## V&V Summary Report L2 ASCDS Version: 8.4.5

Observation 5318 - L2 Version 3 Chandra X-Ray Center

L2 Processing Date: Dec 8 2012

See axaff05318N002\_VV001\_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.16

## Comments

Zeroth order piled up. Standard data processing software did not correctly locate the zeroth order due to pileup. Manual intervention was used to input the correct sky coordinates (x=4168.94, y=3962.02) into the \*src1a.fits file table. These corrected coordinates were determined using a software tool developed by CXC called tg\_findzoavailable in CIAO. The tool calculates the point of intersection of the readout streak and the leg arm. The zeroth order source position determined by the standard pipeline processing using the tool tgdetect was not used in this processing. The newly determined zeroth order coordinates have been placed in the \*src1a.fits file, replacing the coordinates determined by tgdetect. Note that these corrected coordinates of the zeroth order cannot be reproduced by running tgdetect on the data.

===

Gain and CTI correction are not well calibrated on CCD\_ID 5 (ACIS-S1). Default order sorting can clip some regions, particularly longward of 30A (first order). User-specified custom processing parameters may be required in tg\_resolve\_events (osipfile=none, osort\_lo, osort\_hi ~0.5) though this can allow more zeroth order background at short wavelengths.

seq_num	790094	Sequence number
obs_id	5318	Observation id
title	Measuring the depth of the contaminant on ACIS with a LETG/ACIS-S observation of Mkn 421	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	Mkn 421	Source name
dtycycle	0	<b>%</b> #160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.113333	Observer's specified target RA [deg]
dec_targ	38.208806	Observer's specified target Dec [deg]
ra_nom	166.12640172121	Nominal RA [deg]
dec_nom	38.227146460567	Nominal Dec [deg]
roll_nom	236.38122765441	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30160.899486363	Sum of GTIs [s]
livetime	28490.539836519	Livetime [s]
ontime4	30160.899486363	Sum of GTIs [s]
ontime5	30160.899486363	Sum of GTIs [s]
ontime6	30160.899486363	Sum of GTIs [s]
ontime7	30160.899486363	Sum of GTIs [s]
ontime8	30160.899486363	Sum of GTIs [s]
ontime9	30160.899486363	Sum of GTIs [s]
12events	1735226	Number of level 2 events

