



WatchDog

Virtual Well Site Visit Demonstration

Easy to Navigate Field Summary



WatchDog allows for quick and easy virtual well site visits. It informs the operator if the pump is physically pumping, fluids being produced, changes to fluid production, pressure, and a visual of a site to ensure there are no leaks



Run Summary:
Selecting a folder/run from the treeview provides a summary of the wells on the right hand side

Alarms:
Wells with red triangles have stopped pumping. We alert the operators to the outage and they can quickly see it on the summary

| Status | COM | Name | Flow Conf. | S/N | Type | Folder | Last TX Date |
|--------|-----|-----------|------------|--------|------------|------------------|------------------|
| ▲ | ○ | 1D16-... | 41 | W30897 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 3C10-... | 53 | W30884 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:06 |
| ▲ | ○ | 1B04-... | 87 | W30881 | Watch-DOG3 | 3-6-1- Satellite | 2018-02-15 11:17 |
| ▲ | ○ | 13-35-... | 88 | W30890 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 13-31-... | 92 | W30900 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:06 |
| ▲ | ○ | 15-26-... | 94 | W30885 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 03-06-... | 95 | W30879 | Watch-DOG3 | 3-6-1- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 2B10-... | 95 | W30889 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 2D08-... | 95 | W30883 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:06 |
| ▲ | ○ | 3A16-... | 96 | W30903 | Watch-DOG3 | Porta Separator | 2018-02-15 11:13 |
| ▲ | ○ | 1C10-... | 97 | W30895 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:06 |
| ▲ | ○ | 2B12-... | 98 | W30938 | Watch-DOG3 | Porta Separator | 2018-02-15 11:06 |
| ▲ | ○ | 2C07-... | 99 | W30898 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:06 |
| ▲ | ○ | 3C15-... | 99 | W30894 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:00 |
| ▲ | ○ | 13-25-... | 100 | W30888 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 13-36-... | 100 | W30899 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 1A02-... | 100 | W30891 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:17 |
| ▲ | ○ | 1A09-... | 100 | W30886 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 1D15-... | 100 | W30887 | Watch-DOG3 | 7-35- Satellite | 2018-02-15 11:00 |
| ▲ | ○ | 2B04-... | 100 | W30937 | Watch-DOG3 | 3-6-1- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 3B04-... | 100 | W30880 | Watch-DOG3 | 3-6-1- Satellite | 2018-02-15 11:17 |
| ▲ | ○ | 3D08-... | 100 | W30897 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:00 |
| ▲ | ○ | 4B05-... | 100 | W30893 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:06 |
| ▲ | ○ | 4C14-... | 100 | W30896 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:13 |
| ▲ | ○ | 6D13-... | 100 | W30901 | Watch-DOG3 | 9-36- Satellite | 2018-02-15 11:13 |

Flowing Confidence:
Through sophisticated analysis of temperature information we flag when there's changes to flow (intermittent, reduced, or no flow scenarios). As wells change state they move from 100% Flow. Confidence to 0% based on the severity of the change.

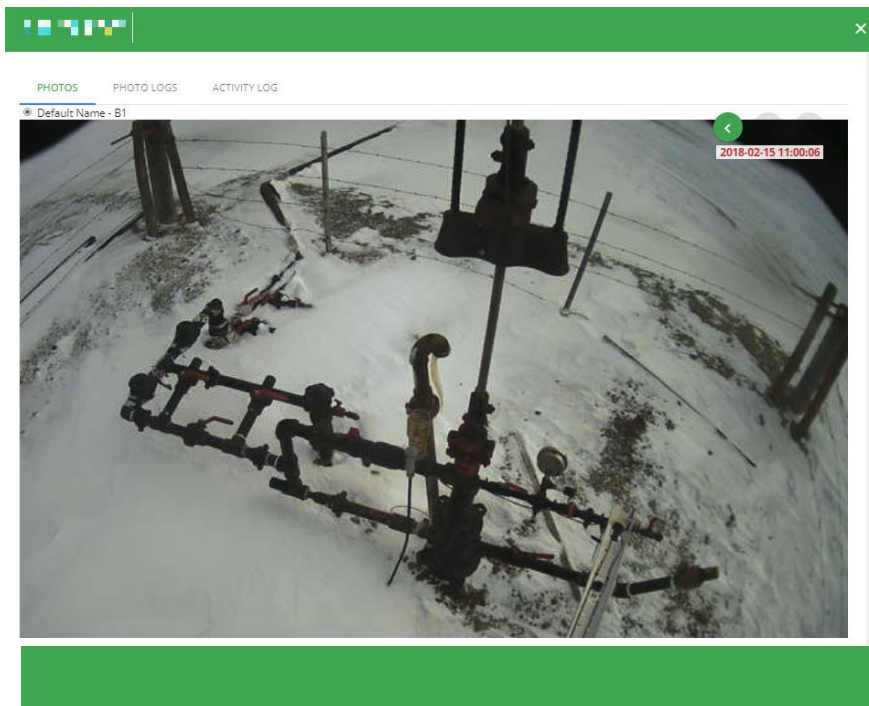
Graphs:
Selecting the well allows you to graph the information for further analysis.

Caleb Pierce ? | Sign Out

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Cameras:
Photographs of the site are easily accessed to ensure there are no environmental incidents occurring on site. (See Next Slide)

Camera Example + Activity Tracking



Producers can now visit their sites multiple times per day to ensure there are no environmental incidents.

WatchDog tracks activity as to when operators visit the camera virtually. If there was a release there's a record of visits to show to the regulator, landowner, and superiors to show due diligence and prove that the site has been being visited.

PHOTOS PHOTO LOGS **ACTIVITY LOG**

Start: End: Clear [Apply Date](#) Rolling 2 Months [APPLY ROLLING](#)

| Employee | Equipment Name | Viewed Date Time | Image Date/Time |
|----------|----------------|---------------------|---------------------|
| Nelson | 13-31 | 2018-02-15 10:07:37 | 2018-02-15 11:00:06 |
| Nelson | 13-31 | 2018-02-15 09:27:30 | 2018-02-15 08:13:05 |
| Nelson | 13-31 | 2018-02-14 12:07:56 | 2018-02-14 11:00:06 |
| Nelson | 13-31 | 2018-02-13 14:10:18 | 2018-02-13 15:00:05 |
| Nelson | 13-31 | 2018-02-12 10:27:24 | 2018-02-12 11:00:06 |
| Nelson | 13-31 | 2018-02-11 08:10:31 | 2018-02-11 08:13:05 |

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[CLOSE](#)