="" sorted<="" td="" very="" well=""><td>Formed as high velocity flow diverged over bar tops</td><td>S1</td><td>Channel</td></medium>	Formed as high velocity flow diverged over bar tops	S1	Channel
	3				Very pale orange, <medium %),="" (10="" (40="" -="" 15%),="" fine="" medium="" pebbles="" sands="" very="">medium pebbles (25%), stratified fine to medium sandy gravel, fining upward, very poorly sorted, loosed containing lateritic breccia, loosed, very poorely sort</medium>	Deposited during sustained, relatively low flow condition on the flanks of bars	G3	Braided plain
8_ 9.5_ 9_	Z					or bars		
10								
-12-	n	105	1 118			1.5		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies have		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	ol	racteristics but		

Sedimentary log: DMR H2 Tambon: Phu Pha Mok Ban: Dan Grid: 484730 m E 1599300 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 7.5 meters (From basement - rock surface)

(m)	logy	mnd	sand	gravel	texture	s	ode	nent ation
scale (m)	Lithology	clay	wery fine fine medium coarse	granule pebble cobble		process interpretation	facies code	environment interpretation
-1- -2- -3-					Moderate yellowish brown, <medium %),="" (30%),="" (70="" -="" fine="" loosed<="" medium="" moderately="" pebbles="" sands="" sorted,="" td="" very=""><td>Formed as waned near the limit of sand bedload transport, in emerging chutes along bar flanks</td><td>S2</td><td>Channel</td></medium>	Formed as waned near the limit of sand bedload transport, in emerging chutes along bar flanks	S2	Channel
5_ 6_ 7_ 7.5_ 8_ 9_	ST CHANGE				Light gray having grayish orange and moderate brown mottles, <medium %),="" (10%),="" (90="" fine="" medium="" pebbles="" sands="" sorted,="" sticky<="" td="" very="" well=""><td>Formed as waned near the limit of sand bedload transport, in emerging chutes along bar flanks</td><td>S2(a)</td><td>Braided plain</td></medium>	Formed as waned near the limit of sand bedload transport, in emerging chutes along bar flanks	S2(a)	Braided plain
10 11				1/				
-12-						SI'Y		<u> </u>

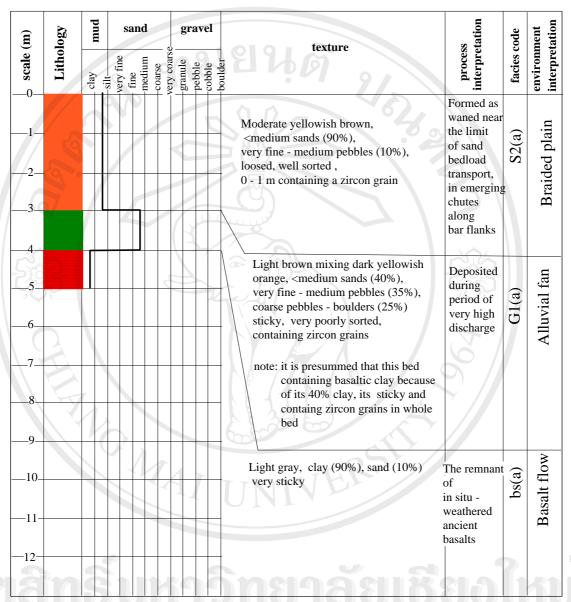
	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surfac	
	G1(a)	gravel; weaky imbricated	I	S1(a)			Bs(a)	Clay, very sticky	
	G2	a) bedded gravel Gravel stratified		S2	Ripple - laminated,			generate gemstones	
	G2(a)			S2(a)	very fine to fine sand	Note:	Note:		
	G3			F	- Laminated very fine to fine grained sand	(a) refer to		lithofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char Ider age	racteristics but	

Sedimentary log: DMR H3 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485200 m E 1599250 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 5.0 meters (From basement - rock surface

(m)	Lithology	pnm	sai		Se		avel		texture	process interpretation	facies code	nment
scale (m)	Lith	clay	very fine	-medium	⊢coarse verv coars	granule	-pebble	houlder	ELIA 9/	process interpreta	facies	environment interpretation
-1- -2- -3-									Grayish orange - light brown, <medium (70%),<br="" sands="">very fine - medium pebbles (30%), loosed, moderately sorted</medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S 1	Channel
5 _6	25				2			Z Z	Light brown mixing dark yellowish orange, <medium (10%),="" (40%),="" (50%)="" -="" boulders="" coarse="" containing="" fine="" grains<="" medium="" pebbles="" poorly="" sands="" sorted,="" sticky,="" td="" very="" zircon=""><td>Deposited during period of very high discharge</td><td>G1(a)</td><td>Alluvial fan</td></medium>	Deposited during period of very high discharge	G1(a)	Alluvial fan
8										5,		
10 _11_						1						
-12		2										<i></i>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	hofacies having	
	G3(a)		F(a)		and silt - Sand, silt, mud	ol	racteristics but	

Sedimentary log: DMR H4 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485450 m E 1599250 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 5.0 meters (From basement - rock surface



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Graver stratified	F(a)		and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR H5re Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485600 m E 1599100 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 2.5 meters (From basement - rock surface

Dusky yellowish brown - light gray having dark yellowish orange, redium sands (60%), very fine - medium pebbles (40%), sticky, poorly sorted, 1 - 2 m containing a zircon grains Light gray, clay (90%), sand (10%) very sticky containg a zircon grain Light gray, clay (90%), sand (10%) very sticky containing a zircon grain The remnant of in situ-weathered ancient basalts	(m)	logy	pnu	sand		gra	vel	texture & santxat	opoc	ment tation
Dusky yellowish brown - light gray having dark yellowish orange, cmedium sands (60%), very fine - medium pebbles (40%), sticky, poorly sorted, 1 - 2 m containing a zircon grains Light gray, clay (90%), sand (10%) very sticky containg a zircon grain The remnant of in situ - weathered ancient basalts The remnant of in situ - weathered ancient basalts		Litho	clay	very fine fine medium	-coarse	granule	cobble	proces interpre	facies	environment interpretation
-7	—1— —2— —2.5—							having dark yellowish orange, <medium (60%),<br="" sands="">very fine - medium pebbles (40%), sticky, poorly sorted,</medium>	S1(a)	Braided plain
9—10—11—	5 -6 -7				9		2	very sticky containg a zircon grain The remnant of in situ - weathered ancient	bs(a)	Basalt flow
	9	7		74				BOST A		
								UNIVE		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	hofacies having	
	G3(a)		F(a)		and silt - Sand, silt, mud	ol	racteristics but	

Sedimentary log: DMR H7re

Ban: Non Yang Tambon: Song Amphoe: Nam Yuen Province: Ubon Ratchathani Grid: 487000 m E 1599400 mN Totall thickness: 5.0 meters (to basement - rock surface) Map sheet: 5937 I

scale (m)	Lithology	clay mud	very fine fine medium -coarse very coarse	granule gbebble cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—					Moderate yellowish brown - grayish orange, <medium (10%),="" (40%),="" (50%),="" ,="" -="" -1="" -4="" 0="" 3="" a="" boulder="" coarse="" coarsening="" containing="" downward="" fine="" grain<="" loosed,="" m="" medium="" pebbles="" poorly="" rootlet="" sands="" sorted="" td="" very="" zircon=""><td>Lag deposits</td><td>G2</td><td>Channel</td></medium>	Lag deposits	G2	Channel
				Z	Very pale orange - yellowish gray , . <medium (10%),very="" (90%),="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted="" sorted,="" td=""><td>Deposited during sustained, relatively low flow condition on the flanks of bars</td><td>G3(a)</td><td>Channel</td></medium>	Deposited during sustained, relatively low flow condition on the flanks of bars	G3(a)	Channel
9 10 11 12								

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	hofacies having	
	G3(a)		F(a)		and silt - Sand, silt, mud	ol	racteristics but	

Sedimentary log: DMR H8 Ban: Non Yang Tambon: Song

Grid: 487160 m E 1599730 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 8.2 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse very coarse	granule granule cobble cobble	El 9 fexture	process interpretation	facies code	environment interpretation
—1— —2—			10		Dark yellowish orange, <medium (25%),="" (75%),="" -="" fine="" lateritized="" medium="" partly<="" pebbles="" poorly="" sands="" sorted,="" sticky,="" td="" very=""><td>Crevasse splays</td><td>S2 (a)</td><td>Overbank</td></medium>	Crevasse splays	S2 (a)	Overbank
3_ 4_ 5_					Dark yellowish orange - light brown , <medium (30%),="" (70%),very="" ,="" -="" fine="" lateritized="" medium="" mostly<="" pebbles="" poorly="" sands="" sorted="" sticky,="" td=""><td>Scour fills</td><td>S1(a)</td><td>Overbank</td></medium>	Scour fills	S1(a)	Overbank
6_ 7_ 8_ 8.2					<medium (10%),<br="" (90%),="" sand="" sands="">very sticky - tough, some part changing to be laterite</medium>	The remnant of an situ - weathered ancient pasalts	bs(a)	Basalt flow
9 10				1				
—11— —12—	'n	383				\$1.A		X 1

symbol	facies code	lithofacles	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	-	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand	Bs(a)		Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Statol Statilled		F(a)	and silt - Sand, silt, mud		der age	racteristics but	

Sedimentary log: DMR H9 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 486750 m E 1599950 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 7.3 meters (From basement - rock surface)

c scale (m)	Lithology	clay mud	very fine fine fine medium coarse	granule garanule cobble	texture	process interpretation	facies code	environment interpretation
-1- -2- -3-					Grayish orange - dark yellowish orange, <medium %),="" (70="" fine<br="" sands="" very="">- medium pebbles (30%), loosed, moderately sorted</medium>	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1	Channel
-4 -5_ -6_ -77.3_ -8_ -9_ -10_					Light greenish gray, <medium (10%),="" (30%)="" (60%),="" -="" 60%="" and="" basaltic="" because="" bed="" bed<="" boulders="" clay="" clay,="" coarse="" color,="" containg="" containing="" fine="" grains="" in="" is="" it="" its="" medium="" note:="" of="" pebbles="" poorly="" presummed="" sands="" sorted,="" sticky="" sticky,="" td="" that="" this="" trough="" very="" whole="" zircon=""><td>Deposited during period of very high discharge</td><td>G1(a)</td><td>Alluvial fan</td></medium>	Deposited during period of very high discharge	G1(a)	Alluvial fan
-11-	n				า โทยาลัยเ ชี	ยกโ		4 1

	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)			Bs(a)	Clay, very sticky most of them generate gemstones	
	G2	Massive or crudely		S2	Ripple - laminated,				
	G2(a)			S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand		efer to lithofacies having		
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: DMR H10 Ban: Non Yang Tambon: Song

Grid: 487100 m E 1599300 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathan Map sheet: 5937 I Total thickness: 5.7 meters (From basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine medium pues from fine medium coarse very coarse	gravel grannle copple	el 9 texture	process interpretation	facies code	environment interpretation
—1— —2—					Medium light gray, very fine sand - very coarse sands (70 - 80 %), very fine - medium pebbles (20 - 30%), 0.0 - 1.0 m having rootlet, more pebbles in lower part, poorly sorted, finer grained upward	Formed as high velocity flow	S 1	Channel
					Light gray, very fine sand - very coarse sands (40%), very fine - medium pebbles (10%), coarse - very coarse pebbles (50%), sandy metrix, containing lateritic breccia, loosed, very poorely sorted, dots of iron stained in texture	Fills concave - up scours cut into coarser gravel lithofacies	G3(a)	Channel
		12		17	Light gray to light olive gray, very fine to very coarse sands (35 - 40 %), very fine - medium pebbles (60 - 65%), containing angular quartz, zircon and illmenite, loosed, very poorely sorted Note: it is presummed that this bed containing basaltic clay because of its color, its 35 -40% clay, containg much zircon grains	Deposited as flow decreased from higher discharge, lag deposits	G2(a)	Channel
-12	n				ัทยาลัยเสีย	a a f		Ki l

EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them generate gemstones	
	G2	Massive or crudely		S2	Ripple - laminated,				
	G2(a)	hedded gravel		S2(a)	very fine to fine sand	Note:	"		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	''		lithofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ame characteristics but Ider age		

Sedimentary log: DMR H12

Ban: Non Yang Tambon: Song Amphoe: Nam Yuen Changwat: Ubon Ratchathani Grid: 487100 m E 1599800 mN Total thickness: 2.7 meters (From basement - rock surface Map sheet: 5937 I

scale (m)	Lithology	mnd	sand	gravel	texture	process interpretation	facies code	environment interpretation
SCS O—	Lit	clay cilt	tine fine medium coarse	granule pebble cobble		pro interj	facio	envire
-1- -2- -2.7_ -3-					Light brown - dark yellowish orange, <medium %),="" (40="" -="" 70="" fine<br="" sands="" very="">- medium pebbles (30 - 60%), crosening upward, loosed, poorly sorted,containg zircon grains all whole bed</medium>	Minor channel fills	G2	channel
-4 -5 -6	3		8					
7 _8_					A	706		
9 _10_ _11_					UNIVERSI			
-12-	n	659	1 108		กตอลัยเสีย	4.5		R

					T				
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported gravel; weaky	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)			S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` ′	efer to lithofacies having		
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but	

Sedimentary log: DMR H13 Ban: Non Yang Tambon: Song

Grid: 487630 m E 1599450 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 3.8 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium pure coarse	gravel granule granule cobple	el 9 texture	process interpretation	facies code	environment interpretation
—1— —2—					Light brown gray - pinkish gray, <medium (35%),="" (65%),="" -="" containing="" fine="" grains<="" loosed,="" medium="" pebbles="" poorely="" sands="" sorted,="" td="" very="" zircon=""><td>Scour fills</td><td>S1</td><td>overbank</td></medium>	Scour fills	S1	overbank
3	3-1				Pinkish gray, <medium (15="" (60="" -="" 40%),="" 85%),="" containing="" fine="" grains<="" loosed,="" medium="" pebbles="" poorely="" sands="" sorted,="" td="" very="" zircon=""><td>Scour fills</td><td>S1(a)</td><td>overbank</td></medium>	Scour fills	S1(a)	overbank
					A RSIA	95/		
—10— —11— —12—	10				inggagus	21.5		%1

EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely		S2	Ripple - laminated,	l		generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies havi		
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but

Sedimentary log: DMR H14

Ban: Non Yang Tambon: Song Amphoe: Nam Yuen Changwat: Ubon Ratchathani Grid: 489250 m E 1599500 mN Total thickness: 8.8 meters (From basement - rock surfac Map sheet: 5937 I

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
		cl Si	in i	35 ad 30 .	Dark yellowish orange mixing moderate yellowish brown, <medium %),="" (40="" (5="" -="" 30%),="" 80="" fine="" medium="" pebbles="" sands="" very=""> medium pebble (15 - 30%), poorly sorted, lateritized partly, containing lateritic breccia</medium>	Lag deposits	G2(a)	Channel en in
4_ 5_ 6_	Ŝ.				Dark yellowish orange mixing moderate yellowish brown, <medium %),="" (15="" (75="" -="" 30%),="" 85="" breccia<="" containing="" fine="" lateritic="" lateritized="" medium="" moderately="" partly,="" pebbles="" sands="" sorted,="" td="" very=""><td>Formed as high velocity flow</td><td>S1(a)</td><td>Channel</td></medium>	Formed as high velocity flow	S1(a)	Channel
			1		Light brownish gray - light brown, <medium %),="" (0-="" (5-="" -="" 40="" 60%),="" fine="" medium="" pebbles="" sands="" very="">medium pebbles (0- 95%) loosed, very poorely sorted, coarsening upward, containing zircon grains whole bed</medium>	Minor channel fills	G3(a)	Channel
—10— —11— —12—					UNIVE			

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	• •	
	G3(a)			F(a)	and silt - Sand, silt, mud		der age	racteristics but

Sedimentary log: DMR H15 Ban: Non Yang Tambon: Song

Grid: 490400 m E 1599300 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 4.0 meters (From basement - rock surface)

scale (m)	Lithology	-clay mud	very fine fine medium -coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
1	(d)				Moderate yellowish brown, <medium %),="" (50="" (50%),="" -="" fine="" medium="" pebbles="" poorly="" sands="" sorted<="" td="" very=""><td>Lag deposits</td><td>G2</td><td>Channel</td></medium>	Lag deposits	G2	Channel
2 3					Moderate yellowish brown, <medium %),="" (50="" (50%),="" -="" fine="" medium="" pebbles="" poorly="" sands="" sorted<="" td="" very=""><td>Formed in the low flow regime as aggradation in channel</td><td>S1</td><td>Channel</td></medium>	Formed in the low flow regime as aggradation in channel	S 1	Channel
	352 3		- C		Grayish orange mixing pale yellowish brown, <medium %),="" (5="" (90="" -="" 10="" 2="" 2.5="" 95%),="" at="" containing="" fine="" grains="" m<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very="" zircon=""><td>Minor channel fills</td><td>G3(a)</td><td>Channel</td></medium>	Minor channel fills	G3(a)	Channel
89						9		
—10- —11- —12-					UNIVERS			
12				Kana	กตาลัตเสี	ela		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	• •	
	G3(a)			F(a)	and silt - Sand, silt, mud		der age	racteristics but

Sedimentary log: DMR I1 Ban: Dan Tai Tambon: Sao Thong Chai Grid: 483450 m E 1598570 mN Amphoe: Kantaralak Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 7.0 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine	-medium p		evel epope -copple	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—	(9)						Dark yellowish orange - moderate yellowish brown, <medium %),="" %)<="" (10="" (50="" (sands="" -="" 20="" 25="" 50="" 75="" 80%,="" 90%),="" by="" fine="" gravelly="" medium="" pebble="" pebbles="" poorly="" sand="" sands="" sorted,="" stratified="" td="" very=""><td>Minor channel fills</td><td>G3</td><td>Channel</td></medium>	Minor channel fills	G3	Channel
4-5-5-	3			8		1	Very light gray having very pale orange dots,			
6 7							 very light gray having very pare orange dots, medium sands (10 %), very fine - medium pebbles (50 - 90%), poorly sorted, stratified by gravelly sand (sands 75 %, pebble 25 %) 	Minor channel fills	G3(a)	Channel
-8-		12								
10_					1		UNIVERSI			
—11- —12-							โทยาลัยเสีย	ela (<u>41</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	• •	
	G3(a)			F(a)	and silt - Sand, silt, mud		der age	racteristics but

Sedimentary log: DMR I2 Ban: Dan Tai Tambon: Sao Thong Chai Grid: 483430 m E 1598130 mN Amphoe: Kantaralak Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 4.0 meters (From basement - rock surface)

(m)	Lithology ay mud tt tt ty y fine ne edium			gravel	texture	ss etation	code	environment interpretation
scale (m)	Litho	clay eilt	very fine fine medium coarse	granule pebble cobble	-ponned-	process interpretation	facies code	environment
-1-					Moderate yellowish brown, <medium %),="" (40="" (60="" -="" fine="" medium="" pebbles="" poorly="" sands="" sorted<="" td="" very=""><td>Minor channel fills</td><td>G3</td><td>Channel</td></medium>	Minor channel fills	G3	Channel
3_					Light brown - light greenish gray, <medium %),="" (90="" -<br="" fine="" sands="" very="">medium pebbles (10%), well sorted</medium>	Dunes	S1(a)	Channel
_5	3			1				
6 _7_								
8		1						
-10- -11-					UNIVER			
-12-	10		1112					<i>D</i> :/1

	IATION		1						
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)	Graver stratilled		F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: DMR I3 Ban: Dan Tai Tambon: Sao Thong Chai Grid: 483430 m E 1597650 mN Amphoe: Kantaralak Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 9.0 meters (From basement - rock surface)

scale (m)	Lithology	ay mud	very fine fine medium coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
		clay	reverse the second seco	erg loo	Grayish orange pink having dark yellowish orange dots, <medium %),="" (30="" (60="" -="" 40%),="" 70="" fine="" medium="" pebbles="" poorly="" sands="" slightly="" sorted<="" sticky,="" td="" very=""><td>Scour fills</td><td>S1(a) f</td><td>Channel en</td></medium>	Scour fills	S1(a) f	Channel en
	3				Grayish orange pink - yellowish gray having dark yellowish orange dots , <medium %),very="" (10="" (90%),="" -="" fine="" medium="" pebbles="" poorly="" sands="" sorted<="" td=""><td>Deposited as flow decreased from higher discharged associated with Gms (a) below</td><td>G2(a)</td><td>Channel</td></medium>	Deposited as flow decreased from higher discharged associated with Gms (a) below	G2(a)	Channel
					Grayish orange pink - yellowish gray having dark yellowish orange dots, <medium %),very="" (10="" (3="" -="" 5%),="" fine="" medium="" pebbles="" sands="">medium pebbles (85 - 95%), very poory sorted, containing tektile pieces</medium>	Deposited during period of very high discharge	G1(a)	Alluvial fan
12	n				ัทยาลัยเ ม ี			81

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	U	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	• •		
	G3(a)			F(a)	and silt - Sand, silt, mud	0	acteristics but		

Sedimentary log : DMR I4 Tambon: Sao Thong Chai Ban: Dan Tai Grid: 483500 m E 1597300 mN Amphoe: Kantaralak ChangwatT: Si Sa Ket Map sheet: 5937 I Total thickness: 2.6 meters (From basement - rock surface

scale (m) Lithology	B	fine medium coarse	gravel granule cobble cobble	texture	process interpretation	facies code	environment interpretation
-13				Very pale orange, <medium %),="" (50="" (50%)="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" th="" very=""><th>Formed on low angle bed in channels</th><th>S1</th><th>Channel</th></medium>	Formed on low angle bed in channels	S 1	Channel
-2- -2.6 -3				Very pale orange, <medium %),="" (5="" (90="" -="" 10%)="" 95="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>minor channel fills</td><td>G3</td><td>Channel</td></medium>	minor channel fills	G3	Channel
5		8					
6-7-					704		
8-9-							
_10			II	JNIVERS			
-12							

	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	Ī	S1(a)	medium sand		Bs(a)	Clay, very stick most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having
	G3(a)	oraver stratilled		F(a)	and silt - Sand, silt, mud		ame char der age	racteristics but

Sedimentary log: DMR I5 Tambon: Sao Thong Chai Ban: Dan Tai Grid: 484300 m E 1598600 mN Amphoe: Kantaralak Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 6.0 meters (From basement - rock surface)

Light brown mixing dark yellowish orange, Formed on	(m)	logy	mnd	sand	gravel	texture	s tation	ode	nent
Light brown mixing dark yellowish orange, cmedium sands (70 - 90 %), very fine - medium pebbles (10 - 30%), poorly - poorly sorted, 2 - 4 m stratified by sandy gravel (<medium %)="" %),="" (10="" (70="" -="" 2="" 20="" 30%),="" 4="" 50="" 50%,="" 80="" 90="" brown="" by="" channels="" cmedium="" dark="" discharge="" discharge<="" fine="" gravel="" higher="" interrupted="" light="" m="" medium="" mixing="" orange,="" pebble="" pebbles="" poorly="" sands="" sandy="" sorted,="" stratified="" th="" very="" yellowish=""><th></th><th>Litho</th><th>clay silt</th><th>very fine fine medium coarse</th><th>-granule -pebble -cobble</th><th></th><th>proces interpre</th><th>facies</th><th>environment</th></medium>		Litho	clay silt	very fine fine medium coarse	-granule -pebble -cobble		proces interpre	facies	environment
-5 -6 -7 -8 -9 -10 -11	-1- -2- -3-	997				<medium %),="" (70="" -="" -<br="" 90="" fine="" sands="" very="">medium pebbles (10 - 30%), poorly - poorly sorted, 2 - 4 m stratified by sandy gravel</medium>	low angle bed in channels , interupted by higher		Channel
8 -10 -11		500		8			505 70		
-11	_8_					2511			
	-11-					UNIVER			

	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
П	G1(a)	gravel; weaky imbricated	S1(a)		medium sand		Bs(a)	Clay, very stick	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified	F		- Laminated very fine to fine grained sand	. ,	hofacies having		
	G3(a)			F(a)	and silt - Sand, silt, mud	sa ol	acteristics but		

Sedimentary log: P14 Ban: Hua Nam Tambon: Song Grid: 489450 m E 1603050 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathai

Map sheet: 5938 II Total thickness: 1.91 meters (From basement - rock surfac

Grayish orange pink yellowish gray, medium sands (80 -90%), very fine - medium pebbles (10 - 20%), well sorted, slight sticky containing petrified wood piece Grayish orange - dark yellowish orange, medium sands (70 -80%), very fine - medium pebbles (20 -10%), coarse pebbles - boulder (5 - 10%), sticky, poorly sorted, lateritized containing - silicified wood - zircon grains - tektite piece Pale yellowish green - moderate greenish yellow, clay (90 - 95%), sand (5 - 10%), very sticky - tough, some part changing to be laterite of in situ- wearthered ancient basalts Ag O J D D O J D D O J D D D D D D D D D D D D	scale (m)	Lithology	clay mud	very fine fine medium coarse	granule garanule cobble	texture	process interpretation	facies code	environment interpretation
emedium sands (70 -80%), very fine -medium pebbles (20 -10%), coarse pebbles - boulder (5 - 10%), sticky, poorly sorted, lateritized Pale yellowish green - moderate greenish yellow, clay (90 - 95%), sand (5 - 10%), very sticky - tough, some part changing to be laterite Containing - zircon grains - green sapphire grain - black star sapphire grain But yellowish (20 -10%), very fine -medium pebbles (20 -10%), very sticky - tough, some part changing to be laterite The remnant of in situ - wearthered ancient basalts	0.73_ —1— 1.18					<medium (80="" -90%),<br="" sands="">very fine - medium pebbles (10 - 20%), well sorted, slight sticky</medium>		S2	Channel
Pale yellowish green - moderate greenish yellow, clay (90 - 95%), sand (5 - 10%), very sticky - tough, some part changing to be laterite wearthered ancient basalts - black star sapphire grain - black star sapphire grain	-3- 3.20- -4- -5- -6-	5		8		<medium (20="" (70="" -="" -10%),="" -80%),="" 10%),="" 5="" boulder(="" coarse="" fine="" lateritized<="" medium="" p="" pebbles="" poorly="" sands="" sorted,="" sticky,="" very=""> containing - silicified wood - zircon grains</medium>		G2(a)	Channel
	-8-				1/	greenish yellow, clay (90 - 95%), sand (5 - 10%), very sticky - tough, some part changing to be laterite containing - zircon grains - green sapphire grain	of n situ - wearthered ancient	bs(a)	Basalt flow

	IATION			I				
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
IJ	G1(a)	Massive or crudely		S1(a)	medium sand		Bs(a)	Clay, very stick most of them
	G2			S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified	F		- Laminated very fine to fine grained sand	. ,	efer to lithofacies havir	
	G3(a)			F(a)	and silt - Sand, silt, mud	sa ol	acteristics but	

Sedimentary log: P19 Ban: Ta Kao Tambon: Ta Kao

Grid: 489150 m E 1606850 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 4.05 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule de cobble cobble poulder	el de texture	process interpretation	facies code	environment interpretation
—1— —2— —2.9—	961				Grayish orange pink, sand, silt and mud (60 -70%), very fine - medium pebbles (30 - 40%), sticky, poorly sorted containing zircon grains	Crevasse splays	S2	Overbank
4.05 5- 6-	35				Moderate reddish brown, silt, sand, gravel bed changed to be hard pan laterite containing - zircon grains - green sapphire grains	Lag deposits	G2(a)	Channel
						96.		
—10— —11—								
-12					ากเกล้เมสิ			<u>K1</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies hav		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Ban: San Taworn Tambon: Phaiboon Sedimentary log: P21

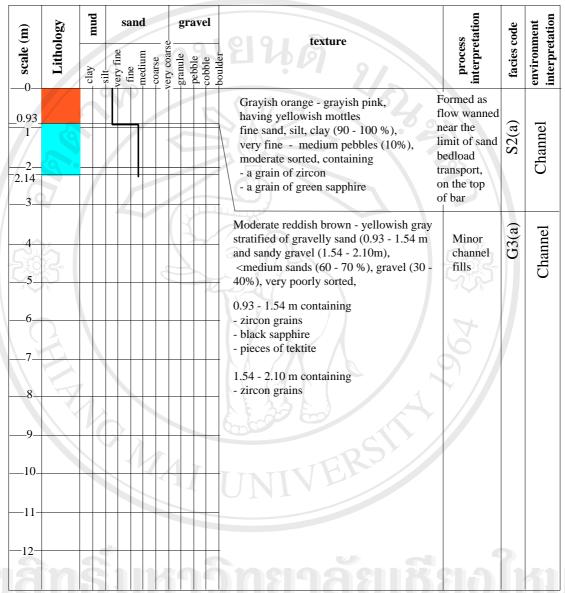
Grid: 486300 m E 1610000 mN Amphoe: Nam Yuen Province: Ubonratchathani Map sheet: 5938 II Total thickness: 2.1 meters (Not from to basement - rock surface

scale (m)	Lithology	clay mud	very fine fine renedium purse coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
-0.3 -0.7 -1					Medium gray, <medium (80="" -="" 100%),="" loosed<="" sands="" sorted,="" td="" well=""><td>Creavasse splays</td><td>S1</td><td>Overbank Overbank</td></medium>	Creavasse splays	S 1	Overbank Overbank
2	7		47		Grayish orange pink - Yellowish brown, <medium (80="" -="" 100%),="" loosed<="" sands="" sorted,="" td="" well=""><td>Creavass splays</td><td>S1</td><td>Overbank</td></medium>	Creavass splays	S 1	Overbank
				Z	Light grayhaving mottles of light brown - moderate brown, Bed change being hard pan laterite but the lower part containg soft - gray clay (the remnant of weathered basalt), the angular - subangur grains of gemstones embed in laterite, - zircon - green - star sapphire - tektite	Lag deposits	G2(a)	Channel
9 10 11					UNIVERS	The remnant of in situ - wearthered ancient basalts	bs(a)	Basalt flow
-12-	n			46	ักยาลัยเชีย	314)		

	IATION									
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie		
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated Massive or crudely	I	S1(a)	medium sand		Bs(a)	Clay, very stick		
	G2			S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	ote:			
	G3	Gravel stratified		F	F - Laminated very fine to fine grained sand			er to lithofacies having		
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but		

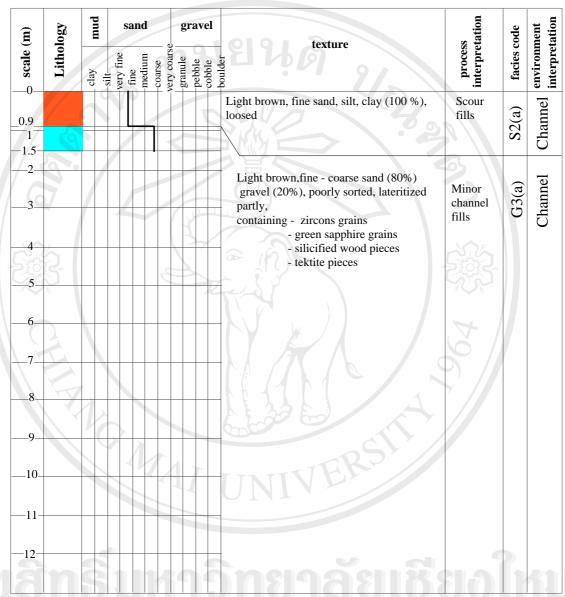
Sedimentary log: DMR P32 Ban: Non Yang Tambon: Song

Grid: 490900 m E 1599600 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 2.1 meters (Not from basement - rock surface)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies hav		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR P33 Ban: Hua Nam - Ban Ta Kao Tambon: Song Grid: 489800 m E 1604500 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 1.5 meters (From basement - rock surface



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having same characteristics but older age			
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud				

Sedimentary log: P35 Ban: Ta koi Tambon: Ta Kao

Grid: 487950 m E 1604400 mN Amphoe: Nam Khun Changwat: Ubon Ratchathan Map sheet: 5938 II Total thickness: 2.0 meters (Not from basement - rock surfa

scale (m)	Lithology	- clay mud	very fine fine medium coarse very coarse	granule da cobble cobble poulder	El 24 de la companya della companya	process interpretation	facies code	environment interpretation
-0.73- 1- 1.5-	6				Pinkish gray - dark greenishgray, silt - medium sands (100%), v loosed, well sorted	Creavasse splays	S2	overbank
					Dark greenish yellow, silt - medium sands (100%), v loosed, well sorted	Formed as flow waned near the limit of sand bedload transport, in emerging chutes along bar flanks	S2(a)	Channel
9_ 10_ 11_ 12_					Grayish orange pink, <medium (10="" (80="" -="" 20%),="" 90%),="" containing="" fine="" grains="" lateritized="" medium="" partly,="" pebbles="" pieces<="" sands="" td="" tektite="" very="" zircon=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>S1(a)</td><td>Channel</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S1(a)	Channel

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies hav		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P36 Ban: Huai Yang Tambon: Ta Kao

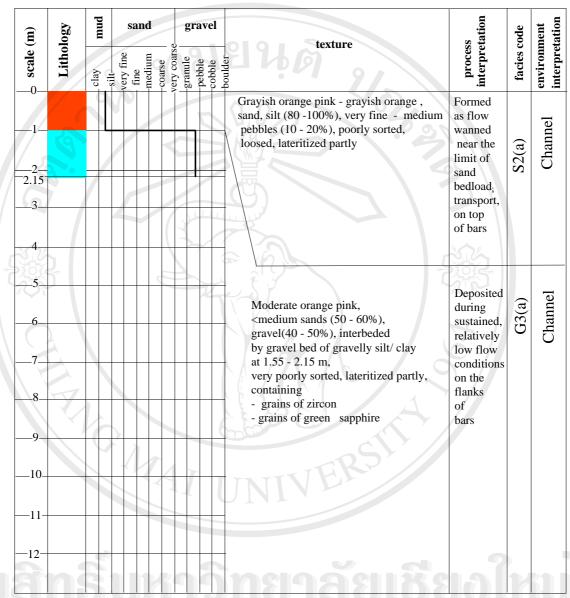
Grid: 485550 m E 1606600 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 4.0 meters (Not from to basement - rock surface)

(m)	logy	pnw	sand	gravel	texture	ss etation	code	ment
scale (m)	Lithology	clay	very fine fine medium coarse	granule pebble cobble boulder	धारत १	process interpretation	facies code	environment interpretation
—1— -1.35-					Grayish pink,sand, silt (100%), well sorted, loosed	Crevasse splays	S2	Overbank
					Grayish yellow - yellowish gray , sand, silt and mud (80 - 90%), very fine - medium pebbles (10 - 20%), poorly sorted, loosed	Formed as flow waned near the limit of sand bedload transport, in emerging chutes along bar flanks	S2(a)	Channel
8 _9_ _10_ _11_ _12_					Light - moderate yellowish brown, <medium (60="" -="" 70%),="" gravel<br="" sands="">(30 -40%), poorly sorted, lateritized partly, containing 2 grains of zircon</medium>	Deposited during sustained, relatively low flow conditions on the flanks of bars	G3(a)	Channel

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies			
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface			
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them			
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones			
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:					
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand		(a) refer to lithofacies having				
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age					

Sedimentary log: P37 Ban: Ta Em Tambon: Ta Kao

Grid: 487350 m E 1608600 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 2.15 meters (Not from basement - rock surf



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies ha		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ime char der age	racteristics but	

Sedimentary log: P39 Tambon: Sao Thong Chai Ban: Nong Tim Grid: 482250 m E 1601750 mN Amphoe: Kantaralak Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 1.5 meters (Not from basement rock surface)

scale (m)	bum '	sand -very fine fine -medium		_	avel	texture	facies code	environment interpretation
1.45 -1.5 -2	clay	very Very Tine	coarse	grai	- pebble - cobble	Grayish orange pink ,	ed d, G3	
-6 -7 -8			W	3	2	Dark reddish brown, <fine (25%),="" (35%),="" (40%)="" -="" bed="" boulders="" coarse="" depoduring="" disch<="" fine="" lateritized="" loosed,="" medium="" of="" pebbles="" period="" poorly="" sand="" sorted,="" td="" vehigh="" very=""><td>g d ry</td><td>Alluvial fan</td></fine>	g d ry	Alluvial fan
9 —10 —11 —12		1				UNIVERSIT		

symbol	facies	lithofacies	symbol	facies	lithofacies	symbol	facies	lithofacies
<u> </u>	code			code	intrioraciós /	-7	code	VGI SII
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)			Bs(a)	Clay, very sticky
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ime char der age	racteristics but

Sedimentary log: P40 Ban: Ta Sek Tambon:Non Samran

Grid: 482450 m E 1604700 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 2.25 meters (From basement - rock surface

scale (m)	Lithology	- clay mud	very fine fine -coarse very coarse	granule garanule cobble poulder	texture	process interpretation	facies code	environment interpretation
					Moderate orange pink, sand, silt and mud (100%), well sorted, lateritized partly	Scour fills	S2	Overbank
					Grayish orange pink, clay - silt - sand (30 - 40%), gravels (60 - 70%), laterite mostly, containing - zircon grains - green sapphire grain - green - star sapphire grain	Lag deposits	G2(a)	Channel
-12-	m	38				21.9		<u>41</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies ha		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ime char der age	racteristics but	

Sedimentary log: P41 Ban: Chan Hom Tambon: Non Samran Grid: 480450 m E 1606250 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 5.25 meters (From basement - rock surfa

ogy	pnu	sand	gravel	4-4-5	s tation	ode	nent ation
Lithology	clay	very fine fine medium coarse	granule pebble cobble	el 94 de texture	process interpretation	facies code	environment interpretation
2-2-				Moderate reddish brown, sand, silt 100%, loosed,	Creavasse splays	S2	Overbank
				Clay (light gray) (70 - 80%) mixing sand - silt (moderate pink) (10 - 20%) well sorted, lateritized partly	Elluvium of basalts mixing creavass splays fron top bed	S2(a)	Elluvial
				clay (100%), very sticky - tough	The remnant of in situ - wearthered ancient basalts	bs(a)	Basalt flow
2					- 3		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies ha		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ime char der age	racteristics but	

Sedimentary log: P45

Ban: Dan Tai Tambon: Sao Thong Chai
Grid: 483450 m E 1598750 mN

Amphoe: Kantaralak Changwat: Si Sa Ket
Map sheet: 5937 I

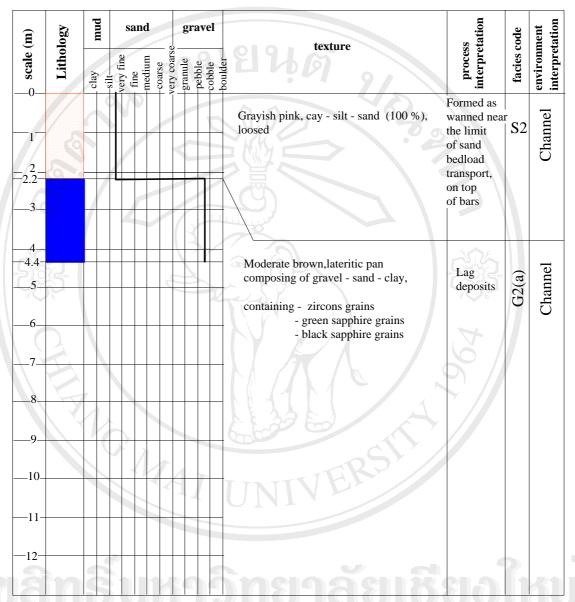
Total thickness: 2.5 meters (From basement rock surface)

c scale (m)	Lithology	- clay mud	fine	very coarse		pepple -cohlle	texture	process interpretation	facies code	environment interpretation
1 -1.1 -2- -3-							Grayish orange pink , <medium (30%),="" (70%),="" ,="" -="" containing="" fine="" grains<="" loosed,="" medium="" pebbles="" poorly="" sands="" sorted="" td="" very="" zircon=""><td>Deposited during sustained, relatively low flow condition on the flanks of bars</td><td>Gt</td><td>Channel</td></medium>	Deposited during sustained, relatively low flow condition on the flanks of bars	Gt	Channel
-4- -5- -6- -7-	5			8	3	7	Dark reddish brown, <fine (25%),="" (35%),="" (40%)="" -="" bed="" boulders="" coarse="" containing="" fine="" grains<="" lateritized="" loosed,="" medium="" pebbles="" poorly="" sand="" sorted,="" td="" very="" zircon=""><td>Deposited during period of very high discharge</td><td>Gms(a)</td><td>Alluvial fan</td></fine>	Deposited during period of very high discharge	Gms(a)	Alluvial fan
8 _9_		12								
-10- -11-										
-12-	n									K

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies			
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface			
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them			
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones			
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:					
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand		(a) refer to lithofacies having				
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age					

Sedimentary log: DMR P51 Ban: Hua Nam Tambon: Song

Grid: 490700 m E 1603100 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 4.4 meters (Not from basement - rock surface)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F - Laminated very find to fine grained san		(a) refer to lithofacies having			
	G3(a)			F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: DMR P52 Ban: Hua Nam Tambon: Song

Grid: 489250 m E 1603700 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathan Total thickness: 3.2 meters (From basement - rock surfa Map sheet: 5938 II

logy	sand	gravel	texture	ss tation	code	ment tation
Lithology clay mu	very fine fine medium coarse	granule pebble cobble boulder	1160 8/	process interpretation	facies code	environment interpretation
			Grayish orange pink, cay - silt - sand (100 %), loosed	Scour fills	S2	Overbank
			Light brown, lateritic pan composing of gravel - sand - clay, lower part has more amount of clay	Lag deposits	G2(a)	Channel
3			(3.05 3.20 m) containing - zircons grains - green sapphire grains - black sapphire grains			
				40		
	4/	60				
		1				
				3		

	-12-	ns	\$111K9	8				91.	alkı	
GIU	EXPLAN	IATION								
Con	symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
A II		G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
A		G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
		G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
		G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
		G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having	
		G3(a)	Gravei stratified		F(a)	and silt - Sand, silt, mud		same characteristics boolder age		

Sedimentary log: P54 Ban: Ta koi Tambon: Ta Kao

Grid: 488150 m E 1604400 mN Amphoe: Nam Khun Changwat: Ubon Ratchathan Total thickness: 1.7 meters (From basement - rock surfa Map sheet: 5938 II

(m)	logy	pnu	sand	gravel	texture	ss	code	ment
scale (m)	Lithology	clay silt	very fine fine medium coarse	granule pebble cobble boulder		process interpretation	facies code	environment interpretation
-1- -1.3- -1.7-					Pinkish gray - dark greenish gray, silt - medium sands (100%), v loosed, well sorted	Scour fills	S2	overbank
-2- -3- -4- -5-					Grayish orange pink, clay (60 - 70%), very fine - medium pebbles (30 - 40%), poorly sorted, loosed, lateritized partly containing zircon grains	Formed as flow wanned near the limit of sand bedload transport, in emerging	S2(a)	Channel
6 7 8						chutes along bar flanks		
9_ 10_ 11-								
-12-	n			48	กรเวลัรแลิร	1.3		K

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies ha		3	
	G3(a)	c.a.a. c.a.mod		F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: P 55 Ban: Ta Em Tambon: Ta Kao

Grid: 486850 m E 160680 0mN Amphoe: Nam Yuen Changwat: Ubon Ratchathan Map sheet: 5938 II Total thickness: 3.40 meters (From basement - rock surfa

(m)	Lithology	pnu		nd		se –	gra		texture		process interpretation	code	nment etation
scale (m)	Lith	clay	very fine	medium	coarse	very coars	-granule	pepole	-coorder-	धामल १	process interpreta	facies code	environment interpretation
1 -1.5										Grayish orange pink, silt - medium sand (100%), well sorted, loosed	wanning flood deposits	F	Overbank
3 3.4										Grayish pink, stratified sandy clay (1.15 - 2.50 m, 3.30 - 3.40 m) and sandy- clayey gravel (2.50 - 3.30 m) hard pan to loosed pan of laterite	Fills concave - up scours cut into	G3(a)	Channel
5	3				W				7	containing zircon grains	corser gravel lithofacies		
6 7													
9		16											
10 11			×		7	1	Ì		1				
-12-	n							4		กยาลัยเสีย	lai		<u>K1</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies h		J	
	G3(a)			F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P 56 Ban: Huai Yang Tambon: Ta Kao

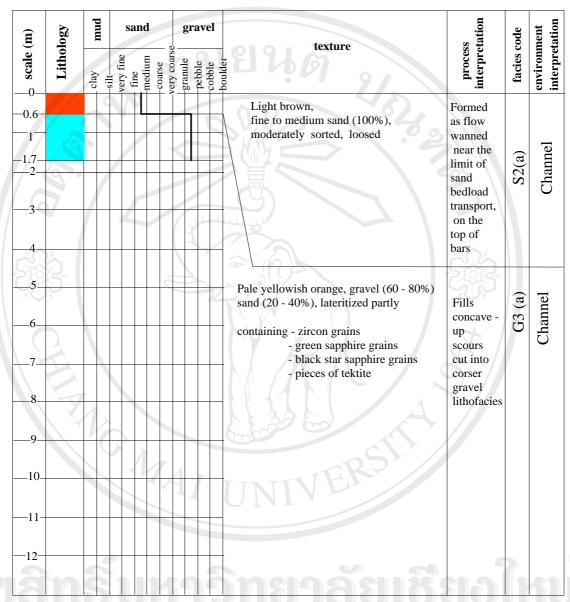
Grid: 486600 m E 1606300mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 2.70 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule granule cobble cobble boulder	texture	process interpretation	facies code	environment interpretation
0.95					Light brown, clay -silt - medium sand (100%), loosed	wanning flood deposits	F	Overbank
	3				Light brown, fine to medium pebbles (60 - 70%), gray clay (30 - 40%), moderately sorted, loosed, lateritized partly	Formed as flow wanned near the limit of sand bedload transport, on the top of bars	S2(a)	Channel
	7				Grayish orange, gravel (60 - 80%) clay - silt- sand (20 - 40%), lateritized partly containing - zircon grains - green sapphire grain	Fills concave - up scours cut into corser gravel lithofacies	G3(a)	Channel
-12-	m	105		18	กยาวันเรีย			KN

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies have		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P 57 Ban: Huai Yang Tambon: Ta Kao

Grid: 486250 m E 1605150mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 1.70 meters (From basement - rock surface



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies havi		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P58 Ban: Huai Yang Tambon: Ta Kao

Grid: 485500 m E 1607200 mN Amphoe: Nam Yuen Province: Ubonratchathani Map sheet: 5938 II Totall thickness: 4.0 meters (to basement - rock surface

scale (m)	Lithology	clay mud	very fine fine fine medium coarse	granule granule cobble cobble	21 texture	process interpretation	facies code	environment interpretation
	9	3	\$ 9 J II 7 9	5 50 6. 5 4	Pale yellowish brown, silt - medium sand (100%), well sorted, loosed	Scour fills	F	Overbank e
	3				Pale yellowish orange, <medium (5="" (80-="" -="" 10%),="" 95%),="" fine="" lateritized="" loosed="" medium="" partly<="" pebbles="" poorly="" sands="" slightly="" sorted,="" sticky,="" td="" very=""><td>Formed as low flow regimes as aggradation on low angle bed in channel</td><td>S1</td><td>Overbank</td></medium>	Formed as low flow regimes as aggradation on low angle bed in channel	S1	Overbank
6_ 7_ 8_ 9_ 10_		12			Grayish yellow, gravels (55 - 70%), clay- silt - sand (30 - 45%), very poorly sorted, loosed, lateritized mostly containing - zircon grains - green sapphire grains - black star sapphire grain	Lag deposits	G2(a)	Channel
—11— —12—	n				ัทยาลัยเชีย			4

EXPL	ΔΝ	ΔΤΙ	
	.AIV	AII	U

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	to fine grained sand (a) refer to lithofa		hofacies having	
	G3(a)	Graver structured		F(a)	and silt - Sand, silt, mud	ol	racteristics but		

Sedimentary log: P76 Ban: Non Yang Tambon: Song

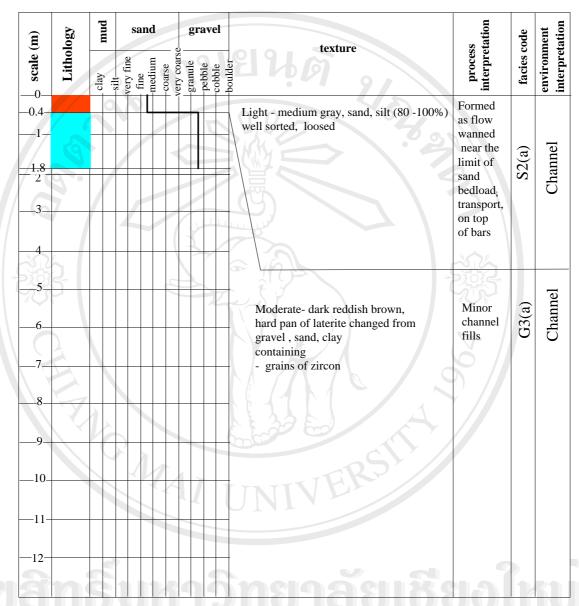
Grid: 491800 m E 1599100 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 2.0 meters (From basement - rock surface)

scale (m)	Lithology	pnm			and		l l		gra		-	process interpretation	facies code	environment interpretation
	Lit	clay	silt	ery fir 	tine	mennan	-coanse	or car	-granuic -pobblo	penore -cobble	opposi	pro-	facie	enviro interp
-0- -1- -1.5- -2- -3-							_ A					Light brown , <medium (10%),,="" (90%),="" -="" aggradation="" angle="" as="" bed="" borned="" channel<="" fine="" flow="" in="" loosed,="" low="" medium="" on="" pebbles="" regimes="" sands="" sorted="" td="" very="" well=""><td>S1(a)</td><td>Channel</td></medium>	S1(a)	Channel
5-5-	3						N.					Light brown, hard pan of laterite which changing from gravel - sand -clay, Lag deposits	G2(a)	Channel
6_ 7_ 8_												4		
9_					1	1						TOTALERSI		
11-								7 /				UNIVE		
-12-	m	(C)				1	4	<u> </u>				กตาลัยเสียกใ		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)	Graver stratified	F(a)		and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P85 Ban: Nam Khun Tambon: Ta Kao

Grid: 489100 m E 1610900 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 1.80 meters (Frombasement - rock surfa



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	(a) medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)			F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P90 Ban: Nong Doom Tambon: Phaiboon

Grid: 480800 m E 1608400 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 1.1 meters (From basement - rock surfac

Medium gray, sand, silt and mud (100%), well sorted, loosed Pale yellowish orange - grayish orange, <medium (40%),="" (60%),="" -="" 2="" <medium="" channel="" containing="" example="" fills="" fine="" grain="" grains="" grayish="" green="" medium="" medium<="" minor="" of="" orange="" orange,="" pale="" pebbles="" pieces="" poory="" sands="" sapphire="" slightly="" sorted,="" star="" sticky="" tektite="" th="" very="" yellowish="" zircon=""><th>c scale (m)</th><th>Lithology</th><th>clay mud</th><th>wery fine fine medium coarse</th><th>granule granule cobble</th><th>texture texture</th><th>process interpretation</th><th>facies code</th><th>environment interpretation</th></medium>	c scale (m)	Lithology	clay mud	wery fine fine medium coarse	granule granule cobble	texture texture	process interpretation	facies code	environment interpretation
 - medium sands (40%), very fine - medium pebbles (60%), very poory sorted, slightly sticky - grains of zircon - grains of green sapphire - grain of green - star sapphire - pieces of tektite 	1.1	9				sand, silt and mud (100%), well sorted,		S2	Overbank
	6 _7_ _8_		1			<medium (40%),="" (60%),="" -="" containing="" fine="" grain="" grains="" green="" medium="" of="" pebbles="" poory="" sands="" sapphire="" sapphire<="" slightly="" sorted,="" star="" sticky="" td="" very="" zircon=""><td>channel</td><td>G3 (a)</td><td>Channel</td></medium>	channel	G3 (a)	Channel

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	(a) medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)			F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P103 Ban: Non Khamkaew Tambon: Phaiboon
Grid: 483100 m E 1607200 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani
Map sheet: 5938 II Total thickness: 3.6 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine	+coarse		rav elqqəd-		texture description of the second of the sec	process interpretation	facies code	environment interpretation
1	3							Grayish orange pink, sand, silt and mud, loosed	Creavasse splays	S2	Overbank
								Light brown, <medium (5%),="" (95%),="" -="" fine="" medium="" pebbles="" poorly="" sands="" sorted,="" sticky<="" td="" very=""><td>Scour fills</td><td>S1</td><td>Overbank Overbank</td></medium>	Scour fills	S1	Overbank Overbank
	35			B			Z	Dark reddish brown, <medium (5%),="" (95%),="" -="" containing="" grain<="" grains="" gravel="" green="" lateritized="" partly,="" sands="" sapphire="" td="" zircon=""><td>Scour fills</td><td>S1(a)</td><td>Overbank</td></medium>	Scour fills	S1(a)	Overbank
			<u> </u>						t96,		
10_			7		1			UNIVERS			
-12-		66					66	nggaguk			<u>41</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)	Graver stratified	F(a)		and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: P108 Ban: Saen Thaworn Tambon: Ta Kao Grid: 486350 m E 1611200 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 1.50 meters (Not from basement - rock surface

m)	ogy	pnu	sand	gravel		ation	ode	nent ation
o scale (m)	Lithology	clay	very fine fine medium coarse	granule pebble cobble houlder	texture	process interpretation	facies code	environment
-1- -1.5- -2					Light brownish gray - light brown, hard pan of laterite changed from gravel, sand, clay, fining upward, 0.2 - 0.5 m containing grains of zircon	Minor channel fills	G3(a)	Channel
-56	3							
7 _8_						4964		
_9 _10 _11				17				
-12-	n	203	1 124	98	ัทยาลัยเชีย	14		<u>K1</u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)) medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	rappio idifiniatou,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	genistories		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand		refer to lithofacies havir same characteristics bu older age		
	G3(a)			F(a)	and silt - Sand, silt, mud				

Sedimentary log: P109 Ban: San Taworn Tambon: Phaiboon

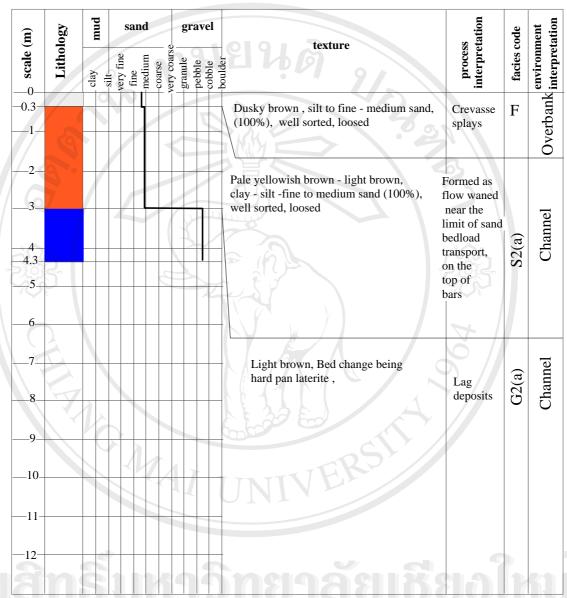
Grid: 487450 m E 1609300 mN Amphoe: Nam Yuen Changwat: Ubon Ratchathani Map sheet: 5938 II Total thickness: 2.2 meters (Not from basement - rock surface)

o scale (m)	Lithology	clay mud	sult wery fine fine medium coarse	gravel grannle copple	texture	process interpretation	facies code	environment interpretation
-1-					Grayish orange, clay (60%) and silt (20%), well sorted, sticky	Filling channel Scours	F	Channel
2	7				Light brown, Bed change being hard pan laterite	Lag deposits	G2(a)	Channel
45	3		8			205		
_6 _7						704		
-8-	T.	1;			A			
9 _10					UNIVERS			
-11-						9		
	n				ัทยาลัยเห็			51

	ATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:	gonistones		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud	same cl older aç		acteristics but	

Sedimentary log: P111 Ban: Hua Nam Tambon: Ta Kao

Grid: 489850 m E 1601600 mN Amphoe: Nam Yuen Province: Ubon Ratchathani Map sheet: 5937 I Total thickness: 4.3 meters (Not from to basement - rocks)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)	Graver stratified	F(a)		and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log : K1 Ban: La Lai Tambon: La Lai

Grid: 450550 m E 1602350 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 IV Total thickness: 6.85 meters (Not from basement - rock surfa

scale (m)			clay mud sand wery fine -coarse -coarse granule -cobble -cobble -cobble -coble -coble -coulder		texture texture	process interpretation	facies code	environment interpretation	
	9				Dark - pale yellowish brown, clay, silt and fine - medium sand, loosed	Formed as flow waned near the limit of sand beadload transport, on top of bars	S2		
-44.655.40678-		1			Very pale orange having dark yellowish orange mottles, <medium (15%),="" (85%),="" -="" coarse="" containing="" fine="" ilmenite<="" of="" peat="" pebbles="" pieces="" poorly="" sands="" sorted,="" td="" to="" very="" zircon=""><td>In the low flow aggradation on plane in channel</td><td>S1(a)</td><td>Channel</td></medium>	In the low flow aggradation on plane in channel	S1(a)	Channel	
10					UNIVERS			21	

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacie		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	sa ol	racteristics but		

Sedimentary log: K2 Ban: Non Mee Chai Tambon: La Lai

Grid: 451560 m E 1602940 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 III Total thickness: 3.15 meters (From basement - rock surfa

(m)	logy	pnm	sand	gravel	texture	SS	code	ment
scale (m)	Lithology	clay	tine fine medium coarse	granule pebble cobble		process interpretation	facies code	environment interpretation
-1- -2- -2.6- -3.15	9				Moderate yellowish brown, clay (0 - 15%), silt (15 - 20%), and fine - medium sand, (70 - 80 %), loosed	Formed as flow wanned near the limit of sand beadload transport, on top of bars	S2	Channel
	3				Grayish orange, fine - medium sands (90%), very fine to coarse pebbles (10%), poorly sorted, containing - green corundum grain - ilmenite grains	In the low flow aggradation on plane in channel	S1(a)	Channel
9				17				
-12-	h	33			ากยาลัยเสี	21.3		<u> </u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacie		5	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	sa ol	racteristics but		

Sedimentary log: K3 Ban:Khok Charoen Tambon: La Lai

Grid: 452540 m E 1603650 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 III Total thickness: 4.45 meters (From basement - rock surface

scale (m) Lithology	clay mud	very fine fine medium coarse very coarse	granule day	texture	process interpretation	facies code	environment interpretation
-1- -2- -3- -3.6-				Dark - moderate yellowish brown, clay (30 - 35%), silt (10 - 20%), and fine - medium sand (50 - 55 %), moderately sorted, loosed	Formed as flow wanned near the limit of sand beadload transport, on top of bars	S2	Channel
-4 -4.45 -5 -6		8		Dark yellowish orange, fine - medium sands (10%), coarse sand (90%), well sorted,	In the low flow aggradation on plane in channel	S1(a)	Channel
				Pale yellowish brown, <medium %),="" (25="" (75%),="" -="" boulders="" coarse="" containing="" fine="" grains="" grains<="" ilmenite="" lateritized="" loosed,="" partly,="" pebbles="" poorly="" sands="" sorted,="" td="" very="" zircon=""><td>Deposited during period of very high discharge</td><td>G1(a)</td><td>Alluvial fan</td></medium>	Deposited during period of very high discharge	G1(a)	Alluvial fan
_12	6			ักยาลัยเ ช ี	a a		<u>41</u>

EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely bedded gravel Gravel stratified		S2	Ripple - laminated,			generate gemstones	
	G2(a)			S2(a)	very fine to fine sand	Note:			
	G3			F	- Laminated very fine to fine grained sand	` '		hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char der age	racteristics but	

Sedimentary log: K5 Ban:Kham Moon Tambon: Sam

Grid: 456890 m E 1602930 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 III Total thickness: 7.70 meters (Not from basement - rock surfa

scale (m)	Lithology	clay mud	medium	-coarse	se -	 vel -copple		el 9 de texture	process interpretation	facies code	environment interpretation
	(6)							Moderate brown, silt (10 %), and fine - medium sand, (90 %),well sorted, loosed Beadload train emerging bar flanks	it of sand	S2	Channel
	3			9				silt (10 %), and fine - coarse sand, (70 %), poorly sorted, loosed	Formed as low wanned near the imit of sand peadload ransport, on the top of bars	S2(a)	Channel
					1			Brownish gray - pale yellowish brown, silt (10%)fine - medium sands (30%), coarse sand (60%), fine - medium pebble (10%), finining upward, poorly sorted, loosed	Deposited as flow decreased from higher discharged associated with Gms (a) below	G2(a)	Channel
—11— —12—	n						(2	20%), coarse sand (40 - 60%), very fine dur coarse pebbles - boulders (20 - 60 %),	posited ing period very high charge	G1(a)	Alluvial fan

	ne	Elika	loos	sed, ver	y poorly sorted		discharg	
EXPLAN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	· · /	refer to lithofacies havir	
	G3(a)			F(a)	(a) and silt - Sand, silt, mud		ame char der age	acteristics but

Sedimentary log: K6 Ban:Don Ao Tambon: La Lai

Grid: 458020 m E 1602920 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5938 III Total thickness: 5.85 meters (From basement - rock surfa

scale (m)	Lithology	clay mud	very fine fine medium coarse	gravel granule cobble	texture texture	process interpretation	facies code	environment interpretation
—1— —2— —3— —4—					Dark yellowish orange, clay (20%), silt (30 %), and fine - medium sand, (50 %),moderately sorted, sticky	Formed as low flow regimes as aggradation on low angle bed in channel	S1	Channel
55.2- 5.856- 7					du of	eposited ring period very high scharge	G1(a)	Alluvial fan
—10- —11- —12-		99.			UNIVERS			&1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies		
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface		
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them		
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones		
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:				
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having		
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log: K7 Ban: Bug Dong Tambon: Bug Dong

Grid: 440510 m E 1607500 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 3.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse	gravel granule cobble	texture	process interpretation	facies code	environment interpretation
	9				Dark yellowish brown, clay 50%), silt (30%), fine sand (20%) moderately sorted, loosed - slightly sticky	Crevasse splays	S2	Channel
					Pale yellowish brown, clay 10%), silt (20%), fine coarse sand (70%), fining upward, moderately sorted, loosed	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1	Overbank
		1			Dark yellowish orange, <medium (10%),="" (20%),="" (70%),="" -="" blue="" coarse="" containing="" corundum="" fine="" grain<="" gravels="" loosed,="" poorly="" sand="" sands="" sorted="" td="" very=""><td>Deposited as flow decreased from highe discharge associated G1 (a)</td><td>д G2(a)</td><td>Channel</td></medium>	Deposited as flow decreased from highe discharge associated G1 (a)	д G2(a)	Channel
—10— —11— —12—		28			UNIVER			

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	l	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	TO TINE OF AIDEO SANO TENE		hofacies having	
	G3(a)	c.a.a. c.a.mod	F(a		and silt - Sand, silt, mud	ol	acteristics but	

Sedimentary log: K8 Ban: Ta Sed Tambon: Bug Dong

Grid: 442040 m E 1608050 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 4.0 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule granule cobble boulder	texture	process interpretation	facies code	environment interpretation
1_ 2_ 3_	100				Dark yellowish brown, silt (20%), fine - coarse sand (80%), moderately sorted, loosed	Lag deposits	G2	Channel
			8		Dark yellowish orange, clay (60%), silt (10%), fine - coarse sand (10%), gravel (20%), poorly sorted, sticky	Lag deposits	G2(a)	Channel
9								

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having			
	G3(a)			F(a)	and silt - Sand, silt, mud	ol	racteristics but		

Sedimentary log: K10 Ban: Ta Sed Tambon: Bug Dong

Grid: 441600 m E 1606890 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 1.60 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	medium	coarse	ļ_	pepple ave		texture texture	process interpretation	facies code	environment interpretation
0.9_ _1 1.6_ 2_ 3_								silt (30%),fine sand (20%), moderately sorted, sticky	Formed as wanned near the limit of sand bedload transport, on top of bars	S2	Channel
4	3			8			/	Moderate brown, clay - sand - gravel composing to be hard pan laterite, containing zircon grains	Lag deposits	G2(a)	Channel
7_ 8_		1/2							7967		
9_ 10_ 11-			1		1			UNIVERSIT			
-12-	m	866						ักยาลัยเ ชิ	14		41

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand (a)		,		
	G3(a)	c.a.a. c.a.mod		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

Sedimentary log: K10 Ban: Ta Sed Tambon: Bug Dong

Grid: 441600 m E 1606890 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 1.60 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse	-granule granule cobble	texture	process interpretation	facies code	environment interpretation
0.9_ 1 1.6- 2_ 3_					silt (30%), fine sand (20%), moderately sorted, sticky	Formed as wanned near the limit of sand bedload transport, on top of bars	S2	Channel
5	3		8	1	Moderate brown, clay - sand - gravel composing to be hard pan laterite, containing zircon grains	Lag deposits	G2(a)	Channel
						4964		
—10- —11-				1/	UNIVERSI			
-12-		888			ัทยาลัยเ ชี ่	a a a		4 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	to line drained Sand \'			hofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ime char der age	racteristics but	

Sedimentary log: K11 Ban: Samrong Kiat Tambon:Bug Dong Grid: 443880 m E 1605060 mN Amphoe: Khun Han Province: Si Sa Ket

Map sheet: 5938 II Total thickness: 3.7 meters (From basement - rock surface

scale (m)	Lithology	- clay mud	very fine fine medium coarse	granule da cobble cobble boulder	el 91 texture	process interpretation	facies code	environment interpretation
1_ 2_ 3_	997				sand, fining upward, well sorted, loosed	Formed as low flow regimes as aggradation on low angle bedon the top of bars	S1	Channel
						79 79		
				111				
—11— —12—	n			199	ัทยาลัยเชี	618		41

EXP	LAN	ATI	ON

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)		F(a) and silt same ch - Sand, silt, mud older ag					racteristics but

Sedimentary log: K12 Ban: Samrong Kiat Tambon:Bug Dong Amphoe: Khun Han Changwat: Si Sa Ket Grid: 444900 m E 1606780 mN

Map sheet: 5938 II Total thickness: 5.25 meters (to basement - rock surface)

scale (m)	Lithology	pnm		and		oarse		av		texture	process interpretation	facies code	environment interpretation
o	Li	clay	very fine	tine medi	COSTS	very coarse	grant-	-pepp	-cobble		pr inte	fac	envi:
1							<			Dark yellowish brown, fine - coarse sand, fining upward, well sorted, loosed	Formed as wanned near the limit of sand bedload	S2	Channel
3 -3.7_ _4_											transport, on top of bars		
5 5.25 _6_						8			20	Pale yellowish brown, silt (5%), fine sands (90%), fine - medium pebble (5%), loosed, poorly sorted	Lag deposits	G2	Channel
7 _8_											96,		
9 _10_				1									
-11-					Y //		1						
-12	n						k			ngožuž	ela		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)		F(a) and silt same ch - Sand, silt, mud older ag					racteristics but

Sedimentary log: K13 Ban: Tam Nak Sai Tambon:Bug Dong Grid: 444920 m E 1607610 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 3.10 meters (From basement - rock surfa

scale (m)	Lithology	pnu	sand e m e	gravel	texture	process interpretation	facies code	environment interpretation
2 -0- -1- -2- -2.7- -3.1- -4	7	clay	very fine fine medium coarse	very coarse granule pebble cobble	Light brownish gray, clay (10%), silt (10%), fine sand (80%), well sorted, loosed	Formed as waned near the limit of sand bedload transport, on top of bars	S2	ınel
	3			72	Light olive gray, clay - silt (10%), fine - coarse sands (85%), fine - medium pebble (5%), loosed, poorly sorted	Lag deposits	G2	Channel
				17	UNIVERSITA			
-12-	n	039		306	ingo ลัตเลีย	cr5		<u> </u>

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)		F(a) and silt same ch - Sand, silt, mud older ag					racteristics but

Sedimentary log: S6 Ban: Nam Mood Tambon: Huai Chan

Grid: 438100 m E 1604300 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 1.5 meters (Not from basement - rock surface

scale (m)	Lithology	pnm		and			ave		texture	process interpretation	facies code	environment interpretation
Scale	Lith	clay	very fine	rine -medium	-coarse	granule	-pebble	-cobble	2/2	process interpreta	facies	enviro interp
									Moderate yellowish brown, clay - silt - fine sand (100%), loosed	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1	Channel
4 5 6_	3				8			2	Moderate yellowish brown, fine - coarse sand (50%), gravels (50%), loosed, poorly sorted	Lag deposits	G2	Channel
7 _8_ _9_										95		
10 _11_			7		1/2	1						
-12-	INATIO	33	1		R					10		51

EXPL	AN	ATI	OI

âu	EXPLAN	ATION	Silka	5)1	18	กลัย	18	810	olki
Con	symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
A II		G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
A		G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
		G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
		G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
		G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having
		G3(a)	Stavol Stratilloa		F(a)	and silt - Sand, silt, mud		der age	acteristics but

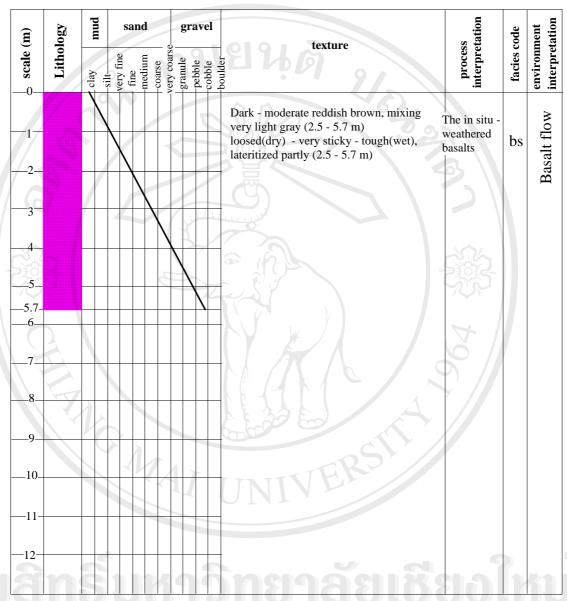
Sedimentary log: S11 Ban: Nam Mood Tambon: Bak Dong Grid: 437450 m E 1604150 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 II Total thickness: 2.8 meters (From basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule de cobble cobble	fexture	process interpretation	facies code	environment interpretation
					Grayish orange pink, <medium %),="" (30%),="" (70="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Formed as wanned nea the limit of sand bedload transport, in emerging chutes along bar flanks</td><td>S2</td><td>Channel</td></medium>	Formed as wanned nea the limit of sand bedload transport, in emerging chutes along bar flanks	S2	Channel
5_ 6_ 7_ 8_ 9_ 10_ 11_					(100 %), poorly sorted, loosed - slightly sticky	Formed as wanned near he limit of sand pedload ransport, on the top of bars	S2(a)	Braided plain
-12-			1128	95	inggăgu X g			Ki

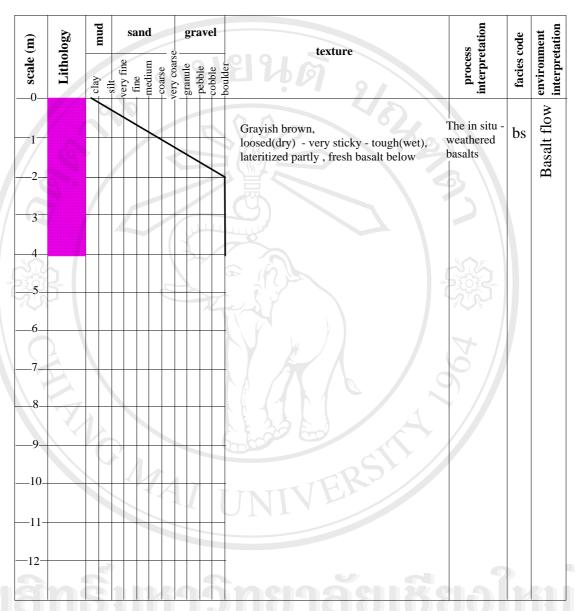
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surfac
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very stick
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	٠,		hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but

Sedimentary log: S13 Ban: Nontoom Taworn Tambon: Bak Dong Grid: 439950 m E 1604300 mN Amphoe: Khun Han Changwat: Si Sa Ket Map sheet: 5938 II Total thickness: 5.7 meters (From basement - rock surface)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		der age	racteristics but

Sedimentary log: S14 Ban: Phudin Pattana Tambon: Bak Dong Grid: 439350 m E 1602800 mN Amphoe: Khun Han Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 4.0 meters (Not from basement - rocks



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud	same ch older ag		racteristics but

Sedimentary log: S15 Huai Hu Su Ban: Dong Matoom Tambon: Bak Dong Grid: 439200 m E 1603750 mN Amphoe: Khun Han Changwat: Si Sa Ket Map sheet: 5838 II Total thickness: 1.0 meters (From basement - rock surface)

(m)	Lithology	mnd	sand	gravel	texture	process interpretation	facies code	nment etation
scale (m)	Lith	clay	wery fine fine medium coarse	granule pebble cobble	-ponider	process interpreta	facies	environment interpretation
0.7_	T (a)				Olive black, clay - silt - sand (80%), very fine pebbles - cobble (20%), poorly sorted, loosed	Minor channel fills	G3	Channel
2 3 4 5					Olive black - light brown, silt - sand (50%), gravel (50%), very poorly sorted, loosed containing - blue sapphire grain - green sapphire grain - brown sapphire grain - zircon grains	Deposited as flow decreased from higher discharge	G2(a)	Channel
						1961		
10_				41	UNIVERS			
—11-								
-12-	m			Kasa	โทยาลัยเห	613		

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		ime char der age	racteristics but

Sedimentary log: S16 Huai Tha Ban: Phu Din Tambon: Bak Dong Grid: 440420 m E 1602600 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5837 I Total thickness: 3.10 meters (Not from basement - rock surfa

scale (m)	Lithology	clay mud	fine		very coarse		avel -bepple -copple	texture texture	process interpretation	facies code	environment interpretation
	(9)						7	Moderate brown, sand, silt and mud (100%), slightly sticky	Formed as wanned near the limit of sand bedload transport, in emerging chutes	S2	Channel
4_ 5_ 6_	3				8	3		Medium gray, sand, silt and mud (100%), loosed	along bar flanks Formed as low flow regimes	S1	Channel
		12							as aggradation on low angle bed in bar flanks	n	Ch
10_ 11_			1	1							
—11— —12—					4				รเล		<u>41</u>

EXPLAIN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand		(a) refer to lithofacies having		
	G3(a)	Graver stratmed		F(a)	and silt - Sand, silt, mud		ame char der age	acteristics but	

Sedimentary log : S17 Huai Tha Ban: Phu Din Tambon:Bak Dong Grid: 440420 m E 1602600 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5938 I Total thickness: 0.5 meters (POTHOLE, From basement - rock surfa

scale (m)	Lithology	pnu	sand e e e e e e e e e e e e e e e e e e e	gravel	texture	process interpretation	facies code	environment interpretation
33 —0—	Li	clay	very fine fine -medium -coarse	granule pebble cobble		prc inter	faci	envir inter
			300		Light brown, pebbles - cobbles - boulder (70 %), sand (30%), loosed, very poorly sorted containing - blue sapphire grains - green sapphire grains -zircon grains	Lag deposits	G2	Channel
5	25		-					
					A	7967		
9					UNIVERSI			
-12-					กตารัยเชิ	ela	7	Kî

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		der age	racteristics but

Sedimentary log : S18 Ban: Phu Din Tambon: Bak Dong Grid: 435750 m E 1602680 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 1.70 meters (Not from basement - rock surfac

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule da de cobble cobble boulder	texture	process interpretation	facies code	environment interpretation
-1-7-1-7-2- -3-4-					Grayish orange pink, <medium %),="" (30%),="" (70="" -="" fine="" loosed<="" medium="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Formed as wanned neathe limit of sand bedload transport, in emerging chutes along bar flanks</td><td>S2</td><td>Channel</td></medium>	Formed as wanned neathe limit of sand bedload transport, in emerging chutes along bar flanks	S2	Channel
	5	1			gravel (60%), very poorly sorted, loosed	Deposited as flow decreased rom higher lischarge	G2(a)	Channel
—10- —11- —12-		100			ngigagiik	aal		41

symbol	facies code	lithofacles	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	-	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '		hofacies having
	G3(a)	Statol Statilled		F(a)	and silt - Sand, silt, mud		der age	racteristics but

Sedimentary log: S19 Huai Ta Sed Tambon: Bak Dong

Grid: 434740 m E 1599620 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5837 I Total thickness: 2.0 meters (Not to basement - rock surface

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule again cobble cobble	texture	process interpretation	facies code	environment interpretation
-1- -1.5- -2 -3-	6				Grayish orange - dusky yellowish brown, clay - silt - fine sand (90%), gravel (10%), loosed	Formed as low flow regimes as aggradation on low angle bed in bar flanks	S1	Channel
6_					Grayish orange - dusky yellowish brown, clay - silt - fine sand (30%), gravel (70%), loosed, poorly sorted	Lag deposits	G2	Channel
7 8 9			40			0		
—10— —11— —12—					UNIVER	3		

EXPLAN	ATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very stick most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	' '		ithofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		ime cnar der age	acteristics but	

Sedimentary log: Location 1 Ban: Phu Din Pattana Tambon: Bak Dong Grid: 439135 m E 1598880 mN Amphoe: Khun Han Changwat: Si Sa Ket

Map sheet: 5838 II Total thickness: 5.7 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —3—					Basaltic soil, brownish red, very fine clay	in - situ weathered basalt	Bs	Basaltic flow
4					Very pale orange having dark yellowish orange mottles, <very (20="" -="" 30%),="" 70="" 80%),="" coarse="" fine="" lateritized="" medium="" partly<="" pebbles="" poorly="" sands="" sorted,="" td="" very=""><td>Formed on low angle bed in channel low violence</td><td>S1(a)</td><td>Channel</td></very>	Formed on low angle bed in channel low violence	S1(a)	Channel
				17	Very pale orange having dark yellowish orange mottles, fine - very coarse sands (10 - 20%), very fine pebble - cobbles (80 - 90%), poorly sorted, lateritized partly, containing lateritic breccia	Minor channel fills, low flow condition	G3(a)	Channel
-12-	ni	307		95	ingาลัยเชีย	10		K

EXPLAN	ATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies ha		
	G3(a)			F(a)	and silt - Sand, silt, mud		ime char der age	acteristics but

Sedimentary log: Location 2 Ban: Non Toom Taworn Tambon: Bak Dong Grid: 439968 m E 1599784 mN Amphoe: Khun Han Changwat: Si Sa Ket Map sheet: 5838 II Total thickness: 1.4 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine fine medium coarse	granule age cobble cobble	texture	process interpretation	facies code	environment interpretation
0		Cl.	te value of the va	error oo	Very pale orange having dark yellowish orange mottles, <very (100%),="" -="" fine="" medium="" sands="" sorted<="" td="" well=""><td>Formed on low angle bed in channel low violence</td><td>S1(a)</td><td>Channel en in</td></very>	Formed on low angle bed in channel low violence	S1(a)	Channel en in
3 4 _5_	3				Very pale orange having dark yellowish orange mottles, fine - very coarse sands (70-80%), very fine pebble - cobbles (20-30%), poorly sorted, lateritized partly	Fills concave - up scours cut into corser gravel lithofacies	G3(a)	Channel
					Very pale orange having dark yellowish orange mottles, fine - very coarse sands (80%), very fine pebble - cobbles (20%), poorly sorted, lateritized partly	Lag deposits	G2(a)	Channel
—9— —10– —11–					UNIVERSI			
-12-	n		1 128	94	ัทยาลัยเ Xี ย			<u>K</u> 1

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surfac	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very stick most of them generate gemstones	
	G2	Massive or crudely		S2	Ripple - laminated,				
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:] 3	
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having	
	G3(a)			F(a)	(a) and silt - Sand, silt, mud		ime cnar der age	acteristics but	

Sedimentary log: Location 3 Ban: La Lai Noi (Wang Yai Waterfall) Tambon: La Lai

Grid: 447638m E 1596014 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 III Total thickness: 2.5 meters (From basement - rock surface

Very pale orange having dark yellowish orange mottles, fine - very coarse sands (5-10%), very fine pebble - boulders (90 - 95%), poorly sorted, lateritized partly corser gravel lithofacies Section Concave - up scours cut into corser gravel lithofacies Concave - up scours	(m)	logy	pnu	san		_	avel	texture	s tation	ode	nent
Very pale orange having dark yellowish orange mottles, fine - very coarse sands (5-10%), very fine pebble - boulders (90 - 95%), poorly sorted, lateritized partly scours cut into corser gravel lithofacies Solution The second of the second	scale (m)	Litho]	clay	very fine	-medium -coarse	granule	-pebble -cobble		proces interpre	facies c	environment interpretation
5 6 -7 8 -9 -10	_1_ _2_ _2.5_							orange mottles, fine - very coarse sands (5-10%), very fine pebble - boulders	concave - up scours cut into corser gravel		nannel (in potholes)
7 -8 -9 -10		3			8	3	7				CE
-10	_7										
					1			UNIVERSIT			

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	S1		Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	and (a) refer to lithofacies		J	
	G3(a)			F(a) and silt - Sand, silt, mud			der age	racteristics but	

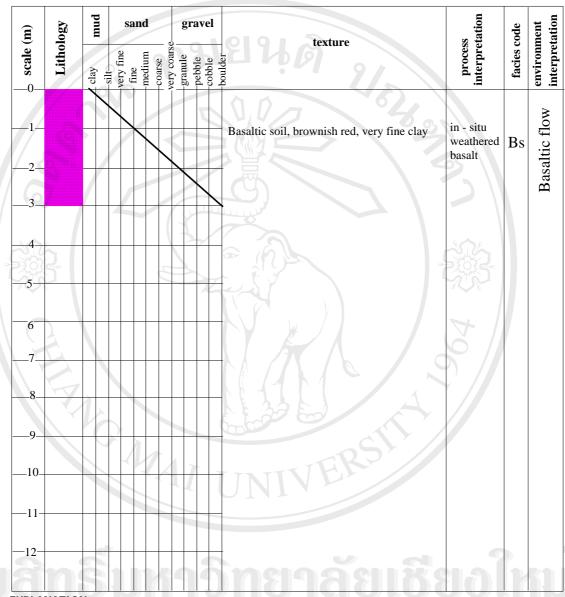
Sedimentary log: Location 4 - 5 Ban: La Lai Noi (Wang Yai Waterfall) Tambon: La Lai Grid: 448473m E 1596516 mN, 450356 m E 1597068 mN Amphoe: Kantaralak Map sheet: 5937 III Total thickness: 2.5 meters (From basement - rock surface)

scale (m)	Lithology	clay mud	rery fine fine medium coarse	granule bounder	texture	process interpretation	facies code	environment interpretation
1					Grayish orange pink, very fine - fine sand (80 -90%), coarse sand - fine pebbles (10 - 20%), loosed, well sorted	Crevasse splays (banks)	S2	Overbank
					Very pale orange having dark yellowish orange mottles, very fine - fine sands 70 - 80%), medium - very coarse sands (20-30%), loosed, poorly sorted	Minor channel fills	G3	Channel
						705		
10_ 11_								
-12-		200	1114	1	ัทยาลัยเซีย	14		K

EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics b older age			

Sedimentary log : Location 6 Ban: Khok Charoen Tambon: La Lai Grid: 453693 m E 1600008 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 III Total thickness: 3.0 meters (Not from basement - rock surface)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	` '	hofacies having		
	G3(a)	Graver stratified		F(a) and silt - Sand, silt, mud		same characteristics but older age			

Sedimentary log: Location 7 Ban: La Lai Tambon: La Lai

Grid: 454119 m E 1598876 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 III Total thickness: 3.5 meters (Not from basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium pure coarse	egranule -granule -pebble -cobble	texture	process interpretation	facies code	environment interpretation
1					Grayish orange pink having dark yellowish orange dots, medium - fine sands (95 %), very fine (5%), loosed, well sorted	Scour fills	S1	Channel
2 2.8 3 3.5 4					Light brown and grayish orange having light gray mottles, stratified gravelly sand and fine sand - medium sands (20%), very fine pebbles - cobble (80%), intrusion of fine sand len at 2.0 - 2.8 m, poorly sorted, loosed	Minor channel fills	G2	Channel
		16			Very pale orange mixing grayish orange, stratified gravelly sand, medium - very coarse sands (30%), very fine pebbles - boulder (70%), poorly sorted, loosed	Braided plain	G1(a)	Alluviak fan
—11- —12-				4	กรเวลัยเสิร	าลโ		R 1

EXPLAIN	IATION							
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very stick most of them
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char Ider age	acteristics but

Sedimentary log: Location 8 Ban: La Lai Tambon: La Lai

Grid: 455380 m E 1598173 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 III Total thickness: 2.5 meters (Not from basement - rock surface)

scale (m)	Lithology	clay mud	very fine fine medium coarse	gravel grannle copple	texture	process interpretation	facies code	environment interpretation
-0.5- -1- -1.4-	ra Car				Grayish orange pink having dark yellowish orange dots, medium - fine sands (100 %), loosed, well sorted	Scour fills	S2	Channel
-2- -2.5- -3- -4-	2.				Light brown and grayish orange having light gray mottles, stratified gravelly sand and very fine sand - medium sands (80%), very fine pebbles - coarse (20%), intrusion of fine sand len at 2.0 - 2.8 m, poorly sorted, loosed	Scour fills	S1	Channel
—5—6—6—7—				X	Very pale orange mixing grayish orange, stratified gravelly sand, medium - very coarse sands (20%), very fine pebbles - boulder (80%), poorly sorted, loosed	Lag deposits	G2(a)	Channel
9_ 10-			1/2					
—11- —12-								
	n			9	ัทยาลัยเชีย			Ki

EXPLAN	ATION							9 4 4 1	
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a)	medium sand		Bs(a)	Clay, very sticky	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: Location 9 Ban: Kham Proi Tambon: La Lai

Grid: 456107 m E 1599327 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 III Total thickness: 3.5 meters (Not from basement - rock surface)

scale (m)	Lithology	- clay mud	very fine fine medium coarse very coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
-1- -1.5-	(A)				Grayish orange pink having dark yellowish orange dots, medium - very fine sands (100 %), loosed, well sorted	Scour fills	S2	Channel
-1.5 -2 -2.5 -3 -3.5 -4					Grayish orange pink having dark yellowish orange dots, medium - very fine sands (75 %), very fine - fine pebles (25%), loosed, well sorted	Fills concave - up scours cut into corser gravel lithofacies	G3	Channel
-6 -7 -8 -9 -10 -11					Very pale orange mixing grayish orange, stratified gravelly sand, medium - very coarse sands (30%), very fine pebbles - boulder (70%), poorly sorted, loosed	Lag deposits	G2(a)	Channel
12	n			15	ัทยาลัยเชีย	10		Ki

EXPLAN	IATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported gravel; weaky	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
П	G1(a)	gravel; weaky imbricated	T	S1(a)	medium sand		Bs(a)	Clay, very stick most of them generate gemstones	
	G2	Massive or crudely		S2	Ripple - laminated,				
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: Location 10/2 Ban: La Lai Tambon: La Lai

Grid: 457893 m E 1598473 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 III Total thickness: 2.2 meters (Not from basement - rock surface)

scale (m)	Lithology	pnu		nd	g	-	avel	4	texture	process interpretation	facies code	environment interpretation
scale	Lith	clay	very fine	-medium	-coarse	granule	pebble-cobble	-boulder-	1 in 8/	process interpreta	facies	environment interpretation
_1_1							7		Very pale orange mixing grayish orange, stratified gravelly sand, medium - very coarse sands (60%), very fine pebbles - boulder (40%), poorly sorted, loosed	Lag deposits	G3	Channel
-3-4-						3			Very pale orange having dark yellowish orange mottles, <medium (5%),="" (95%),="" -="" breccia<="" containing="" fine="" lateritic="" lateritized="" medium="" partly="" partly,="" pebbles="" poorly="" sands="" sorted,="" sticky,="" td="" very=""><td>Formed on low angle bed along coarser sediments</td><td>S1(a)</td><td>braided plain</td></medium>	Formed on low angle bed along coarser sediments	S1(a)	braided plain
6										40		
89	Y							0.88				
_10 _11			1									
-12-			1			9	8					F.]

	ATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacie	
	G1	Massive, matrix supported	//	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surfac	
	G1(a)	gravel; weaky imbricated	I	S1(a)			Bs(a)	Clay, very stick most of them generate gemstones	
	G2	Massive or crudely		S2	Ripple - laminated,				
	G2(a)	bedded gravel Gravel stratified		S2(a)	very fine to fine sand	Note:			
	G3			F - Laminated very fine to fine grained sand			efer to lithofacies hav		
	G3(a)			F(a)	and silt - Sand, silt, mud		ame char Ider age	acteristics but	

Sedimentary log: Location 11 Ban: Sam Beng Tambon: Kra Sang Grid: 465023 m E 1597617 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 III Total thickness: 3.0 meters (Not from basement - rock surface)

Grayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Grayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Grevasse splays S2 Basalticrock, brownish red, lateritized partly Bs basalt Bs Off 197 Brayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Crevasse splays Bs Off 197 Brayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Crevasse splays Bs Off 197 Brayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Crevasse splays Bs Off 197 Brayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Crevasse splays Bs Off 197 Brayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Crevasse splays Bs Off 197 Brayish orange pink, very fine - very coarse sand (95%), ver fine - medium pebbles (5%), loosed, well sorted Crevasse splays Bs Off 197 Brayish orange pink, very fine - very coarse sand (95%), loosed, well sorted Brayish orange pink, very fine - very coarse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Crevasse splays Crevasse splays Brayish orange pink, very fine - very coarse splays Brayish orange pink, very fine - very coarse splays Crevasse spla	c scale (m)	Lithology	- clay mud	silt	sai		- Se	. (pepple		texture	process interpretation	facies code	environment interpretation
Basalticrock, brownish red, lateritized partly Weathered basalt Bs of July 1988	-1-										sand (95%), ver fine - medium pebbles	Crevasse	S2	Overbank
5 6 -7 -8 9 -10	3		/					7			Basalticrock, brownish red, lateritized partly	weathered	Bs	ltic flow
-7 -8 -10	5	3				8			7					Basa
-10												700		
	_89		1											
	10 _11_				4		1	1		1				
						K							1	K

EXPLAN	ATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive or crudely	1/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)		I	S1(a)	medium sand		Bs(a)	Clay, very sticky most of them	
	G2			S2	Ripple - laminated,			generate gemstones	
	G2(a)			S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	. ,		hofacies having	
	G3(a)			F(a)	and silt - Sand, silt, mud		same characteristics but older age		

Sedimentary log: Location 12 Ban: Dan Nue Tambon: Phu Pha Mok Grid: 483791 m E 1598473 mN Amphoe: Kantaralak Changwat: Si Sa Ket

Map sheet: 5937 I Total thickness: 2.6 meters (Not from basement - rock surfac

scale (m)	Lithology	clay mud	wery fine fine medium coarse	granule bebble cobble boulder	texture	process interpretation	facies code	environment interpretation
0.9 1 2					Grayish orange pink having dark yellowish orange dots, very fine - medium sands (95 -100 %), coarse - very coarse sand (5%), loosed, well sorted	Scour fills	S1	Channel
					Grayish orange pink - yellowish gray having dark yellowish orange dots, very fine - very coarse sand (40 %), very fine - medium pebbles (60%), very poorly sorted	Deposited as flow decreased from higher discharged	G2(a)	Channel
	m		1 128	94	nggagukg		P	KA

symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported	/	S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated		S1(a) medium sand			Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel	S2(a)		very fine to fine sand	Note:			
	G3	Gravel stratified	F		- Laminated very fine to fine grained sand	(a) refer to lithofacies havin			
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	sa ol	racteristics but		

Sedimentary log: Location 13 Ban: Dan Tai Tambon: Phu Pha Mok Grid: 483777 m E 1598215 mN Amphoe: Kantaralak Changwat: Si Sa Ket Map sheet: 5937 I Total thickness: 2.5 meters (Not from basement - rock surfac

scale (m)	Lithology	clay mud	rery fine fine medium coarse	granule granule cobble	texture	process interpretation	facies code	environment interpretation
1 	9				Grayish orange pink having dark yellowish orange dots, very fine - medium sands (80 %), coarse - very coarse sand (20%), loosed, well sorted	Scour fills	S1	Channel
					Grayish orange pink - yellowish gray having dark yellowish orange dots, very fine - very coarse sand (50 %), very fine - medium pebbles (50%), very poorly sorted	Deposited as flow decreased from higher discharged	G2(a)	Channel
			1124	43	โทยจลัยเห็	1A		KN

EXPLAN	ATION			18	กลัย	18	8	olki
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface
	G1(a)	gravel; weaky imbricated	I	S1(a)	medium sand		Bs(a)	Clay, very sticky
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:		
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud			racteristics but

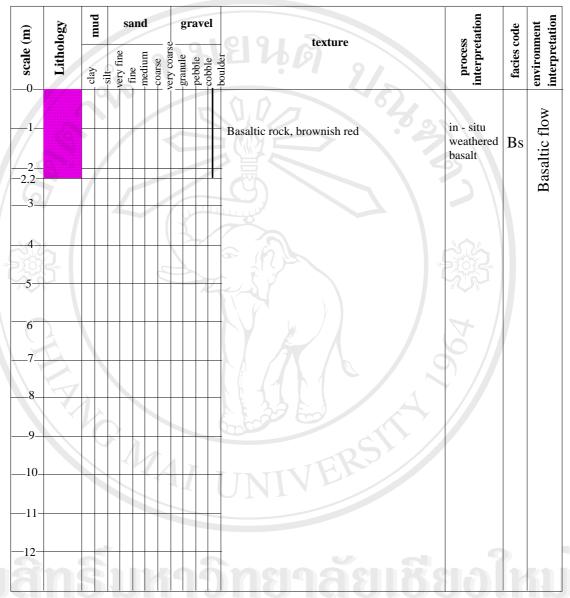
Sedimentary log: Location 14 Ban: Non Saeng Phet Tambon: Khok Sa-ard Grid: 485982 m E 1597260 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 4.0 meters (Not from basement - rock surfa

scale (m)	Lithology	clay mud	very fine fine -medium -coarse	granule bebble cobble	texture	process interpretation	facies code	environment interpretation
—1— —2— —2.5—	(9)				Grayish orange pink having dark yellowish orange dots, very fine - medium sands (100%), loosed, well sorted	Formed as low flow regimes as aggradation on low angle	S1	Overbank
3_ _3.5 _4				3	Grayish orange pink having dark yellowish orange dots, very fine - medium sands (90%), coarse - very coarse sand (10%), loosed,	bed in bar flanks		
5_ 6_ 7_			8		well sorted	Formed as low flow regimes as aggradation on low angle bed in	S1(a)	Overbank
8						bar flanks		
10					UNIVERS			
-12-	n	155	1118	95	ัทยาลัยเสีย	a		F 1

EXPLAI	NATION								
symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to medium sand		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	l	S1(a)			Bs(a)	Clay, very sticky most of them generate gemstones	
	G2	Massive or crudely		S2	Ripple - laminated,				
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand			hofacies having	
	G3(a)	Graver stratilled		F(a)	and silt - Sand, silt, mud		ame char der age	e characteristics but r age	

Sedimentary log: Location 15 Ban: Khi lek Tambon: Khi lek

Grid: 488991 m E 1602835 mN Amphoe: Nam Khun Changwat: Ubon Ratchathani Map sheet: 5937 I Total thickness: 2.2 meters (Not from basement - rock surface)



symbol	facies code	lithofacies	symbol	facies code	lithofacies	symbol	facies code	lithofacies	
	G1	Massive, matrix supported		S1	Horizontal to low angle bedded, fine to		Bs	Hard rock, seen on surface	
	G1(a)	gravel; weaky imbricated	U	S1(a)	medium sand		Bs(a)	Clay, very sticky, most of them	
	G2	Massive or crudely		S2	Ripple - laminated,			generate gemstones	
	G2(a)	bedded gravel		S2(a)	very fine to fine sand	Note:			
	G3	Gravel stratified		F	- Laminated very fine to fine grained sand	(a) refer to lithofacies having		J	
	G3(a)	Graver stratified		F(a)	and silt - Sand, silt, mud	same characteristics but older age			

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2006: Geological field mapping using Satellite imageries for the sand deposit along the Mae Klong Basin.

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