

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :

## Network

Name	Location	Upstream Node	Downstream Node	Ignored	Tailpipe	Length (m)
Pipe5	FL-112-0029-AN07-6"-PT	PV-2152	Tee73	No	Yes	30.000
Pipe2	FL-112-0005-AN07-6"-PT	PSV-2111/2112	Tee74	No	Yes	5.420
Pipe7	FL-112-0008-AN07-14"-PT	Tee74	Connector3	No	No	24.480
Pipe9	FL-112-0011-AN07-3"-PT	PSV-2113/2114	Tee3	No	Yes	15.000
Pipe10	FL-112-0013A-AN07-2"-PT	PSV-2121A	Tee4	No	Yes	20.000
Pipe11	FL-112-0019A-AN07-2"-PT	PSV-2131A	Tee5	No	Yes	20.000
Pipe12	FL-112-0001-AN07-14"-PT	Tee21	Tee4	No	No	27.600
Pipe13	FL-112-0001-AN07-14"-PT	Tee4	Tee7	No	No	2.400
Pipe14	FL-112-0001-AN07-14"-PT	Tee36	Tee24	No	No	3.000
Pipe15	FL-112-0119A-AN07-2"-PT	BDV-2134A	Tee6	No	Yes	20.000
Pipe16	FL-112-0016A-AN07-6"-PT	PSV-2122A/2123A	Tee7	No	Yes	20.000
Pipe19	FL-112-0001-AN07-14"-PT	Tee5	Tee6	No	No	2.400
Pipe20	FL-112-0001-AN07-14"-PT	Tee24	Tee55	No	No	19.920
Pipe34	FL-112-0001-AN07-14"-PT	Tee71	Tee16	No	No	14.400
Pipe35	V-2103	BDV-2141	Tee16	No	Yes	3.000
Pipe40	FL-112-0001-AN07-14"-PT	Tee16	Tee53	No	No	6.000
Pipe41	FL-112-0027-AN07-8"-PT	PSV-2141/2142	Tee19	No	Yes	25.000
Pipe43	FL-112-0001-AN07-8"-PT	Tee19	Tee73	No	No	2.400
Pipe44	FL-112-0001-AN07-8"-PT	Tee73	HorizontalSeparator1	No	No	54.000
Pipe45	FL-112-0004-AN07-16"-PT	HorizontalSeparator1	Connector2	No	No	550.000
Pipe46	LP FLARE STACK	Connector2	FlareTip1	No	No	15.000
Pipe47	FL-112-0001-AN07-14"-PT	Tee7	Tee75	No	No	2.000
Pipe48	FL-112-0001-AN07-14"-PT	Tee37	Tee21	No	No	2.000
Pipe49	FL-112-0034-AN07-2"-PT	PSV-2271	Tee21	No	Yes	23.000
Pipe53	FL-112-0023A-AN07-2"-PT	BDV-2132 A	Tee24	No	Yes	3.000
Pipe76	FL-112-0022A-AN07-6"-PT	PSV-2132A/2133A	Tee36	No	Yes	25.000
Pipe77	FL-112-0001-AN07-14"-PT	Tee6	Tee36	No	No	7.800
Pipe78	FL-112-0119A-AN07-2"-PT	XV-2110	Tee37	No	Yes	15.000
Pipe79	FL-112-0001-AN07-14"-PT	Tee3	Tee37	No	No	2.000
Pipe113	FL-112-0002-AN07-4"-PT	BDV-2151	Tee53	No	Yes	4.000
Pipe114	FL-112-0001-AN07-14"-PT	Connector3	Tee3	No	No	7.560
Pipe115	FL-112-0013A-AN07-2"-PT	PSV-2121B	Tee55	No	Yes	20.000
Pipe116	FL-112-0019A-AN07-2"-PT	PSV-2131B	Tee56	No	Yes	20.000
Pipe117	FL-112-0001-AN07-14"-PT	Tee55	Tee58	No	No	2.400
Pipe118	FL-112-0001-AN07-14"-PT	Tee60	Tee59	No	No	3.000
Pipe119	FL-112-0119A-AN07-2"-PT	BDV-2134 B	Tee57	No	Yes	20.000
Pipe120	FL-112-0016A-AN07-6"-PT	PSV-2122B/2123B	Tee58	No	Yes	20.000
Pipe121	FL-112-0001-AN07-14"-PT	Tee56	Tee57	No	No	2.400
Pipe122	FL-112-0001-AN07-14"-PT	Tee59	Tee67	No	No	19.920
Pipe123	FL-112-0001-AN07-14"-PT	Tee76	Tee56	No	No	2.000
Pipe124	FL-112-0023A-AN07-2"-PT	BDV-2132 B	Tee59	No	Yes	3.000
Pipe125	FL-112-0022A-AN07-6"-PT	PSV-2132B/2133B	Tee60	No	Yes	25.000
Pipe126	FL-112-0001-AN07-14"-PT	Tee57	Tee60	No	No	7.800
Pipe139	FL-112-0013A-AN07-2"-PT	PSV-2121C	Tee67	No	Yes	20.000
Pipe140	FL-112-0019A-AN07-2"-PT	PSV-2131C	Tee68	No	Yes	20.000
Pipe141	FL-112-0001-AN07-14"-PT	Tee67	Tee70	No	No	2.400
Pipe142	FL-112-0001-AN07-14"-PT	Tee72	Tee71	No	No	3.000
Pipe143	FL-112-0119A-AN07-2"-PT	BDV-2134 C	Tee69	No	Yes	20.000

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## Network

Name	Elevation Change (m)	Material	Roughness (mm)	Thermal Conductivity (W/m-K)	Nominal Diameter	Schedule	Internal Diameter (mm)	Wall Thickness (mm)
Pipe5	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe2	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe7	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe9	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe10	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe11	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe12	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe13	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe14	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe15	0.000	Carbon Steel	0.04572	51.91	2 inch	STD	52.502	3.912
Pipe16	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe19	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe20	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe34	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe35	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe40	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe41	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe43	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe44	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe45	0.000	Carbon Steel	0.04572	51.91	10 inch	40	254.508	9.271
Pipe46	15.000	Carbon Steel	0.04572	51.91	10 inch	40	254.508	9.271
Pipe47	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe48	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe49	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe53	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe76	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe77	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe78	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe79	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe113	0.000	Carbon Steel	0.04572	51.91	3 inch	40	77.927	5.486
Pipe114	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe115	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe116	0.000	Carbon Steel	0.04572	51.91	3 inch	40	77.927	5.486
Pipe117	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe118	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe119	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe120	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe121	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe122	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe123	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe124	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe125	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe126	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe139	0.000	Carbon Steel	0.04572	51.91	3 inch	40	77.927	5.486
Pipe140	0.000	Carbon Steel	0.04572	51.91	3 inch	40	77.927	5.486
Pipe141	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe142	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe143	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912

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## Network

Name	Pipe Class	Sizeable	Length Multiplier	Fittings Loss A	Fittings Loss B	Ambient Temperature (C)	External Med Velocity (m/s)	Insulation Description	Insulation Thickness (mm)
Pipe5	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe2	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe7	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe9	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe10	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe11	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe12	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe13	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe14	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe15	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe16	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe19	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe20	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe34	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe35	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe40	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe41	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe43	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe44	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe45	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe46	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe47	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe48	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe49	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe53	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe76	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe77	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe78	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe79	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe113	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe114	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe115	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe116	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe117	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe118	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe119	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe120	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe121	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe122	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe123	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe124	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe125	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe126	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe139	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe140	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe141	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe142	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe143	No	Yes		0.000	0.000			Glass Fibre	0.00

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## Network

Name	Insulation Conductivity (W/m-K)	Outlet Temperature (C)	Duty (kJ/hr)	VLE Method	Horizontal Pres. Drop	Inclined Pres. Drop
Pipe5	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe2	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe7	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe9	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe10	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe11	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe12	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe13	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe14	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe15	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe16	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe19	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe20	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe34	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe35	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe40	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe41	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe43	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe44	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe45	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe46	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe47	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe48	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe49	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe53	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe76	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe77	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe78	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe79	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe113	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe114	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe115	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe116	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe117	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe118	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe119	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe120	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe121	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe122	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe123	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe124	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe125	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe126	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe139	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe140	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe141	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe142	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe143	0.040		0.000e+000	Model Default	Model Default	Model Default





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Network				
Name	Vertical Pres. Drop	Two Phase Elements	Friction Factor	Damping Factor
Pipe5	Model Default		Model Default	
Pipe2	Model Default		Model Default	
Pipe7	Model Default		Model Default	
Pipe9	Model Default		Model Default	
Pipe10	Model Default		Model Default	
Pipe11	Model Default		Model Default	
Pipe12	Model Default		Model Default	
Pipe13	Model Default		Model Default	
Pipe14	Model Default		Model Default	
Pipe15	Model Default		Model Default	
Pipe16	Model Default		Model Default	
Pipe19	Model Default		Model Default	
Pipe20	Model Default		Model Default	
Pipe34	Model Default		Model Default	
Pipe35	Model Default		Model Default	
Pipe40	Model Default		Model Default	
Pipe41	Model Default		Model Default	
Pipe43	Model Default		Model Default	
Pipe44	Model Default		Model Default	
Pipe45	Model Default		Model Default	
Pipe46	Model Default		Model Default	
Pipe47	Model Default		Model Default	
Pipe48	Model Default		Model Default	
Pipe49	Model Default		Model Default	
Pipe53	Model Default		Model Default	
Pipe76	Model Default		Model Default	
Pipe77	Model Default		Model Default	
Pipe78	Model Default		Model Default	
Pipe79	Model Default		Model Default	
Pipe113	Model Default		Model Default	
Pipe114	Model Default		Model Default	
Pipe115	Model Default		Model Default	
Pipe116	Model Default		Model Default	
Pipe117	Model Default		Model Default	
Pipe118	Model Default		Model Default	
Pipe119	Model Default		Model Default	
Pipe120	Model Default		Model Default	
Pipe121	Model Default		Model Default	
Pipe122	Model Default		Model Default	
Pipe123	Model Default		Model Default	
Pipe124	Model Default		Model Default	
Pipe125	Model Default		Model Default	
Pipe126	Model Default		Model Default	
Pipe139	Model Default		Model Default	
Pipe140	Model Default		Model Default	
Pipe141	Model Default		Model Default	
Pipe142	Model Default		Model Default	
Pipe143	Model Default		Model Default	



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Network						
Name	Location	Upstream Node	Downstream Node	Ignored	Tailpipe	Length (m)
Pipe144	FL-112-0016A-AN07-6"-PT	PSV-2122C/2123C	Tee70	No	Yes	20.000
Pipe145	FL-112-0001-AN07-14"-PT	Tee68	Tee69	No	No	2.400
Pipe146	FL-112-0001-AN07-14"-PT	Tee70	Tee77	No	No	2.000
Pipe147	FL-112-0023A-AN07-2"-PT	BDV-2132 C	Tee71	No	Yes	3.000
Pipe148	FL-112-0022A-AN07-6"-PT	PSV-2132C/2133C	Tee72	No	Yes	25.000
Pipe149	FL-112-0001-AN07-14"-PT	Tee69	Tee72	No	No	7.800
Pipe150	FL-112-0001-AN07-14"-PT	Tee53	Tee19	No	No	2.400
Pipe151		PCV-2135A	Tee75	No	Yes	4.000
Pipe152		Tee75	Tee5	No	No	2.000
Pipe153		Tee76	Tee58	No	No	2.000
Pipe154		PSV-2135B	Tee76	No	Yes	4.000
Pipe155		PCV-2135C	Tee77	No	Yes	4.000
Pipe156		Tee68	Tee77	No	No	2.000



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Name	Elevation Change (m)	Material	Roughness (mm)	Thermal Conductivity (W/m-K)	Nominal Diameter	Schedule	Internal Diameter (mm)	Wall Thickness (mm)
Pipe144	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe145	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe146	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe147	0.000	Carbon Steel	0.04572	51.91	2 inch	40	52.502	3.912
Pipe148	0.000	Carbon Steel	0.04572	51.91	6 inch	40	154.051	7.112
Pipe149	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe150	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe151	0.000	Carbon Steel	0.04572	51.91	4 inch	40	102.260	6.020
Pipe152	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe153	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179
Pipe154	0.000	Carbon Steel	0.04572	51.91	4 inch	40	102.260	6.020
Pipe155	0.000	Carbon Steel	0.04572	51.91	4 inch	40	102.260	6.020
Pipe156	0.000	Carbon Steel	0.04572	51.91	8 inch	40	202.717	8.179



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Network									
Name	Pipe Class	Sizeable	Length Multiplier	Fittings Loss A	Fittings Loss B	Ambient Temperature (C)	External Med Velocity (m/s)	Insulation Description	Insulation Thickness (mm)
Pipe144	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe145	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe146	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe147	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe148	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe149	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe150	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe151	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe152	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe153	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe154	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe155	No	Yes		0.000	0.000			Glass Fibre	0.00
Pipe156	No	Yes		0.000	0.000			Glass Fibre	0.00



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :

Network						
Name	Insulation Conductivity (W/m-K)	Outlet Temperature (C)	Duty (kJ/hr)	VLE Method	Horizontal Pres. Drop	Inclined Pres. Drop
Pipe144	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe145	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe146	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe147	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe148	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe149	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe150	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe151	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe152	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe153	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe154	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe155	0.040		0.000e+000	Model Default	Model Default	Model Default
Pipe156	0.040		0.000e+000	Model Default	Model Default	Model Default



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :

Network				
Name	Vertical Pres. Drop	Two Phase Elements	Friction Factor	Damping Factor
Pipe144	Model Default		Model Default	
Pipe145	Model Default		Model Default	
Pipe146	Model Default		Model Default	
Pipe147	Model Default		Model Default	
Pipe148	Model Default		Model Default	
Pipe149	Model Default		Model Default	
Pipe150	Model Default		Model Default	
Pipe151	Model Default		Model Default	
Pipe152	Model Default		Model Default	
Pipe153	Model Default		Model Default	
Pipe154	Model Default		Model Default	
Pipe155	Model Default		Model Default	
Pipe156	Model Default		Model Default	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :

## Component Data

Name	ID	Mol. Wt.	Critical Temperature (K)	Critical Pressure (bar)	Critical Volume (m3/kgmole)	Char. Volume (m3/kgmole)	Accentric Factor	SRK Accentric Factor
H2O	61	18.015	647.30	221.200	0.05710	0.04357	0.34400	-0.65442
CO2	53	44.010	304.10	73.700	0.09390	0.09383	0.23894	0.23725
H2S	54	34.076	373.60	90.078	0.09800	0.09939	0.08100	0.09300
Methane	1	16.043	190.70	46.407	0.09900	0.09939	0.01150	0.00740
Ethane	2	30.070	305.43	48.839	0.14800	0.14575	0.09860	0.09830
Propane	3	44.097	369.90	42.567	0.20000	0.20008	0.15240	0.15320
i-Butane	4	58.124	408.10	36.476	0.26300	0.25683	0.18479	0.18250
n-Butane	5	58.124	425.20	37.966	0.25499	0.25439	0.20100	0.20080
i-Pentane	6	72.151	460.40	33.336	0.30799	0.30959	0.22224	0.23995
n-Pentane	7	72.151	469.60	33.751	0.31099	0.31132	0.25389	0.25220
n-Hexane	9	86.178	507.90	30.316	0.36800	0.36820	0.30070	0.30070
n-Heptane	14	100.205	540.16	27.368	0.42598	0.43044	0.34979	0.35069
n-Octane	22	114.232	568.60	24.966	0.48600	0.49042	0.40180	0.39980
n-Nonane	25	128.259	594.60	23.001	0.54299	0.55290	0.44549	0.44780
n-Decane	26	142.285	617.60	21.076	0.60197	0.61922	0.48848	0.49160
Nitrogen	59	28.013	126.19	33.944	0.09000	0.09015	0.04000	0.03580

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :

## Component Data

Name	Norm. Boiling Point (K)	Standard Density (kg/m3)	Watson Factor	Enthalpy Term A (kJ/kgmole)	Enthalpy Term B (kJ/kgmole/K)	Enthalpy Term C (kJ/kgmole/K^2)	Enthalpy Term D (kJ/kgmole/K^3)
H2O	373.15	997.99	8.775	-1.03219e+002	3.44899e+001	-7.12930e-003	1.57849e-005
CO2	194.60	825.34	8.541	5.51244e-008	2.72041e+001	2.13220e-002	-6.57298e-006
H2S	213.50	788.41	9.222	-4.88991e+001	3.40249e+001	-6.28021e-003	1.89829e-005
Methane	111.63	299.39	19.563	-2.08237e+002	3.79349e+001	-3.42110e-002	9.08317e-005
Ethane	184.55	355.68	19.471	-5.31486e+001	3.43669e+001	-9.73062e-003	1.27590e-004
Propane	231.05	506.68	14.732	1.74134e+003	1.74183e+001	9.32250e-002	1.74838e-005
i-Butane	261.42	561.97	13.841	1.79621e+003	8.91041e+000	1.53145e-001	4.22693e-006
n-Butane	272.65	583.22	13.525	3.93622e+003	4.96413e-001	1.90472e-001	-6.44990e-005
i-Pentane	301.03	623.44	13.077	4.63570e+003	-9.50936e+000	2.55487e-001	-9.61917e-005
n-Pentane	309.21	629.73	13.062	4.55980e+003	-8.44289e-001	2.39282e-001	-8.44528e-005
n-Hexane	341.88	662.66	12.836	6.42137e+003	-8.33315e+000	2.99597e-001	-1.13858e-004
n-Heptane	371.58	686.82	12.733	7.15564e+003	-9.70935e+000	3.48012e-001	-1.33293e-004
n-Octane	398.82	705.38	12.694	1.44512e+004	-3.08541e+001	4.56733e-001	-2.25380e-004
n-Nonane	423.97	720.25	12.688	6.38566e-007	-8.37397e+000	4.36450e-001	-1.60766e-004
n-Decane	447.30	732.72	12.696	1.04362e-006	-7.91297e+000	4.80447e-001	-1.76266e-004
Nitrogen	77.35	806.37	6.427	-4.49048e+001	2.97414e+001	-3.07135e-003	4.76602e-006



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :

Component Data

Name	Enthalpy Term E (kJ/kgmole/K^4)	Enthalpy Term F (kJ/kgmole/K^5)	Entropy Term	Viscosity A Term	Viscosity B Term	Type	Heat of Combustion (kJ/kgmole)
H2O	-8.91847e-009	1.87080e-012	1.00000e+000	-0.86778	-1.10669	Misc	0.0
CO2	1.00804e-009	-6.03131e-014	1.00000e+000	-0.00038	-0.31474	Misc	0.0
H2S	-1.08262e-008	2.16936e-012	1.00000e+000	0.38727	0.35719	Misc	-518000.0
Methane	-5.97560e-008	1.38113e-011	1.00000e+000	-0.00201	0.02547	HC	-802703.0
Ethane	-1.02032e-007	2.65245e-011	1.00000e+000	0.07231	0.04698	HC	-1428510.0
Propane	-2.94205e-008	7.40547e-012	1.00000e+000	0.07112	-0.06538	HC	-2044970.0
i-Butane	-4.23082e-008	1.37600e-011	1.00000e+000	0.10784	-0.14528	HC	-2652850.0
n-Butane	1.02674e-008	-3.71951e-013	1.00000e+000	0.10006	-0.05969	HC	-2659600.0
i-Pentane	1.81421e-008	-9.34904e-013	1.00000e+000	0.03229	-0.18757	HC	-3265570.0
n-Pentane	1.44039e-008	-6.25178e-013	1.00000e+000	0.12425	-0.03341	HC	-3273500.0
n-Hexane	2.17483e-008	-1.16052e-012	1.00000e+000	0.09727	-0.10756	HC	-3888500.0
n-Heptane	2.56290e-008	-1.38008e-012	1.00000e+000	0.05282	-0.20281	HC	-4503500.0
n-Octane	7.11432e-008	-1.07165e-011	1.00000e+000	0.04179	-0.25551	HC	-5118500.0
n-Nonane	2.57743e-008	-2.86971e-021	1.00000e+000	0.08284	-0.24232	HC	-5733550.0
n-Decane	2.82743e-008	-5.26655e-021	1.00000e+000	0.09464	-0.26298	HC	-6348600.0
Nitrogen	-1.16995e-009	-1.01437e-013	1.00000e+000	0.12115	0.02163	Misc	0.0



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :

Scenario Data

Name	System Back Pres. (bar)	Ambient Temperature (C)	Header Mach No.	Header Vap. Vel. (m/s)	Header Liq. Vel. (m/s)	Header Rho V2 (kg/m/s2)	Header Noise (dB)	Tailpipe Mach No.	Tailpipe Vap. Vel. (m/s)
Default Scenario	1.05000	18.75	0.7000			150000	100.0	0.7000	
BDV-Fire case	1.10000	33.00	0.7000			150000	100.0	0.7000	
Spurious blowdown case	1.10000	18.75	0.7000			150000	100.0	0.7000	
Cold shutdown case	1.10000	18.75	0.7000			150000	100.0	0.7000	
FIRE-AREA 1	1.10000	33.00	0.7000			150000	100.0	0.7000	
FIRE-AREA 2	1.10000	33.00	0.7000			150000	100.0	0.7000	
FIRE-AREA 3	1.10000	33.00	0.7000			150000	100.0	0.7000	
BLOCK OUTLET-PSV-2112	1.10000	18.75	0.7000			150000	100.0	0.7000	
BLOCK OUTLET PSV-2112	1.10000	18.75	0.7000			150000	100.0	0.7000	
PCV-2152	1.10000	18.75	0.7000			150000	100.0	0.7000	
PCV2135A	1.10000	18.75	0.7000			150000	100.0	0.7000	
PCV2135B	1.10000	18.75	0.7000			150000	100.0	0.7000	
blockoutlet PSV2113	1.05000	18.75	0.7000			150000	100.0	0.7000	
PSV2111/2112 blockoutlet	1.05000	18.75	0.7000			150000	100.0	0.7000	



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :

Scenario Data

Name	Tailpipe Liq. Vel. (m/s)	Tailpipe Rho V2 (kg/m/s2)	Tailpipe Noise (dB)
Default Scenario		150000	100.0
BDV-Fire case		150000	100.0
Spurious blowdown case		150000	100.0
Cold shutdown case		150000	100.0
FIRE-AREA 1		150000	100.0
FIRE-AREA 2		150000	100.0
FIRE-AREA 3		150000	100.0
BLOCK OUTLET-PSV-2132/2133		150000	100.0
BLOCK OUTLET PSV-2122/2123		150000	100.0
PCV-2152		150000	100.0
PCV2135A		150000	100.0
PCV2135B		150000	100.0
blockoutlet PSV2113		150000	100.0
PSV2111/2112 blockoutlet		150000	100.0

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Default Scenario

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	No	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Default Scenario

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		136.577					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	1,337.978	85.217		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	55.075		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	44.525		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		254.336					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
BDV-2134 C	43.954	5,594.000							
PSV-2131B	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
BDV-2151	43.950	5,594.000		79.159					
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2134 B	43.954	5,594.000		254.336					
BDV-2132 C	25.000	0.000							
BDV-2141	43.950	5,594.000		79.159					
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
BDV-2132 B	25.000	0.000		0.000					
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PSV-2132A/2133A	122.334	8,881.000	12,993.892	97.059		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
PSV-2121B	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Default Scenario

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Default Scenario

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Default Scenario

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Default Scenario

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Default Scenario

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Default Scenario

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Default Scenario

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Default Scenario

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Default Scenario

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Default Scenario

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Default Scenario

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BDV-Fire case

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	No	23.000	60	11.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	23.000	60	11.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	No	63.000	60	31.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	No	63.000	60	31.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	No	23.000	60	11.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	63.000	60	31.500
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	No	63.000	60	31.500
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	No	63.000	60	31.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	No	10.000	36.92	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BDV-Fire case

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	53.620	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	6,670.180	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	1,337.978	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	994.088	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	1,428.736	81.486		1	Conventional	70.968	api_D
BDV-2134A	53.300	778.400		41.374					
PSV-2122A/2123A	122.334	8,881.000	14,715.604	320.902		1	Conventional	830.323	api_J
BDV-2134 C	55.870	778.400							
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	42.070	1,722.000		30.454					
PSV-2131B	119.210	1,401.500	1,428.736	44.788		1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	16,910.821			1	Conventional	324.516	api_G
BDV-2151	42.070	3,236.000		57.230					
BDV-2134 B	53.300	778.400		40.576					
PSV-2121C	232.050	533.350	994.088	76.838		1	Balanced	70.968	api_D
BDV-2132 C	60.650	1,333.800							
PSV-2271	248.740	204.200	976.517	28.309		1	Balanced	126.452	api_E
BDV-2132 A	42.070	1,333.800		23.589					
BDV-2132 B	42.070	1,333.800		22.525					
PSV-2122C/2123C	122.334	8,881.000	14,715.604			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	14,715.604			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	16,910.821			1	Balanced	324.516	api_G
PSV-2132A/2133A	122.334	8,881.000	16,910.821	97.059		1	Conventional	324.516	api_G
XV-2110	33.510	250.700		29.142					
PSV-2121B	232.050	533.350	994.088	55.268		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	1,428.736	65.467		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BDV-Fire case

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BDV-Fire case

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,324.302
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,324.302
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,324.302
BDV-2134 B	303.225	No	0.000	0.000	0.000	Peng Robinson	60.000	1.000	12,324.302
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	11,077.300
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,324.302
BDV-2132 B	303.225	No	0.000	0.000	NaN	Peng Robinson	60.000	1.000	12,324.302
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	36.920	1.000	11,303.314
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BDV-Fire case

## Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	237.003	444,955.331	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	330,797.607	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	237.003	984,343.627	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	237.003	1,849,788.604	Molecular Weight	21.560		0.000000	0.000000	0.000000
BDV-2134 B	237.003	444,955.331	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	215.820	820,139.905	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	237.003	762,437.590	Molecular Weight	21.560		0.000000	0.000000	0.000000
BDV-2132 B	237.003	762,437.590	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	233.827	131,435.103	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BDV-Fire case

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BDV-Fire case

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BDV-Fire case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BDV-Fire case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BDV-Fire case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BDV-Fire case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BDV-Fire case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BDV-Fire case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Spurious blowdown case

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	No	23.000	21	11.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	23.000	60	11.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	No	63.000	60	31.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	No	63.000	60	31.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	No	23.000	21	11.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	63.000	60	5.000
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	No	62.000	60	31.000
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	No	63.000	60	31.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	No	10.000	19	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Spurious blowdown case

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	2,124.364	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	12.050	725.600		32.990					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
BDV-2134 C	55.870	725.600							
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	42.070	1,548.000		27.377					
PSV-2131B	119.210	1,401.500	2,200.620	44.788		1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2151	42.070	2,913.000		51.517					
BDV-2134 B	12.050	725.600		32.990					
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
BDV-2132 C	61.210	1,199.000							
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	42.330	1,199.000		21.599					
BDV-2132 B	42.070	1,199.000		21.205					
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PSV-2132A/2133A	122.334	8,881.000	12,993.892	97.059		1	Conventional	324.516	api_G
XV-2110	15.130	205.500		22.346					
PSV-2121B	232.050	533.350	813.596	55.268		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Spurious blowdown case

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Spurious blowdown case

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	21.000	1.000	10,620.848
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,324.302
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,324.302
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	21.000	1.000	10,620.848
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	11,077.300
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,324.302
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,324.302
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	19.000	1.000	10,536.326
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Spurious blowdown case

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	231.568	357,443.762	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	308,359.126	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	237.003	884,880.334	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	237.003	1,665,152.721	Molecular Weight	21.560		0.000000	0.000000	0.000000
BDV-2134 B	231.568	357,443.762	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	215.820	737,252.771	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	237.003	685,382.119	Molecular Weight	21.560		0.000000	0.000000	0.000000
BDV-2132 B	237.003	685,382.119	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	231.280	100,427.413	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Spurious blowdown case

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Spurious blowdown case

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000





User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Spurious blowdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Spurious blowdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------------	-----------------------------	--------------------------------	---------------	-------------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Spurious blowdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Spurious blowdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Spurious blowdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Spurious blowdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Cold shutdown case

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	No	23.000	21	11.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	23.000	21	11.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	No	63.000	21	31.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	No	63.000	21	31.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	No	23.000	21	11.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	23.000	21	11.500
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	No	63.000	21	31.500
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	No	63.000	21	31.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	No	10.000	19	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Cold shutdown case

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	2,124.364	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	12.050	796.400		36.209					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
BDV-2134 C	15.550	796.400							
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	-4.170	1,825.000		25.825					
PSV-2131B	119.210	1,401.500	2,200.620	44.788		1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2151	-4.170	3,430.000		48.537					
BDV-2134 B	12.050	796.400		36.209					
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
BDV-2132 C	21.400	1,414.200							
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	-4.170	1,414.200		20.012					
BDV-2132 B	-4.170	1,414.200		20.012					
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PSV-2132A/2133A	122.334	8,881.000	12,993.892	97.059		1	Conventional	324.516	api_G
XV-2110	15.130	205.500		22.346					
PSV-2121B	232.050	533.350	813.596	55.268		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							



# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Cold shutdown case

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Cold shutdown case

## Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	21.000	1.000	10,620.848
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	21.000	1.000	11,493.771
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	21.000	1.000	10,620.848
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	21.000	1.000	10,620.848
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	21.000	1.000	10,620.848
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	21.000	1.000	9,764.227
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	21.000	1.000	10,620.848
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	21.000	1.000	10,620.848
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	19.000	1.000	10,536.326
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Cold shutdown case

## Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	231.568	392,321.130	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	228.759	290,570.256	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	231.568	899,028.205	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	231.568	1,689,680.407	Molecular Weight	21.560		0.000000	0.000000	0.000000
BDV-2134 B	231.568	392,321.130	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	211.628	766,499.775	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	231.568	696,660.650	Molecular Weight	21.560		0.000000	0.000000	0.000000
BDV-2132 B	231.568	696,660.650	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	231.280	100,427.413	Molecular Weight	21.560		0.000000	0.000000	0.000000
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Cold shutdown case

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.606680	0.393320	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : Cold shutdown case

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Cold shutdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Cold shutdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------------	-----------------------------	--------------------------------	---------------	-------------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Cold shutdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------------	-----------------------------	--------------------------------	---------------	-------------------------





User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Cold shutdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Cold shutdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : Cold shutdown case

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	No	11.887	301.9	4.608
PSV-2113/2114	V-2105	Pipe9	Relief Valve	No	11.887	280	9.000
PSV-2121A	V-2101A	Pipe10	Relief Valve	No	11.887	350.7	4.608
PSV-2131A	V-2102A	Pipe11	Relief Valve	No	27.617	208.3	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2271	V-2205	Pipe49	Relief Valve	No	11.887	216	4.608
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	7.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044							
PSV-2111/2112	300.630	5,086.020	4,987.682	832.797		1	Balanced	2,322.581	api_M
PSV-2113/2114	279.560	668.500	20,375.882	80.179		1	Balanced	4,116.129	api_P
PSV-2121A	349.700	221.340	726.722	39.377		1	Balanced	126.452	api_E
PSV-2131A	191.130	808.590	1,097.890	47.013		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000							
PSV-2122A/2123A	122.334	8,881.000	16,140.676			1	Conventional	830.323	api_J
BDV-2134 C	43.954	5,594.000							
PSV-2141/2142	25.000	0.000	0.000			1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000							
PSV-2131B	119.210	1,401.500	2,200.620			1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2151	43.950	5,594.000							
BDV-2134 B	43.954	5,594.000							
PSV-2121C	232.050	533.350	813.596			1	Balanced	70.968	api_D
BDV-2132 C	25.000	0.000							
PSV-2271	214.030	505.800	830.623	70.120		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000							
BDV-2132 B	25.000	0.000							
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PSV-2132A/2133A	122.334	8,881.000	16,910.822			1	Conventional	324.516	api_G
XV-2110	25.000	0.000							
PSV-2121B	232.050	533.350	813.596			1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620			1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000							
PSV-2135B	25.000	0.000							
PCV-2135C	25.000	0.000							

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	301.900	1.000	27,559.422
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	280.000	1.000	30,890.246
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	350.700	1.000	31,206.438
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	208.300	1.000	21,198.789
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	216.000	1.000	21,689.791
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	272.506	5,716,465.714	Molecular Weight	24.520		0.000000	0.000000	0.000000
PSV-2113/2114	276.189	646,124.291	Molecular Weight	31.960		0.000000	0.000000	0.000000
PSV-2121A	278.591	281,697.857	Molecular Weight	24.520		0.000000	0.000000	0.000000
PSV-2131A	260.457	699,067.096	Molecular Weight	24.520		0.000000	0.000000	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	261.469	447,418.195	Molecular Weight	24.520		0.000000	0.000000	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.865254	0.134746	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
Pipe2	154.051	5.42	0.00	5.420	5086.0	207.42	4987.7
Pipe7	202.717	24.48	0.00	24.480	5086.0	207.42	4987.7
Pipe9	202.717	15.00	0.00	15.000	668.5	20.92	20375.9
Pipe10	52.502	20.00	0.00	20.000	221.3	9.03	726.7
Pipe11	52.502	20.00	0.00	20.000	808.6	32.98	1097.9
Pipe12	202.717	27.60	0.00	27.600	6260.3	248.97	26194.2
Pipe13	202.717	2.40	0.00	2.400	6481.7	258.00	26920.9
Pipe14	202.717	3.00	0.00	3.000	7290.3	290.97	28018.8
Pipe19	202.717	2.40	0.00	2.400	7290.3	290.97	28018.8
Pipe20	202.717	19.92	0.00	19.920	7290.3	290.97	28018.8
Pipe34	202.717	14.40	0.00	14.400	7290.3	290.97	28018.8
Pipe40	202.717	6.00	0.00	6.000	7290.3	290.97	28018.8
Pipe43	202.717	2.40	0.00	2.400	7290.3	290.97	28018.8
Pipe44	202.717	54.00	0.00	54.000	7290.3	290.97	28018.8
Pipe45	254.508	550.00	0.00	550.000	7290.3	290.97	28018.8
Pipe46	254.508	15.00	0.00	15.000	7290.3	290.97	28018.8
Pipe47	202.717	2.00	0.00	2.000	6481.7	258.00	26920.9
Pipe48	202.717	2.00	0.00	2.000	5754.5	228.34	25363.6
Pipe49	52.502	23.00	0.00	23.000	505.8	20.63	830.6
Pipe77	202.717	7.80	0.00	7.800	7290.3	290.97	28018.8
Pipe79	202.717	2.00	0.00	2.000	5754.5	228.34	25363.6
Pipe114	202.717	7.56	0.00	7.560	5086.0	207.42	4987.7
Pipe117	202.717	2.40	0.00	2.400	7290.3	290.97	28018.8
Pipe118	202.717	3.00	0.00	3.000	7290.3	290.97	28018.8
Pipe121	202.717	2.40	0.00	2.400	7290.3	290.97	28018.8
Pipe122	202.717	19.92	0.00	19.920	7290.3	290.97	28018.8
Pipe123	202.717	2.00	0.00	2.000	7290.3	290.97	28018.8
Pipe126	202.717	7.80	0.00	7.800	7290.3	290.97	28018.8
Pipe141	202.717	2.40	0.00	2.400	7290.3	290.97	28018.8
Pipe142	202.717	3.00	0.00	3.000	7290.3	290.97	28018.8
Pipe145	202.717	2.40	0.00	2.400	7290.3	290.97	28018.8
Pipe146	202.717	2.00	0.00	2.000	7290.3	290.97	28018.8
Pipe149	202.717	7.80	0.00	7.800	7290.3	290.97	28018.8
Pipe150	202.717	2.40	0.00	2.400	7290.3	290.97	28018.8
Pipe152	202.717	2.00	0.00	2.000	6481.7	258.00	26920.9
Pipe153	202.717	2.00	0.00	2.000	-7290.3	-290.97	-28018.8
Pipe156	202.717	2.00	0.00	2.000	-7290.3	-290.97	-28018.8

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Static Pressure Drop (bar)	Noise (dB)	Static Source Back Pressure (bar)	Upstream Static Pressure (bar)	Upstream Temperature (C)	Upstream Velocity (m/s)
Pipe2	0.01547	38.0	2.01832	2.01831	300.63	71.633
Pipe7	0.01789	31.9		2.00392	301.23	42.531
Pipe9	0.12811	0.2	2.10518	2.10518	279.56	119.582
Pipe10	0.34926	20.9	2.28267	2.28267	349.70	86.268
Pipe11	0.56780	44.4	2.48018	2.48018	191.13	89.257
Pipe12	0.02957	38.0		1.96881	292.13	51.130
Pipe13	0.00280	28.6		1.93393	294.11	54.130
Pipe14	0.00444	33.1		1.88820	283.26	61.328
Pipe19	0.00349	31.8		1.91764	283.28	60.388
Pipe20	0.02988	41.7		1.87644	283.25	61.711
Pipe34	0.02428	42.9		1.67646	283.08	69.055
Pipe40	0.01028	39.4		1.64383	283.05	70.422
Pipe43	0.00418	35.8		1.61639	283.02	71.614
Pipe44	0.09783	50.5		1.60365	283.00	72.182
Pipe45	0.36943	55.0		1.49627	283.49	49.124
Pipe46	0.01277	41.7		1.12684	283.17	65.198
Pipe47	0.00234	27.9		1.92808	294.11	54.294
Pipe48	0.00182	24.2		1.97063	298.70	47.397
Pipe49	0.39271	34.3	2.36152	2.36152	214.03	74.456
Pipe77	0.01144	37.1		1.90693	283.27	60.726
Pipe79	0.00182	24.2		1.97690	298.70	47.247
Pipe114	0.00556	26.9		1.98604	301.22	42.913
Pipe117	0.00365	32.8		1.83909	283.22	62.962
Pipe118	0.00469	34.4		1.79023	283.18	64.677
Pipe121	0.00369	33.0		1.81775	283.20	63.700
Pipe122	0.03164	43.0		1.77781	283.17	65.128
Pipe123	0.00306	32.1		1.82837	283.21	63.330
Pipe126	0.01211	38.4		1.80645	283.20	64.097
Pipe141	0.00387	34.1		1.73827	283.14	66.606
Pipe142	0.00500	35.8		1.68585	283.09	68.671
Pipe145	0.00393	34.4		1.71136	283.11	67.651
Pipe146	0.00324	33.4		1.73015	283.13	66.918
Pipe149	0.01289	39.8		1.70310	283.11	67.978
Pipe150	0.00415	35.7		1.62510	283.03	71.232
Pipe152	0.00234	27.9		1.92575	294.10	54.360
Pipe153	0.00305	32.1		1.82837	283.21	63.330
Pipe156	0.00326	33.5		1.71938	283.12	67.336

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Upstream Mach No.	Upstream Rho V2 (kg/m/s2)	Upstream Enthalpy Flow (kJ/hr)	Upstream Volume Flow (m3/hr)	Upstream SPL (dB)	Downstream Static Pressure (bar)
Pipe2	0.153	5325	5.698e+006	4.901e+003		2.00284
Pipe7	0.091	1862	5.707e+006	4.942e+003		1.98604
Pipe9	0.300	20971	6.453e+005	4.559e+002		1.97706
Pipe10	0.177	8044	2.810e+005	2.048e+002		1.93341
Pipe11	0.209	12574	6.637e+005	5.123e+002		1.91238
Pipe12	0.111	2755	6.794e+006	5.941e+003		1.93925
Pipe13	0.118	3020	7.073e+006	6.289e+003		1.93114
Pipe14	0.134	3848	7.735e+006	7.126e+003		1.88377
Pipe19	0.132	3789	7.735e+006	7.017e+003		1.91414
Pipe20	0.135	3872	7.734e+006	7.170e+003		1.84656
Pipe34	0.151	4333	7.731e+006	8.024e+003		1.65219
Pipe40	0.154	4419	7.730e+006	8.182e+003		1.63355
Pipe43	0.157	4493	7.730e+006	8.321e+003		1.61221
Pipe44	0.158	4529	7.729e+006	8.387e+003		1.50583
Pipe45	0.108	1955	7.739e+006	8.997e+003		1.12684
Pipe46	0.143	2595	7.733e+006	1.194e+004		1.11407
Pipe47	0.118	3029	7.073e+006	6.308e+003		1.92575
Pipe48	0.103	2347	6.350e+006	5.507e+003		1.96881
Pipe49	0.171	7935	4.448e+005	3.534e+002		1.96881
Pipe77	0.133	3810	7.735e+006	7.056e+003		1.89549
Pipe79	0.102	2340	6.350e+006	5.490e+003		1.97508
Pipe114	0.091	1878	5.706e+006	4.986e+003		1.98048
Pipe117	0.138	3950	7.734e+006	7.316e+003		1.83544
Pipe118	0.142	4058	7.733e+006	7.515e+003		1.78554
Pipe121	0.139	3997	7.734e+006	7.401e+003		1.81406
Pipe122	0.143	4086	7.733e+006	7.567e+003		1.74617
Pipe123	0.139	3974	7.734e+006	7.358e+003		1.82532
Pipe126	0.140	4022	7.733e+006	7.448e+003		1.79434
Pipe141	0.146	4179	7.732e+006	7.739e+003		1.73440
Pipe142	0.150	4309	7.731e+006	7.979e+003		1.68085
Pipe145	0.148	4245	7.732e+006	7.860e+003		1.70742
Pipe146	0.147	4199	7.732e+006	7.775e+003		1.72691
Pipe149	0.149	4265	7.731e+006	7.898e+003		1.69022
Pipe150	0.156	4469	7.730e+006	8.276e+003		1.62095
Pipe152	0.118	3032	7.073e+006	6.316e+003		1.92341
Pipe153	0.139	3974	-7.734e+006	-7.358e+003		1.83143
Pipe156	0.147	4225	-7.732e+006	-7.824e+003		1.72264

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Downstream Temperature (C)	Downstream Velocity (m/s)	Downstream Mach No.	Downstream Rho V2 (kg/m/s2)	Downstream Enthalpy Flow (kJ/hr)	Downstream Volume Flow (m3/hr)
Pipe2	300.62	72.185	0.154	5366	5.697e+006	4.939e+003
Pipe7	301.22	42.913	0.091	1878	5.706e+006	4.986e+003
Pipe9	279.56	127.344	0.320	22332	6.453e+005	4.854e+002
Pipe10	349.66	101.846	0.209	9497	2.810e+005	2.418e+002
Pipe11	190.55	115.660	0.271	16293	6.625e+005	6.639e+002
Pipe12	292.12	51.909	0.113	2797	6.793e+006	6.031e+003
Pipe13	294.11	54.208	0.118	3024	7.073e+006	6.299e+003
Pipe14	283.25	61.472	0.135	3857	7.735e+006	7.142e+003
Pipe19	283.27	60.498	0.132	3796	7.735e+006	7.029e+003
Pipe20	283.23	62.708	0.137	3935	7.734e+006	7.286e+003
Pipe34	283.06	70.067	0.153	4396	7.730e+006	8.141e+003
Pipe40	283.04	70.864	0.155	4446	7.730e+006	8.234e+003
Pipe43	283.01	71.799	0.157	4505	7.730e+006	8.342e+003
Pipe44	282.88	76.858	0.168	4822	7.727e+006	8.930e+003
Pipe45	283.17	65.198	0.143	2595	7.733e+006	1.194e+004
Pipe46	283.15	65.944	0.144	2625	7.732e+006	1.208e+004
Pipe47	294.10	54.360	0.118	3032	7.073e+006	6.316e+003
Pipe48	298.70	47.441	0.103	2350	6.350e+006	5.512e+003
Pipe49	213.86	89.295	0.205	9517	4.446e+005	4.238e+002
Pipe77	283.26	61.092	0.134	3833	7.735e+006	7.098e+003
Pipe79	298.70	47.290	0.103	2342	6.350e+006	5.495e+003
Pipe114	301.22	43.034	0.092	1884	5.706e+006	5.000e+003
Pipe117	283.22	63.087	0.138	3958	7.734e+006	7.330e+003
Pipe118	283.18	64.846	0.142	4069	7.733e+006	7.535e+003
Pipe121	283.20	63.829	0.140	4005	7.733e+006	7.416e+003
Pipe122	283.15	66.305	0.145	4160	7.732e+006	7.704e+003
Pipe123	283.21	63.436	0.139	3980	7.734e+006	7.371e+003
Pipe126	283.19	64.529	0.141	4049	7.733e+006	7.498e+003
Pipe141	283.14	66.754	0.146	4188	7.732e+006	7.756e+003
Pipe142	283.09	68.875	0.151	4321	7.731e+006	8.003e+003
Pipe145	283.11	67.806	0.148	4254	7.732e+006	7.878e+003
Pipe146	283.13	67.043	0.147	4207	7.732e+006	7.790e+003
Pipe149	283.09	68.495	0.150	4298	7.731e+006	7.958e+003
Pipe150	283.02	71.414	0.156	4481	7.730e+006	8.298e+003
Pipe152	294.10	54.426	0.118	3036	7.073e+006	6.324e+003
Pipe153	283.22	63.225	0.138	3967	-7.734e+006	-7.346e+003
Pipe156	283.12	67.209	0.147	4217	-7.732e+006	-7.809e+003



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Downstream SPL (dB)	Flow Regime	Static Pipe Friction Loss (bar)	Static Pipe Accel. Loss (bar)	Static Pipe Elevation Loss (bar)	Pipe Fittings Loss (bar)
Pipe2		Single Phase/Single Phase	0.01506	0.00041	0.00000	0.00000
Pipe7		Single Phase/Single Phase	0.01772	0.00017	0.00000	0.00000
Pipe9		Single Phase/Single Phase	0.11568	0.01243	0.00000	0.00000
Pipe10		Single Phase/Single Phase	0.33497	0.01430	0.00000	0.00000
Pipe11		Single Phase/Single Phase	0.53104	0.03677	0.00000	0.00000
Pipe12		Single Phase/Single Phase	0.02915	0.00042	0.00000	0.00000
Pipe13		Single Phase/Single Phase	0.00275	0.00004	0.00000	0.00000
Pipe14		Single Phase/Single Phase	0.00435	0.00009	0.00000	0.00000
Pipe19		Single Phase/Single Phase	0.00342	0.00007	0.00000	0.00000
Pipe20		Single Phase/Single Phase	0.02925	0.00063	0.00000	0.00000
Pipe34		Single Phase/Single Phase	0.02364	0.00063	0.00000	0.00000
Pipe40		Single Phase/Single Phase	0.01000	0.00028	0.00000	0.00000
Pipe43		Single Phase/Single Phase	0.00406	0.00012	0.00000	0.00000
Pipe44		Single Phase/Single Phase	0.09489	0.00293	0.00000	0.00000
Pipe45		Single Phase/Single Phase	0.36303	0.00640	0.00000	0.00000
Pipe46		Single Phase/Single Phase	0.01158	0.00030	0.00089	0.00000
Pipe47		Single Phase/Single Phase	0.00230	0.00004	0.00000	0.00000
Pipe48		Single Phase/Single Phase	0.00180	0.00002	0.00000	0.00000
Pipe49		Single Phase/Single Phase	0.37708	0.01563	0.00000	0.00000
Pipe77		Single Phase/Single Phase	0.01121	0.00023	0.00000	0.00000
Pipe79		Single Phase/Single Phase	0.00179	0.00002	0.00000	0.00000
Pipe114		Single Phase/Single Phase	0.00550	0.00005	0.00000	0.00000
Pipe117		Single Phase/Single Phase	0.00357	0.00008	0.00000	0.00000
Pipe118		Single Phase/Single Phase	0.00459	0.00011	0.00000	0.00000
Pipe121		Single Phase/Single Phase	0.00361	0.00008	0.00000	0.00000
Pipe122		Single Phase/Single Phase	0.03090	0.00074	0.00000	0.00000
Pipe123		Single Phase/Single Phase	0.00299	0.00007	0.00000	0.00000
Pipe126		Single Phase/Single Phase	0.01184	0.00027	0.00000	0.00000
Pipe141		Single Phase/Single Phase	0.00378	0.00009	0.00000	0.00000
Pipe142		Single Phase/Single Phase	0.00487	0.00013	0.00000	0.00000
Pipe145		Single Phase/Single Phase	0.00384	0.00010	0.00000	0.00000
Pipe146		Single Phase/Single Phase	0.00316	0.00008	0.00000	0.00000
Pipe149		Single Phase/Single Phase	0.01256	0.00032	0.00000	0.00000
Pipe150		Single Phase/Single Phase	0.00404	0.00011	0.00000	0.00000
Pipe152		Single Phase/Single Phase	0.00230	0.00004	0.00000	0.00000
Pipe153		Single Phase/Single Phase	0.00299	0.00007	0.00000	0.00000
Pipe156		Single Phase/Single Phase	0.00318	0.00008	0.00000	0.00000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 1

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Friction Factor	Reynolds Number	Duty (kJ/hr)	Overall HTC (W/m2/C)	External Convective HTC (W/m2/C)	External Radiative HTC (W/m2/C)
Pipe2	0.01601	656320	0.000e+000			
Pipe7	0.01569	508202	0.000e+000			
Pipe9	0.01453	2185139	0.000e+000			
Pipe10	0.02023	266075	0.000e+000			
Pipe11	0.01969	506191	0.000e+000			
Pipe12	0.01543	634890	0.000e+000			
Pipe13	0.01539	655522	0.000e+000			
Pipe14	0.01525	747715	0.000e+000			
Pipe19	0.01525	747694	0.000e+000			
Pipe20	0.01525	747779	0.000e+000			
Pipe34	0.01525	747940	0.000e+000			
Pipe40	0.01525	747934	0.000e+000			
Pipe43	0.01525	747954	0.000e+000			
Pipe44	0.01525	748763	0.000e+000			
Pipe45	0.01506	607506	0.000e+000			
Pipe46	0.01506	595651	0.000e+000			
Pipe47	0.01539	655525	0.000e+000			
Pipe48	0.01553	578735	0.000e+000			
Pipe49	0.01992	365727	0.000e+000			
Pipe77	0.01525	747710	0.000e+000			
Pipe79	0.01553	578733	0.000e+000			
Pipe114	0.01569	508195	0.000e+000			
Pipe117	0.01525	747750	0.000e+000			
Pipe118	0.01525	747789	0.000e+000			
Pipe121	0.01525	747766	0.000e+000			
Pipe122	0.01525	747869	0.000e+000			
Pipe123	0.01525	747757	0.000e+000			
Pipe126	0.01525	747786	0.000e+000			
Pipe141	0.01525	747832	0.000e+000			
Pipe142	0.01525	747883	0.000e+000			
Pipe145	0.01525	747857	0.000e+000			
Pipe146	0.01525	747839	0.000e+000			
Pipe149	0.01525	747879	0.000e+000			
Pipe150	0.01525	747944	0.000e+000			
Pipe152	0.01539	655526	0.000e+000			
Pipe153	0.01525	747755	0.000e+000			
Pipe156	0.01525	747846	0.000e+000			





User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 1

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal HTC (W/m2/C)	Wall Temperature (C)	External Temperature (C)
Pipe2			
Pipe7			
Pipe9			
Pipe10			
Pipe11			
Pipe12			
Pipe13			
Pipe14			
Pipe19			
Pipe20			
Pipe34			
Pipe40			
Pipe43			
Pipe44			
Pipe45			
Pipe46			
Pipe47			
Pipe48			
Pipe49			
Pipe77			
Pipe79			
Pipe114			
Pipe117			
Pipe118			
Pipe121			
Pipe122			
Pipe123			
Pipe126			
Pipe141			
Pipe142			
Pipe145			
Pipe146			
Pipe149			
Pipe150			
Pipe152			
Pipe153			
Pipe156			

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 2

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	No	11.887	234.5	4.608
PSV-2131A	V-2102A	Pipe11	Relief Valve	No	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	No	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	No	11.887	234.5	4.608
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 2

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	2,124.364	324.307		1	Balanced	4,116.129	api_P
PSV-2121A	232.000	221.340	947.479	22.922		1	Balanced	126.452	api_E
PSV-2131A	107.270	808.590	1,471.120	25.841		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		254.336					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
BDV-2134 C	43.954	5,594.000							
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000		79.159					
PSV-2131B	107.270	808.590	1,471.120	25.841		1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2151	43.950	5,594.000		79.159					
BDV-2134 B	43.954	5,594.000		254.336					
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
BDV-2132 C	25.000	0.000							
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
BDV-2132 B	25.000	0.000		0.000					
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PSV-2132A/2133A	122.334	8,881.000	12,993.892	97.059		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
PSV-2121B	232.000	221.340	531.596	22.936		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 2

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 2

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	28,180.126
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	19,336.280
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	19,336.280
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	28,166.584
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 2

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	267.950	184,866.269	Molecular Weight	33.740		0.000000	0.000000	0.000000
PSV-2131A	248.421	463,674.993	Molecular Weight	33.720		0.000000	0.000000	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2131B	248.421	463,674.993	Molecular Weight	33.720		0.000000	0.000000	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2121B	267.964	184,887.043	Molecular Weight	33.720		0.000000	0.000000	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 2

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.738356	0.261644	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.739782	0.260218	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2131B	0.000000	0.739782	0.260218	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.739782	0.260218	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 2

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000





User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 2

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 2

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 2

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 2

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 2

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 2

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 3

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	No	76.017	121	7.212
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	No	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	No	11.887	234.5	4.608
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	9.808
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	25.808
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	No	11.887	234.5	4.608
PSV-2131C	V-2102C	Pipe140	Relief Valve	No	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 3

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	6,667.284	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	2,124.364	324.307		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		254.336					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
BDV-2134 C	43.954	5,594.000							
PSV-2141/2142	88.180	1,504.690	25,396.692	23.316		1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000		79.159					
PSV-2131B	112.561	808.590	1,235.043	37.771		1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2151	43.950	5,594.000		79.159					
BDV-2134 B	43.954	5,594.000		254.336					
PSV-2121C	232.720	221.340	456.610	31.888		1	Balanced	70.968	api_D
BDV-2132 C	25.000	0.000							
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
BDV-2132 B	25.000	0.000		0.000					
PSV-2122C/2123C	122.334	8,881.000	14,034.194			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	16,527.557			1	Balanced	324.516	api_G
PSV-2132A/2133A	122.334	8,881.000	12,993.892	97.059		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
PSV-2121B	232.040	221.340	456.610	31.888		1	Balanced	70.968	api_D
PSV-2131C	112.561	808.590	1,235.043	37.771		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 3

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 3

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	121.000	1.000	16,038.961
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	16,197.904
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	22,893.286
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	22,893.286
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	16,197.904
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : FIRE-AREA 3

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	248.661	984,243.865	Molecular Weight	24.520		0.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2131B	249.063	534,154.187	Molecular Weight	24.520		0.000000	0.000000	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121C	263.884	206,655.740	Molecular Weight	24.520		0.000000	0.000000	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2121B	263.884	206,655.740	Molecular Weight	24.520		0.000000	0.000000	0.000000
PSV-2131C	249.063	534,154.187	Molecular Weight	24.520		0.000000	0.000000	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
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 Scenario : FIRE-AREA 3

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2131B	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121C	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
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 Scenario : FIRE-AREA 3

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 3

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
------	------------------------	-----------------------	-----------------------------	------------	-------------------	------------------------	-------------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 3

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 3

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------





User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 3

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 3

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : FIRE-AREA 3

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET-PSV-2132/2133

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	No	69.199	132	7.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET-PSV-2132/2133

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	2,124.364	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		297.333					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
BDV-2134 C	43.954	5,594.000							
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000		98.932					
PSV-2131B	119.210	1,401.500	2,200.620	44.788		1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2151	43.950	5,594.000		98.932					
BDV-2134 B	43.954	5,594.000		291.601					
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
BDV-2132 C	25.000	0.000							
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
BDV-2132 B	25.000	0.000		0.000					
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PSV-2132A/2133A	87.790	8,664.000	18,030.006	96.434		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
PSV-2121B	232.050	533.350	813.596	55.268		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET-PSV-2132/2133

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET-PSV-2132/2133

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	19,926.064
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET-PSV-2132/2133

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	249.892	5,119,792.407	Molecular Weight	33.720		0.000000	0.000000	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET-PSV-2132/2133

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.739782	0.260218	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET-PSV-2132/2133

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET-PSV-2132/2133

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET-PSV-2132/2133

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET-PSV-2132/2133

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET-PSV-2132/2133

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET-PSV-2132/2133

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET-PSV-2132/2133

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET PSV-2122/2123

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	No	25.199	132	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	No	69.199	132	7.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET PSV-2122/2123

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	2,124.364	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		297.333					
PSV-2122A/2123A	122.334	8,881.000	16,140.676	320.902		1	Conventional	830.323	api_J
BDV-2134 C	43.954	5,594.000							
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000		98.932					
PSV-2131B	119.210	1,401.500	2,200.620	44.788		1	Conventional	70.968	api_D
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
BDV-2151	43.950	5,594.000		98.932					
BDV-2134 B	43.954	5,594.000		291.601					
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
BDV-2132 C	25.000	0.000							
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
BDV-2132 B	25.000	0.000		0.000					
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PSV-2132A/2133A	89.620	8,664.000	17,625.583	101.185		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
PSV-2121B	232.050	533.350	813.596	55.268		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET PSV-2122/2123

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET PSV-2122/2123

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	19,480.292
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET PSV-2122/2123

## Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2132A/2133A	250.982	5,158,229.115	Molecular Weight	32.720		0.000000	0.000000	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET PSV-2122/2123

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.811073	0.188927	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : BLOCK OUTLET PSV-2122/2123

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET PSV-2122/2123

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET PSV-2122/2123

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET PSV-2122/2123

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET PSV-2122/2123

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET PSV-2122/2123

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : BLOCK OUTLET PSV-2122/2123

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV-2152

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	No	52.900	60	26.450
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	301.9	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	280	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	350.7	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	208.3	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	23.000	60	11.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	204	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	23.000	60	11.500
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	76.017	139	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	63.000	60	31.500
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	208.3	3.212
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	233	7.212
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	63.000	60	31.500
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	23.000	60	11.500
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	350.7	1.912
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	63.000	60	31.500
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	216	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	63.000	60	31.500
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	63.000	60	31.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	204	3.212
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	204	3.212
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	233	7.212
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	233	7.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	6.100	36.92	3.050
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	350.7	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	208.3	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV-2152

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.756	18,888.000		350.219					
PSV-2111/2112	300.250	5,086.020	5,012.365	832.797		1	Balanced	2,322.581	api_M
PSV-2113/2114	274.810	17,833.110	25,384.121	2,138.873		1	Balanced	4,116.129	api_P
PSV-2121A	346.740	221.340	730.141	39.377		1	Balanced	126.452	api_E
PSV-2131A	191.130	808.590	1,105.295	47.013		1	Conventional	70.968	api_D
BDV-2134A	55.870	778.400		41.374					
PSV-2122A/2123A	188.280	8,664.000	11,851.234	313.061		1	Conventional	830.323	api_J
BDV-2134 C	55.870	778.400							
PSV-2141/2142	112.000	17,252.490	0.000	267.340		1	Conventional	506.452	api_H
BDV-2141	52.760	1,722.000		30.454					
PSV-2131B	191.130	808.590	1,105.295	25.841		1	Conventional	70.968	api_D
PSV-2132B/2133B	192.520	8,664.000	12,414.670			1	Conventional	324.516	api_G
BDV-2151	43.950	3,236.000		57.230					
BDV-2134 B	55.870	778.400		40.576					
PSV-2121C	346.740	221.340	730.141	31.888		1	Balanced	70.968	api_D
BDV-2132 C	52.760	1,333.800							
PSV-2271	213.480	505.800	835.035	70.120		1	Balanced	126.452	api_E
BDV-2132 A	52.760	1,333.800		23.589					
BDV-2132 B	52.760	1,333.800		22.525					
PSV-2122C/2123C	188.280	8,664.000	11,851.234			1	Balanced	830.323	api_J
PSV-2122B/2123B	188.280	8,664.000	11,851.234			1	Conventional	830.323	api_J
PSV-2132C/2133C	192.520	8,664.000	12,414.670			1	Balanced	324.516	api_G
PSV-2132A/2133A	192.520	8,664.000	12,414.670	96.434		1	Conventional	324.516	api_G
XV-2110	29.000	1,971.000		229.116					
PSV-2121B	346.740	221.340	730.141	22.936		1	Balanced	70.968	api_D
PSV-2131C	191.130	808.590	1,105.295	37.771		1	Conventional	70.968	api_D
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV-2152

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV-2152

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	12,877.630
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	301.900	1.000	26,700.872
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	280.000	1.000	25,253.661
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	350.700	1.000	30,062.392
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	208.300	1.000	20,787.682
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,877.630
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	204.000	1.000	20,533.222
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,877.630
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	139.000	1.000	16,871.231
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,877.630
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	208.300	1.000	20,787.682
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	233.000	1.000	22,278.743
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,877.630
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	12,877.630
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	350.700	1.000	30,062.392
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,877.630
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	216.000	1.000	21,247.137
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,877.630
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,877.630
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	204.000	1.000	20,533.222
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	204.000	1.000	20,533.222
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	233.000	1.000	22,278.743
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	233.000	1.000	22,278.743
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	36.920	1.000	11,801.605
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	350.700	1.000	30,062.392
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	208.300	1.000	20,787.682
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default		0.000	
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default		0.000	

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV-2152

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	235.780	9,918,395.752	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2111/2112	266.489	5,537,618.253	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2113/2114	263.924	8,364,154.413	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2121A	272.098	271,333.203	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2131A	255.286	685,415.518	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2134A	235.780	408,750.490	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2122A/2123A	254.755	7,254,292.158	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2134 C	235.780	408,750.490	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2141/2142	246.514	1,869,107.207	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2141	235.780	904,250.185	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2131B	255.286	685,415.518	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2132B/2133B	258.306	7,870,976.809	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2151	235.780	1,699,276.189	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2134 B	235.780	408,750.490	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2121C	272.098	271,333.203	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2132 C	235.780	700,400.056	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2271	256.233	438,226.605	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2132 A	235.780	700,400.056	Mole Fractions	24.523		0.010314	0.031606	0.054119
BDV-2132 B	235.780	700,400.056	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2122C/2123C	254.755	7,254,292.158	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2122B/2123B	254.755	7,254,292.158	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2132C/2133C	258.306	7,870,976.809	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2132A/2133A	258.306	7,870,976.809	Mole Fractions	24.523		0.010314	0.031606	0.054119
XV-2110	232.434	948,521.561	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2121B	272.098	271,333.203	Mole Fractions	24.523		0.010314	0.031606	0.054119
PSV-2131C	255.286	685,415.518	Mole Fractions	24.523		0.010314	0.031606	0.054119
PCV-2135A			Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B			Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C			Molecular Weight	18.015		1.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV-2152

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2111/2112	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2113/2114	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2121A	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2131A	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2134A	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2122A/2123A	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2134 C	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2141/2142	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2141	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2131B	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2132B/2133B	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2151	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2134 B	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2121C	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2132 C	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2271	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2132 A	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
BDV-2132 B	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2122C/2123C	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2122B/2123B	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2132C/2133C	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2132A/2133A	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
XV-2110	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2121B	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PSV-2131C	0.638921	0.137515	0.077314	0.008394	0.018594	0.006968	0.003774	0.006549
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV-2152

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2111/2112	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2113/2114	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2121A	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2131A	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2134A	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2122A/2123A	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2134 C	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2141/2142	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2141	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2131B	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2132B/2133B	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2151	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2134 B	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2121C	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2132 C	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2271	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2132 A	0.001956	0.000596	0.000297	0.000099	0.002984
BDV-2132 B	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2122C/2123C	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2122B/2123B	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2132C/2133C	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2132A/2133A	0.001956	0.000596	0.000297	0.000099	0.002984
XV-2110	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2121B	0.001956	0.000596	0.000297	0.000099	0.002984
PSV-2131C	0.001956	0.000596	0.000297	0.000099	0.002984
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV-2152

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV-2152

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV-2152

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV-2152

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV-2152

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV-2152

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135A

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	No	54.100	60	27.050
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135A

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	1,337.978	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		297.333					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000		98.932					
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
PSV-2132A/2133A	122.334	8,881.000	12,993.892	98.850		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
BDV-2151	43.950	5,594.000		98.932					
PSV-2121B	232.050	533.350	813.596	55.268		1	Balanced	70.968	api_D
PSV-2131B	119.210	1,401.500	2,200.620	44.788		1	Conventional	70.968	api_D
BDV-2134 B	43.954	5,594.000		291.601					
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
BDV-2132 B	25.000	0.000		0.000					
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
BDV-2134 C	43.954	5,594.000							
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
BDV-2132 C	25.000	0.000							
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PCV-2135A	40.530	9,531.000		166.257					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135A

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135A

## Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,867.476
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135A

## Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A	239.932	5,001,626.897	Molecular Weight	24.520		0.000000	0.000000	0.000000
PSV-2135B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135A

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135A

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135A

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135A

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135A

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135A

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135A

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135A

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135B

Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	No	54.100	60	27.050
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000



# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135B

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	1,337.978	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		297.333					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000		98.932					
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
PSV-2132A/2133A	122.334	8,881.000	12,993.892	98.850		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
BDV-2151	43.950	5,594.000		98.932					
PSV-2121B	232.050	533.350	813.596	55.268		1	Balanced	70.968	api_D
PSV-2131B	119.210	1,401.500	2,200.620	44.788		1	Conventional	70.968	api_D
BDV-2134 B	43.954	5,594.000		291.601					
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
BDV-2132 B	25.000	0.000		0.000					
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
BDV-2134 C	43.954	5,594.000							
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
BDV-2132 C	25.000	0.000							
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	40.530	9,531.000		166.257					
PCV-2135C	25.000	0.000							

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135B

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135B

## Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default	60.000	1.000	12,867.476
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135B

## Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B	239.932	5,001,626.897	Molecular Weight	24.520		0.000000	0.000000	0.000000
PCV-2135C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135B

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PCV2135B

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135B

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135B

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135B

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135B

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135B

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : PCV2135B

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : blockoutlet PSV2113

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	Yes	11.887	195	1.912
PSV-2113/2114	V-2105	Pipe9	Relief Valve	No	10.899	280	4.608
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : blockoutlet PSV2113

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044		326.431					
PSV-2111/2112	192.110	10,783.190	12,164.764	1,765.664		1	Balanced	2,322.581	api_M
PSV-2113/2114	278.780	17,833.000	20,131.869	3,061.552		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000		297.333					
PSV-2122A/2123A	122.334	8,881.000	12,993.892	320.902		1	Conventional	830.323	api_J
PSV-2141/2142	25.000	0.000	0.000	0.000		1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000		98.932					
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000		0.000					
PSV-2132A/2133A	122.334	8,881.000	12,993.892	98.850		1	Conventional	324.516	api_G
XV-2110	25.000	0.000		0.000					
BDV-2151	43.950	5,594.000		98.932					
PSV-2121B	232.050	533.350	813.596	55.268		1	Balanced	70.968	api_D
PSV-2131B	119.210	1,401.500	2,200.620	44.788		1	Conventional	70.968	api_D
BDV-2134 B	43.954	5,594.000		291.601					
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
BDV-2132 B	25.000	0.000		0.000					
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
PSV-2121C	232.050	533.350	813.596	76.838		1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620	65.467		1	Conventional	70.968	api_D
BDV-2134 C	43.954	5,594.000							
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
BDV-2132 C	25.000	0.000							
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PCV-2135A	25.000	0.000		0.000					
PSV-2135B	25.000	0.000		0.000					
PCV-2135C	25.000	0.000							

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : blockoutlet PSV2113

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : blockoutlet PSV2113

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	195.000	1.000	16,286.727
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	280.000	1.000	25,995.302
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : blackoutlet PSV2113

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	234.160	5,494,362.761	Molecular Weight	31.964		0.463385	0.536615	0.000000
PSV-2113/2114	269.733	8,905,959.128	Molecular Weight	24.520		0.000000	0.000000	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : blockoutlet PSV2113

## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.395658	0.604342	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : blockoutlet PSV2113

## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : blackoutlet PSV2113

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : blockoutlet PSV2113

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : blockoutlet PSV2113

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : blockoutlet PSV2113

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
------	------	------------------------	-----------------------	-----------------------------	------------	-------------------



User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : blockoutlet PSV2113

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
Job Code :  
Project : BINAK  
Description :  
Scenario : blockoutlet PSV2113

Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)
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User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PSV2111/2112 blockoutlet

## Source Data

Name	Location	Outlet Pipe	Type	Ignored	Inlet Pressure (bar)	Inlet Temp. Spec. (C)	Allowable Backpressure (bar)
PV-2152	STATION OUTLET	Pipe5	Control Valve	Yes	52.700	60	26.350
PSV-2111/2112	V-2104	Pipe2	Relief Valve	No	10.899	254	4.608
PSV-2113/2114	V-2105	Pipe9	Relief Valve	Yes	11.887	219	1.912
PSV-2121A	V-2101A	Pipe10	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131A	V-2102A	Pipe11	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134A	V-2102 A OUTLET	Pipe15	Control Valve	Yes	61.000	60	30.500
PSV-2122A/2123A	C-2101A	Pipe16	Relief Valve	Yes	25.199	132	3.212
PSV-2141/2142	V-2103	Pipe41	Relief Valve	Yes	10.000	25	5.000
BDV-2141	V-2103	Pipe35	Control Valve	Yes	61.000	60	30.500
PSV-2271	V-2205	Pipe49	Relief Valve	Yes	11.887	251	1.912
BDV-2132 A	AC-2122 OUTLET	Pipe53	Control Valve	Yes	10.000	25	5.000
PSV-2132A/2133A	C-2102A	Pipe76	Relief Valve	Yes	69.199	132	3.212
XV-2110	V-2105	Pipe78	Control Valve	Yes	10.000	25	5.000
BDV-2151	PK-2101	Pipe113	Control Valve	Yes	61.000	60	30.500
PSV-2121B	V-2101B	Pipe115	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131B	V-2102B	Pipe116	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 B	V-2102 B OUTLET	Pipe119	Control Valve	Yes	61.000	60	30.500
PSV-2122B/2123B	C-2101B	Pipe120	Relief Valve	Yes	25.199	132	3.212
BDV-2132 B	AC-2122 OUTLET	Pipe124	Control Valve	Yes	10.000	25	5.000
PSV-2132B/2133B	C-2102B	Pipe125	Relief Valve	Yes	69.199	132	3.212
PSV-2121C	V-2101C	Pipe139	Relief Valve	Yes	11.887	234.5	1.912
PSV-2131C	V-2102C	Pipe140	Relief Valve	Yes	27.617	123.89	3.212
BDV-2134 C	V-2102 C OUTLET	Pipe143	Control Valve	Yes	61.000	60	30.500
PSV-2122C/2123C	C-2101C	Pipe144	Relief Valve	Yes	25.199	132	3.212
BDV-2132 C	AC-2122 OUTLET	Pipe147	Control Valve	Yes	10.000	25	5.000
PSV-2132C/2133C	C-2102C	Pipe148	Relief Valve	Yes	69.199	132	3.212
PCV-2135A	AC-2102A	Pipe151	Control Valve	Yes	10.000	25	5.000
PSV-2135B	AC-2102B	Pipe154	Control Valve	Yes	10.000	25	5.000
PCV-2135C	AC-2102C	Pipe155	Control Valve	Yes	10.000	25	5.000

# Aspen Flare System Analyzer V11 - aspenONE



Version 37.0.0.395

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PSV2111/2112 blockoutlet

## Source Data

Name	Outlet Temperature (C)	Mass Flow (kg/hr)	Rated Mass Flow (kg/hr)	Volumetric Flow (m3/hr)	Outlet Flange Diameter (mm)	Valves	Relief Valve Type	Orifice Area (mm2)	Orifice
PV-2152	44.058	17,605.044							
PSV-2111/2112	252.670	11,269.000	11,451.722	1,917.218		1	Balanced	2,322.581	api_M
PSV-2113/2114	216.460	1,697.950	1,337.978	203.649		1	Balanced	4,116.129	api_P
PSV-2121A	232.050	533.350	813.596	94.884		1	Balanced	126.452	api_E
PSV-2131A	119.210	1,401.500	2,200.620	81.486		1	Conventional	70.968	api_D
BDV-2134A	43.954	5,594.000							
PSV-2122A/2123A	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
PSV-2141/2142	25.000	0.000	0.000			1	Conventional	506.452	api_H
BDV-2141	43.950	5,594.000							
PSV-2271	248.740	204.200	448.578	28.309		1	Balanced	126.452	api_E
BDV-2132 A	25.000	0.000							
PSV-2132A/2133A	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
XV-2110	25.000	0.000							
BDV-2151	43.950	5,594.000							
PSV-2121B	232.050	533.350	813.596			1	Balanced	70.968	api_D
PSV-2131B	119.210	1,401.500	2,200.620			1	Conventional	70.968	api_D
BDV-2134 B	43.954	5,594.000							
PSV-2122B/2123B	122.334	8,881.000	12,993.892			1	Conventional	830.323	api_J
BDV-2132 B	25.000	0.000							
PSV-2132B/2133B	122.334	8,881.000	12,993.892			1	Conventional	324.516	api_G
PSV-2121C	232.050	533.350	813.596			1	Balanced	70.968	api_D
PSV-2131C	119.210	1,401.500	2,200.620			1	Conventional	70.968	api_D
BDV-2134 C	43.954	5,594.000							
PSV-2122C/2123C	122.334	8,881.000	12,993.892			1	Balanced	830.323	api_J
BDV-2132 C	25.000	0.000							
PSV-2132C/2133C	122.334	8,881.000	12,993.892			1	Balanced	324.516	api_G
PCV-2135A	25.000	0.000							
PSV-2135B	25.000	0.000							
PCV-2135C	25.000	0.000							

User Name : Undefined  
 Job Code :  
 Project : BINAK  
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 Scenario : PSV2111/2112 blockoutlet

## Source Data

Name	Back Pres. Limit (bar)	Outlet Fitting Loss Method	Inlet Length (m)	Inlet Elev. Change (m)	Inlet Material	Inlet Roughnes (mm)	Inlet Nom. Diameter	Inlet Schedule
PV-2152		Calculated	2.000	1.000	Carbon Steel	0.046	12 inch	40
PSV-2111/2112		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2113/2114		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122A/2123A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2141/2142		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2141		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2271		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132A/2133A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
XV-2110		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2151		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122B/2123B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132B/2133B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2121C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2131C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2134 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2122C/2123C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
BDV-2132 C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2132C/2133C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135A		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PSV-2135B		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40
PCV-2135C		Calculated	0.000	0.000	Carbon Steel	0.046	12 inch	40

User Name : Undefined  
 Job Code :  
 Project : BINAK  
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 Scenario : PSV2111/2112 blockoutlet

Source Data

Name	Inlet Intern Diameter (mm)	Inlet Pip Class	Inlet Fitting Loss A	Inlet Fitting Loss B	Static Inlet Pres. Drop (bar)	VLE Method	Inlet Temp. Calc. (C)	Vapour Fraction	Enthalpy (kJ/hr)
PV-2152	303.225	No	0.000	0.000	0.013	Model Default	60.000	1.000	13,003.106
PSV-2111/2112	303.225	No	0.000	0.000	0.000	Model Default	254.000	1.000	23,675.623
PSV-2113/2114	303.225	No	0.000	0.000	0.000	Model Default	219.000	1.000	17,324.256
PSV-2121A	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131A	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134A	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122A/2123A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2141/2142	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2141	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2271	303.225	No	0.000	0.000	0.000	Model Default	251.000	1.000	18,629.172
BDV-2132 A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132A/2133A	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
XV-2110	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
BDV-2151	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2121B	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131B	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 B	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122B/2123B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132B/2133B	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PSV-2121C	303.225	No	0.000	0.000	0.000	Model Default	234.500	1.000	17,953.785
PSV-2131C	303.225	No	0.000	0.000	0.000	Model Default	123.890	1.000	13,568.149
BDV-2134 C	303.225	No	0.000	0.000	0.000	Model Default	60.000	1.000	13,387.583
PSV-2122C/2123C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
BDV-2132 C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2132C/2133C	303.225	No	0.000	0.000	0.000	Model Default	132.000	1.000	13,881.158
PCV-2135A	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PSV-2135B	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491
PCV-2135C	303.225	No	0.000	0.000	NaN	Model Default	25.000	1.000	9,898.491

User Name : Undefined  
 Job Code :  
 Project : BINAK  
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 Scenario : PSV2111/2112 blockoutlet

Source Data

Name	Entropy (kJ/kgmole/K)	Energy (kJ/hr)	Composition Basis	Mol. Wt.	SPL (dB)	H2O	CO2	H2S
PV-2152	234.496	7,496,707.673	Mole Fractions	30.536		0.646002	0.139029	0.078131
PSV-2111/2112	264.821	1,319,499.920	Molecular Weight	23.570		0.000000	0.000000	0.000000
PSV-2113/2114	236.127	872,230.014	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121A	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131A	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134A	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122A/2123A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2141/2142	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2141	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2271	238.696	112,797.850	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132A/2133A	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
XV-2110	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
BDV-2151	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2121B	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131B	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 B	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122B/2123B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132B/2133B	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2121C	237.387	283,935.601	Molecular Weight	33.725		0.395658	0.604342	0.000000
PSV-2131C	227.654	563,852.146	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2134 C	234.801	2,377,289.072	Mole Fractions	31.502		0.638051	0.137328	0.077209
PSV-2122C/2123C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
BDV-2132 C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2132C/2133C	228.434	3,655,435.321	Molecular Weight	33.725		0.395658	0.604342	0.000000
PCV-2135A	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PSV-2135B	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000
PCV-2135C	212.082	0.000	Molecular Weight	18.015		1.000000	0.000000	0.000000



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## Source Data

Name	Methane	Ethane	Propane	i-Butane	n-Butane	i-Pentane	n-Pentane	n-Hexane
PV-2152	0.008455	0.018786	0.007000	0.003809	0.006623	0.001978	0.000603	0.000300
PSV-2111/2112	0.463385	0.536615	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.008383	0.018568	0.006959	0.003769	0.006540	0.001954	0.001954	0.000297
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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## Source Data

Name	n-Heptane	n-Octane	n-Nonane	n-Decane	Nitrogen
PV-2152	0.000100	0.000241	0.054025	0.003017	0.031901
PSV-2111/2112	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2113/2114	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131A	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134A	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122A/2123A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2141/2142	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2141	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2271	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132A/2133A	0.000000	0.000000	0.000000	0.000000	0.000000
XV-2110	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2151	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2121B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 B	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122B/2123B	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132B/2133B	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2121C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2131C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2134 C	0.000099	0.010300	0.054046	0.002980	0.031563
PSV-2122C/2123C	0.000000	0.000000	0.000000	0.000000	0.000000
BDV-2132 C	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2132C/2133C	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135A	0.000000	0.000000	0.000000	0.000000	0.000000
PSV-2135B	0.000000	0.000000	0.000000	0.000000	0.000000
PCV-2135C	0.000000	0.000000	0.000000	0.000000	0.000000



User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PSV2111/2112 blockoutlet

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Internal Diameter (mm)	Equivalent Length (m)	Fittings Length (K X D /Ft)	Length (m)	Mass Flow (kg/hr)	Molar Flow (kgmole/hr)	Rated Mass Flow (kg/hr)
Pipe2	154.051	5.42	0.00	5.420	11269.0	478.11	11451.7
Pipe7	202.717	24.48	0.00	24.480	11269.0	478.11	11451.7
Pipe12	202.717	27.60	0.00	27.600	11269.0	478.11	11451.7
Pipe13	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe14	202.717	3.00	0.00	3.000	11269.0	478.11	11451.7
Pipe19	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe20	202.717	19.92	0.00	19.920	11269.0	478.11	11451.7
Pipe34	202.717	14.40	0.00	14.400	11269.0	478.11	11451.7
Pipe40	202.717	6.00	0.00	6.000	11269.0	478.11	11451.7
Pipe43	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe44	202.717	54.00	0.00	54.000	11269.0	478.11	11451.7
Pipe45	254.508	550.00	0.00	550.000	11269.0	478.11	11451.7
Pipe46	254.508	15.00	0.00	15.000	11269.0	478.11	11451.7
Pipe47	202.717	2.00	0.00	2.000	11269.0	478.11	11451.7
Pipe48	202.717	2.00	0.00	2.000	11269.0	478.11	11451.7
Pipe77	202.717	7.80	0.00	7.800	11269.0	478.11	11451.7
Pipe79	202.717	2.00	0.00	2.000	11269.0	478.11	11451.7
Pipe114	202.717	7.56	0.00	7.560	11269.0	478.11	11451.7
Pipe117	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe118	202.717	3.00	0.00	3.000	11269.0	478.11	11451.7
Pipe121	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe122	202.717	19.92	0.00	19.920	11269.0	478.11	11451.7
Pipe123	202.717	2.00	0.00	2.000	11269.0	478.11	11451.7
Pipe126	202.717	7.80	0.00	7.800	11269.0	478.11	11451.7
Pipe141	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe142	202.717	3.00	0.00	3.000	11269.0	478.11	11451.7
Pipe145	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe146	202.717	2.00	0.00	2.000	11269.0	478.11	11451.7
Pipe149	202.717	7.80	0.00	7.800	11269.0	478.11	11451.7
Pipe150	202.717	2.40	0.00	2.400	11269.0	478.11	11451.7
Pipe152	202.717	2.00	0.00	2.000	11269.0	478.11	11451.7
Pipe153	202.717	2.00	0.00	2.000	-11269.0	-478.11	-11451.7
Pipe156	202.717	2.00	0.00	2.000	-11269.0	-478.11	-11451.7

User Name : Undefined  
 Job Code :  
 Project : BINAK  
 Description :  
 Scenario : PSV2111/2112 blockoutlet

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Static Pressure Drop (bar)	Noise (dB)	Static Source Back Pressure (bar)	Upstream Static Pressure (bar)	Upstream Temperature (C)	Upstream Velocity (m/s)
Pipe2	0.05423	51.1	2.90884	2.90883	252.66	108.742
Pipe7	0.05664	44.7		2.85907	254.01	63.034
Pipe12	0.06663	46.2		2.75128	253.95	65.499
Pipe13	0.00590	35.9		2.67228	253.90	67.430
Pipe14	0.00764	37.7		2.58626	253.85	69.667
Pipe19	0.00599	36.2		2.63730	253.88	68.322
Pipe20	0.05163	46.4		2.56575	253.84	70.223
Pipe34	0.04368	48.4		2.21199	253.53	81.413
Pipe40	0.01862	45.0		2.15301	253.46	83.634
Pipe43	0.00762	41.5		2.10282	253.40	85.622
Pipe44	0.18177	56.7		2.07936	253.37	86.583
Pipe45	0.76359	65.6		1.87926	254.05	60.861
Pipe46	0.02994	53.9		1.11567	252.83	102.299
Pipe47	0.00494	35.2		2.65973	253.90	67.748
Pipe48	0.00476	34.4		2.75604	253.95	65.386
Pipe77	0.01965	41.6		2.61869	253.87	68.807
Pipe79	0.00473	34.3		2.77277	253.96	64.992
Pipe114	0.01773	39.9		2.80243	253.98	64.306
Pipe117	0.00633	37.5		2.50091	253.79	72.038
Pipe118	0.00822	39.3		2.41499	253.72	74.593
Pipe121	0.00643	37.8		2.46343	253.76	73.131
Pipe122	0.05567	48.0		2.39298	253.70	75.277
Pipe123	0.00532	36.9		2.48215	253.77	72.581
Pipe126	0.02115	43.2		2.44349	253.74	73.726
Pipe141	0.00685	39.2		2.32311	253.64	77.533
Pipe142	0.00895	41.1		2.22898	253.55	80.795
Pipe145	0.00700	39.7		2.27482	253.59	79.173
Pipe146	0.00574	38.5		2.30858	253.63	78.020
Pipe149	0.02300	45.1		2.25996	253.58	79.692
Pipe150	0.00756	41.4		2.11885	253.42	84.977
Pipe152	0.00495	35.3		2.65478	253.89	67.874
Pipe153	0.00530	36.8		2.48215	253.78	72.581
Pipe156	0.00578	38.7		2.28932	253.62	78.674

User Name : Undefined  
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 Project : BINAK  
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 Scenario : PSV2111/2112 blockoutlet

## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Upstream Mach No.	Upstream Rho V2 (kg/m/s2)	Upstream Enthalpy Flow (kJ/hr)	Upstream Volume Flow (m3/hr)	Upstream SPL (dB)	Downstream Static Pressure (bar)
Pipe2	0.236	18559	1.128e+007	7.180e+003		2.85460
Pipe7	0.137	6113	1.132e+007	7.324e+003		2.80243
Pipe12	0.142	6352	1.132e+007	7.610e+003		2.68465
Pipe13	0.146	6540	1.132e+007	7.835e+003		2.66638
Pipe14	0.151	6757	1.132e+007	8.095e+003		2.57862
Pipe19	0.148	6626	1.132e+007	7.938e+003		2.63131
Pipe20	0.152	6811	1.131e+007	8.159e+003		2.51412
Pipe34	0.177	7896	1.131e+007	9.460e+003		2.16832
Pipe40	0.181	8111	1.130e+007	9.718e+003		2.13439
Pipe43	0.186	8304	1.130e+007	9.949e+003		2.09520
Pipe44	0.188	8397	1.130e+007	1.006e+004		1.89760
Pipe45	0.132	3745	1.132e+007	1.115e+004		1.11567
Pipe46	0.222	6294	1.128e+007	1.874e+004		1.08573
Pipe47	0.147	6571	1.132e+007	7.872e+003		2.65478
Pipe48	0.142	6342	1.132e+007	7.597e+003		2.75128
Pipe77	0.149	6673	1.132e+007	7.995e+003		2.59904
Pipe79	0.141	6303	1.132e+007	7.551e+003		2.76804
Pipe114	0.139	6237	1.132e+007	7.472e+003		2.78470
Pipe117	0.156	6987	1.131e+007	8.370e+003		2.49458
Pipe118	0.162	7235	1.131e+007	8.667e+003		2.40677
Pipe121	0.159	7093	1.131e+007	8.497e+003		2.45700
Pipe122	0.163	7301	1.131e+007	8.747e+003		2.33732
Pipe123	0.157	7039	1.131e+007	8.433e+003		2.47684
Pipe126	0.160	7150	1.131e+007	8.566e+003		2.42233
Pipe141	0.168	7520	1.131e+007	9.009e+003		2.31627
Pipe142	0.175	7836	1.131e+007	9.388e+003		2.22003
Pipe145	0.172	7679	1.131e+007	9.199e+003		2.26782
Pipe146	0.169	7567	1.131e+007	9.065e+003		2.30283
Pipe149	0.173	7729	1.131e+007	9.260e+003		2.23695
Pipe150	0.184	8242	1.130e+007	9.874e+003		2.11129
Pipe152	0.147	6583	1.132e+007	7.886e+003		2.64983
Pipe153	0.157	7039	-1.131e+007	-8.433e+003		2.48746
Pipe156	0.171	7630	-1.131e+007	-9.141e+003		2.29510

User Name : Undefined  
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Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Downstream Temperature (C)	Downstream Velocity (m/s)	Downstream Mach No.	Downstream Rho V2 (kg/m/s2)	Downstream Enthalpy Flow (kJ/hr)	Downstream Volume Flow (m3/hr)
Pipe2	252.59	110.793	0.240	18909	1.128e+007	7.316e+003
Pipe7	253.98	64.306	0.139	6237	1.132e+007	7.472e+003
Pipe12	253.92	67.120	0.146	6510	1.132e+007	7.799e+003
Pipe13	253.91	67.579	0.147	6554	1.132e+007	7.852e+003
Pipe14	253.85	69.873	0.151	6777	1.132e+007	8.119e+003
Pipe19	253.89	68.478	0.148	6641	1.132e+007	7.956e+003
Pipe20	253.81	71.661	0.155	6950	1.131e+007	8.326e+003
Pipe34	253.49	83.047	0.180	8054	1.130e+007	9.649e+003
Pipe40	253.45	84.361	0.183	8182	1.130e+007	9.802e+003
Pipe43	253.40	85.932	0.186	8334	1.130e+007	9.985e+003
Pipe44	253.11	94.833	0.206	9198	1.129e+007	1.102e+004
Pipe45	252.84	102.299	0.222	6294	1.128e+007	1.874e+004
Pipe46	252.74	105.100	0.228	6467	1.128e+007	1.925e+004
Pipe47	253.90	67.874	0.147	6583	1.132e+007	7.886e+003
Pipe48	253.96	65.499	0.142	6352	1.132e+007	7.610e+003
Pipe77	253.86	69.326	0.150	6724	1.132e+007	8.055e+003
Pipe79	253.97	65.103	0.141	6314	1.132e+007	7.564e+003
Pipe114	253.98	64.714	0.140	6276	1.132e+007	7.519e+003
Pipe117	253.79	72.220	0.157	7004	1.131e+007	8.391e+003
Pipe118	253.72	74.847	0.162	7259	1.131e+007	8.697e+003
Pipe121	253.76	73.322	0.159	7111	1.131e+007	8.519e+003
Pipe122	253.66	77.064	0.167	7474	1.131e+007	8.954e+003
Pipe123	253.78	72.736	0.158	7054	1.131e+007	8.451e+003
Pipe126	253.73	74.368	0.161	7213	1.131e+007	8.641e+003
Pipe141	253.64	77.762	0.169	7542	1.131e+007	9.035e+003
Pipe142	253.55	81.120	0.176	7868	1.131e+007	9.425e+003
Pipe145	253.59	79.417	0.172	7702	1.131e+007	9.228e+003
Pipe146	253.63	78.214	0.170	7586	1.131e+007	9.088e+003
Pipe149	253.56	80.508	0.175	7808	1.131e+007	9.354e+003
Pipe150	253.42	85.280	0.185	8271	1.130e+007	9.909e+003
Pipe152	253.90	68.000	0.147	6595	1.132e+007	7.901e+003
Pipe153	253.78	72.427	0.157	7024	-1.131e+007	-8.415e+003
Pipe156	253.61	78.476	0.170	7611	-1.131e+007	-9.118e+003

User Name : Undefined  
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## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Downstream SPL (dB)	Flow Regime	Static Pipe Friction Loss (bar)	Static Pipe Accel. Loss (bar)	Static Pipe Elevation Loss (bar)	Pipe Fittings Loss (bar)
Pipe2		Single Phase/Single Phase	0.05076	0.00348	0.00000	0.00000
Pipe7		Single Phase/Single Phase	0.05541	0.00123	0.00000	0.00000
Pipe12		Single Phase/Single Phase	0.06505	0.00157	0.00000	0.00000
Pipe13		Single Phase/Single Phase	0.00576	0.00014	0.00000	0.00000
Pipe14		Single Phase/Single Phase	0.00744	0.00020	0.00000	0.00000
Pipe19		Single Phase/Single Phase	0.00584	0.00015	0.00000	0.00000
Pipe20		Single Phase/Single Phase	0.05023	0.00139	0.00000	0.00000
Pipe34		Single Phase/Single Phase	0.04209	0.00158	0.00000	0.00000
Pipe40		Single Phase/Single Phase	0.01792	0.00070	0.00000	0.00000
Pipe43		Single Phase/Single Phase	0.00732	0.00030	0.00000	0.00000
Pipe44		Single Phase/Single Phase	0.17377	0.00800	0.00000	0.00000
Pipe45		Single Phase/Single Phase	0.73809	0.02550	0.00000	0.00000
Pipe46		Single Phase/Single Phase	0.02734	0.00172	0.00087	0.00000
Pipe47		Single Phase/Single Phase	0.00482	0.00012	0.00000	0.00000
Pipe48		Single Phase/Single Phase	0.00465	0.00011	0.00000	0.00000
Pipe77		Single Phase/Single Phase	0.01915	0.00050	0.00000	0.00000
Pipe79		Single Phase/Single Phase	0.00463	0.00011	0.00000	0.00000
Pipe114		Single Phase/Single Phase	0.01734	0.00040	0.00000	0.00000
Pipe117		Single Phase/Single Phase	0.00615	0.00018	0.00000	0.00000
Pipe118		Single Phase/Single Phase	0.00797	0.00025	0.00000	0.00000
Pipe121		Single Phase/Single Phase	0.00625	0.00019	0.00000	0.00000
Pipe122		Single Phase/Single Phase	0.05393	0.00173	0.00000	0.00000
Pipe123		Single Phase/Single Phase	0.00517	0.00015	0.00000	0.00000
Pipe126		Single Phase/Single Phase	0.02053	0.00062	0.00000	0.00000
Pipe141		Single Phase/Single Phase	0.00662	0.00022	0.00000	0.00000
Pipe142		Single Phase/Single Phase	0.00863	0.00031	0.00000	0.00000
Pipe145		Single Phase/Single Phase	0.00677	0.00024	0.00000	0.00000
Pipe146		Single Phase/Single Phase	0.00555	0.00019	0.00000	0.00000
Pipe149		Single Phase/Single Phase	0.02221	0.00079	0.00000	0.00000
Pipe150		Single Phase/Single Phase	0.00726	0.00029	0.00000	0.00000
Pipe152		Single Phase/Single Phase	0.00483	0.00012	0.00000	0.00000
Pipe153		Single Phase/Single Phase	0.00516	0.00015	0.00000	0.00000
Pipe156		Single Phase/Single Phase	0.00559	0.00019	0.00000	0.00000

User Name : Undefined  
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## Pressure/Flow Summary(Velocities Based Upon Nominal Flows)

Name	Friction Factor	Reynolds Number	Duty (kJ/hr)	Overall HTC (W/m2/C)	External Convective HTC (W/m2/C)	External Radiative HTC (W/m2/C)
Pipe2	0.01541	1599108	0.000e+000			
Pipe7	0.01486	1193517	0.000e+000			
Pipe12	0.01486	1193681	0.000e+000			
Pipe13	0.01486	1193552	0.000e+000			
Pipe14	0.01486	1193648	0.000e+000			
Pipe19	0.01486	1193589	0.000e+000			
Pipe20	0.01486	1193818	0.000e+000			
Pipe34	0.01486	1194339	0.000e+000			
Pipe40	0.01486	1194333	0.000e+000			
Pipe43	0.01486	1194407	0.000e+000			
Pipe44	0.01486	1197149	0.000e+000			
Pipe45	0.01454	1016880	0.000e+000			
Pipe46	0.01454	952355	0.000e+000			
Pipe47	0.01486	1193564	0.000e+000			
Pipe48	0.01486	1193468	0.000e+000			
Pipe77	0.01486	1193632	0.000e+000			
Pipe79	0.01486	1193453	0.000e+000			
Pipe114	0.01486	1193443	0.000e+000			
Pipe117	0.01486	1193749	0.000e+000			
Pipe118	0.01486	1193866	0.000e+000			
Pipe121	0.01486	1193797	0.000e+000			
Pipe122	0.01486	1194094	0.000e+000			
Pipe123	0.01486	1193772	0.000e+000			
Pipe126	0.01486	1193855	0.000e+000			
Pipe141	0.01486	1194001	0.000e+000			
Pipe142	0.01486	1194163	0.000e+000			
Pipe145	0.01486	1194080	0.000e+000			
Pipe146	0.01486	1194022	0.000e+000			
Pipe149	0.01486	1194147	0.000e+000			
Pipe150	0.01486	1194373	0.000e+000			
Pipe152	0.01486	1193569	0.000e+000			
Pipe153	0.01486	1193765	0.000e+000			
Pipe156	0.01486	1194044	0.000e+000			