LINE/HALL D May 2016 SURVEY REPORT
Note: The as set offsets are relative to the machine coordinate used for alignment. A +X is to the beam left, +Z is downstream, +Y is above. A + yaw angle is ccw looking from above, a + pitch angle is ccw looking from the beam right side, and a + roll angle is cw looking from upstream.

DISCRIPTION	COMPONENT	DWG IDEAL	Measured MACHINE COORDINATE(M)			DELTA ANGLE (DEG)			ENCODER/STEP COUNT				
		Z	Z	X	Y	YAW	PITCH	ROLL	V WIRE	H WIRE	TGT1	TGT2	TGT3
BPMBOX US TAGGER SHIELD WALL	PM5C11A		283.51404	80.59991	104.70018	-0.00344	-0.0080	0.0201					
BPMBOX DS TAGGER SHIELD WALL	PM5C11C		297.81904	80.60002	104.69999	0.00372	0.0020	-0.0100					
TAGGER GONIOMETER FOIL	TAGGON		299.08967	See "Goni Foils-Diamonds" sheet in this file					Hovanes has data for each diamond and foil				
GONIOMETER DIAMONDS			299.09067						see "Goni Foils-Diamonds" Sheet				
AMORPHOUS RADIATOR	TAGRAD		299.71413	80.60026	104.69953	-0.13780	-0.0089	0.0089	5565.55	10259.55	17143.53	20945.13	24749.35
TAGGER QUAD (MQPAD00)			300.16491	80.60002	104.69962	0.01003	0.0264	-0.0100					
TAGGER MAGNET - pole center	HDTAGG		305.38838	80.30233	104.69937	-6.49920	0.0034	-0.0003					
TAGGER MAGNET - Pole entrance			302.28651										
HODOSCOPE PLT1 US BR TOP	HODPL1		303.09970	79.71819	104.77053	-8.03674	-0.0066	-0.0560					
HODOSCOPE PLT2 US BR TOP	HODPL2		304.38832	79.53609	104.77063	-8.04112	-0.0067	-0.0933					
HODOSCOPE PLT3 US BR TOP	HODPL3		305.67002	79.35449	104.77080	-8.05000	0.0172	-0.0373					
HODOSCOPE PLT4 US BR TOP	HODPL4		306.66042	79.21476	104.77088	-8.05000	-0.0136	-0.0933					
HODOSCOPE PLT5 US BR TOP	HODPL5		307.70464	79.06703	104.77058	-8.04450	0.0137	-0.1307					
HODOSCOPE PLT6 US BR TOP	HODPL6		308.89940	78.89787	104.77030	-8.06432	0.0334	-0.1120					
HODOSCOPE PLT7 US BR TOP	HODPL7		310.14345	78.72182	104.77125	-8.05939	-0.0235	0.1120					
HODOSCOPE PLT8 US BR TOP	HODPL8		311.56453	78.52614	104.77093	-8.04356	-0.0161	0.0187					
TAGGER MICROSCOPE US CENTER	HDMICR		306.52268	79.43367	104.69879	-8.04380	0.0183	-0.0779					
COLLIMATOR CAVE PROFILER			374.27000	80.60072	104.70048	0.00000							
COLLIMATOR CAVE PIN HOLE COLLIMATOR	MCOAD01		374.48534	80.65170	80.69964	-0.02206	0.0218	0.0364					
COLLIMATOR CAVE 2ND COLLIMATOR	MCOAD02		380.37258	80.60037	104.69969	0.04956	-0.0046	-0.0049					
COLLIMATOR CAVE SWEEPER MAGNET 1	MSWAD01		376.78388	80.60035	104.69957	-0.00029	0.0043	0.0066					
COLLIMATOR CAVE SWEEPER MAGNET 2	MSWAD02		381.13934	80.60001	104.70003	-0.00773	0.0203	-0.0054					
POLARIMETER			383.06255	80.60001	104.69965	0.01490	0.0003	0.0152					
PHOTON BEAM HARP	HDPBHA		385.23073	80.60004	104.69998	-0.01261	-0.0226	0.0075	5270	10002	16845	20638	24431
PAIR SPECTROMETER MAGNET	HDPRSP		386.76745	80.59980	104.69981	0.00570	-0.0112	0.0009					
RIGHT HIGH GRANULARITY DETECTOR	HGDETR		389.69587	80.36113	104.70181	-4.67570	-0.0014	0.0175					
LEFT HIGH GRANULARITY DETECTOR	HGDETL		389.69578	80.83810	104.70182	4.67970	-0.0278	0.0072					
RIGHT LOW GRANULARITY DET USBL	LGDETR		390.18365	80.32538	104.70237	-4.70670	-0.0705	0.0573					
LEFT LOW GRANULARITY DET USBR	LGDETL		390.18358	80.87461	104.70077	4.67420	0.0504	-0.0811					
SOLENOID (GEOMETRIC CENTER)	HDSOL_		400.02780	80.59970	104.70000	0.02580	0.01350	0.0026					
Solenoid US steel face			397.62980	80.59862	104.69944								
Solenoid DS steel face			402.42580	80.60078	104.70056								
BARREL CALORIMETER (Sept 2013)	HDBCAL		400.25650	80.60103	104.69902	0.01633	0.0424	0.0046					
HYDROGEN TARGET	HTAR		398.77170	80.59990	104.70000	-0.00140	-0.0118						
Scattering chamber DS window			398.97020	80.60130	104.69990								
START COUNTER US FACE US FLANGE	HDSTRT		398.42170	80.60010	104.70340	0.16051	-0.28985	-11.2500					
START COUNTER US FACE SCINTILLATOR			398.50900	80.60010	104.70340								
START COUNTER DS FACESCINTILLATOR			399.09410	80.60200	104.69990								
FDC Package 1 center			399.96059	80.59910	104.70033	0.01633	-0.0493	0.0882					
FDC Package 2 center			400.54629	80.59931	104.69994	0.02263	-0.0352	0.0089					
FDC Package 3 center			401.13218	80.60001	104.69968	0.02922	-0.0682	0.0295					
FDC Package 4 center			401.51893	80.60018	104.70023	-0.00172	0.1097	0.0066					
CENTRAL DRIFT CHAMBER (active center)	HD_CDC		399.06460	80.60000	104.69920	0.00800	-0.02180	0.04500					
CDC projected US active area			398.31460	80.59990	104.69949								
CDC projected DS active area			399.81460	80.60010	104.69891								
FORWARD CALORIMETER	HDFCAL		404.38768	80.60529	104.69998	-0.07019	0.0418	-0.0149					
TIME OF FLIGHT	HDFTOF		404.19655	80.60308	104.70225	0.04612	0.0427	-0.1813					
Hall D 0,0 point			398.13780	80.6	104.7								
Items resurveyed after the Spring 2016 run: Solenoid, CDC, Target, start counter, Scattering chamber and FDC													

	400.0286	0.00078	
-2.39800	397.6306	0.00082	2.39796
2.39800	402.4265	0.00074	2.39796
0.58570			
0.58589			
0.38675			
0.75000			
-0.75000			