



# Observing Application

Date: Aug 28, 2007

Proposal ID: VLA/07C-248

**Legacy ID: A1123**

PI: Violetta Impellizzeri

Type: Rapid Response

Exploratory Time

Category: Extragalactic

Total time: 22.5 hour

## The first detection of a water maser from a $z > 2.5$ quasar

### Abstract:

We may have discovered the most distant water maser from a high-redshift quasar with the Effelsberg radio telescope. We request 22.5 hours of EVLA time to confirm that we have detected water vapour and that the emission is coincident with the quasar.

### Authors:

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### Joint:

Not a Joint Proposal

### Observing type(s):

Spectroscopy, \*

**Resources:**

Resource name	Tele. Conf.	Frontend & Backend	Set up
0414vla	VLA BnA	C Band 6 cm 4200 - 7700 MHz VLA Correlator - Spectral Line	IF mode: 1  Bandwidth: 25 MHz  Number of channels: 32  Spectral resolution: 781.25 kHz  Rest frequencies: 6116.1,6116.1 MHz

**Sources:**

Source name	RA / RA Range	DEC / DEC Range	System	Velocity/z	Group name
MG 0414+0534	04:14:37.8 00:00:00.0	+05:34:42 00:00:00	J2000	z = 2.636	

**Sessions:**

Session Name	Session Time	Repeat	Separation	LST Minimum	LST Maximum	Elevation Minimum
0414vla	22.5 hours	1	0 day	00:00:00	24:00:00	0

**Session Constraints:**

Session Name	Constraint	Comments
0414vla		

**Session Source/Resource Pairs:**

Session Name	Source	Resource	Time	Figure of Merit
0414vla	MG 0414+0534/	0414vla	22.5 hour	0.28mJy/bm

**Total Time per Configuration:**

Configuration	Total Time
BnA	22.5

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Present for observation: no Staff support: Consultation