teqsturi danarTebi

danarTi 1

tenianoba

t e n i a n o b i s g a n s a z R v r a

adgi l mdeba reoba:		proeqti	"Jinva l is" zedapiruli wya l sagdebi kaSx l is sainJinro-geo l ogiuri da
0+95		WaburRi l i #	J. 1
grunt is aRwera:		nimuSis #	1
argi l i t i		siRrme, m	4.20-4.50
gamo cdis meTo di:	ГОСТ 5180-84. Раздел 2	TariRi	12.02.2011

nimuSis #			1	1			
biuqsi #			775	902			
teniani grunt is wona + biuqsi	(m_2)	g	113.12	120.60			
mSra l i grunt is wona + biuqsi	(m_3)	g	108.65	115.93			
biuqsis wona	(m_1)	g	23.30	21.57			
tenis wona	$(m_2 - m_3)$	g	4.48	4.68			
mSra l i grunt is wona	$(m_3 - m_1)$	g	85.35	94.36			
tenianoba	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	5.24	4.96			
saSua l o mniSvne l oba	W	%	**5.1**				

SeniSvna:	Seasru l a xat iaSvi l i	Seamowma RaRaniZe	daamt kica nacv l iSvi l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is sainJinro-geo l o g iuri da
0+55		Sur f i #	2. 1
g r u n t i s aRwe r a:		n i m u S i s #	1.1
a r g i l i t i		s i R r m e, m	3.20
g a m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 2	T a r i R i	11.02.2011

n i m u S i s #			1.1	1.1			
b i u q s i #			655	792			
t e n i a n i g r u n t i s w o n a + b i u q s i	(m_2)	g	86.06	101.29			
m S r a l i g r u n t i s w o n a + b i u q s i	(m_3)	g	82.29	96.82			
b i u q s i s w o n a	(m_1)	g	22.24	23.90			
t e n i s w o n a	$(m_2 - m_3)$	g	3.77	4.47			
m S r a l i g r u n t i s w o n a	$(m_3 - m_1)$	g	60.06	72.92			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	6.27	6.13			
s a S u a l o m n i S v n e l o b a	W	%	6.2				

S e n i S v n a:	S e a s r u l a x a t i a S v i l i	S e a m o w m a R a R a n i Z e	d a a m t k i c a n a c v l i S v i l i

t e n i a n o b i s g a n s a z R v r a

adgi l mdeba reoba:		proeqti	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is saiNJinro-geo l ogiuri da
0+55		Surfi #	2. 1
grunt is aRwera:		nimuSis #	1.2
argi l i t i		siRrme, m	3.30
gamo cdis meTo di:	ГОСТ 5180-84. Раздел 2	TariRi	11.02.2011

nimuSis #			1.2	1.2			
biuqsi #			070	920			
teniani grunt is wona + biuqsi	(m_2)	g	123.38	126.10			
mSra l i grunt is wona + biuqsi	(m_3)	g	119.51	122.31			
biuqsis wona	(m_1)	g	22.16	23.15			
tenis wona	$(m_2 - m_3)$	g	3.87	3.79			
mSra l i grunt is wona	$(m_3 - m_1)$	g	97.36	99.16			
tenianoba	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	3.98	3.82			
saSua l o mniSvne l oba	W	%	**3.9**				

SeniSvna:	Seasru l a xat iaSvi l i	Seamowma RaRaniZe	daamt ki ca nacv l iSvi l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapi r u l i wya l sagdebi kaSx l is saiJinro-geo l o g i u r i da
1+32		WaburRi l i #	3. 2
g r u n t i s aRwe r a:		n i m u S i s #	2
a r g i l i t i		s i R r m e, m	4.50-4.80
g a m o c d i s m e T o d i:	**ГОСТ 5180-84. Раздел 2**	T a r i R i	12.02.2011

n i m u S i s #			2	2			
b i u q s i #			007	198			
t e n i a n i g r u n t i s w o n a + b i u q s i	(m_2)	g	98.77	110.71			
m S r a l i g r u n t i s w o n a + b i u q s i	(m_3)	g	95.42	107.02			
b i u q s i s w o n a	(m_1)	g	20.58	21.56			
t e n i s w o n a	$(m_2 - m_3)$	g	3.36	3.69			
m S r a l i g r u n t i s w o n a	$(m_3 - m_1)$	g	74.84	85.46			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	4.49	4.31			
s a S u a l o m n i S v n e l o b a	W	%	**4.4**				

S e n i S v n a:	S e a s r u l a	S e a m o w m a	d a a m t k i c a
	x a t i a S v i l i	R a R a n i Z e	n a c v l i S v i l i

t e n i a n o b i s g a n s a z R v r a

adgi l mdeba reoba:		proeqti	"Jinva l is" zedapiruli wya l sagdebi kaSx l is sainJinro-geo l ogiuri da
0+95		Surfi #	2
grunt is aRwera:		nimuSis #	2.1
argi l i t i		siRrme, m	3.00
gamo cdis meTo di:	ГОСТ 5180-84. Раздел 2	TariRi	11.02.2011

nimuSis #			2.1	2.1			
biuqsi #			915	049			
teniani grunt is wona + biuqsi	(m_2)	g	138.55	130.77			
mSra l i grunt is wona + biuqsi	(m_3)	g	132.64	125.44			
biuqsis wona	(m_1)	g	22.85	23.23			
tenis wona	$(m_2 - m_3)$	g	5.91	5.33			
mSra l i grunt is wona	$(m_3 - m_1)$	g	109.79	102.21			
tenianoba	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	5.38	5.22			
saSua l o mniSvne l oba	W	%	**5.3**				

SeniSvna:	Seasru l a xat iaSvi l i	Seamowma RaRaniZe	daamt ki ca nacv l iSvi l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is sainJinro-geo l ogiuri da
0+95		Sur f i #	2
g r u n t i s aRwe r a:		n i m u S i s #	2.2
q v i S a q v a		s i R r m e, m	3.10
g a m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 2	T a r i R i	12.02.2011

n i m u S i s #			2.2	2.2			
b i u q s i #			054	998			
t e n i a n i g r u n t i s w o n a + b i u q s i	(m_2)	g	91.61	94.88			
m S r a l i g r u n t i s w o n a + b i u q s i	(m_3)	g	88.45	91.67			
b i u q s i s w o n a	(m_1)	g	20.92	23.53			
t e n i s w o n a	$(m_2 - m_3)$	g	3.16	3.21			
m S r a l i g r u n t i s w o n a	$(m_3 - m_1)$	g	67.53	68.14			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	4.68	4.72			
s a S u a l o m n i S v n e l o b a	W	%	4.7				
S e n i S v n a:			S e a s r u l a x a t i a S v i l i		S e a m o w m a R a R a n i Z e		d a a m t k i c a n a c v l i S v i l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s saiJinro-geo l o g i u r i da
1+68		WaburRi l i #	3. 3
g r u n t i s aRwe r a:		n i m u S i s #	3
qv i Saqva		si Rr me, m	5.00-5.30
ga m o c d i s me T o d i:	**ГОСТ 5180-84. Раздел 2**	T a r i Ri	13.02.2011

n i m u S i s #			3	3			
b i u q s i #			178	574			
t e n i a n i g r u n t i s wona + b i u q s i	(m_2)	g	99.76	90.72			
m S r a l i g r u n t i s wona + b i u q s i	(m_3)	g	97.31	88.50			
b i u q s i s wona	(m_1)	g	23.38	21.03			
t e n i s wona	$(m_2 - m_3)$	g	2.45	2.22			
m S r a l i g r u n t i s wona	$(m_3 - m_1)$	g	73.93	67.46			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	3.31	3.29			
sa Sua l o m n i Svne l o b a	W	%	**3.3**				

Se n i Svna:	Seasru l a	Seamowma	daam t k i c a
	xa t i aSvi l i	RaRaniZe	nacv l i Svi l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is sainJinro-geo l ogiuri da
1+32		Sur f i #	2.3
g r u n t i s aRwe r a:		n i m u S i s #	3.1
a r g i l i t i		s i R r m e, m	3.15
g a m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 2	T a r i R i	11.02.2011

n i m u S i s #			3.1	3.1			
b i u q s i #			922	216			
t e n i a n i g r u n t i s w o n a + b i u q s i	(m_2)	g	111.82	137.42			
m S r a l i g r u n t i s w o n a + b i u q s i	(m_3)	g	107.09	131.53			
b i u q s i s w o n a	(m_1)	g	20.19	21.69			
t e n i s w o n a	$(m_2 - m_3)$	g	4.73	5.89			
m S r a l i g r u n t i s w o n a	$(m_3 - m_1)$	g	86.91	109.84			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	5.44	5.36			
s a S u a l o m n i S v n e l o b a	W	%	**5.4**				

S e n i S v n a:	S e a s r u l a	S e a m o w m a	d a a m t k i c a
	x a t i a S v i l i	R a R a n i Z e	n a c v l i S v i l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is sainJinro-geo l ogiuri da
1+32		Sur f i #	2.3
g r unt i s aRwe r a:		n imuSis #	3.2
qv i Saqva		siRrme, m	3.20
ga m o c d i s me T o d i:	ГОСТ 5180-84. Раздел 2	T a r i Ri	12.02.2011

n imuSis #			3.2	3.2			
b iuqsi #			858	635			
t eniani g runt i s wona + b iuqsi	(m_2)	g	99.51	106.40			
mSra l i g runt i s wona + b iuqsi	(m_3)	g	96.49	103.27			
b iuqsis wona	(m_1)	g	21.39	20.54			
t enis wona	$(m_2 - m_3)$	g	3.01	3.13			
mSra l i g runt i s wona	$(m_3 - m_1)$	g	75.10	82.73			
t enianoba	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	4.01	3.79			
saSua l o mniSvne l oba	W	%	**3.9**				

Seni Svna:	Seasru l a xa t iaSvi l i	Seamowma RaRaniZe	daam t ki ca nacv l iSvi l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s saiJinro-geo l o g i u r i da
1+68		WaburRi l i #	3. 4
g r u n t i s aRwe r a:		n i m u S i s #	4
qv i Saqva		s i R r m e, m	5.20-5.50
ga m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 2	T a r i R i	13.02.2011

n i m u S i s #			4	4			
b i u q s i #			149	227			
t e n i a n i g r u n t i s w o n a + b i u q s i	(m_2)	g	134.43	101.69			
m S r a l i g r u n t i s w o n a + b i u q s i	(m_3)	g	129.35	98.07			
b i u q s i s w o n a	(m_1)	g	21.77	20.64			
t e n i s w o n a	$(m_2 - m_3)$	g	5.09	3.62			
m S r a l i g r u n t i s w o n a	$(m_3 - m_1)$	g	107.58	77.43			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	4.73	4.67			
s a S u a l o m n i S v n e l o b a	W	%	**4.7**				

S e n i S v n a:	Seasru l a	Seamowma	daam t k i c a
	xa t i a S v i l i	RaRaniZe	nacv l i S v i l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is saiNjinro-geo l o g iuri da
1+53		Sur f i #	2.4
g r u n t i s aRwe r a:		n i m u S i s #	4.1
a r g i l i t i		siRrme, m	3.10
ga m o c d i s me T o d i:	**ГОСТ 5180-84. Раздел 2**	T a r i R i	11.02.2011

n i m u S i s #			4.1	4.1			
b i u q s i #			146	770			
t e n i a n i g r u n t i s wo n a + b i u q s i	(m_2)	g	118.92	136.59			
mSr a l i g r u n t i s wo n a + b i u q s i	(m_3)	g	114.47	131.17			
b i u q s i s wo n a	(m_1)	g	23.25	20.98			
t e n i s wo n a	$(m_2 - m_3)$	g	4.45	5.42			
mSr a l i g r u n t i s wo n a	$(m_3 - m_1)$	g	91.21	110.19			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	4.88	4.92			
sa Su a l o mn i Svne l o b a	W	%	**4.9**				
Se n i Svna:			Seasru l a xa t i aSv i l i		Seamowma RaRaniZe		daam t k i ca nacv l i Sv i l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is saiNjinro-geo l ogiuri da
1+53		Sur f i #	2.4
g r u n t i s aRwe r a:		n i m u S i s #	4.2
qv i Saqva		si R r me, m	3.15
ga m o c d i s me T o d i:	ГОСТ 5180-84. Раздел 2	T a r i R i	13.02.2011

n i m u S i s #			4.2	4.2			
b i u q s i #			698	727			
t e n i a n i g r u n t i s wo n a + b i u q s i	(m_2)	g	124.41	93.73			
m S r a l i g r u n t i s wo n a + b i u q s i	(m_3)	g	120.25	90.83			
b i u q s i s wo n a	(m_1)	g	23.02	20.53			
t e n i s wo n a	$(m_2 - m_3)$	g	4.15	2.90			
m S r a l i g r u n t i s wo n a	$(m_3 - m_1)$	g	97.23	70.30			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	4.27	4.13			
sa S u a l o m n i S v n e l o b a	W	%	**4.2**				

S e n i S v n a:	Seasru l a xa t i aSv i l i	Seamowma RaRaniZe	daam t ki ca nacv l i Sv i l i

t e n i a n o b i s g a n s a z R v r a

adgi l mdeba reoba:		proeqti	"Jinva l is" zedapiruli wya l sagdebi kaSx l is sainJinro-geo l ogiuri da
0+95		WaburRi l i #	J. 5
grunt is aRwera:		nimuSis #	5
argi l i t i		siRrme, m	4.30-4.60
gamo cdis meTo di:	ГОСТ 5180-84. Раздел 2	TariRi	12.02.2011

nimuSis #			5	5			
biuqsi #			040	205			
teniani grunt is wona + biuqsi	(m_2)	g	136.49	86.39			
mSra l i grunt is wona + biuqsi	(m_3)	g	130.28	82.88			
biuqsis wona	(m_1)	g	21.03	21.41			
tenis wona	$(m_2 - m_3)$	g	6.21	3.51			
mSra l i grunt is wona	$(m_3 - m_1)$	g	109.25	61.46			
tenianoba	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	5.68	5.72			
saSua l o mniSvne l oba	W	%	**5.7**				

SeniSvna:	Seasru l a xat iaSvi l i	Seamowma RaRaniZe	daamt kica nacv l iSvi l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is saiNJinro-geo l o g iuri da
1+68		Sur f i #	2.5
g r u n t i s aRwe r a:		n i m u S i s #	5.1
a r g i l i t i		siRrme, m	3.20
ga m o c d i s me T o d i:	**ГОСТ 5180-84. Раздел 2**	T a r i R i	11.02.2011

n i m u S i s #			5.1	5.1			
b i u q s i #			092	984			
t e n i a n i g r u n t i s wo n a + b i u q s i	(m_2)	g	140.05	111.93			
mSr a l i g r u n t i s wo n a + b i u q s i	(m_3)	g	135.45	108.52			
b i u q s i s wo n a	(m_1)	g	22.80	21.66			
t e n i s wo n a	$(m_2 - m_3)$	g	4.60	3.41			
mSr a l i g r u n t i s wo n a	$(m_3 - m_1)$	g	112.65	86.86			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	4.08	3.92			
sa Sua l o mniSvne l o b a	W	%	**4.0**				

Seni Svna:	Seasru l a	Seamowma	daam t k i c a
	xa t i aSvi l i	RaRaniZe	nacv l i Svi l i

t e n i a n o b i s g a n s a z R v r a

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s saiNjinro-geo l o g i u r i da
1+68		S u r f i #	2.5
g r u n t i s aRwe r a:		n i m u S i s #	5.2
qv i Saqva		s i R r m e, m	3.30
ga m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 2	T a r i R i	13.02.2011

n i m u S i s #			5.2	5.2			
b i u q s i #			565	176			
t e n i a n i g r u n t i s w o n a + b i u q s i	(m_2)	g	100.20	102.10			
m S r a l i g r u n t i s w o n a + b i u q s i	(m_3)	g	97.23	99.26			
b i u q s i s w o n a	(m_1)	g	20.64	23.07			
t e n i s w o n a	$(m_2 - m_3)$	g	2.97	2.84			
m S r a l i g r u n t i s w o n a	$(m_3 - m_1)$	g	76.59	76.19			
t e n i a n o b a	$W = \left(\frac{m_2 - m_3}{m_3 - m_1}\right) \cdot 100$	%	3.87	3.73			
s a S u a l o m n i S v n e l o b a	W	%	**3.8**				

S e n i S v n a:	S e a s r u l a	S e a m o w m a	d a a m t k i c a
	x a t i a S v i l i	R a R a n i Z e	n a c v l i S v i l i

danarTi 2

simkvrive

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		WaburRili #	J. 1
grunti aRwera:		nimuSis #	1
argiliti		siRrme, m	4.20-4.50
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	12.02.2011

parafinis simkvrive (ρ_p)	g/m^3	0.90					
nimuSis #		1	1				
grunti nimuSis wona, (m_s)	g	159.0	123.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	160.0	127.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	170.0	133.0				
parafinis wona, ($m_p=m_w - m_f$)	g	10.0	6.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	90.7	74.4				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	68.2	51.9				
simkvrive, $\rho = m_s/v_s$	g/m^3	2.33	2.37				
biuqsi #		833	810				
tenianoba (W)	%	5.6	5.2				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	g/m^3	2.21	2.25				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.35**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+55		Surfi #	∂.1
grunti aRwera:		nimuSis #	1.1
argilliti		siRrme, m	3.20
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	11.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		1.1	1.1				
grunti nimuSis wona, (m_s)	g	151.0	186.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	154.0	189.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	162.0	201.0				
parafinis wona, ($m_p=m_w - m_f$)	g	8.0	12.0				
wyalSi CaZirvuli, daparafinirebuli nimusis wona, (m_g)	g	87.9	108.4				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	65.3	79.3				
simkvrive, $\rho = m_s/v_s$	mg/m^3	2.31	2.35				
biuqsi #		908	863				
tenianoba (W)	%	6.1	6.3				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	mg/m^3	2.18	2.21				
bunebrivi simkvrivis saSualo mniSvneloba ρ		2.33					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+55		Surfi #	∂.1
grunti aRwera:		nimuSis #	1.2
argiliti		siRrme, m	3.30
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	11.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		1.2	1.2				
gruntis nimuSis wona, (m_s)	g	111.0	91.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	114.0	95.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	126.0	104.0				
parafinis wona, ($m_p=m_w-m_f$)	g	12.0	9.0				
wyalSi CaZirvli, daparafinirebuli nimusis wona, (m_g)	g	64.8	55.1				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	47.8	38.9				
simkvrive, $\rho=m_s/v_s$	mg/m^3	2.32	2.34				
biuqsi #		669	17				
tenianoba (W)	%	3.8	4.0				
ConCxis simkvrive $\rho_d=100\rho/(100+W)$	mg/m^3	2.24	2.25				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.33**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+32		WaburRili #	J. 2
grunti aRwera:		nimuSis #	2
argiliti		siRrme, m	4.50-4.80
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	12.02.2011

parafinis simkvrive (ρ_p)	g/m^3	0.90					
nimuSis #		2	2				
grunti nimuSis wona, (m_s)	g	157.0	94.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	161.0	97.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	168.0	104.0				
parafinis wona, ($m_p=m_w - m_f$)	g	7.0	7.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	89.8	54.5				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	70.5	41.7				
simkvrive, $\rho = m_s/v_s$	g/m^3	2.23	2.25				
biuqsi #		958	831				
tenianoba (W)	%	4.6	4.4				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	g/m^3	2.13	2.16				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.24**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		Surfi #	ð.2
grunti aRwera:		nimuSis #	2.1
argiliti		siRrme, m	3.00
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	11.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		2.1	2.1				
grunti nimuSis wona, (m_s)	g	156.0	104.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	159.0	108.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	167.0	117.0				
parafinis wona, ($m_p=m_w - m_f$)	g	8.0	9.0				
wyalSi CaZirvuli, daparafinirebuli nimusis wona, (m_g)	g	92.0	63.7				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	66.1	43.3				
simkvrive, $\rho=m_s/v_s$	mg/m^3	2.36	2.40				
biuqsi #		610	607				
tenianoba (W)	%	5.4	5.3				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	mg/m^3	2.24	2.28				
bunebrivi simkvrivis saSualo mniSvneloba **r**		**2.38**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		Surfi #	∂.2
grunti aRwera:		nimuSis #	2.2
qviSaqva		siRrme, m	3.10
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	12.02.2011

parafinis simkvrive (ρ_p)	g/m^3	0.90					
nimuSis #		2.2	2.2				
grunti nimuSis wona, (m_s)	g	129.0	122.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	130.0	125.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	140.0	134.0				
parafinis wona, ($m_p=m_w-m_f$)	g	10.0	9.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	74.1	72.9				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	54.8	51.1				
simkvrive, $\rho=m_s/v_s$	g/m^3	2.35	2.39				
biuqsi #		649	13				
tenianoba (W)	%	4.5	4.9				
ConCxis simkvrive $\rho_d=100\rho/(100+W)$	g/m^3	2.25	2.28				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.37**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		WaburRili #	J. 3
grunti aRwera:		nimuSis #	3
qviSaqva		siRrme, m	5.00-5.30
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	13.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		3	3				
gruntis nimuSis wona, (m_s)	g	117.0	113.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	119.0	115.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	131.0	124.0				
parafinis wona, ($m_p=m_w - m_f$)	g	12.0	9.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	68.8	67.5				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	48.9	46.5				
simkvrive, $\rho = m_s/v_s$	mg/m^3	2.39	2.43				
biuqsi #		378	90				
tenianoba (W)	%	3.3	3.4				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	mg/m^3	2.32	2.35				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.41**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+32		Surfi #	ð.3
grunti aRwera:		nimuSis #	3.1
argilliti		siRrme, m	3.15
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	11.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		3.1	3.1				
grunti nimuSis wona, (m_s)	g	196.0	92.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	197.0	96.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	205.0	106.0				
parafinis wona, ($m_p=m_w-m_f$)	g	8.0	10.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	113.5	56.7				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	82.6	38.2				
simkvrive, $\rho=m_s/v_s$	mg/m^3	2.37	2.41				
biuqsi #		747	330				
tenianoba (W)	%	5.6	5.3				
ConCxis simkvrive $\rho_d=100\rho/(100+W)$	mg/m^3	2.25	2.29				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.39**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+32		Surfi #	ð.3
gruntis aRwera:		nimuSis #	3.2
qviSaqva		siRrme, m	3.20
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	12.02.2011

parafinis simkvrive (ρ_p)	g/m^3	0.90					
nimuSis #		3.2	3.2				
gruntis nimuSis wona, (m_s)	g	87.0	99.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	91.0	103.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	98.0	115.0				
parafinis wona, ($m_p=m_w-m_f$)	g	7.0	12.0				
wyalSi CaZirvuli, daparafinirebuli nimusis wona, (m_g)	g	52.8	59.7				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	37.5	42.0				
simkvrive, $\rho=m_s/v_s$	g/m^3	2.32	2.36				
biuqsi #		324	857				
tenianoba (W)	%	4.0	3.8				
ConCxis simkvrive $\rho_d=100\rho/(100+W)$	g/m^3	2.23	2.27				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.34**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		WaburRili #	J. 4
grunti aRwera:		nimuSis #	4
qviSaqva		siRrme, m	5.20-5.50
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	13.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		4	4				
grunti nimuSis wona, (m_s)	g	81.0	140.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	85.0	143.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	93.0	154.0				
parafinis wona, ($m_p=m_w - m_f$)	g	8.0	11.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	48.9	81.5				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	35.2	60.3				
simkvrive, $\rho = m_s/v_s$	mg/m^3	2.30	2.32				
biuqsi #		717	827				
tenianoba (W)	%	4.9	4.5				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	mg/m^3	2.19	2.22				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.31**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+53		Surfi #	∂.4
grunti aRwera:		nimuSis #	4.1
argiliti		siRrme, m	3.10
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	11.02.2011

parafinis simkvrive (ρ_p)	g/m^3	0.90					
nimuSis #		4.1	4.1				
grunti nimuSis wona, (m_s)	g	184.0	93.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	187.0	94.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	195.0	106.0				
parafinis wona, ($m_p=m_w - m_f$)	g	8.0	12.0				
wyalSi CaZirvuli, daparafinirebuli nimusis wona, (m_g)	g	102.1	51.0				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	84.0	41.7				
simkvrive, $\rho = m_s/v_s$	g/m^3	2.19	2.23				
biuqsi #		305	104				
tenianoba (W)	%	4.8	5.0				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	g/m^3	2.09	2.12				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.21**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+53		Surfi #	ð.4
grunti aRwera:		nimuSis #	4.2
qviSaqva		siRrme, m	3.15
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	13.02.2011

parafinis simkvrive (ρ_p)	g/m^3	0.90					
nimuSis #		4.2	4.2				
grunti nimuSis wona, (m_s)	g	132.0	90.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	136.0	91.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	148.0	98.0				
parafinis wona, ($m_p=m_w-m_f$)	g	12.0	7.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	77.6	51.9				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	57.1	38.3				
simkvrive, $\rho=m_s/v_s$	g/m^3	2.31	2.35				
biuqsi #		594	565				
tenianoba (W)	%	4.1	4.3				
ConCxis simkvrive $\rho_d=100\rho/(100+W)$	g/m^3	2.22	2.25				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.33**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wya l Si CaZirvis meTodiT)

adgi lmdebareoba:		proeqti	"Jinva l is" zedapiruli wya l sagdebi kaSx l is sainJinro-geo l ogiuri da geo fizikuri kvleva
0+95		WaburRi l i #	J. 5
grunt is aRwera:		nimuSis #	5
argi l i t i		siRrme, m	4.30-4.60
gamo cdis meTo di:	ГОСТ 5180-84, Раздел 7	TariRi	12.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		5	5				
gruntis nimuSis wona, (m_s)	g	188.0	143.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	192.0	144.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	199.0	153.0				
parafinis wona, ($m_p=m_w - m_f$)	g	7.0	9.0				
wya l Si CaZiru l i, daparafinirebu l i nimusis wona, (m_g)	g	107.3	80.3				
nimuSis mocu l oba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	83.9	62.7				
simkvrive, $\rho = m_s/v_s$	mg/m^3	2.24	2.28				
biuqsi #		111	613				
tenianoba (W)	%	5.8	5.7				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	mg/m^3	2.12	2.16				
bunebrivi simkvrivis saSua l o mniSvne l oba ρ		**2.26**					

SeniSvna:	Seasru l a xat iaSvi l i	Seamowma t laSaZe	daam t ki ca nacv l iSvi l i

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		Surfi #	∂.5
grunti aRwera:		nimuSis #	5.1
argilити		siRrme, m	3.20
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	11.02.2011

parafinis simkvrive (ρ_p)	mg/m^3	0.90					
nimuSis #		5.1	5.1				
grunti nimuSis wona, (m_s)	g	124.0	106.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	127.0	108.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	134.0	114.0				
parafinis wona, ($m_p=m_w - m_f$)	g	7.0	6.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	73.6	62.9				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	52.7	44.4				
simkvrive, $\rho = m_s/v_s$	mg/m^3	2.36	2.39				
biuqsi #		53	866				
tenianoba (W)	%	3.9	4.2				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	mg/m^3	2.27	2.29				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.37**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

bunebrivi simkvrivis gansazRvra
(wyalSi CaZirvis meTodiT)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		Surfi #	∂.5
grunti aRwera:		nimuSis #	5.2
qviSaqva		siRrme, m	3.30
gamocdis meTodi:	ГОСТ 5180-84, Раздел 7	TariRi	13.02.2011

parafinis simkvrive (ρ_p)	g/m^3	0.90					
nimuSis #		5.2	5.2				
grunti nimuSis wona, (m_s)	g	161.0	150.0				
nimuSis wona forebis parafiniT amovsebis Semdeg, (m_f)	g	163.0	151.0				
nimuSis wona daparafinebis Semdeg, (m_w)	g	169.0	163.0				
parafinis wona, ($m_p=m_w - m_f$)	g	6.0	12.0				
wyalSi CaZiruli, daparafinirebuli nimusis wona, (m_g)	g	94.9	87.5				
nimuSis moculoba, $Vs=(m_w-m_g)-m_p/\rho_p$	sm^3	67.4	62.2				
simkvrive, $\rho = m_s/v_s$	g/m^3	2.39	2.41				
biuqsi #		778	868				
tenianoba (W)	%	3.7	4.0				
ConCxis simkvrive $\rho_d = 100\rho/(100+W)$	g/m^3	2.30	2.32				
bunebrivi simkvrivis saSualo mniSvneloba ρ		**2.40**					

SeniSvna:	Seasrula xatiaSvili	Seamowma tlaSaZe	daamtkica nacvliSvili

danarTi 3

mineraluri nawilis simkvrive

m i n e r a l u r i n a w i l i s s i m k v r i v e (p i k n o m e t r i)

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s sainJinro-geo l o g i u r i da geo f i z i k u r i k v l e v a
0+95		WaburRi l i #	J. 1
g r u n t i s aRwe r a:		n i m u S i s #	1
a r g i l i t i		s i R r m e, m	4.20-4.50
g a m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 10	T a r i R i	12.02.2011

n i m u S i s m o m z a d e b i s m e T o d i:

d i d i p i k n o m e t r i

n i m u S i s #			1	1				
p i k n o m e t r i s #			688	985				
w o n a p i k n o m e t r i + g r u n t i + w y a l i	m_3	g	2204.58	2136.52				
w o n a p i k n o m e t r i + g r u n t i	m_2	g	1382.73	1315.81				
w y l i T s a v s e p i k n o m e t r i s w o n a	m_4	g	1957.01	1908.52				
p i k n o m e t r i s w o n a	m_1	g	992.05	954.48				
g r u n t i s w o n a	m_2-m_1	g	390.69	361.33				
w y l i s w o n a s a v s e p i k n o m e t r S i	m_4-m_1	g	964.96	954.05				
w y l i s w o n a	m_3-m_2	g	821.85	820.71				
g r u n t i s n a w i l a k e b i s m o c u l o b a	$(m_4-m_1)-(m_3-m_2)$	m l	143.11	133.33				
n a w i l a k e b i s s i m k v r i v e	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.73	2.71				
s a S u a l o m n i S v n e l o b a	r_s	g/sm^3	**2.72**					

	Seasru l a xa t i a S v i l i	Seamowma RaRaniZe	daam t k i c a nacv l i S v i l i

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+55		Surfi #	3.1
grunti s aRwera:		nimuSis #	1.1
argiliti		siRrme, m	3.20
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	11.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			1.1	1.1				
piknometris #			963	29				
wona piknometri + grunti + wyali	m_3	g	2183.32	2163.80				
wona piknometri + grunti	m_2	g	1361.55	1356.16				
wyliT savse piknometris wona	m_4	g	1925.39	1908.40				
piknometris wona	m_1	g	953.66	950.52				
grunti s wona	m_2-m_1	g	407.89	405.64				
wyli s wona savse piknometrSi	m_4-m_1	g	971.72	957.88				
wyli s wona	m_3-m_2	g	821.76	807.64				
grunti s nawilakebis moculoba $(m_4-m_1)-(m_3-m_2)$		ml	149.96	150.24				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.72	2.70				
saSualo mniSvneloba	r_s	g/sm^3	**2.71**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

m i n e r a l u r i n a w i l i s s i m k v r i v e (p i k n o m e t r i)

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s sainJinro-geo l o g i u r i da geo f i z i k u r i k v l e v a
0+55		S u r f i #	ð. 1
g r u n t i s aRwe r a:		n i m u S i s #	1.2
a r g i l i t i		s i R r m e, m	3.30
g a m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 10	T a r i R i	11.02.2011

n i m u S i s m o m z a d e b i s m e T o d i:

d i d i p i k n o m e t r i

n i m u S i s #			1.2	1.2				
p i k n o m e t r i s #			718	326				
w o n a p i k n o m e t r i + g r u n t i + w y a l i	m_3	g	2215.27	2196.41				
w o n a p i k n o m e t r i + g r u n t i	m_2	g	1394.47	1346.14				
w y l i T s a v s e p i k n o m e t r i s w o n a	m_4	g	1960.88	1962.30				
p i k n o m e t r i s w o n a	m_1	g	990.45	974.31				
g r u n t i s w o n a	m_2-m_1	g	404.02	371.83				
w y l i s w o n a s a v s e p i k n o m e t r S i	m_4-m_1	g	970.43	987.99				
w y l i s w o n a	m_3-m_2	g	820.80	850.28				
g r u n t i s n a w i l a k e b i s m o c u l o b a	$(m_4-m_1)-(m_3-m_2)$	m l	149.64	137.71				
n a w i l a k e b i s s i m k v r i v e	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.70	2.70				
s a S u a l o m n i S v n e l o b a	r_s	g/sm^3	**2.70**					

	Seasru l a xa t i a S v i l i	Seamowma RaRaniZe	daamt k i c a nacv l i S v i l i

m i n e r a l u r i n a w i l i s s i m k v r i v e (p i k n o m e t r i)

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s sainJinro-geo l o g i u r i da geo f i z i k u r i k v l e v a
1+32		WaburRi l i #	J. 2
g r u n t i s aRwe r a:		n i m u S i s #	2
a r g i l i t i		s i R r me, m	4.50-4.80
g a m o c d i s m e T o d i:	ГОСТ 5180-84. Раздел 10	T a r i R i	12.02.2011

n i m u S i s m o m z a d e b i s m e T o d i:

d i d i p i k n o m e t r i

n i m u S i s #			2	2				
p i k n o m e t r i s #			164	581				
w o n a p i k n o m e t r i + g r u n t i + w y a l i	m_3	g	2154.03	2209.27				
w o n a p i k n o m e t r i + g r u n t i	m_2	g	1322.19	1363.54				
w y l i T s a v s e p i k n o m e t r i s w o n a	m_4	g	1931.01	1954.67				
p i k n o m e t r i s w o n a	m_1	g	969.52	959.17				
g r u n t i s w o n a	m_2-m_1	g	352.67	404.37				
w y l i s w o n a s a v s e p i k n o m e t r S i	m_4-m_1	g	961.49	995.50				
w y l i s w o n a	m_3-m_2	g	831.84	845.74				
g r u n t i s n a w i l a k e b i s m o c u l o b a	$(m_4-m_1)-(m_3-m_2)$	m l	129.66	149.77				
n a w i l a k e b i s s i m k v r i v e	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.72	2.70				
s a S u a l o m n i S v n e l o b a	r_s	g/sm^3	**2.71**					

	Seasru l a xa t i a S v i l i	Seamowma RaRaniZe	daam t k i c a nacv l i S v i l i

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		Surfi #	3.2
grunti s aRwera:		nimuSis #	2.1
argiliti		siRrme, m	3.00
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	11.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			2.1	2.1				
piknometris #			839	27				
wona piknometri + grunti + wyali	m_3	g	2218.49	2194.66				
wona piknometri + grunti	m_2	g	1394.76	1373.72				
wyliT savse piknometris wona	m_4	g	1966.17	1956.28				
piknometris wona	m_1	g	994.01	996.76				
grunti s wona	m_2-m_1	g	400.75	376.97				
wyli s wona savse piknometrSi	m_4-m_1	g	972.16	959.53				
wyli s wona	m_3-m_2	g	823.73	820.93				
grunti s nawilakebis moculoba $(m_4-m_1)-(m_3-m_2)$		ml	148.43	138.59				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.70	2.72				
saSualo mniSvneloba	r_s	g/sm^3	**2.71**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		Surfi #	3.2
grunti s aRwera:		nimuSis #	2.2
qviSaqva		siRrme, m	3.10
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	12.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			2.2	2.2				
piknometris #			277	775				
wona piknometri + grunti + wyali	m_3	g	2173.05	2238.64				
wona piknometri + grunti	m_2	g	1354.71	1404.43				
wyliT savse piknometris wona	m_4	g	1934.39	1982.08				
piknometris wona	m_1	g	975.66	998.70				
grunti s wona	m_2-m_1	g	379.06	405.73				
wyli s wona savse piknometrSi	m_4-m_1	g	958.73	983.37				
wyli s wona	m_3-m_2	g	818.34	834.21				
grunti s nawilakebis moculoba	$(m_4-m_1)-(m_3-m_2)$	ml	140.39	149.16				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.70	2.72				
saSualo mniSvneloba	r_s	g/sm^3	**2.71**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		WaburRili #	J-3
grunti s aRwera:		nimuSis #	3
qviSaqva		siRrme, m	5.00-5.30
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	13.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			3	3				
piknometris #			805	240				
wona piknometri + grunti + wyali	m_3	g	2203.65	2178.09				
wona piknometri + grunti	m_2	g	1346.09	1309.83				
wyliT savse piknometris wona	m_4	g	1976.83	1954.24				
piknometris wona	m_1	g	986.63	955.08				
grunti s wona	m_2-m_1	g	359.46	354.76				
wyli s wona savse piknometrSi	m_4-m_1	g	990.20	999.16				
wyli s wona	m_3-m_2	g	857.55	868.25				
grunti s nawilakebis moculoba $(m_4-m_1)-(m_3-m_2)$		ml	132.64	130.91				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.71	2.71				
saSualo mniSvneloba	r_s	g/sm^3	**2.71**					

	Seasrula	Seamowma	daamtkica
	xatiaSvili	RaRaniZe	nacvliSvili

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+32		Surfi #	3
grunti s aRwera:		nimuSis #	3.1
argiliti		siRrme, m	3.15
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	11.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			3.1	3.1				
piknometris #			280	195				
wona piknometri + grunti + wyali	m_3	g	2204.66	2190.87				
wona piknometri + grunti	m_2	g	1351.23	1343.00				
wyliT savse piknometris wona	m_4	g	1980.16	1949.44				
piknometris wona	m_1	g	994.68	961.21				
gruntis wona	m_2-m_1	g	356.55	381.79				
wylis wona savse piknometrSi	m_4-m_1	g	985.48	988.24				
wylis wona	m_3-m_2	g	853.42	847.87				
gruntis nawilakebis moculoba $(m_4-m_1)-(m_3-m_2)$		ml	132.06	140.36				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.70	2.72				
saSualo mniSvneloba	r_s	g/sm^3	**2.71**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

m i n e r a l u r i n a w i l i s s i m k v r i v e (p i k n o m e t r i)

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s sainJinro-geo l o g i u r i da geo f i z i k u r i k v l e v a
1+32		S u r f i #	∂. 3
g r u n t i s aRwe r a:		n i m u S i s #	3.2
qv i Saqva		s i R r me, m	3.20
ga m o c d i s me T o d i:	ГОСТ 5180-84. Раздел 10	T a r i R i	12.02.2011

n i m u S i s m o m z a d e b i s me T o d i:

d i d i p i k n o m e t r i

n i m u S i s #			3.2	3.2				
p i k n o m e t r i s #			594	52				
w o n a p i k n o m e t r i + g r u n t i + w y a l i	m_3	g	2220.51	2191.78				
w o n a p i k n o m e t r i + g r u n t i	m_2	g	1387.28	1370.36				
w y l i T s a v s e p i k n o m e t r i s w o n a	m_4	g	1976.68	1952.84				
p i k n o m e t r i s w o n a	m_1	g	1000.86	990.05				
g r u n t i s w o n a	m_2-m_1	g	386.43	380.31				
w y l i s w o n a s a v s e p i k n o m e t r S i	m_4-m_1	g	975.82	962.80				
w y l i s w o n a	m_3-m_2	g	833.23	821.42				
g r u n t i s n a w i l a k e b i s m o c u l o b a	$(m_4-m_1)-(m_3-m_2)$	m l	142.59	141.38				
n a w i l a k e b i s s i m k v r i v e	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.71	2.69				
s a S u a l o m n i S v n e l o b a	r_s	g/sm^3	**2.70**					

	Seasru l a xa t i a S v i l i	Seamowma RaRaniZe	daamt k i ca nacv l i S v i l i

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		WaburRili #	J-4
grunti saRwera:		nimuSis #	4
qviSaqva		siRrme, m	5.20-5.50
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	13.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			4	4				
piknometris #			985	856				
wona piknometri + grunti + wyali	m_3	g	2193.11	2169.95				
wona piknometri + grunti	m_2	g	1358.81	1330.10				
wyliT savse piknometris wona	m_4	g	1961.78	1934.56				
piknometris wona	m_1	g	992.20	955.41				
grunti wona	m_2-m_1	g	366.60	374.69				
wylis wona savse piknometrSi	m_4-m_1	g	969.58	979.14				
wylis wona	m_3-m_2	g	834.30	839.85				
grunti nawilakebis moculoba $(m_4-m_1)-(m_3-m_2)$		ml	135.28	139.29				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.71	2.69				
saSualo mniSvneloba	r_s	g/sm^3	**2.70**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

m i n e r a l u r i n a w i l i s s i m k v r i v e (p i k n o m e t r i)

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s sainJinro-geo l o g i u r i da geo f i z i k u r i kv l e v a
1+53		S u r f i #	3. 4
g r u n t i s aRwe r a:		n i m u S i s #	4.1
a r g i l i t i		s i R r me, m	3.10
ga m o c d i s me T o d i:	ГОСТ 5180-84. Раздел 10	T a r i R i	11.02.2011

n i m u S i s m o m z a d e b i s me T o d i:

d i d i p i k n o m e t r i

n i m u S i s #			4.1	4.1				
p i k n o m e t r i s #			228	535				
w o n a p i k n o m e t r i + g r u n t i + w y a l i	m_3	g	2186.58	2183.50				
w o n a p i k n o m e t r i + g r u n t i	m_2	g	1371.92	1334.21				
w y l i T s a v s e p i k n o m e t r i s w o n a	m_4	g	1945.17	1951.89				
p i k n o m e t r i s w o n a	m_1	g	989.34	965.57				
g r u n t i s w o n a	m_2-m_1	g	382.59	368.65				
w y l i s w o n a s a v s e p i k n o m e t r S i	m_4-m_1	g	955.84	986.33				
w y l i s w o n a	m_3-m_2	g	814.66	849.28				
g r u n t i s n a w i l a k e b i s m o c u l o b a	$(m_4-m_1)-(m_3-m_2)$	m l	141.18	137.04				
n a w i l a k e b i s s i m k v r i v e	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.71	2.69				
s a S u a l o m n i S v n e l o b a	r_s	g/sm^3	**2.70**					

	Seasru l a xa t i aSv i l i	Seamo wma RaRani Ze	daam t k i c a nacv l i Sv i l i

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+53		Surfi #	3.4
grunti s aRwera:		nimuSis #	4.2
qviSaqva		siRrme, m	3.15
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	13.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			4.2	4.2				
piknometris #			654	229				
wona piknometri + grunti + wyali	m_3	g	2174.32	2218.97				
wona piknometri + grunti	m_2	g	1351.79	1387.35				
wyliT savse piknometris wona	m_4	g	1921.48	1971.11				
piknometris wona	m_1	g	950.21	995.39				
grunti s wona	m_2-m_1	g	401.57	391.96				
wyli s wona savse piknometrSi	m_4-m_1	g	971.26	975.73				
wyli s wona	m_3-m_2	g	822.53	831.62				
grunti s nawilakebis mocu loba $(m_4-m_1)-(m_3-m_2)$		ml	148.73	144.10				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.70	2.72				
saSualo mniSvnelo ba	r_s	g/sm^3	**2.71**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		WaburRili #	J-5
grunti saRwera:		nimuSis #	5
argiliti		siRrme, m	4.30-4.60
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	12.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			5	5				
piknometris #			921	398				
wona piknometri + grunti + wyali	m_3	g	2197.52	2247.48				
wona piknometri + grunti	m_2	g	1357.65	1394.20				
wyliT savse piknometris wona	m_4	g	1959.94	1995.75				
piknometris wona	m_1	g	981.13	996.95				
grunti wona	m_2-m_1	g	376.52	397.25				
wylis wona savse piknometrSi	m_4-m_1	g	978.81	998.80				
wylis wona	m_3-m_2	g	839.87	853.29				
grunti nawilakebis moculoba $(m_4-m_1)-(m_3-m_2)$		ml	138.94	145.51				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.71	2.73				
saSualo mniSvneloba	r_s	g/sm^3	**2.72**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

m i n e r a l u r i n a w i l i s s i m k v r i v e (p i k n o m e t r i)

a d g i l m d e b a r e o b a:		p r o e q t i	"Jinva l i s" zedapi r u l i wya l sagdebi kaSx l i s sainJinro-geo l o g i u r i da geo f i z i k u r i kv l e v a
1+68		S u r f i #	3. 5
g r u n t i s aRwe r a:		n i m u S i s #	5.1
a r g i l i t i		s i R r me, m	3.20
ga m o c d i s me T o d i:	ГОСТ 5180-84. Раздел 10	T a r i R i	11.02.2011

n i m u S i s m o m z a d e b i s me T o d i:

d i d i p i k n o m e t r i

n i m u S i s #			5.1	5.1				
p i k n o m e t r i s #			433	938				
w o n a p i k n o m e t r i + g r u n t i + w y a l i	m_3	g	2181.76	2169.70				
w o n a p i k n o m e t r i + g r u n t i	m_2	g	1315.22	1331.04				
w y l i T s a v s e p i k n o m e t r i s w o n a	m_4	g	1958.65	1937.31				
p i k n o m e t r i s w o n a	m_1	g	960.88	961.95				
g r u n t i s w o n a	m_2-m_1	g	354.34	369.09				
w y l i s w o n a s a v s e p i k n o m e t r S i	m_4-m_1	g	997.77	975.36				
w y l i s w o n a	m_3-m_2	g	866.53	838.66				
g r u n t i s n a w i l a k e b i s m o c u l o b a	$(m_4-m_1)-(m_3-m_2)$	m l	131.24	136.70				
n a w i l a k e b i s s i m k v r i v e	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.70	2.70				
s a S u a l o m n i S v n e l o b a	r_s	g/sm^3	**2.70**					

	Seasru l a xa t i aSv i l i	Seamo wma RaRani Ze	daam t k i c a nacv l i Sv i l i

mineraluri nawilis simkvrive (piknometri)

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		Surfi #	∂.5
grunti s aRwera:		nimuSis #	5.2
qviSaqva		siRrme, m	3.30
gamocdis meTodi:	ГОСТ 5180-84. Раздел 10	TariRi	13.02.2011

nimuSis momzadebis meTodi:

didi piknometri

nimuSis #			5.2	5.2				
piknometris #			452	141				
wona piknometri + grunti + wyali	m_3	g	2210.85	2189.93				
wona piknometri + grunti	m_2	g	1360.27	1363.57				
wyliT savse piknometris wona	m_4	g	1966.73	1953.76				
piknometris wona	m_1	g	974.22	988.48				
grunti s wona	m_2-m_1	g	386.05	375.09				
wyli s wona savse piknometrSi	m_4-m_1	g	992.51	965.28				
wyli s wona	m_3-m_2	g	850.58	826.36				
grunti s nawilakebis moculoba $(m_4-m_1)-(m_3-m_2)$		ml	141.93	138.92				
nawilakebis simkvrive	$\rho_s = \frac{m_2 - m_1}{(m_4 - m_1) - (m_3 - m_2)} \cdot \rho_L$	g/sm^3	2.72	2.70				
saSualo mniSvneloba	r_s	g/sm^3	**2.71**					

	Seasrula xatiaSvili	Seamowma RaRaniZe	daamtkica nacvliSvili

danarTi 4

winaaRmdegoba erTRerZa kumSvaze

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		WaburRili #	J. 1
gruntis aRwera:		nimuSis #	1
argiliti		siRrme, m	4.20-4.50
gamocdis meTodi:	21153.2-84	TariRi	12.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.72	tenianoba, W %	5.1
simkvrive, ρ g/sm³	2.35	wyalgajerebis xarisxi,	0.98

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	1¹	4.25	5.54	8.04	23.52	1.00	4233	18.0
2	1²	4.38	5.38	7.88	23.59	1.00	4435	18.8
3	1³	5.57	5.50	10.12	30.64	1.00	5424	17.7
4	1⁴	4.07	5.32	6.21	21.64	1.00	3766	17.4
5	1⁵	4.66	5.04	8.37	23.49	1.00	4698	20.0
6	1⁶	5.45	5.11	6.65	27.85	1.00	6657	23.9
saSualo mniSvneloba, R_c								19.3
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+55		Surfi #	3.1
grunti is aRwera:		nimuSis #	1.1
argiliti		siRrme, m	3.20
gamocdis meTodi:	21153.2-84	TariRi	11.02.2011

min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	6.2
simkvrive, ρ g/sm³	2.33	wyalgajerebis xarisxi,	0.97

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	1.1¹	4.38	5.66	8.62	24.77	1.00	4410	17.8
2	1.1²	5.32	5.97	7.22	31.80	1.00	5691	17.9
3	1.1³	5.19	5.93	10.69	30.81	1.00	6069	19.7
4	1.1⁴	4.32	5.05	9.58	21.81	1.00	3642	16.7
5	1.1⁵	5.76	4.71	8.14	27.14	1.00	4560	16.8
6	1.1⁶	4.63	4.03	6.73	18.67	1.00	3757	20.1
saSualo mniSvneloba, R_c								18.2
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+55		Surfi #	3.1
grunti is aRwera:		nimuSis #	1.2
argiliti		siRrme, m	3.30
gamocdis meTodi:	21153.2-84	TariRi	11.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.70	tenianoba, W %	3.9
simkvrive, ρ g/sm³	2.33	wyalgajerebis xarisxi,	1.00

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	1.2¹	4.20	5.79	6.34	24.34	1.00	5037	20.7
2	1.2²	4.25	5.56	8.97	23.63	1.00	4324	18.3
3	1.2³	5.35	5.83	9.02	31.18	1.00	6112	19.6
4	1.2⁴	4.98	5.21	8.29	25.97	1.00	5011	19.3
5	1.2⁵	4.42	5.05	8.99	22.34	1.00	3864	17.3
6	1.2⁶	4.88	5.02	9.64	24.49	1.00	4750	19.4
saSualo mniSvneloba, R_c								19.1
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+32		WaburRili #	J. 2
grunti aRwera:		nimuSis #	2
argiliti		siRrme, m	4.50-4.80
gamocdis meTodi:	21153.2-84	TariRi	12.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	4.4
simkvrive, ρ g/sm³	2.24	wyalgajerebis xarisxi,	0.99

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficienti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	2^1	5.12	5.72	10.13	29.26	1.00	5004	17.1
2	2^2	4.62	4.41	10.54	20.37	1.00	3421	16.8
3	2^3	4.75	4.68	7.46	22.22	1.00	3689	16.6
4	2^4	5.10	4.12	6.43	21.00	1.00	4012	19.1
5	2^5	4.22	4.37	6.23	18.45	1.00	3025	16.4
6	2^6	4.67	5.72	8.25	26.72	1.00	4868	18.2
saSualo mniSvneloba, R_c								17.4
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		Surfi #	3.2
grunti is aRwera:		nimuSis #	2.1
argiliti		siRrme, m	3.00
gamocdis meTodi:	21153.2-84	TariRi	11.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	5.3
simkvrive, ρ g/sm³	2.38	wyalgajerebis xarisxi,	1.00

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	2.1¹	4.93	4.61	10.23	22.75	1.00	4550	20.0
2	2.1²	4.41	4.28	6.37	18.86	1.00	3565	18.9
3	2.1³	4.74	4.90	6.41	23.20	1.00	4617	19.9
4	2.1⁴	5.58	4.09	6.15	22.82	1.00	4290	18.8
5	2.1⁵	5.45	4.54	9.20	24.76	1.00	5076	20.5
6	2.1⁶	4.33	5.86	10.23	25.37	1.00	5586	22.0
saSualo mniSvneloba, R_c								20.0
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		Surfi #	3.2
grunti is aRwera:		nimuSis #	2.2
qviSaqva		siRrme, m	3.10
gamocdis meTodi:	21153.2-84	TariRi	12.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	4.7
simkvrive, ρ g/sm³	2.37	wyalgajerebis xarisxi,	0.97

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	2.2¹	4.28	4.88	10.61	20.91	1.00	5895	28.2
2	2.2²	4.17	4.99	7.10	20.80	1.00	5763	27.7
3	2.2³	5.36	5.93	7.31	31.81	1.00	9321	29.3
4	2.2⁴	5.23	5.59	7.65	29.24	1.00	8568	29.3
5	2.2⁵	4.20	4.18	6.45	17.54	1.00	5087	29.0
6	2.2⁶	5.39	4.03	7.91	21.76	1.00	7865	36.1
saSualo mniSvneloba, R_c								29.9
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		WaburRili #	J. 3
grunti is aRwera:		nimuSis #	3
qviSaqva		siRrme, m	5.00-5.30
gamocdis meTodi:	21153.2-84	TariRi	13.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	3.3
simkvrive, ρ g/sm³	2.41	wyalgajerebis xarisxi,	1.00

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficienti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	3^1	4.95	5.99	8.45	29.65	1.00	9428	31.8
2	3^2	4.63	4.37	10.44	20.23	1.00	6859	33.9
3	3^3	5.01	4.14	7.37	20.77	1.00	6814	32.8
4	3^4	5.99	4.17	6.08	25.01	1.00	8578	34.3
5	3^5	4.33	4.14	10.31	17.92	1.00	5716	31.9
6	3^6	4.80	4.56	6.43	21.89	1.00	7552	34.5
saSualo mniSvneloba, R_c								33.2
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+32		Surfi #	3.3
grunti is aRwera:		nimuSis #	3.1
argiliti		siRrme, m	3.15
gamocdis meTodi:	21153.2-84	TariRi	11.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	5.4
simkvrive, ρ g/sm³	2.39	wyalgajerebis xarisxi,	0.97

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	3.1¹	5.69	4.54	7.53	25.87	1.00	5302	20.5
2	3.1²	5.01	5.73	10.99	28.71	1.00	5829	20.3
3	3.1³	4.59	5.40	7.60	24.80	1.00	5059	20.4
4	3.1⁴	5.87	4.03	7.46	23.67	1.00	5088	21.5
5	3.1⁵	4.73	4.66	8.43	22.07	1.00	4524	20.5
6	3.1⁶	5.33	4.16	8.06	22.17	1.00	4549	20.5
saSualo mniSvneloba, R_c								20.6
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+32		Surfi #	3.3
grunti s aRwera:		nimuSis #	3.2
qviSaqva		siRrme, m	3.20
gamocdis meTodi:	21153.2-84	TariRi	12.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.70	tenianoba, W %	3.9
simkvrive, ρ g/sm³	2.34	wyalgajerebis xarisxi,	1.00

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	3.2¹	4.92	4.50	10.58	22.12	1.00	5420	24.5
2	3.2²	4.87	5.43	7.40	26.40	1.00	6548	24.8
3	3.2³	4.89	5.72	6.71	28.02	1.00	6892	24.6
4	3.2⁴	4.66	4.95	7.91	23.10	1.00	6167	26.7
5	3.2⁵	4.66	5.07	7.81	23.60	1.00	5995	25.4
6	3.2⁶	4.56	4.44	9.88	20.23	1.00	7550	37.3
saSualo mniSvneloba, R_c								27.2
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		WaburRili #	J-4
grunti aRwera:		nimuSis #	4
qviSaqva		siRrme, m	5.20-5.50
gamocdis meTodi:	21153.2-84	TariRi	13.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.70	tenianoba, W %	4.7
simkvrive, ρ g/sm³	2.31	wyalgajerebis xarisxi,	0.99

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	4^1	5.05	4.55	7.31	22.99	1.00	5517	24.0
2	4^2	4.17	5.39	10.88	22.49	1.00	5578	24.8
3	4^3	5.73	5.97	10.21	34.20	1.00	7626	22.3
4	4^4	5.64	5.47	6.57	30.85	1.00	7033	22.8
5	4^5	5.43	4.72	10.63	25.59	1.00	6808	26.6
6	4^6	5.48	5.82	8.48	31.89	1.00	8184	25.7
saSualo mniSvneloba, R_c								24.4
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+53		Surfi #	3.4
grunti is aRwera:		nimuSis #	4.1
argiliti		siRrme, m	3.10
gamocdis meTodi:	21153.2-84	TariRi	11.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.70	tenianoba, W %	4.9
simkvrive, ρ g/sm³	2.21	wyalgajerebis xarisxi,	0.99

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	4.1¹	4.83	4.55	8.60	21.94	1.00	3401	15.5
2	4.1²	4.31	4.70	7.00	20.26	1.00	3262	16.1
3	4.1³	4.48	5.46	10.14	24.48	1.00	3941	16.1
4	4.1⁴	5.38	4.28	9.29	23.04	1.00	4124	17.9
5	4.1⁵	4.51	4.11	9.21	18.51	1.00	2906	15.7
6	4.1⁶	5.46	5.31	10.16	29.00	1.00	6142	21.2
saSualo mniSvneloba, R_c								17.1
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+53		Surfi #	3.4
grunti is aRwera:		nimuSis #	4.2
qviSaqva		siRrme, m	3.15
gamocdis meTodi:	21153.2-84	TariRi	13.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	4.2
simkvrive, ρ g/sm³	2.33	wyalgajerebis xarisxi,	0.98

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	4.2¹	5.17	5.56	10.05	28.72	1.00	8128	28.3
2	4.2²	4.90	5.12	9.20	25.08	1.00	6948	27.7
3	4.2³	4.01	4.54	7.60	18.20	1.00	5079	27.9
4	4.2⁴	5.63	5.24	6.46	29.50	1.00	8525	28.9
5	4.2⁵	5.05	4.14	6.54	20.94	1.00	5883	28.1
6	4.2⁶	5.47	5.53	8.76	30.28	1.00	6317	20.9
saSualo mniSvneloba, R_c								27.0
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
0+95		WaburRili #	J-5
gruntis aRwera:		nimuSis #	5
argiliti		siRrme, m	4.30-4.60
gamocdis meTodi:	21153.2-84	TariRi	12.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.72	tenianoba, W %	5.7
simkvrive, ρ g/sm³	2.26	wyalgajerebis xarisxi,	1.00

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficienti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	5¹	4.78	5.95	7.20	28.48	1.00	4813	16.9
2	5²	4.79	5.54	6.64	26.54	1.00	4937	18.6
3	5³	4.26	4.19	9.88	17.84	1.00	3479	19.5
4	5⁴	5.47	5.25	10.72	28.72	1.00	5513	19.2
5	5⁵	5.25	4.37	6.08	22.95	1.00	3879	16.9
6	5⁶	5.87	5.11	10.62	29.99	1.00	4637	15.5
saSualo mniSvneloba, R_c								17.8
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

w i n a a R m d e g o b a e r T r e r Z a k u m S v a z e

a d g i l m d e b a r e o b a :		p r o e q t i	"Jinva l is" zedapiru l i wya l sagdebi kaSx l is sainJinro-geo l ogiuri da geo f izikuri kv l eva
1+68		S u r f i #	3. 5
g r u n t i s a R w e r a :		n i m u S i s #	5.1
a r g i l i t i		s i R r m e , m	3.20
g a m o c d i s m e T o d i :	21153.2-84	T a r i R i	11.02.2011

m i n . n a w i l i s s i m k v r i v e , ρ_s g/sm³	2.70	t e n i a n o b a , W %	4.0
s i m k v r i v e , ρ g/sm³	2.37	w y a l g a j e r e b i s x a r i s x i ,	0.97

r i g i T i #	n i m u S i s #	z o m a , s m			f a r T i , sm²	m a s S t a b u r i k o e f i c u e n t i	m r R v e v i Za l a , kg	s i m t k i c e s t a n d a r T i T , Rc m p a
		s i g r Z e	s i g a n e	s i m a R l e				
b u n e b r i v m d g o m a r e o b a S i								
1								
2								
3								
4								
5								
6								
							saSua l o mniSvne l oba, R_c	
w y a l g a j e r e b u l m d g o m a r e o b a S i								
1	5.1¹	5.40	4.86	7.77	26.26	1.00	5726	21.8
2	5.1²	4.42	4.93	10.66	21.78	1.00	4139	19.0
3	5.1³	4.84	5.13	9.19	24.84	1.00	4620	18.6
4	5.1⁴	4.83	5.84	10.17	28.22	1.00	5418	19.2
5	5.1⁵	5.91	4.33	6.30	25.63	1.00	5075	19.8
6	5.1⁶	5.61	4.83	10.05	27.13	1.00	5828	21.5
							saSua l o mniSvne l oba, R_c	20.0
							d a r b i l e b i s k o e f i c i e n t i ,	

	Seasru l a xa t i aSv i l i	Seamowma t l aSaZe	daam t k i c a nacv l iSv i l i

winaaRmdegoba erTrerZa kumSvaze

adgilmdebareoba:		proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
1+68		Surfi #	3.5
grunti s aRwera:		nimuSis #	5.2
qviSaqva		siRrme, m	3.30
gamocdis meTodi:	21153.2-84	TariRi	13.02.2011
min. nawilis simkvrive, ρ_s g/sm³	2.71	tenianoba, W %	3.8
simkvrive, ρ g/sm³	2.40	wyalgajerebis xarisxi,	0.97

rigiTi #	nimuSis #	zoma, sm			farTi, sm²	masStaburi koeficuenti	mrRvevi Zala, kg	simtkice standarTiT, Rc mpa
		sigrZe	sigane	simaRle				
bunebriv mdgomareobaSi								
1								
2								
3								
4								
5								
6								
saSualo mniSvneloba, R_c								
wyalgajerebul mdgomareobaSi								
1	5.2¹	5.43	4.84	9.10	26.27	1.00	8486	32.3
2	5.2²	4.00	4.10	7.35	16.40	1.00	4724	28.8
3	5.2³	4.23	4.58	10.25	19.39	1.00	6360	32.8
4	5.2⁴	5.61	5.02	7.56	28.18	1.00	8003	28.4
5	5.2⁵	4.39	5.93	9.44	26.03	1.00	7575	29.1
6	5.2⁶	4.65	4.27	9.82	19.88	1.00	6700	33.7
saSualo mniSvneloba, R_c								30.9
darbilebis koeficienti,								

	Seasrula	Seamowma	daamtkica
	xatiaSvili	tlaSaZe	nacvliSvili

danarTi 5

Zvris parametrebi

kldovani qanis Wraze gamocda

proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
gruntis aRwera:	argiliti
gamocdis pirobebi:	წყლგაჯერებულ მდგომარეობაში
gamocdis meTodi:	ГОСТ 21153.5-88
sge #	2

rigiTi #	gamonamusevari #	piketi #	siRrme, m	nimuSis #	nimuSis zoma, sm			farTi, A sm²	gamocdis kuTxe, gradusi	mZvreli Zala, F kn			
					sigrZe	sigane	simaRle						
1	S. 1	0+55	3.2	1.1¹	5.06	4.89	5.29	24.74	30	5.18	2.10	1.05	1.81
				1.1²	4.99	4.88	5.03	24.35	30	5.28	2.17	1.09	1.88
				1.1³	5.21	5.12	4.93	26.68	45	9.39	3.52	2.49	2.49
				1.1⁴	5.29	5.09	4.88	26.93	45	9.39	3.49	2.46	2.46
2	S. 1	0+55	3.3	1.2¹	4.96	5.26	5.27	26.09	30	6.98	2.68	1.34	2.32
				1.2²	4.99	4.87	5.11	24.30	30	7.32	3.01	1.51	2.61
				1.2³	5.21	4.93	5.14	25.69	45	12.22	4.76	3.36	3.36
				1.2⁴	5.29	5.21	4.91	27.56	45	12.68	4.60	3.25	3.25
3	S. 2	0+95	3.0	2.1¹	4.95	4.81	5.09	23.81	30	5.13	2.15	1.08	1.87
				2.1²	5.05	5.19	5.07	26.21	30	5.20	1.98	0.99	1.72
				2.1³	4.87	4.81	5.18	23.42	45	9.18	3.92	2.77	2.77
				2.1⁴	5.03	4.94	5.09	24.85	45	9.76	3.93	2.78	2.78
4	S. 3	1+32	3.2	3.1¹	5.25	4.91	4.80	25.78	30	7.04	2.73	1.36	2.36
				3.1²	4.86	5.29	4.94	25.71	30	7.10	2.76	1.38	2.39
				3.1³	5.17	4.94	5.26	25.54	45	12.30	4.81	3.40	3.40
				3.1⁴	5.03	5.15	4.94	25.90	45	12.30	4.75	3.36	3.36
5	S. 4	1+53	3.1	4.1¹	4.84	4.83	4.89	23.38	30	6.69	2.86	1.43	2.48
				4.1²	4.89	5.03	5.02	24.60	30	7.01	2.85	1.43	2.47
				4.1³	5.16	5.26	5.30	27.14	45	13.66	5.03	3.56	3.56
				4.1⁴	5.24	5.29	5.01	27.72	45	13.66	4.93	3.48	3.48
6	S. 5	1+68	3.2	5.1¹	5.15	5.03	4.86	25.90	30	4.09	1.58	0.79	1.37
				5.1²	4.92	5.05	4.91	24.85	30	4.36	1.76	0.88	1.52
				5.1³	5.23	5.20	5.17	27.20	45	7.58	2.79	1.97	1.97
				5.1⁴	5.12	4.95	4.96	25.34	45	7.55	2.98	2.11	2.11
7	W. 1	0+95	4.2-4.5	1¹	4.93	4.98	5.30	24.55	30	7.80	3.18	1.59	2.75
				1²	4.90	4.85	4.82	23.77	30	7.95	3.35	1.67	2.90
				1³	5.23	5.02	4.99	26.25	45	16.25	6.19	4.38	4.38
				1⁴	4.92	5.24	4.94	25.78	45	16.15	6.27	4.43	4.43
8	W. 2	1+32	4.5-4.8	2¹	5.04	5.14	5.02	25.91	30	6.78	2.62	1.31	2.27
				2²	5.14	4.98	4.94	25.60	30	6.72	2.63	1.31	2.27
				2³	5.10	5.13	5.12	26.16	45	12.04	4.60	3.25	3.25
				2⁴	5.18	5.22	4.95	27.04	45	12.04	4.45	3.15	3.15

Seasrula	Seamowma	daamtkica
xatiaSvili	yavelaSvili	nacvliSvili

kldovani qanis Wraze gamocda

proeqti "Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva

gruntis aRwera: argiliti

gamocdis pirobebi: წყლგაჯერებულ მდგომარეობაში

gamocdis meTodi: ГОСТ 21153.5-88 sge # 2

rigiTi #	gamonamusevari #	piketi #	siRrme, m	nimuSis #	nimuSis zoma, sm			farTi, A sm²	gamocdis kuTxe, gradusi	mZvreli Zala, F kn			
					sigrZe	sigane	simaRle						
9	W. 5	0+95	4.3-4.6	5¹	5.08	5.11	5.24	25.96	30	8.09	3.12	1.56	2.70
				5²	4.88	5.14	5.01	25.08	30	8.09	3.22	1.61	2.79
				5³	4.81	5.19	5.21	24.96	45	13.16	5.27	3.73	3.73
				5⁴	4.91	4.88	5.08	23.96	45	13.16	5.49	3.88	3.88

Seasrula xatiaSvili	Seamowma yavelaSvili	daamtkica nacvliSvili

kldovani qanis Wraze gamocda

proeqti	"Jinvalis" zedapiruli wyalsagdebi kaSxlis sainJinro-geologiuri da geofizikuri kvleva
gruntis aRwera:	qviSaqva
gamocdis pirobebi:	წყლგაჯერებულ მდგომარეობაში
gamocdis meTodi:	ГОСТ 21153.5-88
sge #	3

rigiTi #	gamonamusevari #	piketi #	siRrme, m	nimuSis #	nimuSis zoma, sm			farTi, A sm²	gamocdis kuTxe, gradusi	mZvreli Zala, F kn	წინაღობის ფარდობითი P ფარდობითი	ფარდობითი ფარდობითი σ ფარდობითი	ფარდობითი ფარდობითი τ ფარდობითი
					sigrZe	sigane	simaRle						
1	S. 2	0+95	3.1	2.2¹	4.84	5.18	5.17	25.07	30	10.24	4.08	2.04	3.54
				2.2²	5.00	4.84	4.84	24.20	30	10.24	4.23	2.12	3.66
				2.2³	5.01	4.85	4.88	24.30	45	19.15	7.88	5.57	5.57
				2.2⁴	4.80	4.85	5.28	23.28	45	19.15	8.23	5.82	5.82
2	S. 3	1+32	3.2	3.2¹	4.87	4.98	5.08	24.25	30	8.39	3.46	1.73	2.99
				3.2²	5.24	5.15	5.04	26.99	30	8.39	3.11	1.55	2.69
				3.2³	4.80	5.21	4.95	25.01	45	15.46	6.18	4.37	4.37
				3.2⁴	4.81	5.27	4.80	25.35	45	15.46	6.10	4.31	4.31
3	S. 4	1+53	3.2	4.2¹	4.90	5.06	4.99	24.79	30	9.74	3.93	1.96	3.40
				4.2²	5.05	4.85	5.26	24.49	30	9.70	3.96	1.98	3.43
				4.2³	5.06	5.03	5.20	25.45	45	23.58	9.27	6.55	6.55
				4.2⁴	5.05	5.17	5.18	26.11	45	23.91	9.16	6.48	6.48
4	S. 5	1+68	3.3	5.2¹	5.25	4.88	4.90	25.62	30	10.35	4.04	2.02	3.50
				5.2²	4.94	4.89	4.88	24.16	30	10.35	4.28	2.14	3.71
				5.2³	5.04	5.25	5.22	26.46	45	21.42	8.09	5.72	5.72
				5.2⁴	5.17	5.15	4.90	26.63	45	21.42	8.04	5.69	5.69
5	W. 3	1+68	5.0-5.3	3¹	4.84	4.80	5.13	23.23	30	16.00	6.89	3.44	5.97
				3²	5.30	5.21	5.21	27.61	30	16.00	5.80	2.90	5.02
				3³	4.94	5.07	5.14	25.05	45	38.70	15.45	10.93	10.93
				3⁴	5.01	5.21	5.20	26.10	45	38.70	14.83	10.48	10.48
6	W. 4	1+68	5.2-5.5	4¹	5.16	5.17	5.21	26.68	30	11.65	4.37	2.18	3.78
				4²	5.27	4.87	4.82	25.66	30	11.65	4.54	2.27	3.93
				4³	4.89	4.89	5.05	23.91	45	21.90	9.16	6.48	6.48
				4⁴	5.17	4.90	4.94	25.33	45	21.90	8.64	6.11	6.11

Seasrula xatiaSvili	Seamowma yavelaSvili	daamtkica nacvliSvili

danarTi 6

gruntis wyl is qimiuri analizi

danarTi 6

gruntis wylis qimiuri Sedgenilobis laboratoriuli kvlevis Sedegebi

#	gamonamuSevris #	nimuSis aRebis siRrme, m	ganzomileba	Semcvelobа 1 litrSi							PH
				anionebi				kaTionebi			
				mSraliinaSTi	HCO_3^{--}	CL^-	SO_4^{--}	Ca^{++}	Mg^{++}	Na^++K^+	
1	2	4	5	6	8	9	10	11	12	13	19
1	wylsacavi	0.00	mg-l	210.00	170.80	7.10	37.00	40.10	9.70	22.30	6.90
			mg-eqv		2.80	0.20	0.77	2.00	0.80	0.97	
			% mg-eqv		74.26	5.31	20.43	53.08	21.16	25.76	
2	Wab 1	4.00	mg-l	264.50	134.20	7.10	103.70	36.10	14.60	35.90	7.20
			mg-eqv		2.20	0.20	2.16	1.80	1.20	1.56	
			% mg-eqv		48.25	4.39	47.36	39.51	26.34	34.15	
3	Wab 2	4.00	mg-l	258.30	152.00	6.60	105.00	37.40	15.60	37.20	7.10
			mg-eqv		2.49	0.19	2.19	1.87	1.28	1.71	
			% mg-eqv		51.22	3.83	44.95	38.37	26.38	35.25	
4	Wab 3	4.00	mg-l	277.00	146.00	7.30	88.00	37.90	13.60	34.80	7.20
			mg-eqv		2.39	0.21	1.83	1.89	1.12	1.42	
			% mg-eqv		54.01	4.65	41.35	42.68	25.24	32.08	

danarTi 7

grunt is wyl is agresiul obis xar isxi

wyl is agresiul obis xarisxi betonis mimarT

danarTi 7

rigiTi #	gamonamuSevris #	nimuSebis aRebis siRrme, m	agresiul obis maCvenebl ebi	wyl is agresiul obis xarisxi nagebobebisadmi					
				ganl agebul qanebSi $_f$>0.1 m/dR.R			ganl agebul qanebSi $_f$<0.1 m/dR.R		
				betonis marka wyal SeRwevadobis mixedviT					
				W4	W6	W8	W4	W6	W8
1	wyal sacavi	0.00	bikarbonatul i sixiste, mg_eqv/l	ara	ara	ara	ara	ara	ara
			wyal badionis maCvenebel i	ara	ara	ara	susti	ara	ara
			agresiul i naxSirmJavas Semcvel oba, mg/l	-	-	ara	-	-	ara
			magnezialuri marilebis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			amoniumis marilebis Semcvel oba, mg/l	-	-	-	-	-	-
			maRal i tutianobis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			sul fatebi betonebisaTvis						
			portl andcementi (ГОСТ10178-76)	ara	ara	ara	ara	ara	ara
			widaportnal dcementi	ara	ara	ara	ara	ara	ara
			sul fatmedego cementi	ara	ara	ara	ara	ara	ara

rigiTi #	gamonamuSevris #	nimuSebis aRebis siRrme, m	agresiul obis maCvenebl ebi	wyl is agresiul obis nagebobebisadmi					
				ganl agebul qanebSi $_f$>0.1 m/dR.R			ganl agebul qanebSi $_f$<0.1 m/dR.R		
				betonis marka wyal SeRwevadobis mixedviT					
				W4	W6	W8	W4	W6	W8
2	Wab 1	4.00	bikarbonatul i sixiste, mg_eqv/l	ara	ara	ara	ara	ara	ara
			wyal badionis maCvenebel i	ara	ara	ara	susti	ara	ara
			agresiul i naxSirmJavas Semcvel oba, mg/l	-	-	ara	-	-	ara
			magnezialuri marilebis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			amoniumis marilebis Semcvel oba, mg/l	-	-	-	-	-	-
			maRal i tutianobis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			sul fatebi betonebisaTvis						
			portl andcementi (ГОСТ10178-76)	ara	ara	ara	ara	ara	ara
			widaportnal dcementi	ara	ara	ara	ara	ara	ara
			sul fatmedego cementi	ara	ara	ara	ara	ara	ara

rigiTi #	gamonamuSevris #	nimuSebis aRebis siRrme, m	agresiul obis maCvenebl ebi	wyl is agresiul obis nagebobebisadmi					
				ganl agebul qanebSi $_f$>0.1 m/dR.R			ganl agebul qanebSi $_f$<0.1 m/dR.R		
				betonis marka wyal SeRwevadobis mixedviT					
				W4	W6	W8	W4	W6	W8
3	Wab 2	4.00	bikarbonatul i sixiste, mg_eqv/l	ara	ara	ara	ara	ara	ara
			wyal badionis maCvenebel i	ara	ara	ara	susti	ara	ara
			agresiul i naxSirmJavas Semcvel oba, mg/l	-	-	ara	-	-	ara
			magnezialuri marilebis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			amoniumis marilebis Semcvel oba, mg/l	-	-	-	-	-	-
			maRal i tutianobis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			sul fatebi betonebisaTvis						
			portl andcementi (ГОСТ10178-76)	ara	ara	ara	ara	ara	ara
			widaportnal dcementi	ara	ara	ara	ara	ara	ara
			sul fatmedego cementi	ara	ara	ara	ara	ara	ara

rigiTi #	gamonamuSevris #	nimuSebis aRebis siRrme, m	agresiul obis maCvenebl ebi	wyl is agresiul obis nagebobebisadmi					
				ganl agebul qanebSi $_f$>0.1 m/dR.R			ganl agebul qanebSi $_f$<0.1 m/dR.R		
				betonis marka wyal SeRwevadobis mixedviT					
				W4	W6	W8	W4	W6	W8
4	Wab 3	4.00	bikarbonatul i sixiste, mg_eqv/l	ara	ara	ara	ara	ara	ara
			wyal badionis maCvenebel i	ara	ara	ara	susti	ara	ara
			agresiul i naxSirmJavas Semcvel oba, mg/l	-	-	ara	-	-	ara
			magnezialuri marilebis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			amoniumis marilebis Semcvel oba, mg/l	-	-	-	-	-	-
			maRal i tutianobis Semcvel oba, mg/l	ara	ara	ara	ara	ara	ara
			sul fatebi betonebisaTvis						
			portl andcementi (ГОСТ10178-76)	ara	ara	ara	ara	ara	ara
			widaportnal dcementi	ara	ara	ara	ara	ara	ara
			sul fatmedego cementi	ara	ara	ara	ara	ara	ara

danarTi 8

garemos agresiul obis xarisxi

danarTi 8

garemos agresiuli zemoqmedebis xarisxi metalis konstruqciebze

rigiTi #	gamonamuSevris #	nimuSebis aRebis siRrme, m	wylis agresiuli zemoqmedebis xarisxi rkina-betonis armaturaze		qanebis agresiuli zemoqmedebis xarisxi naxSirbadian foladze, gruntis wylis donis dabla im qanebisaTvis romelTa filtraciis koeficienti >0.1m/dRe-Rame
			mudmivad wyalSi	periodulad dasvelebiT	
1	wyalsacavi	0	ara	susti	saSualo
2	Wab 1	4.0	ara	susti	saSualo
3	Wab 2	4.0	ara	susti	saSualo
4	Wab 3	4.0	ara	susti	saSualo

danarTi 9

fotomasala

Surfi #1

pk 0+55

Surfi #2

pk 0+95

Surfi #3

pk 1+30

Surfi #5

pk 1+70

Surfi #4

pk 1+51

geofizikuri jgufis muSaobis procesi