



1
00:00:06,470 --> 00:00:03,030
rocks examined by nasa's spirit mars

2
00:00:08,710 --> 00:00:06,480
rover holds evidence of a wet non-acidic

3
00:00:10,390 --> 00:00:08,720
ancient environment that may have been

4
00:00:12,629 --> 00:00:10,400
favorable for life

5
00:00:15,509 --> 00:00:12,639
confirming this mineral clue took four

6
00:00:19,510 --> 00:00:15,519
years of analysis by several scientists

7
00:00:21,750 --> 00:00:19,520
in late 2005 spirit examined an outcrop

8
00:00:24,870 --> 00:00:21,760
that revealed high concentrations of

9
00:00:27,589 --> 00:00:24,880
carbonate carbonates originate in wet

10
00:00:28,550 --> 00:00:27,599
near neutral conditions but dissolve in

11
00:00:30,710 --> 00:00:28,560
acid

12
00:00:33,990 --> 00:00:30,720
the ancient water indicated by this

13
00:00:36,310 --> 00:00:34,000

particular find was not acidic

14

00:00:38,950 --> 00:00:36,320

nasa's rovers have found other evidence

15

00:00:41,030 --> 00:00:38,960

of formally wet martian environments but

16

00:00:43,750 --> 00:00:41,040

those environments were determined or

17

00:00:46,630 --> 00:00:43,760

believed to be acidic and therefore less

18

00:00:48,630 --> 00:00:46,640

favorable as habitats for life

19

00:00:50,549 --> 00:00:48,640

laboratory tests help confirm the

20

00:00:52,389 --> 00:00:50,559

carbonate identification

21

00:00:55,350 --> 00:00:52,399

this is one of the most significant

22

00:00:57,029 --> 00:00:55,360

findings by the rovers well the spirit

23

00:00:57,670 --> 00:00:57,039

rover

24

00:00:59,670 --> 00:00:57,680

found at

25

00:01:01,750 --> 00:00:59,680

outcrop and called the comanche outcrop

26

00:01:03,510 --> 00:01:01,760

it had a high percentage of uh of

27

00:01:05,509 --> 00:01:03,520

carbonate-bearing minerals in it in fact

28

00:01:06,870 --> 00:01:05,519

it was an iron magnesium iron carbonate

29

00:01:08,789 --> 00:01:06,880

mineral

30

00:01:10,630 --> 00:01:08,799

and this is really exciting because this

31

00:01:13,510 --> 00:01:10,640

this is a mineral that we had been

32

00:01:15,350 --> 00:01:13,520

looking for for a long time and only

33

00:01:17,350 --> 00:01:15,360

just now

34

00:01:18,390 --> 00:01:17,360

confirmed its presence

35

00:01:21,190 --> 00:01:18,400

but

36

00:01:22,710 --> 00:01:21,200

with respect to life

37

00:01:24,230 --> 00:01:22,720

we'll have to wait and see what what

38

00:01:26,630 --> 00:01:24,240

people come up with