RELACION TEKNIK:

RIKONSTRUKSION I RRJETIT SHPERNDARES TE BRENDSHEM TE QYTETIT TE KAVAJES DHE NDERTIM DEPOS SE RE

1. Të Pergjithshme

Qyteti i Kavajes ndodhet rreth 20km ne jugperendim te qytetit te Tiranes.

Kavaja është një qytet i cili ndodhet në rajonin perëndimor të Shqipërisë. Kavaja nuk ka male të larta, përkundrazi kryesohet nga një reliev fushor-kodrinor. Kjo nxit ekonominë në Kavajë. Kavaja ka si një pikë kryesore orientimi Kepin e Lagjit, ky i cili laget në tre anët e tij me ujërat e detit Adriatik. Tjetër pjesë relievi është dhe lumi Shkumbin i cili e përshkon Kavajën mes për mes. Duke nisur në lindje të tij me malin më të lartë të Kavajës, malin Mënglë i cili është 404m i lartë. Në veri të Kavajës shtrihet mali i Zhurit, 256m i lartë. Në jug të tij shtrihet mali Frang, i cili është 311m i lartë. Tjetër pjesë relievi në Kavajë është përroi i Lishjatit i cili kalon në mes të Kavajës gjithashtu. Lartësia e Kavajës është 34m mbi nivelin e detit.

2. **Populsia**

Te gjitha te dhenat mbi populsine e Kavajes u dhane nga Bashkia e qytetit dhe ne detyren e projektimit. Populsia aktuale e Kavajës nga te dhenat e Bashkise eshte 41698 banore, dhe. Nje pjese e populsise jeton ne banesa 2-5kate, pjesa me e madhe ne banesa private 1-2kate. Nuk mungojne edhe objekte shume kate deri 12-13kt.

3. **Gjendja e infrastruktures se Furnizimit me Uje**

Aktualisht sot qyteti i Kavajes furnizohet me uje nga burimet e Çermës të cilat përmes stacionit te pompimit shkojnë në një pus shuarje të presionit të vendosur ne kuotë +99m. Prej kesaj vepre del një tubacion DN-300mm G.S drejt Depos me volum akumulues V=2000m3. Nga kjo depo sot dalin ne drejtim te qytetit 2 tubacione DN-400mm çelik, te ndertuar para viteve 1990. Keto tubacione sot shfaqin humbje dhe probleme ne furnizimin me uje. Gjithashtu pjese e rrjetit ekzistues jane dy tubacione PE Dj-225mm ne shetitoren ''Indrit Cara'', dy tubacione PE Dj-200mm ne shetitoren ''Kavaljon'' dhe nje tubacion PE Dj-200mm ne Rr.''Taulantja''. Sipas azhornimit dhe verifikimeve ne terren, gjendet edhe nje tubacion PE100 Dj-315mm i pa vendosur ne funksion. Keto tubacione te ndertuara se fundmi jane marre parasysh ne skemen perfundimtare te ujesjellesit.

4. **Llogaritjet Hidraulike**

6-1 Llogarisim prurjet karakteristike

Me qellim dimensionimin e tubacioneve dhe gjithë veprave te domosdoshme jane realizuar matjet topografike per secilen nga linjat. Jane marre informacionet mbi populsine prane Bashkise se Kavajës.

Sipas te dhenave te detyres se Projektimit kemi :

- Populsia për tu shërbyer sotë N_1=41698 banorë
- Norma e përdorimit për ujë të pijshëm

Per plotesimin e nevojave te furnizimit me uje te populsates **n=150 l/(banorë*ditë)**
Norma e furnizimit me uje per nevojat social-kulturor komunale, prodhimi etj
65l/(banorë*ditë)
Humbjet hidraulike vleresohet ne masen **H_w=20%**
Pra ne total pranojme **n=150+65+0.2*(150+65)=258 l/(banore*dite)**

- Norma e shteses se populsise P=0.75%
- Jetëgjatësia e veprës t=25vjet
- Koefiçienti i jouniformitetit K=2

Rritja e populsise ne fund te periudhes llogaritese te sherbimit, mund te percaktohet me ane te formules :

$$N_n = N \cdot (1 + r)^t$$

$$N_2 = 41698 \cdot (1 + 0.0075)^{20} = 50260\ banorë$$

Prurjet karakteristike :

Prurja maksimale ditore :

$$Q_{max}^{ditore} = \frac{N_2 \cdot n}{1000} = \frac{50260 \cdot 258}{1000} = 12967.08 \ (\frac{m^3}{dit\ddot{e}})$$

Prurje mesatare orare me qellim dimensionimin e tubacioneve te transmetimit

$$Q_{mes}^{orare} = \frac{Q_{max}^{dit}}{24} = \frac{12967.08}{24} = 540.29(\frac{m^3}{or\ddot{e}})$$

Prurja maksimale orare

$$Q_{max}^{orare} = Q_{mes}^{orare} \cdot K = 540.29 \cdot 2 = 1080.59 \quad (\frac{m^3}{or\ddot{e}})$$

Prurje llogaritese per rrjetin shperndares :

$$q_{max}^{sek} = \frac{Q_{max}^{orare}}{3600} = \frac{1080.59 \cdot 1000}{3600} = 300 \ (\frac{l}{sek})$$

Sic rezulton prurja mesatare orare $Q_{mes}^{orare} = 150\ l/sek$

Kjo prurje perputhet me prurjen e siguruar nga burimet e Çermës, e dhene ne detyren e Projektimit.

6-2 Llogarisim volumin e akumulimit

Fillimisht llogarisim volumin e akumulimit per qytetin e Kavajës

Me qellim perpunimin e prurjes mesatare orare per cdo zone eshte e domosdoshme akumulimi dhe shperndarja me pas ne rrjet.

Me te dhenat e llogaritura percaktojme volumin e nevojshem te depos per plotesimin e kerkesave te furnizimit me uje :

Funksionet e depos se akumulimit jane :

- Funksion rregullues i sherbimit te furnizimit me uje te populsise se sherbyer

Me qellim percaktimin e vellimit rregullues te rezervuarit V_C shfrytezohen formula gjysem empirike. Ne rastin e sistemeve me ngritje mekanike (sipas

, ''Aquedotti'') ky vellim varion mesatarisht midis 8-15% te prurjes maksimale ditore.

$$V_c = (0.08 \div 0.15) \cdot V_g, \text{ku } V_g \text{ eshte volumi i ujit te llogaritur per 24 ore,}$$

$$V_c = 0.15 \cdot 12967 = 1945 m3$$

- Funskion rezerve me qellim perballimin e situatave te avarise gjate nderprerjes se funksionit te ujesjellesit te jashtem. (Avari ne tubacionin e transmetimit qe furnizon depo).

Probabiliteti i nderprerjes se furnizimit me uje rritet me rritjen e gjatesise se tubacionit, presionit te punes, qendrueshmerise se terrenit etj. Vlerat e propozuara te volumit te rezerves nga autoret ''Conti'' dhe ''Zoccoli'' (8-12 ore furnizim me uje)

$$V_r = \left(\frac{1}{3} \div \frac{1}{2}\right) \cdot V_g$$

$$V_r = 0.33 \cdot 12967 = 4279\text{m3}$$

- Funksion sherbim antizjarr.

Sipas literatures teknike (V.Milano, ''Aquedotti''') për qytetet me popullsi mbi 5000 banorë, autori Conti propozon të vleresohet fillimisht prurja antizjarr me formulen :

$$Q_i = 6\sqrt{N \times 10^{-3}} = 42.536$$

Ku N= numri i popullsise te sherbyer

Duke supozuar nje kohe sherbimi antizjarr prej 5 oresh volumi do te percaktohet :

$$V_i = 108\sqrt{N \times 10^{-3}} = 765.65m3$$

Volumi total i depos

$$V=V_c+V_r+V_i$$

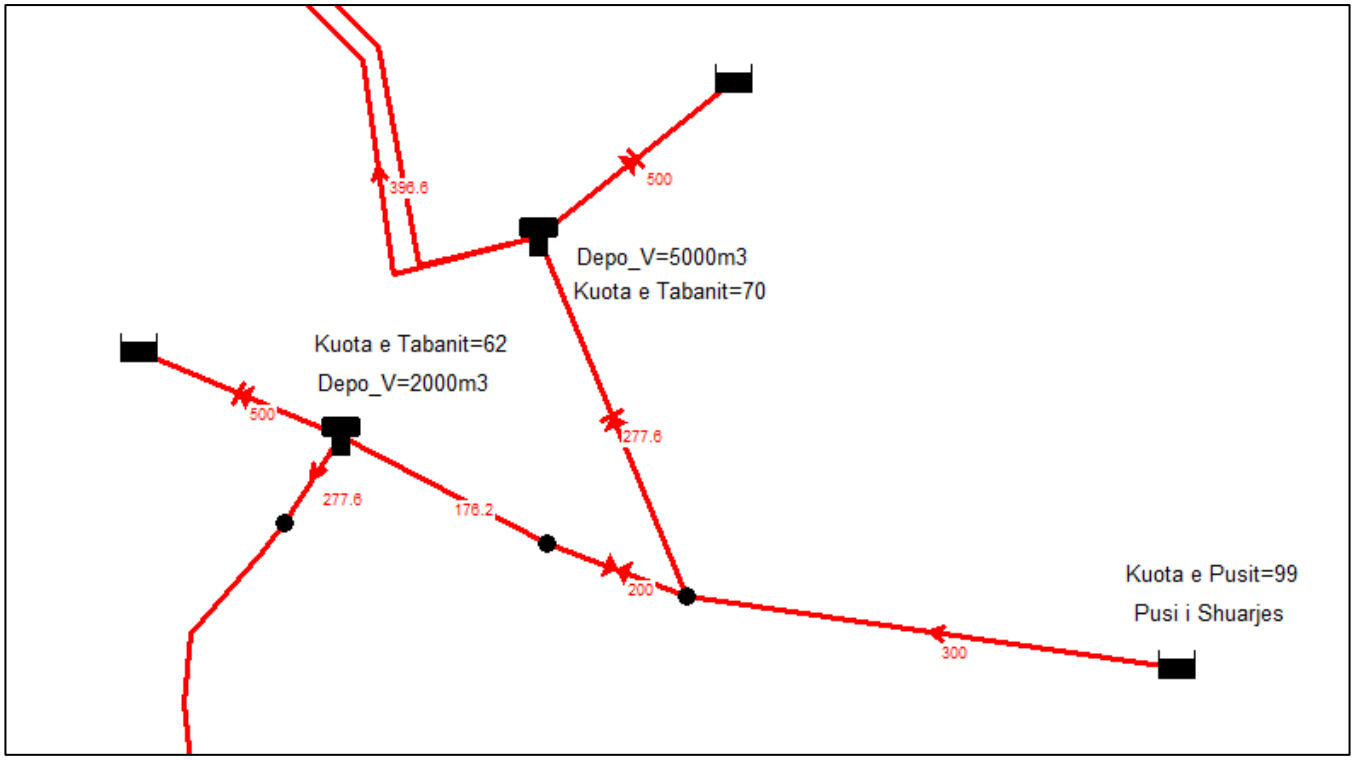
V=1945+4279+765.65=6989m3

Perfundimisht volumi i rezervuarit **V=7000m³**

Me qellim krijimin e ketij volum akumulimi parashikojme ndertimin e nje rezervuari te ri. Ky rezervuar eshte llogaritur te pozicionohet ne kuote +70m. Duke krijuar ne kete menyre mundesine e furnizimit me uje te objekteve qe ndodhen ne kuota te larta te qytetit +50mTipologjia e rezervuarit qe eshte projektuar, me qellim shfrytezimin me optimal te territorit eshte drejtkendore, me dy seksione te veçanta. Lartesia maksimale e ujit ne rezervuar eshte pranuar **5.5metra** me qellim zvogelimin e luhatjeve te ngarkeses ne rrjetin shperndares. Me qellim favorizimin e qarkullimit te ujit ne rezervuar secili seksion do te ndahet me permes mureve te brendshme. Keto mure, per arsye se ngarkesa hidrostatike eshte ekuivalente ne te dy anet, rezultojne me nje trashesi me te vogel krahasuar me muret perimetrale. Dhoma e manovrimit, sebashku me saraçineskat eshte menduar te instalohet ne brendesi te rezervuarit, ne mungese te hapesirave dhe relievit te territorit.

6-3 Llogarisim tubacionin e furnizimit te depos se re

Sic u permend, skema e furnizimit te depos se re do te jete :



Llogarisim piezometrin ne fund te tubacionit DN-300mm G.S. me gjatesi L=1500ml.

Dati di calcolo

D	311.6	mm	=	Diametro interno
Q	150	l/s	=	Portata della condotta
J	12.79	m/km	=	Perdita di carico
C	120		=	Coefficente di scabrezza

h_{w1} = 12.79m/km*1.5km=19.18m

Pjezometri = 99-19.18m=79.81m

Llogarisim tubacionin ne drejtim te depos se re me volum V=5000m3. Gjatesia e tubacionit L=112ml

Kuota maksimale e nivelit te ujit ne depo +75.5m

$$i = \frac{79.81 - 75.5}{0.112} = 38.48\text{m/km}$$

Dati di calcolo

D	234.39	mm	=	Diametro interno
Q	150	l/s	=	Portata della condotta
J	38.48	m/km	=	Perdita di carico
C	140		=	Coefficente di scabrezza

Perzgjedhim tubacion PE100PN10 SDR17 Dj-315mm

Gjithashtu kemi parashikuar ndryshimin e tubacionit ne hyrje te depos ekzistuese me volum V=2000m3

Kuota maksimale +65.5

$$i = \frac{79.81 - 65.5}{0.04} = 357.75\text{m/km}$$

Dati di calcolo

D	152.59	mm	=	Diametro interno
Q	150	l/s	=	Portata della condotta
J	357	m/km	=	Perdita di carico
C	130		=	Coefficente di scabrezza

Perzgjedhim tubacion PE100PN10 SDR17 Dj-200mm

6-4 Llogaritjet e Rrjetit Shperndares

Me qellim verifikimin ne kompleks te skemes se llogaritur, ndertojme nje model hidraulik permes software Epanet.V2.

Perpara zhvillimit te modelit hidraulik, shprehim disa konsiderata mbi software e perdorur per llogaritjet hidraulike.

Software i perdorur EPANET V.2 (United States Environmental Protection Agency's (EPA)

Software Epanet V.2, realizon modele simulimi hidraulik duke llogaritur ngarkesat ne nyje dhe prurjet ne cdo tubacion ne kushtet e nje niveli te dhene ne rezervuar. Modeli lejon te simulohet ndryshimi i nivelit te ujit ne rezervuar me kalimin e kohes, ngarkesen ne nyje ne momente te ndryshme ne varesi te sjelles se rrjetit pergjate nje dite. Kjo realizohet permes zgjidhjes ne menyre te njekohshme te nje numri te larte ekuacionesh te ruajties se prurjes ne cdo nyje, dhe te humbjeve te presionit ne cdo tubacion. Ky proces, i njohur ndryshe si bilanc hidraulik, kalon permes nje procesi perserites se zgjidhjes se ekuacioneve jo-lineare ; Epanet per kete qellim perdor algoritmin e gradientit, e percaktuar nga Todini dhe Pilati

(1987) dhe me pas nga Salgado (1988). Ne menyre te vecante, nje rrjet me ''N'' nyje qe lidhin tubacione dhe ''NF'' nyje qe perfaqesojne rezervuare, humbjet e presionit ne nje tubacion midis nyjeve i dhe j mund te pershkruhen permes ekuacionit :

$$H_i - H_j = h_{ij} = r \times Q_{ij}^n + m \times Q_{ij}^2$$

Ku : H_i eshte ngarkesa totale ne nyje

h_{ij} jane humbjet e presionit pergjate nje segmenti ''i-j''

r eshte koeficienti i rezistences, e cila lidhet me formulen e zgjedhur per vleresimin e humbjeve (ne Epanet mund te zgjidhet permes : formules Hazen-William, formules Darcy-Weisbach dhe Chezy-Manning)

Q_{ij} prurja e percjelle pergjate segmentit ''i-j''

n eshte eksponenti i prurjes

m koeficient humbjesh minimale te lokalizuara

Duhet te respektohen gjithashtu ekuacionet e vazhdueshmerise ne cdo nyje qe perben rrjetin e realizuar :

$$\sum_j Q_{ij} - D_i = 0 \qquad \text{per } i = 1,2,\ldots.,N$$

Epanet lejon riprodhimin e nje rrjeti real tubacionesh nen presion permes objekteve fizike qe e perbejne ate, sebashku me parametrat e tyre. Ne menyre te vecante, nje rrjet shperndares perfaqesohet si nje bashkesi lidhjesh (links) te cilat lidhen permes tyre me nyje (nodes) ; lidhjet mund te jene tubacione, pompa ose saracineska ; nyjet mund te jene pika te konsumit te ujit (nyje demand), nyje te hyrjes se ujit (nyje burime) ose depozita ose cisterna (nyje magazinimi). Secila prej tyre ne varesi te karakteristikave fizike dhe funksionale te rrjetit mund te modelohet ne software ne menyrat me te ndryshme.

Fillimisht perpara prezantimit te skemed duhet te behen disa konsiderata :

1- Epanet i njeh rezervuaret vetem si cilindrike, dhe kerkon parametrat si diametri dhe lartesia e rezervuarit. Ne kete menyre jane realizuar ekuivalentimi permes formules :

$$D = 2\sqrt{\frac{A \cdot B}{\pi}}$$

Ku A dhe B jane dimensionet ne plan te depove, ndersa H eshte lartesia e nivelit maksimal te ujit ne depo.

2- Koecifienti i ashpersise i perdorur ne ndertimin e modelit :

Tubacione polietileni C=140

Tubacione gize C=118

Tubacione celiku C=100

3- Ngarkesat ne nyje

Percaktimi i ngarkesave ne rrjet eshte koncepti me i rendesishem per ndertimin e nje modeli sa me te sakte, dhe ku me pas mund te nderhyet ne permiresimin permes shtimit te elementeve. Llogaritja e ngarkesave ne nyje eshte realizuar duke shfrytezuar formulen :

$$Q_{nyje} = \frac{N \times n}{24 \times 3600} \quad (\frac{l}{sek})$$

Ku n=norma e furnizimit me uje e dhene 300 l/ba*dite

N = numri i popullsise

Me qellim percaktimin e numrit te popullsise per cdo nyje, jemi bazuar ne disa konsiderata :

Shperndarja e popullsise e pabarabarte

Planet e zhvillimit per zona te caktuara, permes informacioneve zyrtare

Lartesia e godinave

Duke u bazuar ne keto koncepte mund te themi se numri i popullsise per cdo nyje eshte percaktuar ne baze te dendesise, ku kryesisht jane perdorur normat si me poshte :

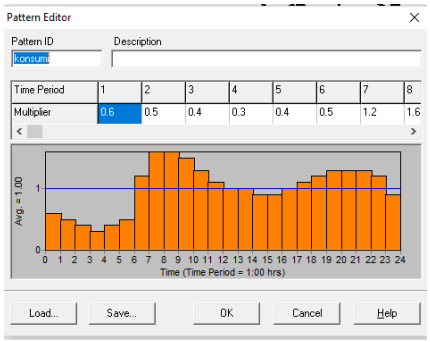
Per rajone me ndertesa 4-6 kate dendesia 300-600 banore per ha

Per rajone me ndertesa 2-3 kate dendesia 200-300 banore per ha

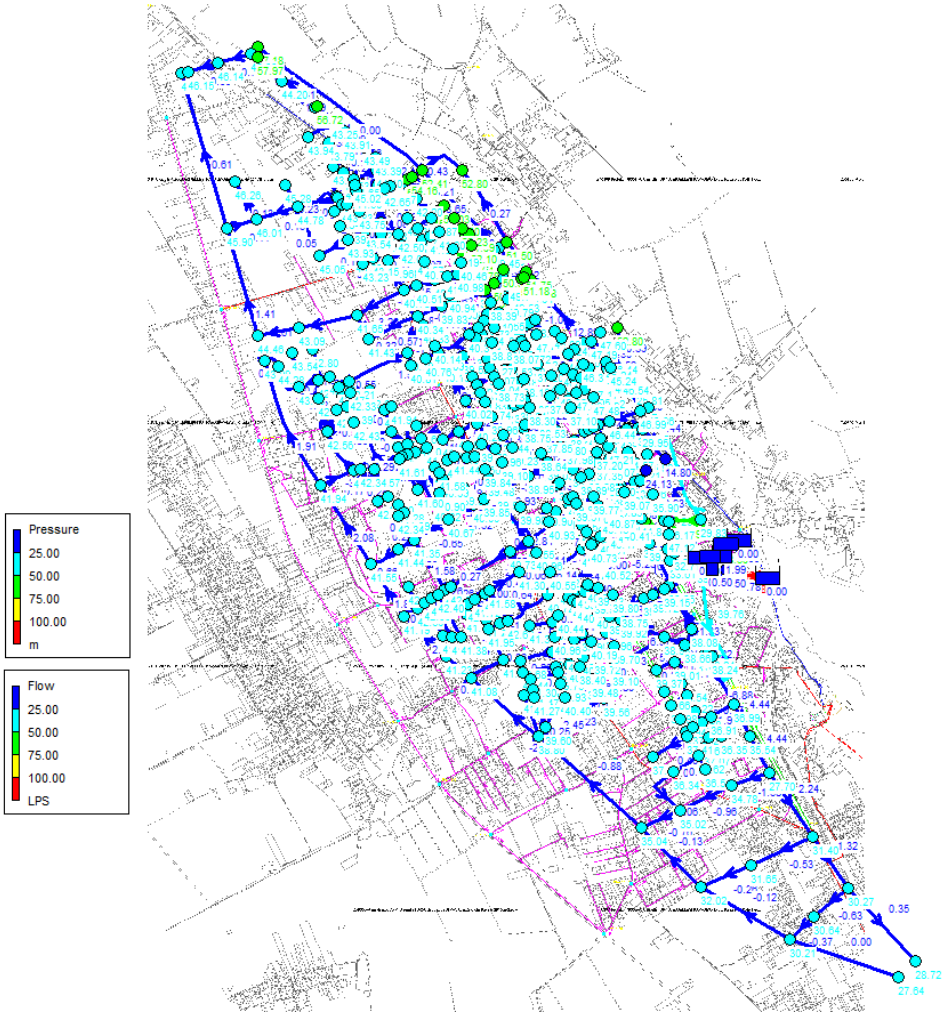
Per rajone me ndertesa 1-2 kate, 50-100 banore per ha

4- Mbigarkesa ne cdo nyje (Demand Pattern)

Me qellim vleresimin e orareve te ngarkeses maksimale, perdoret nje komande ne program, e cila lejon pikerisht mbingarkesen per cdo nyje ne varesi te oreve te ndryshme te dites. Sipas nje grafiku konsumi :



7- NDERTIMI I MODELIT HIDRAULIK



Modeli i llogaritur per nje periudhe simulimi prej 190 oresh, na jep informacione te mjaftueshme per ecurine e rrjetit. Me qellim furnizimin me uje te pikave te larta, nga rezultatet doli e domosdoshme balancimi i presioneve, dhe zvogelimi i aftesise percjellese i tubacionit ekzistues PE Dj-315mm (jashte funksionit deri ne momentin e hartimit te ketij projekti) me qellim krijimin e presioneve ne +1.5atm deri +2atm ne kuotat >50m.

Balancimi i presioneve u realizuar permes instalimit te nje hidrovalvule DN-350mm me by-pass DN-80mm ne tubacionin e ri PE Dj-450mm

- **Reduktoret e Presionit PRV (Hidrovalvulat)**

Nga rezultatet e llogaritjeve ne rrjetin shperndares, disniveli i konsiderueshem nga depo deri ne rrjetin shperndares ka rezultuar e domosdoshme perdorimin e reduktoreve te presionit tip hidrovalvula.

Dimensionimi i valvulave te presionit realizohet permes dy parametrave:

- Prurja e projektit
- Ruajtjen e nje raporti te presionit ne hyrje dhe ne dalje ≤ 2.5 me qellim mbrojtjen nga kavitacioni

Eshte gjithashtu norme gjate projektimit te reduktoreve qe te respektohet shpejtesia e rrjedhes si me poshte:

V = 0,7 ÷ 1,5 m/s (perdorim residenciale) V = 1 ÷ 3,5 m/s (përdorim industrial)

Parashikimi i kavitacionit per valvulat realziohet permes zbatimit te formules:

$$\sigma = \frac{P_1 - P_v}{P_1 - P_2}$$

ku:

P_v=presioni i avujve te ujit ne temperaturen e rrjedhes

P_1= presioni ne hyrje te reduktorit

P_2=presioni ne dalje te reduktorit

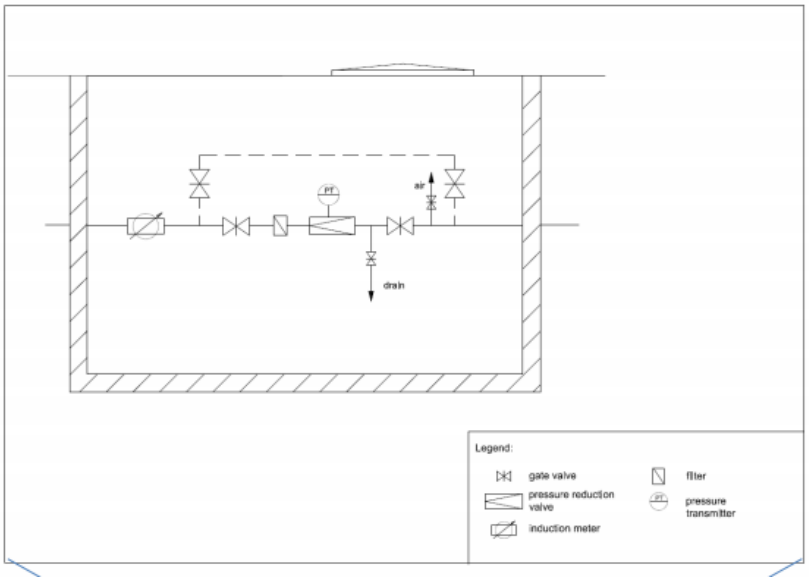
Sipas llogaritjeve per rezultate si me poshte:

σ≥2 → Nuk kemi shfaqjen e fenomenit te kavitacionit
1.7<σ<2 → Permes pajisjeve mbrotjese mbrohemi prej kavitacionit
1.5<σ<1.7 → Fillon dhe shfaqet kavitacioni
1<σ<1.5 → Kavitacioni ne nivele te larta
σ<1 → Kavitacion

Diametro Valvola		Range di Portata Raccomandato V= 1.5-5 m/s; 5-17 f/s	
mm	inch	m³/h	gpm
40	1½	6-21	28-94
50	2	11-36	49-166
65	2½	17-57	76-260
80R	3R	17-57	76-260
80	3	25-82	110-375
80L	3L	44-146	196-665
100	4	44-146	196-665
150	6	98-328	440-1,498
200	8	175-584	783-2,663
250	10	274-912	1,224-4,160
300	12	394-1,313	1,762-5,990
350	14	394-1,313	1,762-5,990
400	16	700-2,335	3,130-10,650
450	18	700-2,335	3,130-10,650
500	20	700-2,335	3,130-10,650
600	24	1,575-2,250	7,050-23,970
700	30	1,575-2,250	7,050-23,970
800	32	1,575-2,250	7,050-23,970

Ne llogaritjet e rrjetit ku jemi perpjekur te ruajme nje presion **$H_{lirë}$=2.5-5atm.**

Skema e aplikuar per reduktoret:

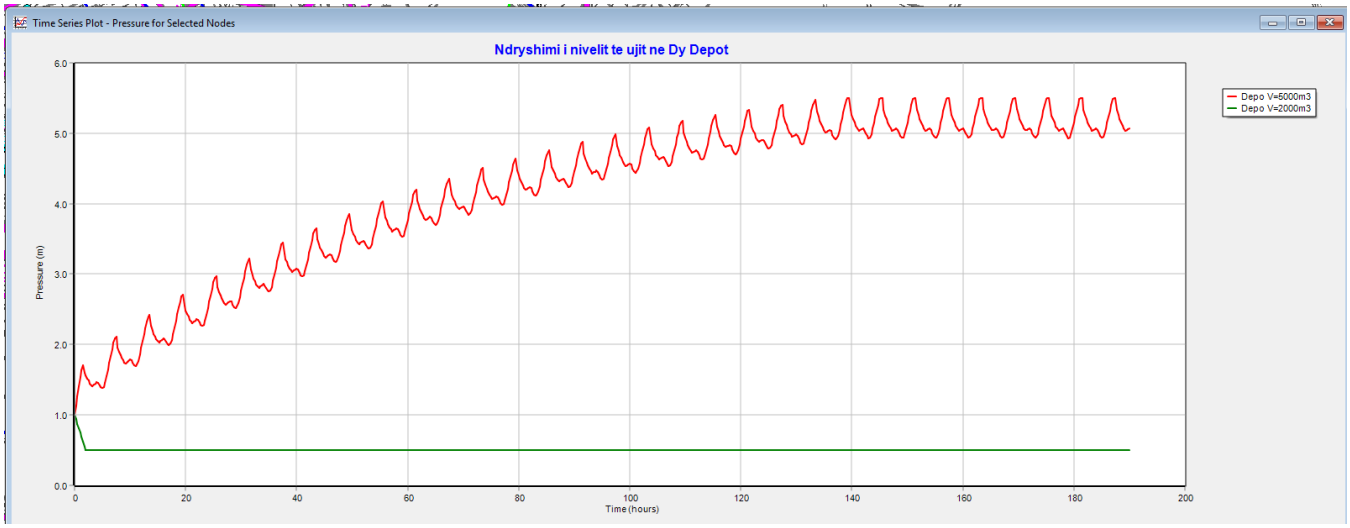


Permes modelit, ne rastet e konsumit minimal te cilat sipas katalogeve te ketyre idrovalvulave, perkojne me nje diameter valvule te ndryshem nga ajo e llogaritur per konsum maksimal, eshte parashikuar nje by-pass e cila funksionon automatikisht ne kohen e konsumit minimal. Foton e meposhtme nje ilustrim sesi do shfaqen keto skema:

8- REZULTATET E LLOGARITJEVE

Sipas modelit mund te paraqesim konturin e shperndarjes se presioneve ne forme grafike, periudhen e ngarkeses maksimale

Ne grafikun e meposhtem luhatja e nivelit te ujit ne dy depot e rrjetit :



Ne te dyja situatat depot jane ne funksion normal ku shihet niveli i ujit te qendroje mbi vlerat minimale te cilat mund te ndikonin negativisht si ne funksionimin e pompave

gjithashtu edhe ne bllokimin e tubacioneve si pasoje e ngushtimit te seksionit si pasoje e hyrjes se ajrit.

Ne tabelen e meposhtme vlerat e presioneve ne rrjet ne periudhen e ngarkeses maksimale

Network Table - Nodes at 79:30 Hrs				
	Elevation	Demand	Head	Pressure
Node ID	m	LPS	m	m
Junc C1	10.81	1.4	43.88	33.07
Junc C2	11.54	1.6	44.3	32.76
Junc C3	13.27	3.2	45.65	32.38
Junc C4	16.49	0	48.89	32.4
Junc C5	16.3	1.2	48.89	32.59
Junc C6	17.38	1	51.14	33.76
Junc C7	18.01	0.48	52.33	34.32
Junc C8	18.28	0	53.6	35.32
Junc C9	21.35	0	56.29	34.94
Junc C10	19.49	0	56.93	37.44
Junc C11	19.59	0.42	57.52	37.93
Junc C12	20.1	0	57.03	36.93
Junc C13	21.85	0.7	59.38	37.53
Junc C14	22.96	1.2	60.6	37.64
Junc C15	22.96	0.9	60.65	37.69
Junc C16	33.24	1.2	59.52	26.28
Junc C17	13.71	0.3	44.8	31.09
Junc C18	15.21	1.4	44.73	29.52
Junc C19	16.58	2	68.81	52.23
Junc C20	17.28	0.96	47.2	29.92
Junc C21	16.2	2	46.21	30.01
Junc C22	17.9	0	47.99	30.09
Junc C23	18.66	1.6	51.19	32.53
Junc C24	20.12	0.5	51.95	31.83
Junc C25	20.12	0.8	51.96	31.84
Junc C26	19.6	0.76	52.37	32.77
Junc C27	19.11	0.76	54.59	35.48
Junc C28	17.6	2.52	51.26	33.66
Junc C29	17.13	0	52.17	35.04
Junc C30	19.01	2.6	51.56	32.55
Junc C31	17.24	0	49.9	32.66
Junc C32	20.31	1.6	52.55	32.24
Junc C33	20.47	1.2	53.96	33.49
Junc C34	20.47	1	53.95	33.48
Junc C35	21.42	1	57.93	36.51
Junc C36	20.78	0	59.05	38.27
Junc C37	22.11	1	60.33	38.22
Junc C38	21.3	1	60.52	39.22
Junc C39	20.01	1.6	58.48	38.47
Junc C40	20.01	2.6	58.57	38.56

Junc C41	22.5	2.48	53.93	31.43
Junc C42	22.5	0	68.61	46.11
Junc C43	21.83	2	51.95	30.12
Junc C44	22.03	2	68.46	46.43
Junc C45	21.45	0.4	68.49	47.04
Junc C46	19.6	0.6	49.86	30.26
Junc C47	18.62	0	49.69	31.07
Junc C48	19.81	0.5	48.38	28.57
Junc C49	18.62	0.8	48.09	29.47
Junc C50	17.24	0	47.97	30.73
Junc C51	17.94	0	47.52	29.58
Junc C52	17.94	0	47.53	29.59
Junc C53	17.9	0.5	47.58	29.68
Junc C54	19.09	0	69.4	50.31
Junc C55	21.51	0	70.47	48.96
Junc C56	19.56	1.6	70.29	50.73
Junc C57	18.68	1.8	70.42	51.74
Junc C58	17.08	0.4	68.49	51.41
Junc C59	19.18	0	70.49	51.31
Junc C60	25.98	0	71.03	45.05
Junc C61	22.06	0	71.96	49.9
Junc C62	23.95	1.5	68.89	44.94
Junc C63	23.47	0.54	69.97	46.5
Junc C64	22.17	0	68.59	46.42
Junc C65	20.97	0	60.97	40
Junc C66	18.19	1.6	69.97	51.78
Junc C69	20.27	0.8	68.69	48.42
Junc C70	20.94	1.2	69.45	48.51
Junc C71	19.43	0.9	69.84	50.41
Junc C72	18.62	1.2	48.59	29.97
Junc C73	18.29	0.6	48.88	30.59
Junc C74	17.27	0.88	47.19	29.92
Junc C75	21.81	0	56.68	34.87
Junc C76	23.8	0.6	67.72	43.92
Junc C77	13.91	0	70.42	56.51
Junc C78	21.83	1.3	68.58	46.75
Junc C83	20.97	0	71.38	50.41
Junc C84	22.5	0	68.61	46.11
Junc C85	19.09	1.2	69.4	50.31
Junc C86	16.58	0	68.81	52.23
Junc C87	22.96	0	60.65	37.69
Junc C88	21.51	0	69.84	48.33
Junc C89	62	0	74.74	12.74
Junc C90	62	0	74.74	12.74
Junc C79	17.25	0	47.19	29.94
Junc C80	11.43	0.3	44.3	32.87
Junc C81	11.12	0.3	44.01	32.89

Junc C82	12.06	0.52	43.81	31.75
Junc C91	12.39	0.42	44.29	31.9
Junc C93	12.66	0.42	44.3	31.64
Junc C94	13.73	0.52	44.41	30.68
Junc C95	13.72	0	44.37	30.65
Junc C96	13.09	0.28	44.23	31.14
Junc C97	13.51	0.17	44.35	30.84
Junc C98	13.62	0.12	44.35	30.73
Junc C99	13.4	0	44.57	31.17
Junc C100	14.08	0	44.41	30.33
Junc C101	13.9	0	44.06	30.16
Junc C102	13.87	0	44.56	30.69
Junc C103	13.87	0.6	44.09	30.22
Junc C104	13.61	1.2	42.9	29.29
Junc C105	13.4	0	43.69	30.29
Junc C106	13.46	0.4	43.41	29.95
Junc C107	13.07	0.8	42.28	29.21
Junc C108	14.01	0	43.46	29.45
Junc C109	12.66	0.8	43.12	30.46
Junc C110	13.73	0.94	67.45	53.72
Junc C111	16.88	1.6	68.47	51.59
Junc C112	17.37	0.4	68.2	50.83
Junc C113	17.57	0.3	68.16	50.59
Junc C114	18.29	0.4	68.12	49.83
Junc C115	17.94	0	68.72	50.78
Junc C116	18.51	0	69	50.49
Junc C117	18.38	0.4	67.89	49.51
Junc C118	18.55	0	67.89	49.34
Junc C119	18.28	0.48	67.75	49.47
Junc C120	18.64	0.4	68.81	50.17
Junc C121	19.84	1.6	68.78	48.94
Junc C122	20.39	0.8	68.32	47.93
Junc C123	20.79	0.4	68.33	47.54
Junc C124	21.02	0.4	68.64	47.62
Junc C125	21.2	0.6	68.78	47.58
Junc C126	20.93	0.42	68.72	47.79
Junc C127	21.01	0	68.64	47.63
Junc C128	21.66	0.42	68.54	46.88
Junc C129	21.95	0.6	68.54	46.59
Junc C130	22.24	0	68.54	46.3
Junc C131	20.86	0.4	68.54	47.68
Junc C132	18.93	0	49.17	30.24
Junc C133	18.35	0.3	49.06	30.71
Junc C134	18.36	0	49.06	30.7
Junc C135	19.72	0.3	49	29.28
Junc C136	19.79	0.66	50.15	30.36
Junc C137	19.92	0.66	50.12	30.2

Junc C138	19.97	1	49.81	29.84
Junc C139	19.69	1	49.69	30
Junc C140	19.39	0.4	49.14	29.75
Junc C141	18.56	0.4	48.97	30.41
Junc C142	18.18	0.4	48.86	30.68
Junc C143	20.2	0.68	50.34	30.14
Junc C144	20.31	0.44	50.61	30.3
Junc C145	20.13	0.64	50.61	30.48
Junc C146	20.16	0.4	50.89	30.73
Junc C147	20.32	0.4	50.97	30.65
Junc C148	20.34	0.6	50.84	30.5
Junc C149	20.73	0.4	50.81	30.08
Junc C150	20.49	0	50.84	30.35
Junc C151	19.35	0.4	49.04	29.69
Junc C152	19.41	0.6	50.11	30.7
Junc C153	20.82	0	50.32	29.5
Junc C154	21.06	0	50.55	29.49
Junc C155	20.42	0.44	50.92	30.5
Junc C156	21.7	1	51.11	29.41
Junc C157	19.78	0.6	50.9	31.12
Junc C158	20.64	2	51.95	31.31
Junc C159	20.54	2	51.95	31.41
Junc C160	20.84	1.16	57.4	36.56
Junc C67	23.22	0.7	68.53	45.31
Junc C68	24.31	0.78	67.21	42.9
Junc C161	26.1	0.98	66.92	40.82
Junc C162	24.51	0.6	68.02	43.51
Junc C163	25.96	1.3	68.14	42.18
Junc C164	21.81	0	68.51	46.7
Junc C165	23.68	1.5	67.8	44.12
Junc C166	23.72	0.44	68.85	45.13
Junc C167	24.23	0	68.85	44.62
Junc C168	24.94	0	68.85	43.91
Junc C169	23.82	0	68.85	45.03
Junc C170	23.71	0.54	69.45	45.74
Junc C171	23.84	0.44	69.03	45.19
Junc C172	24.13	0.54	68.43	44.3
Junc C173	24.26	0.54	68.28	44.02
Junc C174	22.14	0	68.59	46.45
Junc C175	22.04	0.6	68.58	46.54
Junc C176	22.74	1.16	68.29	45.55
Junc C177	23.33	1	69.12	45.79
Junc C178	24.63	0	68.62	43.99
Junc C179	27.3	0	68.5	41.2
Junc C180	29.11	1	68.44	39.33
Junc C181	30.51	0.38	68.41	37.9
Junc C182	34.72	1	68.37	33.65

Junc C183	39.63	0	68.34	28.71
Junc C184	40.69	0	68.33	27.64
Junc C185	44.56	1	67.78	23.22
Junc C186	55.77	1	68	12.23
Junc C187	24.04	0	68.47	44.43
Junc C188	27.6	0.3	68.33	40.73
Junc C189	30.4	0.3	68.18	37.78
Junc C190	26.07	0.3	68.33	42.26
Junc C191	22.62	1	68.57	45.95
Junc C192	23.47	2.4	68.51	45.04
Junc C193	21.85	0	60.96	39.11
Junc C194	25.41	0.66	60.47	35.06
Junc C195	28.09	0.66	60.39	32.3
Junc C196	36.7	0.66	60.32	23.62
Junc C197	21.63	0.6	58.06	36.43
Junc C198	21.39	0	60.91	39.52
Junc C199	21.98	0.6	57.28	35.3
Junc C200	21.62	1.5	60.88	39.26
Junc C201	25.23	1.36	60.16	34.93
Junc C202	27.19	0.52	59.99	32.8
Junc C203	28.05	0.76	59.82	31.77
Junc C204	26.68	2.24	71.26	44.58
Junc C205	24.78	0	71.89	47.11
Junc C206	25.46	0	72	46.54
Junc C207	35.53	4.26	70.91	35.38
Junc C208	24.21	0.7	70.6	46.39
Junc C209	41.92	0	72.86	30.94
Junc C218	18.96	1	49.15	30.19
Junc C219	18.94	0.6	49.67	30.73
Junc C220	18.96	0.3	49.96	31
Junc C221	18.89	0.4	50.28	31.39
Junc C222	19.05	1.6	50.61	31.56
Junc C223	18.99	2	51.33	32.34
Junc C224	18.7	0.6	50.28	31.58
Junc C225	19.5	0.4	49.54	30.04
Junc C226	19.61	0.3	49.95	30.34
Junc C227	19.99	1	50.29	30.3
Junc C228	19.51	0	51.33	31.82
Junc C229	15.78	0	48.66	32.88
Junc C230	16.01	0.4	48.66	32.65
Junc C231	16.44	0	48.66	32.22
Junc C232	16.37	0.4	48.92	32.55
Junc C233	16.58	0.4	49.3	32.72
Junc C234	16.5	0.4	49.37	32.87
Junc C235	16.88	0	49.37	32.49
Junc C236	16.63	0.4	49.87	33.24
Junc C237	17.24	0	49.72	32.48

Junc C238	17.14	0	49.58	32.44
Junc C239	17.05	0	49.48	32.43
Junc C240	16.94	0	49.43	32.49
Junc C241	16.9	0	49.09	32.19
Junc C242	16.11	0	48.96	32.85
Junc C243	13.84	0	46.08	32.24
Junc C244	13.54	0.6	46.06	32.52
Junc C245	14.39	0.32	46.06	31.67
Junc C246	14.88	0.34	46.1	31.22
Junc C247	15.05	0.2	45.97	30.92
Junc C248	14.97	0.64	45.81	30.84
Junc C249	14.15	0.94	45.43	31.28
Junc C250	14.9	0.8	46.22	31.32
Junc C251	15.65	1.24	46.26	30.61
Junc C252	15.24	0	46.21	30.97
Junc C253	15.39	0.5	46.22	30.83
Junc C255	15.3	0.36	46.6	31.3
Junc C256	15.4	1.2	46.68	31.28
Junc C258	15.48	0	46.27	30.79
Junc C259	17.31	0	49.97	32.66
Junc C260	17.58	0.64	50.28	32.7
Junc C261	17.96	0	50.69	32.73
Junc C262	17.78	0	50.05	32.27
Junc C263	17.77	0.54	49.77	32
Junc C264	18.11	0.2	50.01	31.9
Junc C265	16.98	0.36	50.13	33.15
Junc C266	17.24	0.2	50.3	33.06
Junc C267	18.9	0.5	50.75	31.85
Junc C268	17.72	1	50.17	32.45
Junc C269	17.29	0	50.3	33.01
Junc C270	17.12	0.12	50.13	33.01
Junc C271	17.57	0.78	49.09	31.52
Junc C272	17.67	0.58	49.15	31.48
Junc C273	16.91	0.42	49.28	32.37
Junc C274	16.03	0.56	48.87	32.84
Junc C275	15.83	0.66	48.62	32.79
Junc C276	19.24	0.46	51.94	32.7
Junc C277	19.63	0.46	52.04	32.41
Junc C278	19.25	0.4	51.48	32.23
Junc C279	16.6	0.28	50.94	34.34
Junc C280	16.91	0.28	50.99	34.08
Junc C281	16.56	0	51.03	34.47
Junc C282	16.95	0.82	52.62	35.67
Junc C283	17.36	0.62	51.78	34.42
Junc C284	17.49	0	54.5	37.01
Junc C285	17.97	0	54.5	36.53
Junc C286	17.94	0	54.5	36.56

Junc C287	18.12	0.3	54.5	36.38
Junc C288	18.08	0.26	54.48	36.4
Junc C289	18.81	0.82	54.01	35.2
Junc C290	16.98	0.76	50.69	33.71
Junc C291	17.1	0.6	51.05	33.95
Junc C292	17.52	0.6	50.95	33.43
Junc C293	16.48	0	52.19	35.71
Junc C294	16.27	0.3	51.7	35.43
Junc C295	16.57	0	52.14	35.57
Junc C296	16.96	0.34	52.13	35.17
Junc C297	16.75	0	52.14	35.39
Junc C298	17.65	0.3	55.12	37.47
Junc C299	17.21	0.26	55.24	38.03
Junc C300	18.59	0	54.3	35.71
Junc C301	18.24	1	54.29	36.05
Junc C302	18.89	0.6	53.54	34.65
Junc C303	18.59	0.32	55.69	37.1
Junc C304	18.74	0.38	55.71	36.97
Junc C305	18.77	0.3	56.67	37.9
Junc C306	18.65	0.44	55.48	36.83
Junc C307	18.78	0.4	55.77	36.99
Junc C309	19.99	0.44	55.82	35.83
Junc C310	20.3	0.44	56.03	35.73
Junc C311	20.47	0	56.47	36
Junc C312	20.48	0	56.59	36.11
Junc C313	20.36	0	56.87	36.51
Junc C314	19.99	0.23	56.52	36.53
Junc C315	20.22	0	57.66	37.44
Junc C316	20.24	0.76	57.66	37.42
Junc C317	20.21	0.26	57.34	37.13
Junc C318	20.69	0.3	57.68	36.99
Junc C319	20.53	0.76	57.74	37.21
Junc C320	19.54	0.9	58.15	38.61
Junc C321	20.69	0.26	58.72	38.03
Junc C322	20.91	0.4	58.53	37.62
Junc C323	20.45	0.26	58.69	38.24
Junc C324	19.91	0	57.78	37.87
Junc C325	19.84	0	57.91	38.07
Junc C326	20.05	0	57.99	37.94
Junc C327	20.35	0	58.14	37.79
Junc C328	20.57	0	58.52	37.95
Junc C329	20.8	0	58.91	38.11
Junc C330	20.8	3	59.07	38.27
Junc C331	20.22	0.4	57.67	37.45
Junc C332	20.41	0.4	57.75	37.34
Junc C333	20.99	0.48	57.4	36.41
Junc C334	20.94	0.66	57.47	36.53

Junc C335	19.93	0.36	57.07	37.14
Junc C336	21.97	0.36	57.23	35.26
Junc C337	20.59	0	56.46	35.87
Junc C338	18.76	0.57	55.71	36.95
Junc C339	21.47	2	59.72	38.25
Junc C340	21.16	0	59.92	38.76
Junc C341	21.79	0	60.22	38.43
Junc C343	20.13	0	55.49	35.36
Junc C344	19.72	1.2	57	37.28
Junc C345	19.48	1.46	53.74	34.26
Junc C346	19.03	0	56.99	37.96
Junc C347	19.25	0	56.98	37.73
Junc C348	19.21	0.3	56.91	37.7
Junc C350	19.54	0	57.28	37.74
Junc C351	19.39	0	57.34	37.95
Junc C352	20.22	2	55.01	34.79
Junc C353	20.78	2.8	51.8	31.02
Junc C354	19.9	0	56.15	36.25
Junc C355	19.58	1.6	57.06	37.48
Junc C356	19.79	1.4	57.22	37.43
Junc C357	19.68	0	57.33	37.65
Junc C358	20.05	0	57.45	37.4
Junc C359	19.77	0.4	58.07	38.3
Junc C360	20.07	1.6	58.86	38.79
Junc C361	19.9	0.16	59.53	39.63
Junc C362	20.38	0.2	60.09	39.71
Junc C363	20.48	0.2	57.89	37.41
Junc C364	20.1	0.6	56.19	36.09
Junc C365	21.12	0.9	57.12	36
Junc C366	21.85	0	57.12	35.27
Junc C367	21.47	0.6	56.68	35.21
Junc C368	19.84	0.9	57.59	37.75
Junc C369	20.07	0.9	57.52	37.45
Junc C370	19.76	0.4	59.32	39.56
Junc C371	21.73	2.48	53.93	32.2
Junc C372	22.28	6	54.55	32.27
Junc C373	20.98	0.6	54.25	33.27
Junc C374	20.67	0	54.25	33.58
Junc C375	21.52	2.48	53.93	32.41
Junc C376	21.51	0.8	53.41	31.9
Junc C377	21.62	0.8	53.59	31.97
Junc C378	21.34	0.8	52.49	31.15
Junc C379	20.75	0.8	52.89	32.14
Junc C381	14.29	0.3	44.98	30.69
Junc C382	15.98	0.6	45.47	29.49
Junc C383	16.31	0.6	45.99	29.68
Junc C384	16.47	0.3	46.18	29.71

Junc C385	15.23	0.6	45.78	30.55
Junc C386	15.23	0.3	45.98	30.75
Junc C387	15.43	1.06	45.17	29.74
Junc C388	16.92	0.4	45.91	28.99
Junc C389	16.11	0	46.51	30.4
Junc C390	14.98	0	45.32	30.34
Junc C391	15.05	0	45.52	30.47
Junc C392	15.87	0.9	46.13	30.26
Junc C393	13.94	0	44.48	30.54
Junc C394	13.65	0.5	44.09	30.44
Junc C395	13.01	0.35	44.12	31.11
Junc C396	13.9	0.7	44.54	30.64
Junc C397	14.53	0	45.39	30.86
Junc C398	14.36	0.7	45	30.64
Junc C399	15.68	0.4	45.85	30.17
Junc C400	14.97	1	44.44	29.47
Junc C401	19.88	3.2	52.07	32.19
Junc C402	20.27	2	52.61	32.34
Junc C403	20.46	0.8	52.57	32.11
Junc C404	20.78	0.5	51.96	31.18
Junc C405	21.43	0.5	51.82	30.39
Junc C406	20.78	0	53.59	32.81
Junc C407	19.26	0	56.99	37.73
Junc C408	18.88	0	55.42	36.54
Junc C409	22.34	0	59.97	37.63
Junc C410	21.95	0.4	59.76	37.81
Junc C411	22	0	57.66	35.66
Junc C412	22.32	0	57.68	35.36
Junc C413	22.88	0	57.8	34.92
Junc C414	23.41	0	57.99	34.58
Junc C415	21.54	0.7	59.55	38.01
Junc C416	21.76	0.4	57.11	35.35
Junc C417	22.41	0.46	56.97	34.56
Junc C418	22.58	0.4	57.61	35.03
Junc C419	22.84	0.5	57.69	34.85
Junc C421	23.24	0	57.8	34.56
Junc C422	23.49	0.4	57.79	34.3
Junc C423	23.67	0.4	57.93	34.26
Junc C424	24.35	0.4	58.41	34.06
Junc C425	23.81	0	58.49	34.68
Junc C426	23.2	0.92	56.71	33.51
Junc C427	23.07	0	57.43	34.36
Junc C428	24.06	0.4	57.16	33.1
Junc C429	23.82	0	57.31	33.49
Junc C430	23.93	0	57.31	33.38
Junc C431	24.04	1.2	59.92	35.88
Junc C432	17.85	0	47.77	29.92

Junc C433	16.35	2.05	45.87	29.52
Junc C434	18.22	0	48.36	30.14
Junc C435	17.52	0.4	48.19	30.67
Junc C92	19.91	0.5	57.56	37.65
Junc C308	20.43	0.4	57.47	37.04
Junc C436	20.1	0.2	57.43	37.33
Junc C437	20.6	0.2	57.44	36.84
Junc C380	22.98	1.2	60.44	37.46
Junc C438	25.27	0	56.83	31.56
Junc C439	25.38	0.6	57.15	31.77
Junc C440	25.81	1.64	57.98	32.17
Junc C441	29.45	0.9	59.1	29.65
Junc C442	28.3	0.6	56.84	28.54
Junc C443	28.76	0.6	57.22	28.46
Junc C444	30.11	0.58	56.86	26.75
Junc C445	30.56	0.8	59.02	28.46
Junc C446	29.8	0.58	57.33	27.53
Junc C447	32.07	0.8	58.85	26.78
Junc C448	32.68	0	56.86	24.18
Junc C449	15.46	0.58	46.37	30.91
Junc C450	17.82	0	54.93	37.11
Junc C451	17.92	0.4	48.24	30.32
Junc C452	18.13	0.4	48.18	30.05
Junc C453	24.74	1.5	70.65	45.91
Junc C454	24.46	0.84	70.1	45.64
Junc C455	24.39	0.84	69.22	44.83
Junc C456	23.93	0.84	69.63	45.7
Junc C457	20.67	0.88	70.72	50.05
Junc C458	18.35	0.7	70.7	52.35
Junc C459	23.55	0.4	70.74	47.19
Junc C460	24.74	0.4	70.87	46.13
Junc C461	24.62	0.9	70.78	46.16
Junc C462	23.98	0	70.8	46.82
Junc C463	12.98	0.8	43.06	30.08
Junc C464	12.08	0.8	42.97	30.89
Junc C465	10.86	0.8	42.25	31.39
Junc C466	10.81	0.8	42.05	31.24
Junc C467	12.48	0.94	67.44	54.96
Junc C468	20.6	1.2	69.97	49.37
Junc C469	19.92	0.5	70.13	50.21
Junc C470	19.31	1.2	70.32	51.01
Junc C471	19.92	0	70.49	50.57
Junc C472	17.5	0.52	51.2	33.7
Junc C473	18.3	2	51.34	33.04
Junc C474	19.02	2	51.49	32.47
Junc C475	19.87	2.5	51.4	31.53
Junc C476	19.22	2	51.83	32.61

Junc C477	13.53	0.38	44.37	30.84
Junc C478	15.5	3.22	46.11	30.61
Junc C479	15.06	2	44.71	29.65
Junc C480	14.88	1.18	44.72	29.84
Junc C481	18.38	0.9	47.86	29.48
Junc C482	17.8	0	47.47	29.67
Junc C483	17.36	0.6	47.4	30.04
Junc C484	17.57	1.2	47.3	29.73
Junc C485	17.26	1.8	47.84	30.58
Junc C486	16.84	0.7	47.54	30.7
Junc C487	17.16	0.7	47.56	30.4
Junc C488	16.8	2	46.88	30.08
Junc C489	17.59	2	47.16	29.57
Junc C490	20.01	2.1	48.79	28.78
Junc C491	19.8	1	49.74	29.94
Junc C492	20.63	0.66	50.2	29.57
Junc C493	20.01	1.2	56.19	36.18
Junc C494	20.26	0.9	56.44	36.18
Junc C495	21.9	1.2	60.96	39.06
Junc C496	22	0	59.27	37.27
Junc C497	20.79	0.8	58.51	37.72
Junc C498	19.5	0	57.37	37.87
Junc C499	19.62	0.42	56.96	37.34
Junc C500	14.67	2	45.77	31.1
Junc C210	12.85	0	44.56	31.71
Junc C211	13	0.3	44.55	31.55
Junc C212	12.47	0.74	44.55	32.08
Junc C213	18.24	1.6	53.99	35.75
Junc C214	22.5	2	54.88	32.38
Junc C215	22.14	2	52.74	30.6
Junc C216	62	0	62.49	0.49
Junc C217	25.44	0	59.7	34.26
Junc C254	25.98	0	71.03	45.05
Junc C257	25.98	0	71.03	45.05
Resvr 4	65.5	0	65.5	0
Resvr 5	75.5	0	75.5	0
Resvr 3	99	-149.41	99	0
Tank 1	62	69.01	62.5	0.5
Tank 2	70	-227.59	74.64	4.64

Me poshte rezultatet e llogaritjeve ne tubacione ne periudhen e ngarkeses maksimale

Network Table - Links at 79:30 Hrs						
	Length	Diameter	Roughness	Flow	Velocity	Unit Headloss
Link ID	m	mm		LPS	m/s	m/km
Pipe 5	190	198.2	140	-4.72	0.15	0.15

Pipe 8	20	277.6	140	-54.95	0.91	2.7
Pipe 11	300	141	140	12.66	0.81	4.82
Pipe 15	300	110.2	140	6.18	0.65	4.25
Pipe 16	320	96.8	140	4.08	0.55	3.7
Pipe 18	320	96.8	140	3.54	0.48	2.84
Pipe 23	82	79.2	140	-3.44	0.7	7.16
Pipe 28	290	176.2	140	29.21	1.2	7.66
Pipe 31	470	96.8	140	4.7	0.64	4.8
Pipe 32	170	141	140	0.33	0.02	0.01
Pipe 37	560	96.8	140	3.24	0.44	2.42
Pipe 38	830	96.8	140	1.4	0.19	0.51
Pipe 41	26	141	140	0	0	0
Pipe 43	260	66	140	0.99	0.29	1.74
Pipe 47	280	123.4	140	-7.51	0.63	3.51
Pipe 49	15	176.2	140	-8.23	0.34	0.73
Pipe 56	60	66	140	1.34	0.39	3.05
Pipe 60	120	158.6	140	20.58	1.04	6.69
Pipe 61	550	277.6	140	8.13	0.13	0.08
Pipe 62	200	277.6	140	9.47	0.16	0.1
Pipe 66	60	110.2	140	-1.85	0.19	0.45
Pipe 72	270	96.8	140	5.27	0.72	5.95
Pipe 75	130	110.2	140	5.5	0.58	3.42
Pipe 82	190	96.8	140	-4.38	0.6	4.22
Pipe 84	220	176.2	140	26.47	1.09	6.39
Pipe 85	130	176.2	140	22.29	0.91	4.64
Pipe 89	15	123.4	140	-9.5	0.79	5.43
Pipe 90	230	123.4	140	-12.1	1.01	8.49
Pipe 91	250	123.4	140	-7.9	0.66	3.86
Pipe 94	860	277.6	140	59.34	0.98	3.11
Pipe 99	440	66	140	0.61	0.18	0.71
Pipe 100	270	198.2	140	-10.81	0.35	0.69
Pipe 104	1050	66	140	0	0	0
Pipe 107	15	198.2	140	-10.5	0.34	0.65
Pipe 108	15	220.4	140	-2.67	0.07	0.03
Pipe 114	5	500	140	0	0	0
Pipe 115	10	500	140	0	0	0
Pipe 118	15	176.2	140	0	0	0
Pipe 119	15	220.4	140	0	0	0
Pipe 123	100	141	140	9.28	0.59	2.71
Pipe 124	100	123.4	140	8.42	0.7	4.34
Pipe 127	100	79.2	140	5.34	1.08	16.2
Pipe 131	100	44	140	0	0	0
Pipe 132	2	123.4	140	7.22	0.6	3.26
Pipe 134	100	277.6	140	32.33	0.53	1.01
Pipe 135	1500	300	118	149.41	2.11	16.17
Pipe 136	5	176.2	140	117.08	4.8	2448.52
Pipe 54	210	44	140	0.3	0.2	1.37

Pipe 55	165	96.8	140	0.24	0.03	0.02
Pipe 95	130	44	140	0.52	0.34	3.79
Pipe 111	205	96.8	140	-1.4	0.19	0.51
Pipe 112	10	44.4	140	0.56	0.36	4.22
Pipe 113	110	44	140	0.28	0.18	1.21
Pipe 116	42	44	140	0.17	0.11	0.47
Pipe 117	68	44	140	0.12	0.08	0.24
Pipe 133	72	96.8	140	3.75	0.51	3.17
Pipe 138	65	96.8	140	3.28	0.45	2.47
Pipe 140	200	55.4	140	0.6	0.25	1.61
Pipe 141	200	55.4	140	1.2	0.5	5.81
Pipe 142	77	110.2	140	6.4	0.67	4.53
Pipe 143	120	110.2	140	5.2	0.55	3.08
Pipe 144	120	44	140	0.4	0.26	2.33
Pipe 145	140	44	140	0.8	0.53	8.43
Pipe 146	95	96.8	140	4	0.54	3.57
Pipe 147	577	79.2	140	1.88	0.38	2.34
Pipe 148	40	44	140	0.7	0.46	6.58
Pipe 149	35	44	140	0.3	0.2	1.37
Pipe 150	45	79.2	140	0.84	0.17	0.52
Pipe 151	230	79.2	140	-1.46	0.3	1.47
Pipe 152	160	44	140	0.4	0.26	2.33
Pipe 153	125	79.2	140	1.64	0.33	1.81
Pipe 154	82	44	140	0.88	0.58	10.05
Pipe 155	45	44	140	0.48	0.32	3.27
Pipe 156	18	55.4	140	0	0	0
Pipe 157	70	79.2	140	2.52	0.51	4.02
Pipe 158	80	44	140	0.4	0.26	2.33
Pipe 159	75	79.2	140	2.92	0.59	5.29
Pipe 160	150	96.8	140	-4.3	0.58	4.08
Pipe 161	55	44	140	0.8	0.53	8.43
Pipe 162	101	96.8	140	-1.9	0.26	0.9
Pipe 163	64	79.2	140	-0.72	0.15	0.39
Pipe 164	35	79.2	140	-1.61	0.33	1.75
Pipe 165	50	55.4	140	0.8	0.33	2.74
Pipe 166	45	35.2	140	0.4	0.41	6.92
Pipe 167	88	79.2	140	-3.56	0.72	7.65
Pipe 168	20	55.4	140	0	0	0
Pipe 169	170	55.4	140	0.47	0.2	1.03
Pipe 170	22	55.4	140	0.05	0.02	0.01
Pipe 171	170	55.4	140	-0.55	0.23	1.39
Pipe 172	40	35.2	140	0	0	0
Pipe 173	180	96.8	140	-1.82	0.25	0.83
Pipe 174	70	55.4	140	0	0	0
Pipe 176	121	176.2	140	24.84	1.02	5.68
Pipe 177	73	55.4	140	0.6	0.25	1.61
Pipe 178	40	35.2	140	0	0	0

Pipe 179	14	35.2	140	0.3	0.31	4.06
Pipe 180	95	96.8	140	1.5	0.2	0.58
Pipe 181	60	79.2	140	-2.89	0.59	5.2
Pipe 182	28	79.2	140	-1.17	0.24	0.98
Pipe 184	56	55.4	140	1.6	0.66	9.9
Pipe 185	70	44	140	0.4	0.26	2.33
Pipe 186	40	35.2	140	0.4	0.41	6.92
Pipe 187	50	55.4	140	-1.05	0.43	4.52
Pipe 188	53	55.4	140	1.11	0.46	5.01
Pipe 189	39	96.8	140	0.2	0.03	0.01
Pipe 190	95	79.2	140	2.79	0.57	4.87
Pipe 191	35	79.2	140	-0.17	0.03	0.03
Pipe 192	44	79.2	140	3.27	0.66	6.51
Pipe 193	37	66	140	-1.12	0.33	2.16
Pipe 194	33	55.4	140	1	0.41	4.15
Pipe 195	32	55.4	140	0.4	0.17	0.76
Pipe 196	75	55.4	140	0	0	0
Pipe 197	40	44	140	0.4	0.26	2.33
Pipe 198	65	96.8	140	-5.48	0.74	6.38
Pipe 199	57	79.2	140	-0.96	0.19	0.67
Pipe 200	108	96.8	140	-1.43	0.19	0.53
Pipe 202	70	176.2	140	26.95	1.11	6.6
Pipe 203	120	55.4	140	-0.62	0.26	1.71
Pipe 204	160	79.2	140	-1.71	0.35	1.97
Pipe 205	170	96.8	140	-2.26	0.31	1.24
Pipe 206	36	198.2	140	31.71	1.03	5.03
Pipe 207	85	198.2	140	29.56	0.96	4.41
Pipe 208	30	176.2	140	28.94	1.19	7.53
Pipe 209	140	96.8	140	5.12	0.7	5.63
Pipe 210	48	96.8	140	0.29	0.04	0.03
Pipe 211	165	220.4	140	-0.39	0.01	0
Pipe 212	100	66	140	2.52	0.74	9.76
Pipe 213	140	96.8	140	6.01	0.82	7.58
Pipe 39	90	79.2	140	-0.82	0.17	0.51
Pipe 42	270	79.2	140	-2.3	0.47	3.41
Pipe 44	55.4	35.2	140	0.78	0.8	23.84
Pipe 45	165	79.2	140	1.71	0.35	1.96
Pipe 52	37	79.2	140	2.18	0.44	3.08
Pipe 53	90	44	140	0.98	0.64	12.27
Pipe 58	60	44	140	0.6	0.39	4.95
Pipe 59	210	79.2	140	1.77	0.36	2.1
Pipe 63	105	110.2	140	1.86	0.2	0.46
Pipe 67	50	110.2	140	3.36	0.35	1.37
Pipe 68	80	55.4	140	1.5	0.62	8.79
Pipe 70	140	198.2	140	34.97	1.13	6.03
Pipe 71	24	44	140	0	0	0
Pipe 73	35	44	140	0	0	0

Pipe 101	19	44	140	0	0	0
Pipe 103	49	96.8	140	-4.07	0.55	3.69
Pipe 214	57	66	140	-2.16	0.63	7.38
Pipe 215	70	44	140	1.08	0.71	14.69
Pipe 216	35	44	140	0.54	0.36	4.07
Pipe 217	60	79.2	140	3.78	0.77	8.55
Pipe 218	32	198.2	140	6.43	0.21	0.26
Pipe 219	90	96.8	140	-3.63	0.49	2.99
Pipe 220	66	198.2	140	3.4	0.11	0.08
Pipe 221	165	141	140	-6.54	0.42	1.42
Pipe 222	277.6	141	140	-9.89	0.63	3.05
Pipe 223	65	96.8	140	2.35	0.32	1.33
Pipe 224	55	55.4	140	1.16	0.48	5.46
Pipe 225	185	198.2	140	4.56	0.15	0.14
Pipe 226	75	96.8	140	3.96	0.54	3.5
Pipe 227	65	110.2	140	3.96	0.41	1.86
Pipe 228	30	110.2	140	4.38	0.46	2.24
Pipe 229	20	110.2	140	3.38	0.35	1.39
Pipe 230	32	110.2	140	3	0.31	1.11
Pipe 231	64	110.2	140	2	0.21	0.53
Pipe 232	20	110.2	140	2	0.21	0.53
Pipe 233	133	55.4	140	1	0.41	4.15
Pipe 234	185	66	140	1	0.29	1.77
Pipe 235	70	110.2	140	-0.42	0.04	0.03
Pipe 236	65	110.2	140	-2.82	0.3	0.99
Pipe 237	70	66	140	0.9	0.26	1.45
Pipe 238	35	35.2	140	0.3	0.31	4.06
Pipe 239	35	35.2	140	0.3	0.31	4.06
Pipe 240	71	35.2	140	0.3	0.31	4.06
Pipe 241	22	141	140	-4.72	0.3	0.78
Pipe 242	150	198.2	140	0	0	0
Pipe 243	77	66	140	1.98	0.58	6.26
Pipe 244	28	66	140	1.32	0.39	2.96
Pipe 245	80	66	140	0.66	0.19	0.82
Pipe 247	130	198.2	140	-23.92	0.78	2.98
Pipe 248	115	198.2	140	74.94	2.43	24.73
Pipe 249	58	198.2	140	54.04	1.75	13.5
Pipe 250	50	198.2	140	50.8	1.65	12.04
Pipe 251	105	198.2	140	-11.91	0.39	0.82
Pipe 252	165	79.2	140	2.64	0.54	4.38
Pipe 253	45	44	140	0.76	0.5	7.66
Pipe 254	45	44	140	0.52	0.34	3.74
Pipe 255	30	96.8	140	4.19	0.57	3.89
Pipe 256	140	79.2	140	1.95	0.4	2.51
Pipe 257	285	79.2	140	-2.31	0.47	3.42
Pipe 258	100	396.6	140	197.57	1.6	5.08
Pipe 259	22	396.6	140	-	1.62	5.19

				199.88		
Pipe 260	72	35.2	140	0.7	0.72	19.51
Pipe 261	340	396.6	140	200.58	1.62	5.22
Pipe 262	165	396.6	140	200.58	1.62	5.22
Pipe 263	620	198.2	140	-7.78	0.25	0.37
Pipe 264	75	44	140	0	0	0
Pipe 276	86	79.2	140	-3.26	0.66	6.48
Pipe 277	102	79.2	140	1.99	0.4	2.6
Pipe 278	121	110.2	140	-6.25	0.65	4.33
Pipe 279	48	110.2	140	-7.39	0.77	5.91
Pipe 280	50	110.2	140	-7.8	0.82	6.53
Pipe 281	50	110.2	140	-7.77	0.81	6.48
Pipe 282	110	176.2	140	24.64	1.01	5.59
Pipe 283	80	176.2	140	13.28	0.54	1.78
Pipe 284	79	110.2	140	9.37	0.98	9.17
Pipe 285	130	141	140	15.44	0.99	6.96
Pipe 286	220	141	140	14.7	0.94	6.36
Pipe 287	100	96.8	140	0.13	0.02	0.01
Pipe 288	140	96.8	140	7.65	1.04	11.86
Pipe 289	40	96.8	140	6.36	0.86	8.41
Pipe 290	51	96.8	140	6.16	0.84	7.94
Pipe 291	115	96.8	140	6.31	0.86	8.29
Pipe 292	95	55.4	140	-0.54	0.23	1.35
Pipe 293	100	55.4	140	-0.11	0.04	0.07
Pipe 294	100	96.8	140	0.3	0.04	0.03
Pipe 295	110	55.4	140	0	0	0
Pipe 296	161	44	140	0	0	0
Pipe 297	45	44	140	0	0	0
Pipe 298	110	44	140	0.4	0.26	2.33
Pipe 299	52	44	140	-0.31	0.2	1.43
Pipe 300	115	44	140	0	0	0
Pipe 301	75	44	140	-0.71	0.47	6.71
Pipe 302	340	44	140	0.27	0.18	1.11
Pipe 303	40	141	140	-7.61	0.49	1.88
Pipe 304	60	141	140	-8.27	0.53	2.19
Pipe 305	135	141	140	-8.83	0.57	2.47
Pipe 306	20	141	140	-9.25	0.59	2.7
Pipe 307	30	141	140	-10.14	0.65	3.2
Pipe 308	40	141	140	-10.72	0.69	3.55
Pipe 309	45	141	140	-11.5	0.74	4.04
Pipe 310	55	55.4	140	0.89	0.37	3.36
Pipe 311	95	44	140	-0.53	0.35	3.97
Pipe 1	96	96.8	140	0.69	0.09	0.14
Pipe 6	195	96.8	140	0.09	0.01	0
Pipe 33	171	55.4	140	0.94	0.39	3.7
Pipe 35	102	96.8	140	-1.17	0.16	0.37
Pipe 76	158	55.4	140	0.64	0.27	1.81

Pipe 78	70	35.2	140	0.2	0.2	1.85
Pipe 93	140	96.8	140	-3.67	0.5	3.05
Pipe 97	90	96.8	140	-2.34	0.32	1.33
Pipe 105	125	96.8	140	0.2	0.03	0.01
Pipe 110	56	72.9	140	-0.78	0.19	0.69
Pipe 313	50	79.2	140	-0.49	0.1	0.19
Pipe 314	53	79.2	140	-1.25	0.25	1.11
Pipe 317	125	55.4	140	0.36	0.15	0.63
Pipe 318	180	96.8	140	3.35	0.45	2.57
Pipe 319	235	96.8	140	6.74	0.92	9.38
Pipe 321	145	44	140	-0.44	0.29	2.82
Pipe 322	95	141	140	-11.92	0.76	4.32
Pipe 323	85	141	140	10.84	0.69	3.62
Pipe 324	52	55.4	140	0.66	0.28	1.94
Pipe 325	23	141	140	10.18	0.65	3.22
Pipe 326	103	141	140	-12.66	0.81	4.83
Pipe 327	88	44	140	0.74	0.49	7.29
Pipe 328	70	44	140	0.54	0.36	4.07
Pipe 329	60	44	140	0.2	0.13	0.65
Pipe 330	191	79.2	140	-1.33	0.27	1.23
Pipe 331	35	44	140	0.12	0.08	0.25
Pipe 332	75	79.2	140	-1.81	0.37	2.17
Pipe 333	40	44	140	0	0	0
Pipe 334	170	79.2	140	-2.01	0.41	2.64
Pipe 335	140	55.4	140	1	0.41	4.15
Pipe 336	110	79.2	140	-3.51	0.71	7.42
Pipe 337	240	55.4	140	0.78	0.32	2.62
Pipe 338	280	55.4	140	0.58	0.24	1.51
Pipe 339	180	55.4	140	0.42	0.17	0.83
Pipe 340	180	55.4	140	0.66	0.27	1.92
Pipe 341	160	55.4	140	0.56	0.23	1.41
Pipe 342	65	123.4	140	-9.78	0.82	5.73
Pipe 343	75	123.4	140	-9.85	0.82	5.8
Pipe 344	145	55.4	140	-0.4	0.16	0.75
Pipe 346	110	176.2	140	16.43	0.67	2.64
Pipe 347	79	176.2	140	-20.91	0.86	4.13
Pipe 348	160	55.4	140	0.56	0.23	1.42
Pipe 349	80	44	140	0.28	0.18	1.21
Pipe 350	35	44	140	0.28	0.18	1.21
Pipe 351	350	110.2	140	5.95	0.62	3.96
Pipe 352	38	79.2	140	4.51	0.92	11.85
Pipe 353	160	44	140	0.62	0.41	5.26
Pipe 355	33	66	140	-0.63	0.18	0.75
Pipe 356	60	55.4	140	0	0	0
Pipe 357	39	35.2	140	0	0	0
Pipe 358	120	35.2	140	0	0	0
Pipe 359	76	79.2	140	1.63	0.33	1.79

Pipe 360	120	35.2	140	0.3	0.31	4.06
Pipe 361	38	79.2	140	1.33	0.27	1.23
Pipe 362	190	44	140	0.76	0.5	7.66
Pipe 363	39	79.2	140	0.57	0.11	0.25
Pipe 364	38	79.2	140	-0.37	0.08	0.12
Pipe 365	44	79.2	140	-0.97	0.2	0.69
Pipe 366	240	44	140	0.6	0.39	4.95
Pipe 367	220	44	140	0.6	0.39	4.95
Pipe 369	170	55.4	140	0.93	0.39	3.64
Pipe 370	180	55.4	140	-1.01	0.42	4.25
Pipe 371	40	79.2	140	-2.17	0.44	3.04
Pipe 372	236	79.2	140	-3.44	0.7	7.16
Pipe 373	164	110.2	140	-6.18	0.65	4.25
Pipe 374	191	55.4	140	0.07	0.03	0.03
Pipe 375	460	110.2	140	-6.25	0.66	4.33
Pipe 376	125	44	140	0.44	0.29	2.74
Pipe 377	170	35.2	140	0.6	0.62	14.67
Pipe 378	170	35.2	140	0.32	0.33	4.58
Pipe 379	140	35.2	140	0.38	0.39	6.29
Pipe 380	150	44	140	0.3	0.2	1.37
Pipe 381	76	44	140	0.23	0.15	0.86
Pipe 382	115	55.4	140	0	0	0
Pipe 383	100	35.2	140	0.26	0.27	3.12
Pipe 384	45	66	140	1.02	0.3	1.83
Pipe 385	126	55.4	140	0.3	0.12	0.45
Pipe 386	85	55.4	140	0.26	0.11	0.34
Pipe 387	80	44	140	0.4	0.26	2.33
Pipe 388	68	96.8	140	3.14	0.43	2.28
Pipe 389	57	79.2	140	2.84	0.58	5.03
Pipe 390	37	79.2	140	2.23	0.45	3.21
Pipe 391	75	66	140	1.91	0.56	5.85
Pipe 392	150	66	140	0.87	0.25	1.37
Pipe 395	170	66	140	2.08	0.61	6.86
Pipe 396	250	66	140	0.9	0.26	1.45
Pipe 397	24	176.2	140	25.68	1.05	6.03
Pipe 398	75	176.2	140	23.6	0.97	5.16
Pipe 399	78	176.2	140	22.7	0.93	4.8
Pipe 400	35	176.2	140	21.9	0.9	4.49
Pipe 401	18	176.2	140	21.4	0.88	4.3
Pipe 402	30	176.2	140	21	0.86	4.16
Pipe 403	66	176.2	140	20.6	0.84	4.01
Pipe 405	250	176.2	140	10.93	0.45	1.24
Pipe 406	30	176.2	140	7.01	0.29	0.54
Pipe 407	97	55.4	140	0.92	0.38	3.55
Pipe 408	50	44	140	0.4	0.26	2.33
Pipe 409	70	44	140	0.4	0.26	2.33
Pipe 410	220	55.4	140	0.75	0.31	2.42

Pipe 411	17	141	140	-8.64	0.55	2.37
Pipe 412	145	141	140	-8.48	0.54	2.3
Pipe 413	26	141	140	-9.32	0.6	2.74
Pipe 414	125	141	140	-10.91	0.7	3.66
Pipe 415	120	79.2	140	0.93	0.19	0.63
Pipe 416	270	55.4	140	0.52	0.21	1.22
Pipe 417	90	44	140	0.36	0.24	1.92
Pipe 418	225	44	140	0.4	0.26	2.33
Pipe 419	60	110.2	140	-4.92	0.52	2.78
Pipe 420	167	110.2	140	-5.5	0.58	3.41
Pipe 421	165	44	140	0.57	0.38	4.56
Pipe 426	26	176.2	140	21.47	0.88	4.33
Pipe 427	70	176.2	140	21.47	0.88	4.33
Pipe 428	46	176.2	140	21.47	0.88	4.33
Pipe 429	120	176.2	140	38.54	1.58	12.8
Pipe 430	210	55.4	140	1.46	0.61	8.36
Pipe 431	80	66	140	0.3	0.09	0.19
Pipe 432	45	66	140	0.3	0.09	0.19
Pipe 433	340	66	140	0.3	0.09	0.19
Pipe 436	35	176.2	140	-12.74	0.52	1.65
Pipe 438	115	55.4	140	2.8	1.16	27.92
Pipe 439	30	79.2	140	-1.34	0.27	1.25
Pipe 440	205	79.2	140	-1.89	0.38	2.37
Pipe 441	50	66	140	-2.39	0.7	8.84
Pipe 442	26	66	140	0.25	0.07	0.14
Pipe 444	115	66	140	-1.38	0.4	3.2
Pipe 445	115	176.2	140	-20.59	0.84	4.01
Pipe 446	90	176.2	140	-20.7	0.85	4.05
Pipe 447	90	66	140	3.07	0.9	14.14
Pipe 448	55	66	140	0.8	0.23	1.16
Pipe 449	130	66	140	3.39	0.99	16.91
Pipe 450	45	176.2	140	-20.3	0.83	3.91
Pipe 451	65	66	140	2.79	0.82	11.85
Pipe 452	45	220.4	140	75.28	1.97	14.87
Pipe 453	37	220.4	140	75.84	1.99	15.07
Pipe 454	90	44	140	0.4	0.26	2.33
Pipe 455	110	66	140	2.05	0.6	6.68
Pipe 456	60	220.4	140	-70.61	1.85	13.2
Pipe 457	50	220.4	140	-68.16	1.79	12.37
Pipe 458	195	79.2	140	-1.55	0.31	1.63
Pipe 459	100	79.2	140	-2.15	0.44	3
Pipe 460	40	55.4	140	0	0	0
Pipe 461	75	220.4	140	-0.52	0.01	0
Pipe 462	45	220.4	140	-1.45	0.04	0.01
Pipe 463	131	220.4	140	-7.2	0.19	0.19
Pipe 466	48	79.2	140	-2.4	0.49	3.68
Pipe 467	52	79.2	140	-3.27	0.66	6.53

Pipe 468	110	44	140	0.8	0.53	8.43
Pipe 469	110	110.2	140	-6.03	0.63	4.05
Pipe 470	140	44	140	0.3	0.2	1.37
Pipe 471	90	44	140	0.6	0.39	4.95
Pipe 472	62	66	140	1.8	0.53	5.25
Pipe 473	40	44	140	0.6	0.39	4.95
Pipe 474	140	66	140	0.9	0.26	1.45
Pipe 475	40	44	140	0.6	0.39	4.95
Pipe 476	125	110.2	140	-7.39	0.77	5.9
Pipe 477	80	110.2	140	-8.39	0.88	7.47
Pipe 479	150	66	140	1.06	0.31	1.98
Pipe 480	90	55.4	140	1.55	0.64	9.33
Pipe 481	110	44	140	0.5	0.33	3.53
Pipe 483	188	141	140	9.38	0.6	2.77
Pipe 484	55	141	140	10.93	0.7	3.67
Pipe 485	85	44	140	1	0.66	12.74
Pipe 486	140	141	140	11.93	0.76	4.32
Pipe 487	95	55.4	140	1.4	0.58	7.73
Pipe 488	60	44	140	0.7	0.46	6.58
Pipe 489	130	44	140	0.7	0.46	6.58
Pipe 490	120	44	140	0.4	0.26	2.33
Pipe 491	170	141	140	14.63	0.94	6.3
Pipe 492	335	96.8	140	3.5	0.48	2.79
Pipe 494	115	79.2	140	-2.58	0.52	4.21
Pipe 495	185	96.8	140	-2.31	0.31	1.29
Pipe 496	160	96.8	140	3.89	0.53	3.39
Pipe 497	100	96.8	140	-8.2	1.11	13.47
Pipe 498	60	176.2	140	25.94	1.06	6.15
Pipe 499	165	176.2	140	26.02	1.07	6.18
Pipe 500	115	176.2	140	23.94	0.98	5.3
Pipe 501	93	55.4	140	1.28	0.53	6.55
Pipe 502	45	66	140	0.28	0.08	0.17
Pipe 503	24	220.4	140	-2.11	0.06	0.02
Pipe 504	40	220.4	140	-6.62	0.17	0.16
Pipe 505	120	55.4	140	0.5	0.21	1.15
Pipe 506	130	55.4	140	-0.07	0.03	0.03
Pipe 507	110	110.2	140	6.99	0.73	5.33
Pipe 508	180	176.2	140	12.74	0.52	1.65
Pipe 509	70	176.2	140	36.96	1.52	11.84
Pipe 512	120	176.2	140	0	0	0
Pipe 513	60	176.2	140	13.92	0.57	1.94
Pipe 514	45	176.2	140	15.97	0.65	2.5
Pipe 515	63	176.2	140	15.94	0.65	2.5
Pipe 516	85	176.2	140	34.94	1.43	10.67
Pipe 517	100	176.2	140	36.28	1.49	11.44
Pipe 518	120	176.2	140	31.48	1.29	8.8
Pipe 519	110	176.2	140	40	1.64	13.72

Pipe 520	100	55.4	140	0.7	0.29	2.14
Pipe 521	100	66	140	1.1	0.32	2.11
Pipe 523	80	35.2	140	0.4	0.41	6.92
Pipe 524	66	66	140	-0.4	0.12	0.32
Pipe 525	80	35.2	140	0.46	0.47	8.97
Pipe 526	86	66	140	0.86	0.25	1.34
Pipe 527	80	44	140	0.4	0.26	2.33
Pipe 528	71	66	140	1.26	0.37	2.71
Pipe 530	58	79.2	140	2.28	0.46	3.35
Pipe 531	45	79.2	140	1.88	0.38	2.35
Pipe 532	63	96.8	140	0.4	0.05	0.05
Pipe 533	80	55.4	140	0.4	0.17	0.76
Pipe 534	54	79.2	140	3.94	0.8	9.23
Pipe 535	100	55.4	140	0.4	0.17	0.76
Pipe 536	35	55.4	140	1.38	0.57	7.56
Pipe 537	200	55.4	140	0.92	0.38	3.55
Pipe 538	120	55.4	140	0.46	0.19	0.99
Pipe 539	148	55.4	140	0.46	0.19	0.99
Pipe 540	75	55.4	140	0	0	0
Pipe 541	285	176.2	140	-15.51	0.64	2.37
Pipe 542	130	79.2	140	4.34	0.88	11.04
Pipe 544	670	96.8	140	4.37	0.59	4.19
Pipe 545	150	141	140	11.17	0.72	3.82
Pipe 546	280	55.4	140	1.3	0.54	6.78
Pipe 547	142	55.4	140	-0.75	0.31	2.41
Pipe 548	55	141	140	-11.53	0.74	4.06
Pipe 550	70	141	140	16.09	1.03	7.52
Pipe 551	70	44	140	0.4	0.26	2.33
Pipe 7	87	110.2	140	4.8	0.5	2.66
Pipe 10	270	55.4	140	0.1	0.04	0.06
Pipe 12	212	96.8	140	0.36	0.05	0.04
Pipe 14	120	44	140	0.5	0.33	3.53
Pipe 17	80	44	140	0.8	0.53	8.43
Pipe 20	60	44	140	0.2	0.13	0.65
Pipe 21	40	44	140	0.2	0.13	0.65
Pipe 22	110	176.2	140	24.28	1	5.44
Pipe 24	190	55.4	140	0.8	0.33	2.74
Pipe 25	15	79.2	140	-0.11	0.02	0.01
Pipe 26	15	66	140	-2.64	0.77	10.66
Pipe 27	50	220.4	140	-79.43	2.08	16.42
Pipe 29	115	176.2	140	24.25	0.99	5.43
Pipe 34	140	198.2	140	13.99	0.45	1.1
Pipe 46	140	198.2	140	11.66	0.38	0.79
Pipe 51	90	55.4	140	1.13	0.47	5.22
Pipe 64	715	96.8	140	-1.73	0.23	0.75
Pipe 65	195	79.2	140	-1.55	0.32	1.65
Pipe 79	290	79.2	140	-2.09	0.42	2.85

Pipe 80	185	79.2	140	-3.73	0.76	8.33
Pipe 81	480	141	140	5.03	0.32	0.87
Pipe 83	1027.5	96.8	140	-0.17	0.02	0.01
Pipe 86	638.67	66	140	-0.56	0.16	0.6
Pipe 87	810.64	66	140	-1.16	0.34	2.32
Pipe 88	320	55.4	140	-0.06	0.03	0.02
Pipe 96	430	79.2	140	-0.22	0.04	0.04
Pipe 106	230	141	140	2.98	0.19	0.33
Pipe 109	401.46	66	140	-0.8	0.23	1.16
Pipe 393	530.66	66	140	-1.38	0.4	3.2
Pipe 394	942	96.8	140	0.8	0.11	0.18
Pipe 404	825	55.4	140	0	0	0
Pipe 464	140	79.2	140	1.83	0.37	2.24
Pipe 465	92	79.2	140	1.25	0.25	1.11
Pipe 552	175	55.4	140	-0.93	0.39	3.65
Pipe 553	52	55.4	140	-0.93	0.39	3.65
Pipe 554	25	141	140	15.69	1	7.18
Pipe 555	25	141	140	-15.91	1.02	7.37
Pipe 556	25	96.8	140	7.34	1	10.99
Pipe 557	25	96.8	140	-8.37	1.14	13.99
Pipe 558	210	79.2	140	0.62	0.13	0.3
Pipe 559	115	141	140	-14.21	0.91	5.98
Pipe 561	25	96.8	140	-8.2	1.11	13.47
Pipe 562	25	96.8	140	-9.04	1.23	16.14
Pipe 563	25	96.8	140	-9.88	1.34	19.02
Pipe 564	25	96.8	140	10.72	1.46	22.13
Pipe 565	25	44	140	0.7	0.46	6.58
Pipe 566	25	66	140	1.28	0.37	2.79
Pipe 567	25	44	140	0.4	0.26	2.33
Pipe 568	25	79.2	140	3.28	0.67	6.56
Pipe 569	25	55.4	140	0.9	0.37	3.41
Pipe 570	25	55.4	140	0.88	0.37	3.27
Pipe 571	25	96.8	140	3.2	0.43	2.36
Pipe 572	25	79.2	140	2.4	0.49	3.68
Pipe 573	170	66	140	1.6	0.47	4.22
Pipe 574	170	66	140	0.8	0.23	1.17
Pipe 575	25	79.2	140	0.94	0.19	0.65
Pipe 576	25	79.2	140	-7.06	1.43	27.18
Pipe 577	25	123.4	140	10.52	0.88	6.55
Pipe 578	25	123.4	140	9.32	0.78	5.24
Pipe 579	25	66	140	2.07	0.6	6.79
Pipe 580	25	66	140	0.87	0.25	1.36
Pipe 581	20	123.4	140	18.09	1.51	17.87
Pipe 582	160	110.2	140	-1.62	0.17	0.35
Pipe 583	100	110.2	140	-2.14	0.22	0.59
Pipe 584	202	110.2	140	-1.68	0.18	0.38
Pipe 585	140	110.2	140	-3.68	0.39	1.62

Pipe 586	75	66	140	0.83	0.24	1.25
Pipe 587	55	176.2	140	20.06	0.82	3.82
Pipe 588	135	176.2	140	16.38	0.67	2.63
Pipe 589	95	66	140	1.67	0.49	4.58
Pipe 590	80	79.2	140	-0.44	0.09	0.16
Pipe 591	88	79.2	140	-3.27	0.66	6.53
Pipe 592	130	44	140	0.35	0.23	1.86
Pipe 593	160	55.4	140	0.32	0.13	0.49
Pipe 594	25	55.4	140	1.05	0.44	4.53
Pipe 595	50	79.2	140	1.74	0.35	2.03
Pipe 596	100	79.2	140	-1.48	0.3	1.5
Pipe 597	60	96.8	140	2.28	0.31	1.26
Pipe 598	30	96.8	140	1.1	0.15	0.32
Pipe 599	66	96.8	140	-0.9	0.12	0.23
Pipe 600	141	79.2	140	-0.94	0.19	0.65
Pipe 601	46	79.2	140	-1.84	0.37	2.26
Pipe 602	70	176.2	140	-11.93	0.49	1.46
Pipe 603	95	176.2	140	-13.13	0.54	1.74
Pipe 604	30	176.2	140	13.73	0.56	1.89
Pipe 605	100	66	140	0.6	0.18	0.69
Pipe 606	38	96.8	140	5.54	0.75	6.51
Pipe 607	97	96.8	140	3.74	0.51	3.14
Pipe 608	35	176.2	140	-4.5	0.18	0.24
Pipe 609	48	176.2	140	-5.2	0.21	0.31
Pipe 610	58	176.2	140	-5.9	0.24	0.4
Pipe 611	70	141	140	14.19	0.91	5.95
Pipe 612	63	141	140	12.19	0.78	4.49
Pipe 613	115	141	140	10.19	0.65	3.22
Pipe 614	70	176.2	140	24.24	0.99	5.42
Pipe 615	90	176.2	140	22.14	0.91	4.59
Pipe 616	25	96.8	140	3.4	0.46	2.64
Pipe 617	35	96.8	140	2.4	0.33	1.38
Pipe 618	49	79.2	140	1.99	0.4	2.6
Pipe 619	63	79.2	140	1.33	0.27	1.23
Pipe 620	40	66	140	-0.05	0.01	0.01
Pipe 621	93	66	140	-1.25	0.36	2.66
Pipe 622	93	66	140	-2.15	0.63	7.28
Pipe 623	190	198.2	140	3.18	0.1	0.07
Pipe 624	36	198.2	140	1.98	0.06	0.03
Pipe 625	65	176.2	140	-18.67	0.77	3.34
Pipe 626	125	176.2	140	-19.47	0.8	3.61
Pipe 627	90	44	140	0.8	0.53	8.43
Pipe 628	120	176.2	140	0	0	0
Pipe 629	25	176.2	140	-41.5	1.7	14.68
Pipe 630	17	176.2	140	12.74	0.52	1.65
Pipe 631	130	176.2	140	36.96	1.52	11.85
Pipe 632	15	176.2	140	12.74	0.52	1.65

Pipe 633	100	176.2	140	24.64	1.01	5.59
Pipe 634	210	123.4	140	-2.77	0.23	0.55
Pipe 635	295	123.4	140	-4.77	0.4	1.51
Pipe 2	25	66	140	0.48	0.14	0.45
Pipe 9	25	44	140	0	0	0
Pipe 19	115	96.8	140	3.05	0.41	2.16
Pipe 30	95	96.8	140	2.49	0.34	1.48
Pipe 36	30	66	140	0.48	0.14	0.45
Pipe 40	30	66	140	-0.26	0.08	0.15
Pipe 48	150	66	140	1.38	0.4	3.23
Pipe 50	121	66	140	-0.22	0.06	0.1
Pipe 57	25	96.8	140	-8.15	1.11	13.32
Pipe 74	120	198.2	140	40.55	1.31	7.93
Pipe 77	150	198.2	140	-50.69	1.64	11.99
Pipe 92	120	198.2	140	36.59	1.19	6.55
Pipe 98	165	198.2	140	-38.59	1.25	7.23
Pipe 120	871	277.6	140	48.07	0.79	2.11
Pipe 129	5	277.6	140	48.07	0.79	2.1
Pipe 69	175	176.2	140	9.97	0.41	1.05
Pipe 125	210	176.2	140	9.97	0.41	1.05
Pipe 130	20	141	140	26.43	1.69	18.85
Pipe 13	192	110.2	140	3.72	0.39	1.66
Pipe 175	630	277.6	140	29.63	0.49	0.86
Pipe 201	2	277.6	140	29.63	0.49	0.86
Pipe 246	300	277.6	140	59.34	0.98	3.11
Pipe 265	15	396.6	140	178.29	1.44	4.2
Pipe 3	10	220.4	140	54.24	1.42	8.1
Valve 121	#N/A	350	#N/A	193.38	2.01	10.41
Valve 122	#N/A	100	#N/A	9.28	1.18	0
Valve 126	#N/A	200	#N/A	5.34	0.17	0
Valve 128	#N/A	250	#N/A	48.07	0.98	0
Valve 137	#N/A	200	#N/A	117.08	3.73	0
Valve 4	#N/A	150	#N/A	18.09	1.02	0
Valve 183	#N/A	200	#N/A	59.34	1.89	0

I gjithe sistemi eshte teresisht i balancuar, duke funksionuar normalisht, dhe duke garantuar nje furnizim te vazhdueshem me uje 24/24 orë.

Pregatitur nga:

Ing.Vyrtyt LLANAJ

“ GJEOKONSULT&CO „ SHPK