

Robinson Canal Preliminary Field Notes

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The largely well preserved Robinson Ditch **Prehistoric Hanging Bajada Canal** is one of the longer and more difficult of foot-only access. Very significant hanging portions are included. It also offers an exceptionally strong and deceptive "water flows uphill" illusion caused by subtle differences in canal slope compared to the actual topography slope. Somewhat centered in the entire canal system, Robinson also seems quite sophisticated in that there is a distinct **predelivery routing** phase and an "actual canal" phase. The canal was renamed by a pioneer clan.

The length of the presently **verified and surveyed** Robinson canal portion is 5.6 kilometers. The **total managed length** may end up approaching an 8.3 kilometers if a Frye Creek watershed diversion, the major predelivery routings on upper Frye Mesa and and final extensions to unverified fields are included...



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Predelivery apparently consisted of gathering water from three distinct sources, a projected but not yet proven Frye Creek watershed crossing diversion starting at **32.74387** -109.83947 and similar to a proven watershed crossing found elsewhere at **32.79151** -109.85386; an apparently major spring at **2.74530** -109.84049; and the Spring Canyon streamflow itself also found at **2.74530** -109.84049.

These gathered resources were then either routed down a natural Spring Canyon channel to eventually become **Allen Canal**, or were else casrefully routed down the entire Upper Frye Mesa length to a holding pond at **32.76008** -**109.81132**.

From this pond, the water could be apparently switched between the beginning of the main Robinson Canal also at **32.76008** -**109.81132**. Or alternately routed down the spectacular **HS Canal** at **32.75869** -**109.81423**, presumably but as yet unproven to become the **Golf Course Canal**, the **Freeman Canal**, the **Lower Frye Construct**, and possibly several others.

The somewhat tortuious predelivery routing down upper Frye Mesa includes knife edging near **32.75840** -**109.82049**, braided channels, and even some **CCC** water spreader rework. Portions near the falls parking lot remain unverified. The similar **CNF** routing remains in use today as a forest service pipeline. This is one of many examples of "steal the plans" or "borrow the blueprints" adaptation.

Elevation for the predelivery phase begins at 5600 feet with the actual canal at 4360, potentially delivering to presumed fields around 3340 and a projected total slope of 5.8 percent. This figure ends up rather high owing to the descent of two or more mesas. Ownership of the predelivery phase is mainly **Coronado National Forest**, while the rest of the actual canal routing is mostly **Arizona State lands**.

Difficult access is usually foot only, variously reachable by way of 4WD tracks out of Dailey Estates, the lower Frye Mesa road and the upper Frye Mesa road. The condition and preservation is generally good along much of the actual route.

The actual canal begins a steep hanging descent at **32.76008** -**109.81132** routing down to a Sheep Tank Canyon crossing at **32.76348** -**109.80056**. This portion remains unvisited, but is mostly obvious on **Acme Mapper**, besides being a clearly named object on topo maps.

The canal then begins a rather impressive "climb" up Robinson Mesa at **32.77461** -**109.79667** with a significant hanging portion having a very strong "water flows uphill" illusion. Typical size in this region is around a meter wide by 80 cm deep. Remnants of dead mesquite trees suggest remnant flows during historic times.

Once reaching the mesa top found at **32.77787** -**109.79580**, the canal assumes a "normal" rather than a "hanging" status. A major washout along this reach near **32.78761** -**109.79162** renders its status presently unfunctional.



The Robinson canal next steeply drops off its mesa near **32.79712** -109.79131, possibly assisted by French Drain structures. Both the Thorpe Tank that is found at **32.80128** -109.78870 and the Stowe Tank near **32.80647** -109.78561 but off the direct route suggest historic reuse, as does the conspicuously obvious and well marked topo renaming.

No obvious mid tie in to the **Golf Course canal** has yet been observed, and the intermediate terrain would appear somewhat unfavorable. At present, mid reach of the Golf Course Canal remains largely unresolved. A more direct route directly south up through Riggs Canyon would appear more probable.

No specific destination for the Robinson Canal has yet been verified. At present, the Reay Canal still needs an undetermined source, which could end up being the Robinson Canal or the Tailwater Canal derivation of the Golf Course Canal. Some text callouts on Acme Mapper topos strongly suggest a possible linkup.



Here are some noteworthy Robinson Canal features and locations...

32.74339 -109.83972	Unproven location of Frye Creek watershed diversion.
32.74519 -109.84080	The spring in Spring Canyon is believed to have been quite large in prehistoric times.
32.74530 -109.84049	Water switched here between Allen and Robinson.
32.74730 -109.83892	A "pinch point" here would appear to set routing.
32.74881 -109.83883	Presumed yet unproven "climb" up Frye Mesa.
32.75102 -109.83770	Mesa route suggested by Acme Mapper CCC cross dam rework appears present.
32.75363 -109.83698	CCC water diversion appears to overlay the canal.
32.75514 -109.83553	Believed crossing of the Frye Creek Road
32.75686 -109.83479	Present destination of CNF pipeline rework.
32.75775 -109.82745	Braided channels include CCC rework.
32.75790 -109.82319	Exceedingly narrow "Pinch Point" on mesa edge seems to set the only feasable graded route.
32.75955 -109.81628	More braided channels include CCC rework.
32.75955 -109.81628 32.76010 -109.81128	More braided channels include CCC rework. End of Predelivery. Start of actual Robinson Canal. Water switched between Robinson and HS canals.
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32.76010 -109.81128 32.75907 -109.81345 32.75997 -109.81108 32.75979 -109.80755	End of Predelivery. Start of actual Robinson Canal. Water switched between Robinson and HS canals. Superbly engineered HS canal returns creek water. Start of actual Robinson canal. Steep descent off Frye Mesa.
32.76010 -109.81128 32.75907 -109.81345 32.75997 -109.81108 32.75979 -109.80755 32.76385 -109.80060	End of Predelivery. Start of actual Robinson Canal. Water switched between Robinson and HS canals. Superbly engineered HS canal returns creek water. Start of actual Robinson canal. Steep descent off Frye Mesa. Sheep tank canyon crossing.
32.76010 -109.81128 32.75907 -109.81345 32.75997 -109.81108 32.75979 -109.80755 32.76385 -109.80060 32.77421 -109.79653	End of Predelivery. Start of actual Robinson Canal. Water switched between Robinson and HS canals. Superbly engineered HS canal returns creek water. Start of actual Robinson canal. Steep descent off Frye Mesa. Sheep tank canyon crossing. Significant "water flows uphill" illusion
32.76010 -109.81128 32.75907 -109.81345 32.75997 -109.81108 32.75979 -109.80755 32.76385 -109.80060 32.77421 -109.79653 32.77684 -109.79653	End of Predelivery. Start of actual Robinson Canal. Water switched between Robinson and HS canals. Superbly engineered HS canal returns creek water. Start of actual Robinson canal. Steep descent off Frye Mesa. Sheep tank canyon crossing. Significant "water flows uphill" illusion Dead Mesquite Trees suggest historical reuse.
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Further Robinson Canal work might include...

- **1** Prove or disprove the Frye Creek watershed crossing canal.
- 2 If watershed crossing does not exist, determine alternate explanation for the extreme HS Canal energy commitment.
- **3** Determine exact switching point between Allen and Robinson.
- 4 Resolve initial climb to mesa top. Map the top route itself.
- **5** Improve mapping west of road.
- **6** Map the exact CNF water pipe route and record its history.
- 7 Map the braidings and the knife edge pinch point.
- 8 Improve photography of entire canal, especially mesa dropoffs.
- **9** Further study Sheep Tank Canyon crossing area.
- **10** Determine significance of dead mesquite trees adjacent to canal.
- 11 Study relationship between Thorp Tank, Stowe tank and the canal.
- 12 Resolve destination with Reay Canal source.
- **13** Do fly over drone and videotape survey.
- 14 Mentor students and create field camps.





ROB1 – The Robinson Canal begins its "climb" up Robinson Mesa with Deadman Peak in the background. The view is to the south from **32.77604** -**109.79688**.



ROB2 – There is a strong illusion of "water flows uphill" where the downward slope of the canal exceeds the rate of fall of the local terrain. The view is to the north near **32.77604** -**109.79688**.

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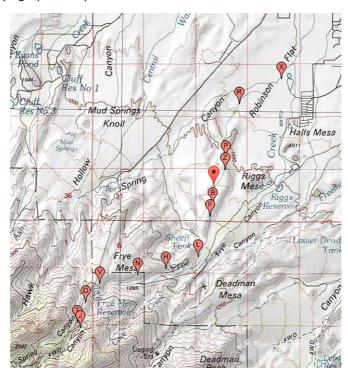
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ROB3 – The Robinson Canal assumes a more level stance once it reaches the mesa top. Numerous adjacent and dead mesquite trees appear to suggest water flow during historic times. The view is to the north near **32.77730** -**109.79597**



Here is a topographic map of the Robinson Canal...



You can click through on the above images to directly reach **Acme Mapper** at a higher resolution.

A hanging canal directory can be found here and its sourcecode here.

This field note is associated with directory **#37. RBC1** - **Robinson Ranch Canal** and with **#35. GCC1** - **Golf Course Canal** and with **#80. REY1** - **Reay Canal**.

This document can be found here and its sourcecode here.

More Hanging Canal Resources: http://www.tinaja.com/tinsamp1.shtml New Hanging Canal Developments: http://www.tinaja.com/whtnu17.shtml



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