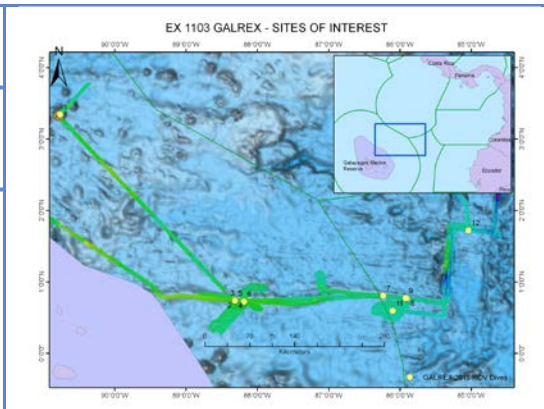
OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	4aE		
ROV Lead/ Expedition Coordinator	Dave Lovalvo/ Jeremy Potter		
General Area Descriptor	Site 4aE, ~320nm northwest of the Galapagos Islands		
ROV Dive Name	Cruise Season	Leg	Dive Number
	EX1103	2	DIVE08
Equipment Deployed	ROV:	Little Hercules	
	Camera Platfom:	Seirios	
ROV Measurements	☒ CTD	☒ Depth	☒ Altitude
	☒ Scanning Sonar	☒ USBL Position	☒ Heading
	☒ Pitch	☒ Roll	☒ HD Camera
	☒ Low Res Cam 1	☒ Low Res Cam 2	
Equipment Malfunctions	None		
ROV Dive Summary (From processed ROV data)	^^ In Water at: 2011-07-21T14:35:27.034000 00°, 45.950' N ; 085°, 53.678' W Out Water at: 2011-07-22T00:02:44.059000 00°, 46.062' N ; 085°, 53.686' W Off Bottom at: 2011-07-21T22:21:43.614000 00°, 46.078' N ; 085°, 53.732' W On Bottom at: 2011-07-21T16:31:22.528000 00°, 45.998' N ; 085°, 53.712' W Dive duration: 9:27:17 Bottom Time: 5:50:21 Max. depth: 2607.4 m		
Special Notes	Click here to enter text.		
Scientists Involved *(please provide name / location / affiliation / email)*	Timothy M. Shank/ Okeanos Explorer Lead Scientist/WHOI/tshank@whoi.edu Edward T. Baker/NOAA-PMEL, Washington/Edward.baker@noaa.gov Robert W. Embley/NOAA-PMEL, Oregon/Robert.w.embley@noaa.gov Stephen Hammond/ NOAA-PMEL, Oregon/Stephen.r.hammond@noaa.gov James F. Holden/ UMASS Amherst/jholden@microbio.umass.edu Scott White/University of South Carolina/swhite@geol.sc.edu Sharon L. Walker/ NOAA-PMEL, Washington/sharon.l.walker@noaa.gov Santiago Herrera/ WHOI Exploration Command Center/WHOI/sherrera@whoi.edu T. Jennifer Lin/UMASS Amherst/tjennlin@gmail.com Catriona Munro/ WHOI Exploration Command Center WHOI/catmunro89 @gmail.com Taylor Heyl/ WHOI Exploration Command Center/WHOI/theyl@whoi.edu		

Lucy C. Stewart/ UMASS Amherst/lsteweart@cns.umass.edu
Mashkoor Malik/ NOAA Office of Ocean Exploration & Research/mashkoor.malik@noaa.gov
Meme Lobecker/ NOAA Office of Ocean Exploration & Research/ Elizabeth.Lobecker@noaa.gov

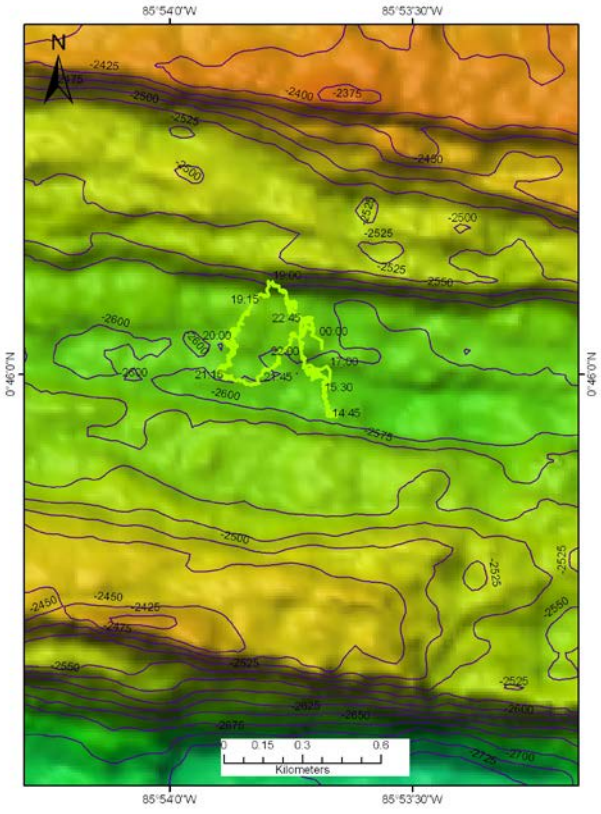
Purpose of the Dive

To dive below a high hydrothermal plume signal discovered during the last leg of this expedition now referred to as "4a". This is an unexplored region, but multibeam surveys suggest that there is a well-defined axial volcanic ridge with walls separated by approximately 500 meters.

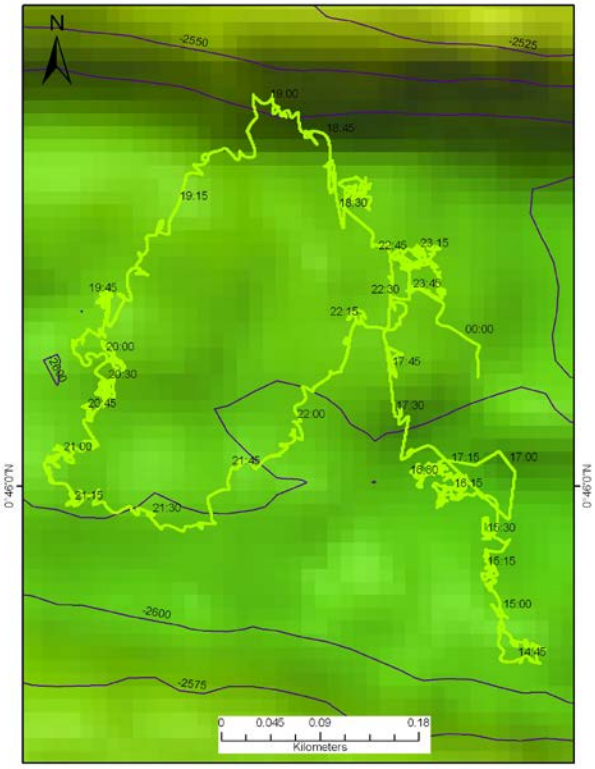
Description of the Dive:

We began this dive by landing 100 meters to the east of the 4aEast plume target and proceeding to the west, traversing across broken pillow lava heavily covered with sediment. *Little Hercules* then began moving north, discovered a fissure and began an E-W transit for exploration. The fissure was characterized by a northern wall higher than a Southern wall with pillow lavas on either side, and a talus slope at the base. *Little Hercules* continued traversing over heavily sedimented pillow and lobate lavas before coming to the end of the dive without locating any active hydrothermal vent areas.

Overall Map of ROV Dive Area



Close-up Map of Main Dive Site



Representative Photos of the Dive	
	
Broken pillow lava covered with sediment	The fissure was characterized by a northern wall higher than a Southern wall with pillow lavas on either side, and a talus slope at the base.
Please direct inquiries to:	NOAA Office of Ocean Exploration & Research 1315 East-West Highway (SSMC3 10th Floor) Silver Spring, MD 20910 (301) 734-1014