

```
In [23]: from sklearn.cluster import KMeans
import numpy as np
import matplotlib.pyplot as plt
from skimage.segmentation import felzenszwalb, mark_boundaries
```

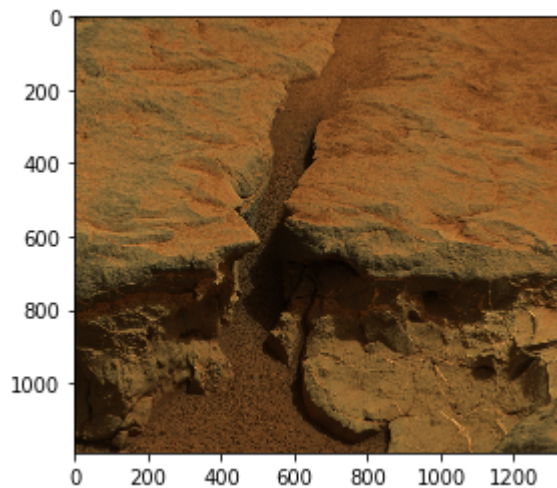
```
In [16]: p1 = np.load('0153MR0008490000201265E01_DRLX.npy',allow_pickle=True)
```

```
In [17]: p1 = np.delete(p1, 0, 0)
```

```
In [18]: p1.shape
```

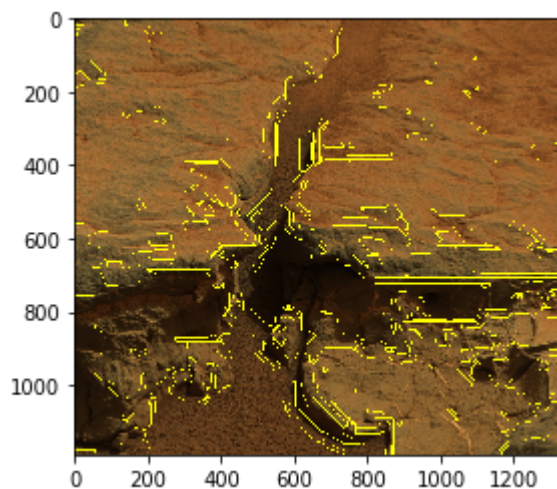
```
Out[18]: (1191, 1335, 3)
```

```
In [33]: imgplot = plt.imshow(p1)
```



```
In [185]: segments = felzenszwalb(p1, scale=32, sigma=12.5, min_size=15)
```

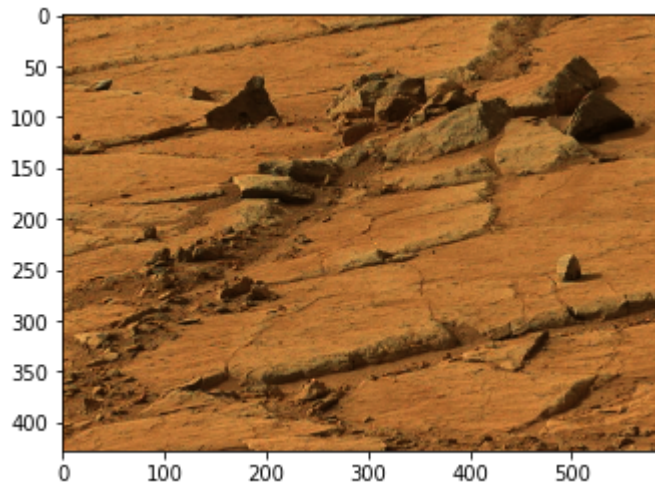
```
In [186]: imgplot = plt.imshow(mark_boundaries(p1, segments))
```



```
In [35]: p2 = np.load('0172ML0009240000104879E01_DRLX.npy',allow_pickle=True)
p2 = np.delete(p2, 0, 0)
p2.shape
```

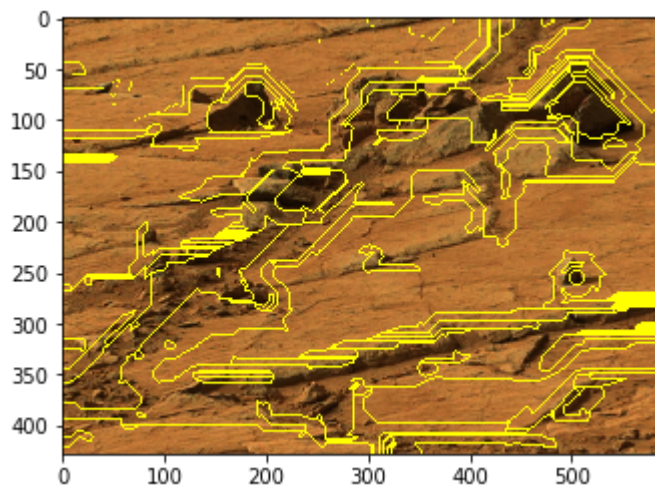
Out[35]: (428, 589, 3)

```
In [36]: imgplot = plt.imshow(p2)
```



```
In [165]: segments = felzenszwalb(p2, scale=20.0, sigma=10.95, min_size=2)
```

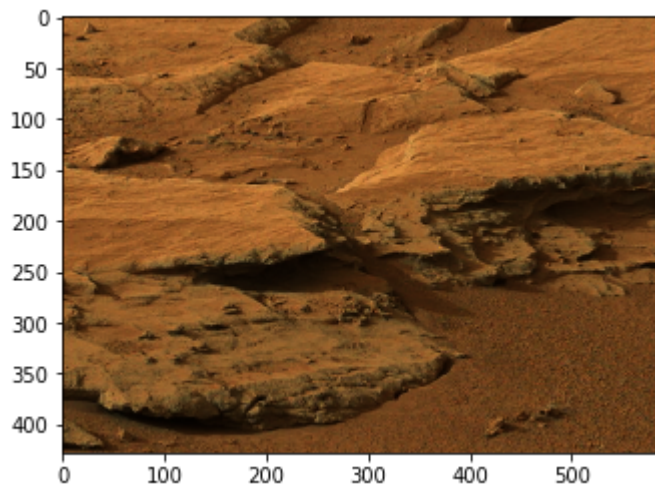
```
In [166]: imgplot = plt.imshow(mark_boundaries(p2, segments))
```



```
In [87]: p3 = np.load('0172ML0009240340104913E01_DRLX.npy',allow_pickle=True)
p3 = np.delete(p3, 0, 0)
p3.shape
```

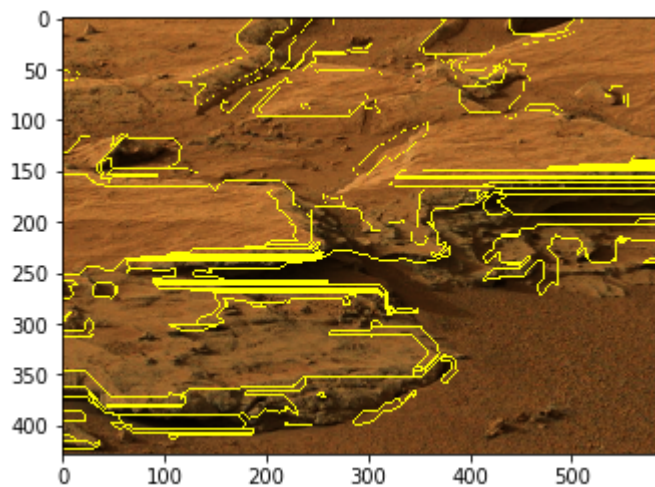
Out[87]: (428, 589, 3)

```
In [90]: imgplot = plt.imshow(p3)
```



```
In [159]: segments = felzenszwalb(p3, scale=50.0, sigma=8, min_size=20)
```

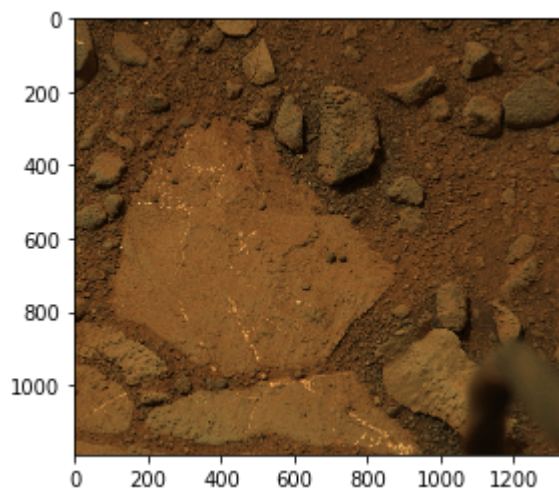
```
In [160]: imgplot = plt.imshow(mark_boundaries(p3, segments))
```



```
In [93]: p4 = np.load('0270MR0011860360203259E01_DRLX.npy', allow_pickle=True)
p4 = np.delete(p4, 0, 0)
p4.shape
```

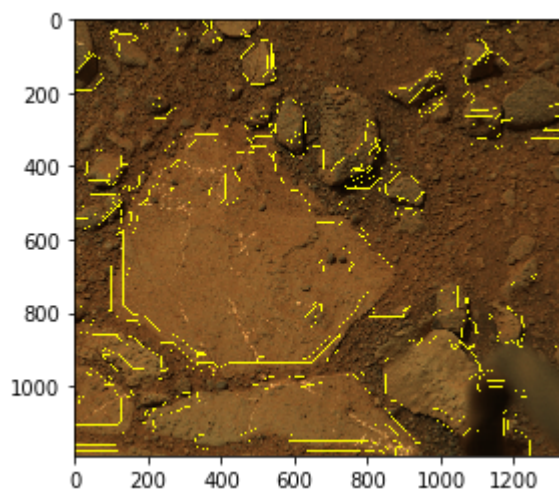
```
Out[93]: (1191, 1335, 3)
```

```
In [94]: imgplot = plt.imshow(p4)
```



```
In [121]: segments = felzenszwalb(p4, scale=20.75, sigma=18.95, min_size=3)
```

```
In [122]: imgplot = plt.imshow(mark_boundaries(p4, segments))
```



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In [ ]:
```