

teqni kuri daval eba

sai nJinro_geol ogi ur i kvl evebi s Casatarebl ad

obi eqtis dasaxel eba _

kaspis muni cipal iteti
sof. gudal eTis
gazmoma rageba. mi wi sqveSa
saS. wnevi s da mi wi szeda
saS. wnevi s gazgamanawi l e-
bel i qsel ebi.

damkveTi _

ss "saqorggazi "

obi eqtis mdebareoba _

kaspis muni cipal iteti

daproeqtebis stadia _

muSa proeqti

obi eqtis teqni kuri daxasi aTeba _ gaza sadenis mSenebl obi sas
gaTval i swinebul i iqnes po_
l ieTil enis mil ebis mi wi s_
qveSa gata reba. gaza sadenis
mi nimal uri CaRrmaveba mi Re_
bul i iqnas 1.0 metris tol ad
mil is zeda msaxvel idan mi_
wi s zedapi ramde, tranSeis
Zirze 0.1m si maRI is qvi Si s
bal i Si s mowyobi T. ri sTvi sac
saWi roa gani saz Rvros grun_
tebis fizikuri Tvi sebebi da
dadgindes gruntis damuSave-
bi s si Znel e zedapi ri dan 2-3m
si Rrmemde.

danar Ti _

sofI is gengegma 1: 5000 masStabSi
Surfebi s ganl agebi T.

direqtori:

/d. roWi kaSvi l i /

kaspi s municipal i teti sof. gudal eTi s gazmomaragebi s saS. wnevi s gaza denis trasi s sainJinro_geol ogiuri kvl evebi

1. Sesaval i

2014 wl is seqtembris TveSi ss "saqorggazis" dakveTi T Sevasrul eT kaspi s municipal i tetSi sof. gudal eTi s (saSual o wnevi s gaza denis) gazmoma ragebi saTvis sainJinro-geol ogiuri kvl evebi.

kvl evis mi zans warmoadgenda sofl is quCebisa da teritoriis geol ogiuri agebul ebi s da hidrogeol ogiuri pirobebis Seswavl a, raTa dagvedgi na gaza denis trasebis amgebi gruntebis fizikur-meqani kuri Tvi sebebi da gruntis wyl is doneebi. agreTve gamogvev i na uaryofi Ti sainJinro-geol ogiuri pirobebis mqone ubnebi.

dasaxul i amocanis gadasawyvetad pirvel rigSi detal urad iqna daTval ierebul i sakvl evi teritoria da mosazRvre ubnebi, SeirCa Surfebis gayvanis adgil ebi. amis Semdeg sakvl ev teritoriazze gayvanil iqna gansazRvrul i raodenobis Surfibi (kveTi 1, _ 1.2m², si Rrmi T 2 _ 2.2m sul 29 cl.) maTi geol ogiuri aRwerisa da gamonamuSevrebi dan aRebul i gruntis nimuSebis savel e pirobebis Seswavl am mogvca saSual eba dagvedgi na sofl is teritoriis I iTol ogiuri agebul eba da gangvesazRvra maTi fizikur_meqani kuri monacemebi.

Catareb ul i sainJinro-geol ogiuri kvl evebi s garda raionis fizikur-geografiul i, geol ogiuri da hidro-geol ogiuri pirobebis dadgena-dazustebi saTvis gamoyenebul i iqna fonduri masal ebi.

savel e da kamer al uri samuSaoebi Catarda inJiner geol og g. berizis mier.

daskvnas Tan erTvis Surfebis I iTol ogiuri Wril ebi da 1:5000 masStabi ani gengegma Surfebis ganl agebi T.

2. sakvl evi teritoriis zogadi daxasi aTeba

2.1 fizikur-geografiul i pirobebi

sof. gudal eTi administraciul ad mi ekuTvneba kaspi s municipal i tets. sofel i raionul i centri dan mdebareobs

samxreTi T 15 km-Si. sof. gudal eTs Crdil o-aRmosavl eTiT esazRvreba sof. Tval adi, Crdil o-dasavl eTiT sof. neste, samxreTiT sof. wifori da sof. varxaani, samxreT-aRmosavl eTiT tyis masivi da sameurneo savargul ebi. sofel i central uri avtomagistral idan samxreTiT mdebareobs, roml iTac i gi ukavSi rdeba danarCen punqtebs. sofI is Sida gzebis mcire nawil i moasfal tebul ia, xol o danarCeni moxresiT ia.

sakvl evi teritoria saqarTvel os teritoriis geomorfologiuri darai onebis mixedviT ganTavsebul ia kavTisxevi-axal qal aqis depresiis aRmosavl eT nawil Si da warmodgeni l ia ZiriTadad meoTxeul i asakis del uviur-prol uviuri qanebi T. sofel i gaSenebul ia Crdil oeTis daqanebis ferdobze. ferdobi dafarul ia ramodenime metris simZI avris del uviur-prol uviuri Ti xnarебi T. xol o maT qveS ganl agebul ia pal eogenuri asakis qvi Saqvebi.

reliefis Tval sazrisiT teritoria ganekutvneba saSual o mTian denudaciur-eroziul i genezisis mTiswinebs. geomorfologiuri ieris Camoyal ibebaSi mni Svnel ovani rol i iTamaSes eroziul ma procesebma.

gazsadenis trasis absol i turi niSnul ebia minimumi 795m da maqsimumi 1030m.

2.2 Kl imati, hidrogeologiuri pirobebi

kl imaturi Tval sazrisiT sakvl ev ubanze Camoyal ibebul ia mSral i subtrikul i stepuri hava. municipalitetSi zamTari zomierad civia, zafxul i cxel i. saS. wl iuri temperaturaa 10,5°C. yvel aze civi Tvea ianvari saSual o temperaturiT -1,2°C, yvel aze Tbil i Tvea agvisto saS. temperaturiT +22,3°C. mosul i nal eqevis saSual o wl iuri j amia daaxl oebiT 500mm.

hidrogeologiuri Tval sazrisiT sakvl evi ubani imyofeba qarTl is arteziul i auzis forovan, napral ovan da napral ovan karstul i wyl ebis zonaSi, romel ic ZiriTadad ikvebeba md. mtkvris, md. kavTuras md. I exuras nakadebi T. gruntis wyl ebi ZiriTadad gavrcel ebul iasofl is teritoriis vake nawil Si 8-10m si Rrmeze. undi iTqvas, rom dasaproeqtebel i sofel i gruntis wyl ebi T araris mTl ianad uzrunvel yofil i.

sakvl ev teritoriale Cvens mier gamonamuSevrebi T gruntis wyl is done ar gadakvetil a da arc momaval i samuSaoebis dros aris mosal odnel i.

3. sainJinro-geol ogiuri kvl evis Sedegebi

geotektonikuri Tval sazrisiT ubani moTavsebul ia saqarTvel os bel tis neogenuri daZirvis aRmosavl eT ol qSi. aq meoTxeul i nal eqebis qveS ganl agebul ia carcul i da pal eogenuri asakis mergel ebi, kirqviani qvi Saqvebi da tufoqvi Saqvebi.

sakvl evl evi teritorii s winaswarmma Seswavl am gvaCvena, rom teritoriaze da mis garSemo arsebul sivrczeze saSiSi geol ogiuri procesebis Casaxva-ganvi Tarebis kval i ar aRiniSneba. ubani mdgradia da gazsadenis mSenebl obisaTvls karg sainJinro-geol ogiur pirobebSi imyofeba. xol o sainJinro-geol ogiuri pirobebis sirTul is mixedviT sn da w 1.02.07.87-is danarTi 10-is Tanaxmad ubani ganekuTvneba I (martivi) sirTul is kategorias.

sakvl evi ubani ganTavsebul ia msxvil i geomorfol ogiuri erTeul is kavTisxevi-axal qal aqis depresiis aRmosavl eT nawi l Si da warmodgenil ia ZiriTadar meoTxeul i asakis del uviur-prol uviuri nal eqebiT, romel ic warmodgenil ia TixnarebiT, xol o maT qveS ganl agebul ia pal eogenuri asakis qvi Saqvebi.

sof. kavTisxevsa da gudal eTs Soris, aseve ferdobebi mofenil ia didi l odebiT da msxvil marcvl ovani qvi SebiT da warmodgenil ia msxvil i l odnariT. sofI is vake teritoriaze gavrcel ebul ia del uviur-prol uviuri warmoSobis Tixnari.

marSrutis teritoriaze gayvanil i Surfebidan arebul i ni muSebis gamokvl evis safuzvel ze gamoyofil i iqna oTxi fena, romel Tagan gamovkveTeT sami sainJinro-geol ogiuri erTeul i:

1. nayari grunti _ xreSi, RorRi.
2. Tixnari Ria yavisferi, marcvl ovan-wvriI koStovani, advil ad fSvnadi.
3. Tixnari, del uviur-prol uviuri warmoSobis magar pl astikuri konsistenciis, wvriI i kenWebis 5-10%-is raodenobis CanarTebiT.
4. prol uviur del uviuri kaWar-kenWnari Ti xnaris Semavsebl iT.

kvl evis Sedegad dadginda, rom gazsadenis mil ebi unda Caewyos II l i Tol ogiur fenaSi, warmodgenil s Tixnari, Ria yavisferi marcvl ovan-wvriI koStovani, advil ad fSvnadi. romel Ta ZiriTadi fizikur-meqani kuri maCvenebl ebi Semdegi a:

- | | |
|-------------------------------|-------------------------|
| a) saSual o mocol obi Ti wona | $p=1810\text{kg/m}^3$ |
| b) Si nagani xaxuni s kuTxe | $\phi=21^\circ$ |
| g) SeWi dul oba | $c=0.25\text{kgZ/sm}^2$ |
| d) deformaci i s modul i | $E=125\text{kgZ/sm}^2$ |
| e) saangari So wi naRoba | $R_0=1.8\text{kg/sm}^2$ |

samSenebl o normebisa da wesebis krebul is (IV-5-82) cxril is mixedvi T sakvl evi ubni s amgebi gruntebi ZiriTadad damuSavebi s sirTul is mixedvi T mi ekuTvneba III kategorias, rogorc xel iT aseve meqani zmebi T damuSavebi sas.

4. daskvnebi:

1. sakvl evi ubni s sainJinro-geol ogiuri pirobebis Seswavl is Sedegad dadginda, rom ubanze ar fiqsirdeba uaryofi Ti fizikur-geol ogiuri procesebi da arc aris mosal odnel i. mizanSewoni l ia rogorc miwi sqveSa ise sahaero mSenebl oba. sainJinro-geol ogiuri pirobebis sirTul is mixedvi T mi ekuTvneba I kategorias (martivi).

2. sofl is teritoria agebul ia meoTxeul i asaki s prol uviur-del uviuri gruntebi T, romel Ta simZl avre gamodis Seswavl is zonidan. agreTve mcire gavrcel ebi T, gvxvdeba sarmatul i asaki s qvi Saqvebi. agreTve md. kavTuris prol uviur I odnari qvi Snar-Tixnaris Semavsebl iT.

3. sofl is teritoriaze gavrcel ebul ia:

a) Tixnari gruntebi, romlebic xasi aTdebi an maRal pl astikuri konsistenci T, simkvri vi T $p=1800\text{kg/m}^3$ damuSavebi s siZnel is mixedvi T Seesabameba III j gufs.

b) md. kavTuris prol uviuri nal eqebi simkvri vi T $p=1950\text{kg/m}^3$ damuSavebi s siZnel is mixedvi T mi ekuTvneba III j gufs.

4. gruntis wyl ebi gamokvl eul siRrmeze ar gamovl i nda.

5. saqarTvel os teritori i s seismuri darai onebis koreqtirebul i sqemis mixedvi T sakvl evi ubani ganTavsebul ia 8 bal i an zonaSi (saqarTvel os respubl iki s arqi teqturis da mSenebl obi s saminstros 1991 w. ivnisis #42 brZ. #1 danarTi. ubni s seismurobad unda gani sazRvros 8 bal i.

geol ogi:

/g. berize/