AN ARCGIS PROJECT FOR A SMALL MINE IN FINAL RECLAMATION

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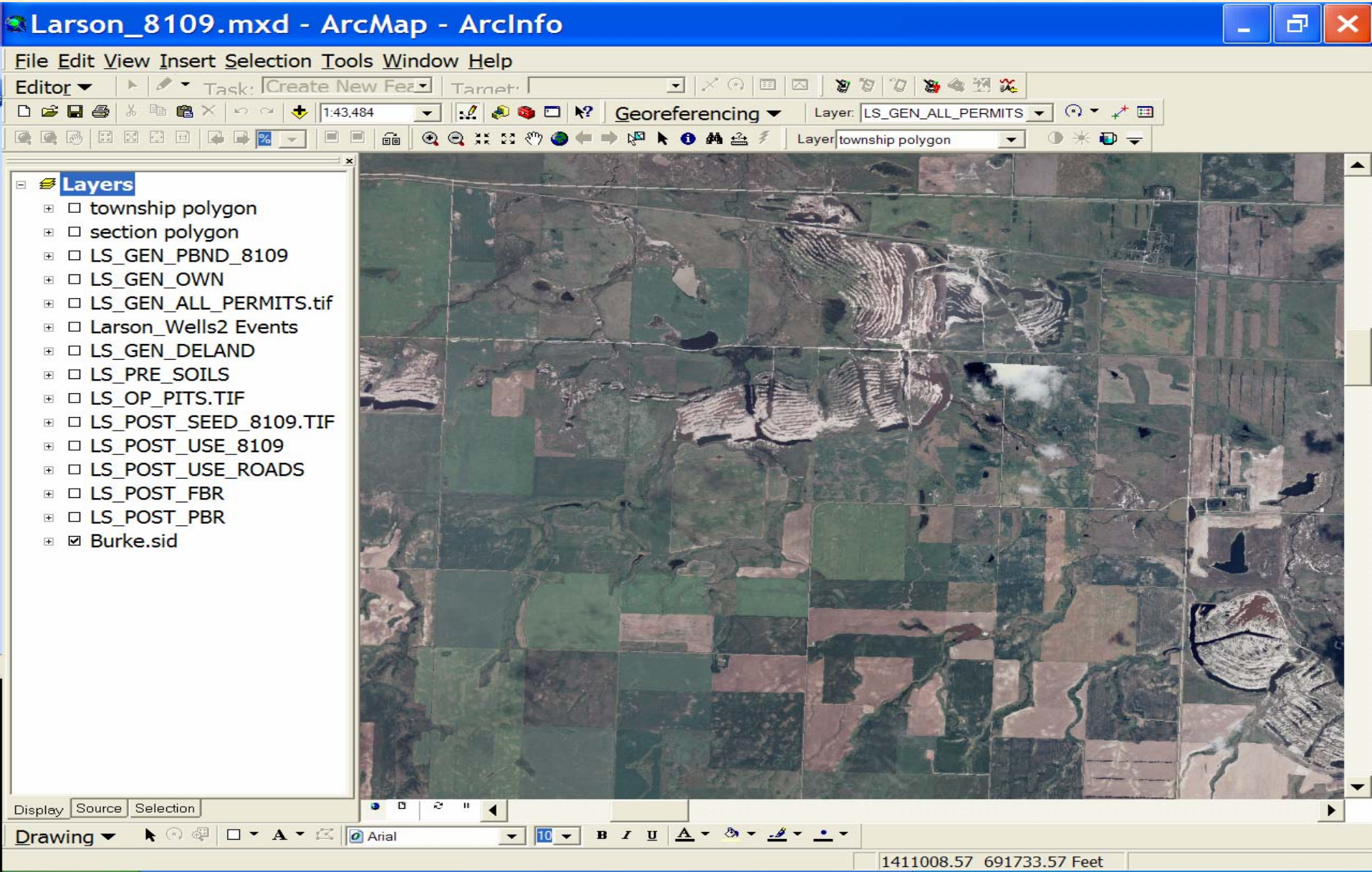
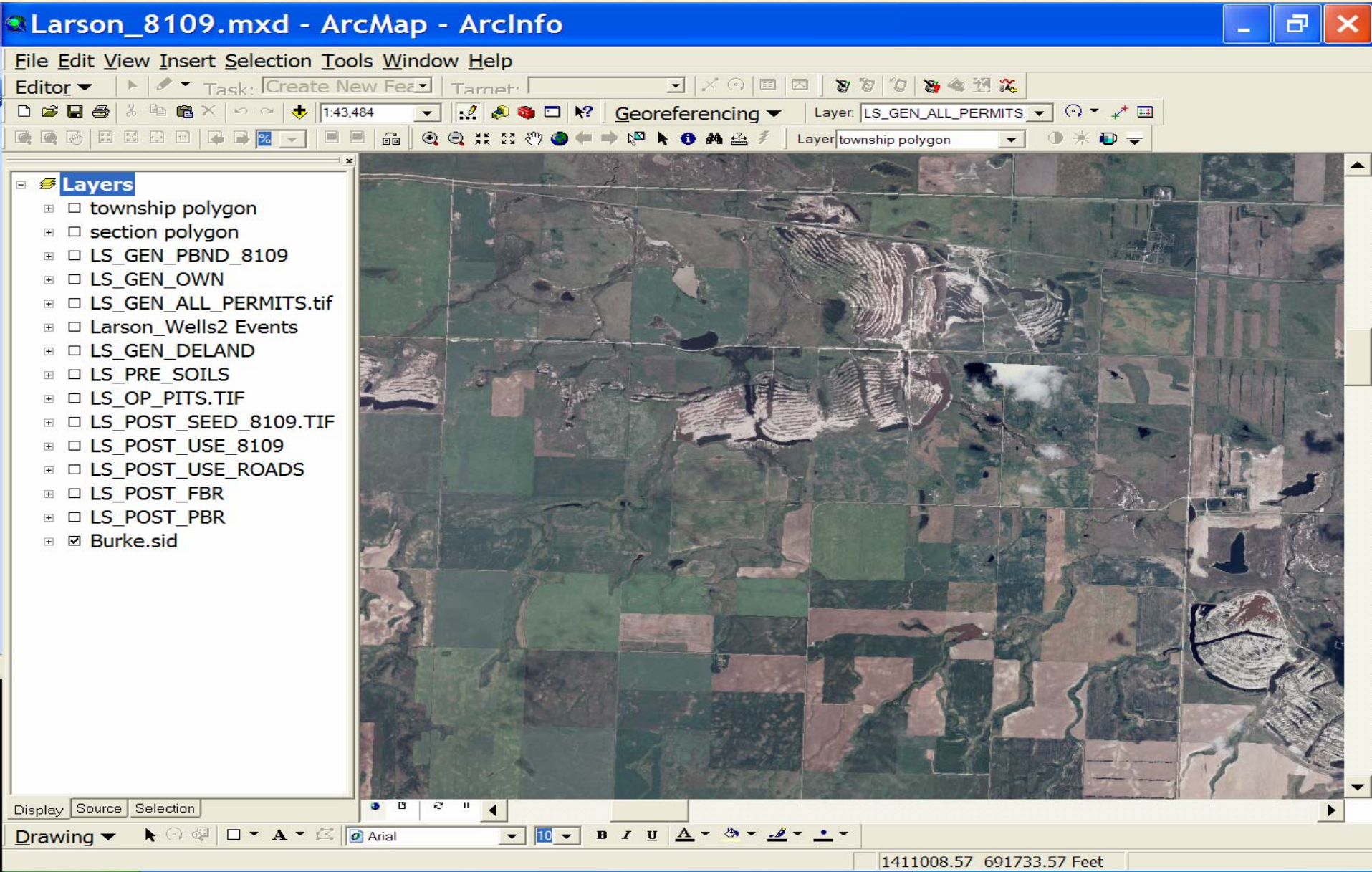
Assumptions:

- 1. Easy since no active areas
- 2. Data readily available
- 3. Data easy to manage

Larson Mine Air Photo



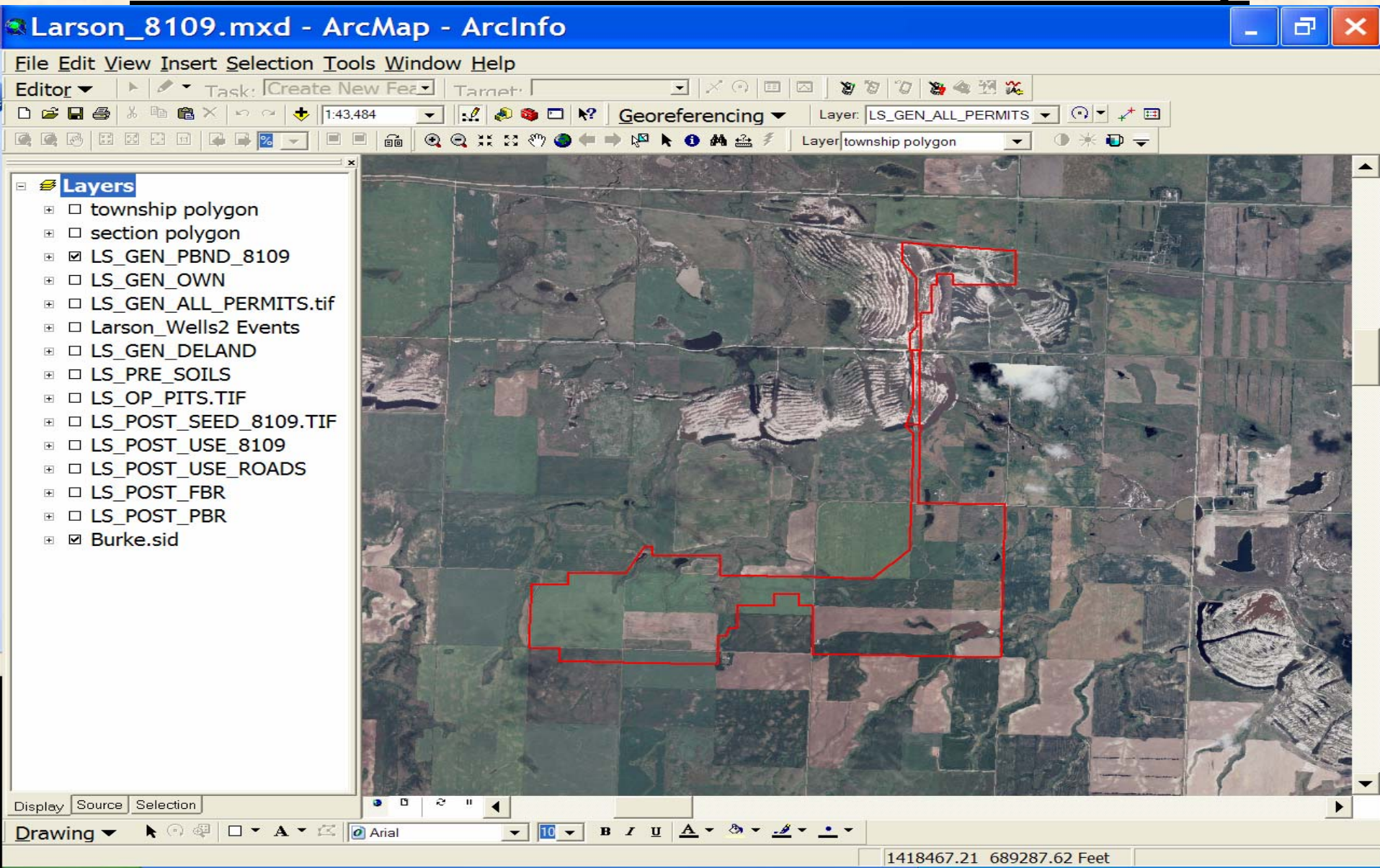
Larson Mine Air Photo



Problems

- Permit boundary doesn’t match the air photo due to different coordinate system used by the mine (they couldn’t get the real ones to work)

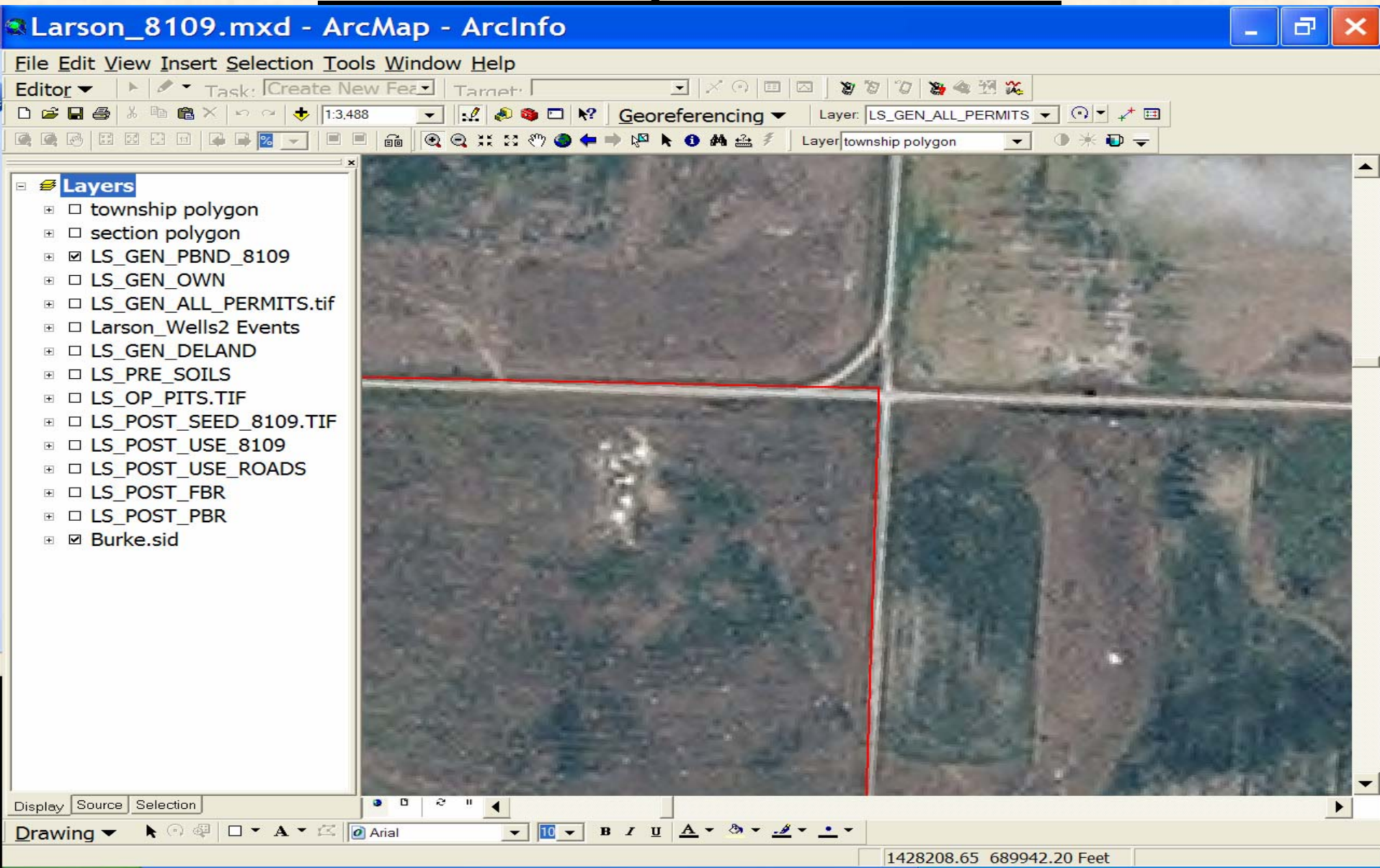
Larson Mine Permit Boundary



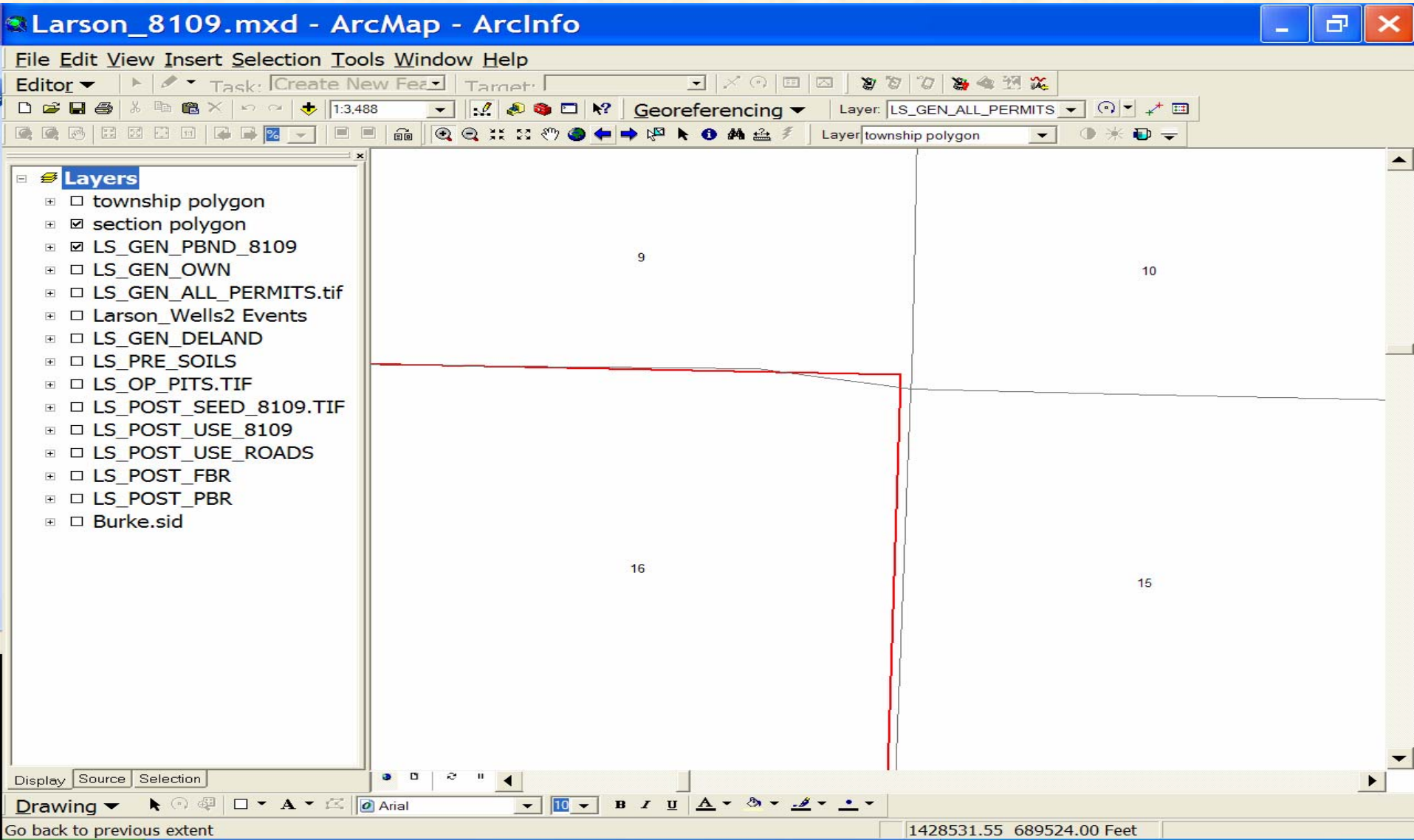
Problems

- Permit boundary doesn’t match the air photo due to different coordinate system used by the mine (they couldn’t get the real ones to work)
- Engineers like square sections but DOT doesn’t agree

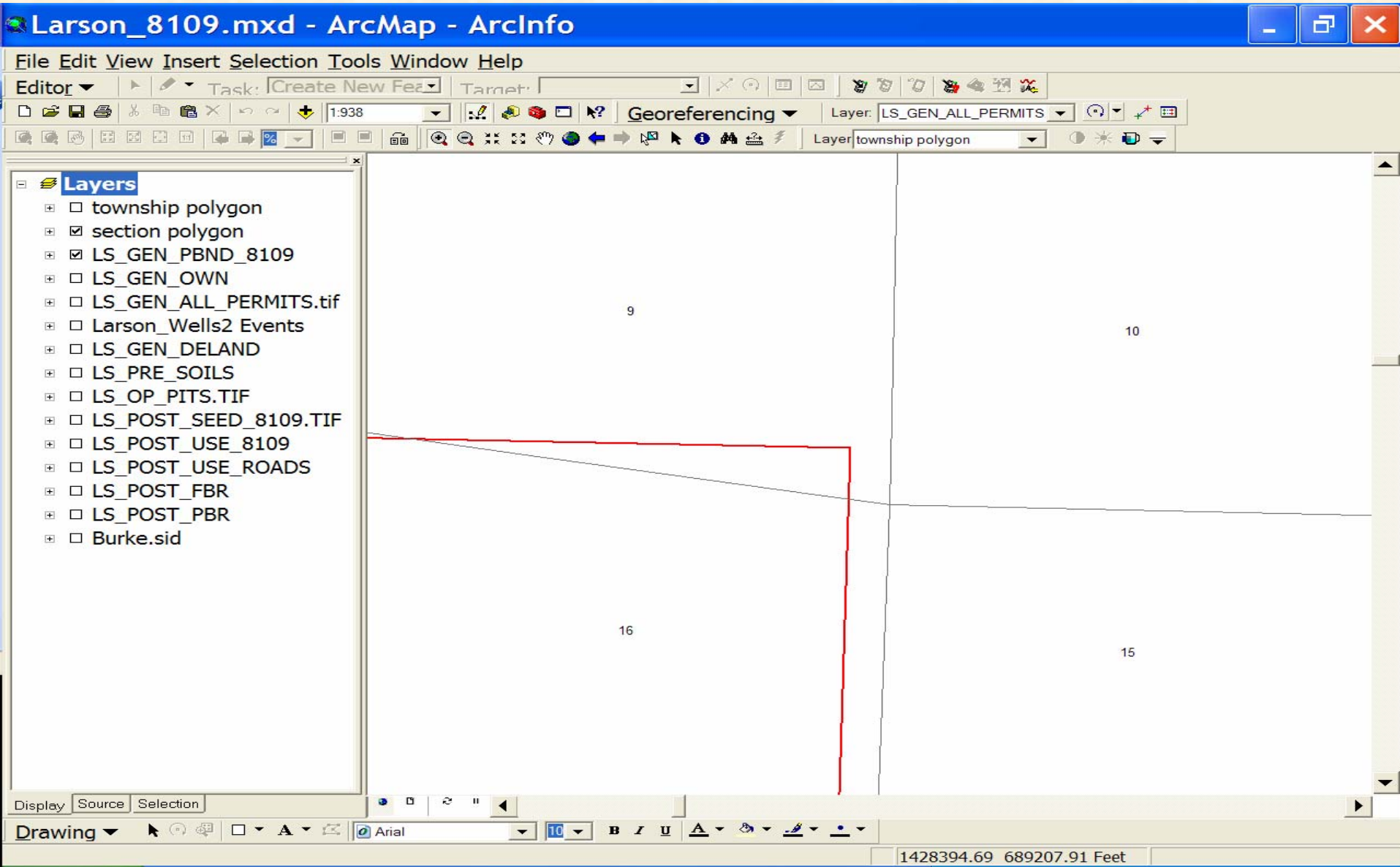
Boundary Problems



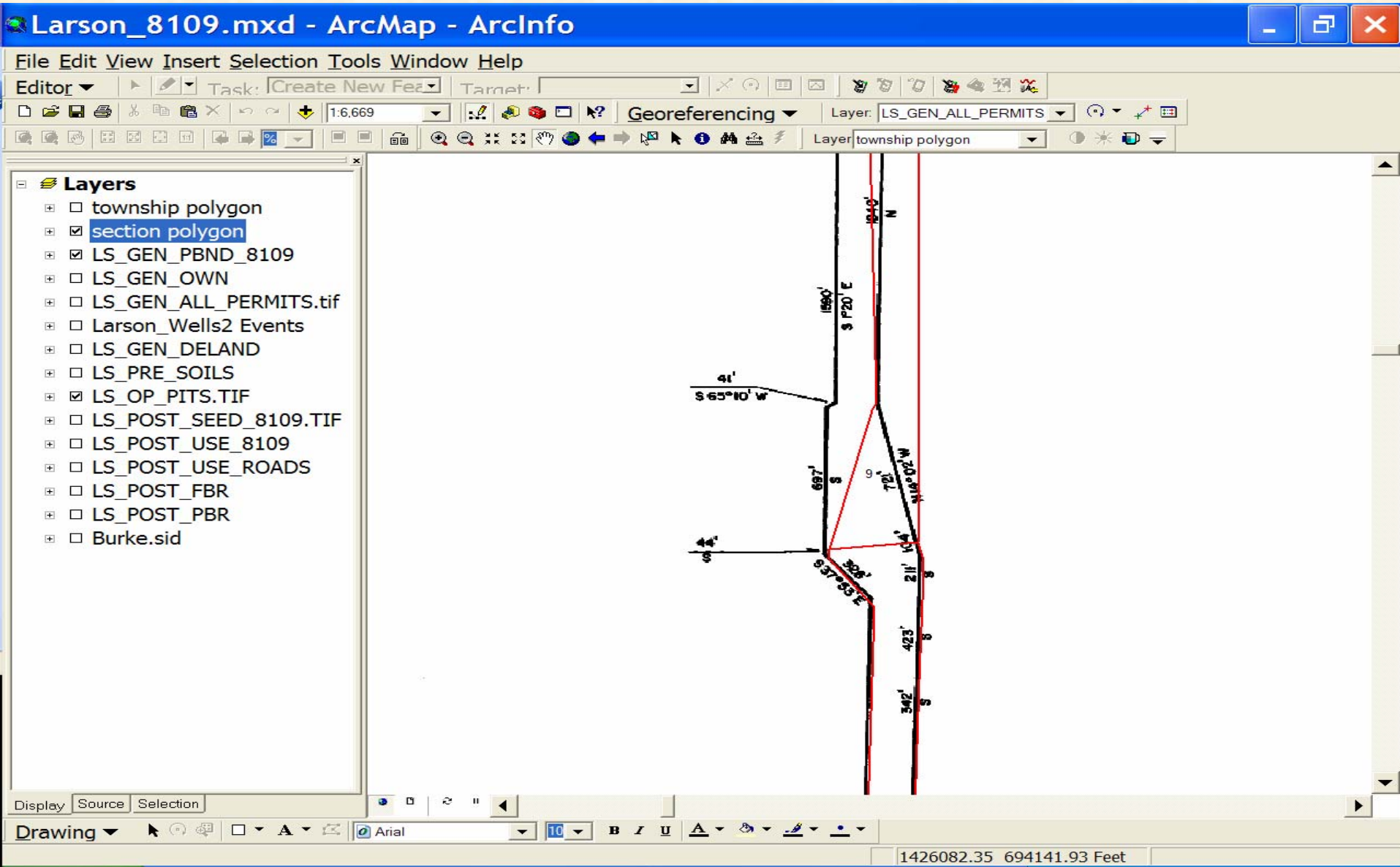
Boundary Problems (cont.)



Boundary Problems (cont.)



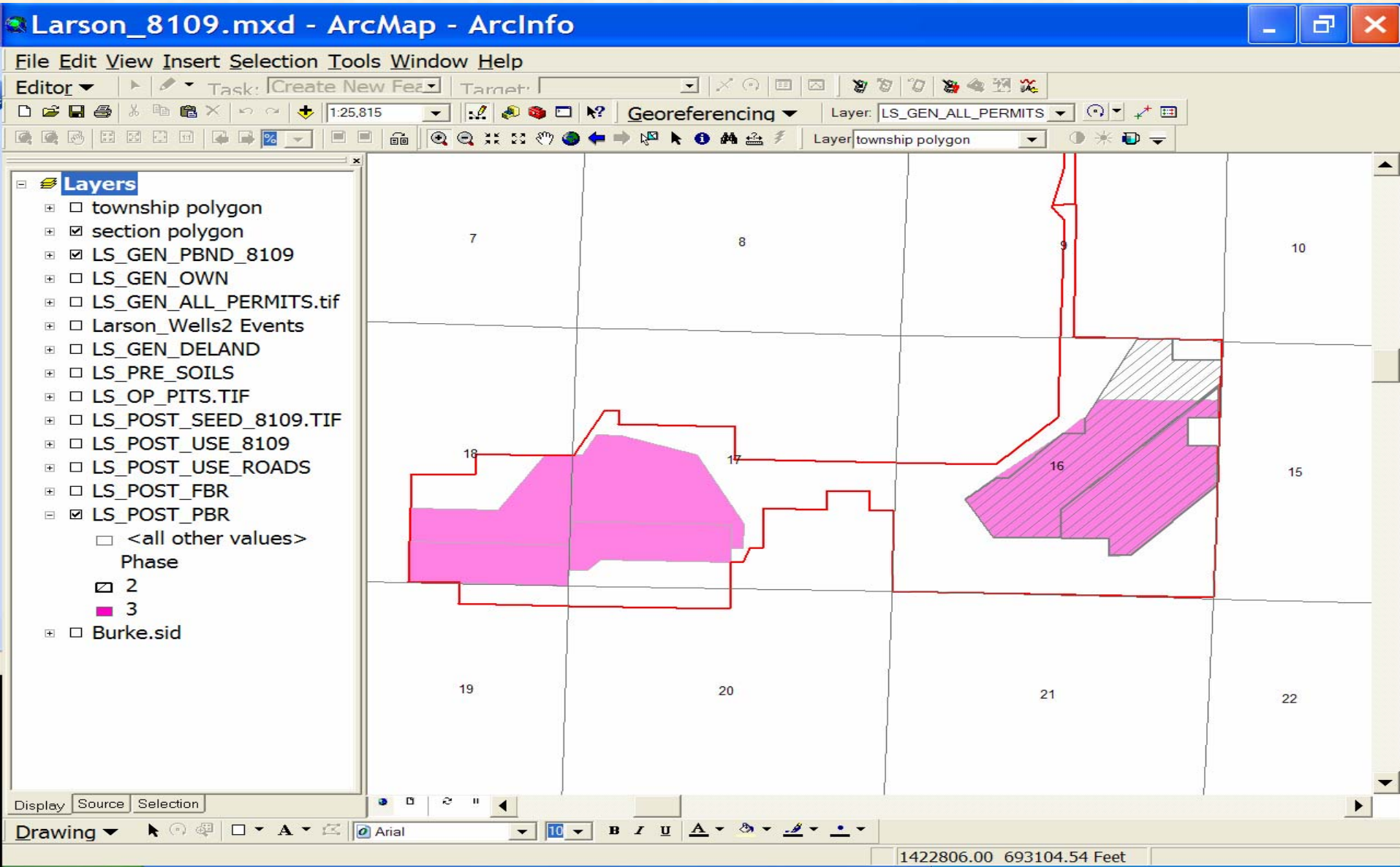
Permit Boundary Problems



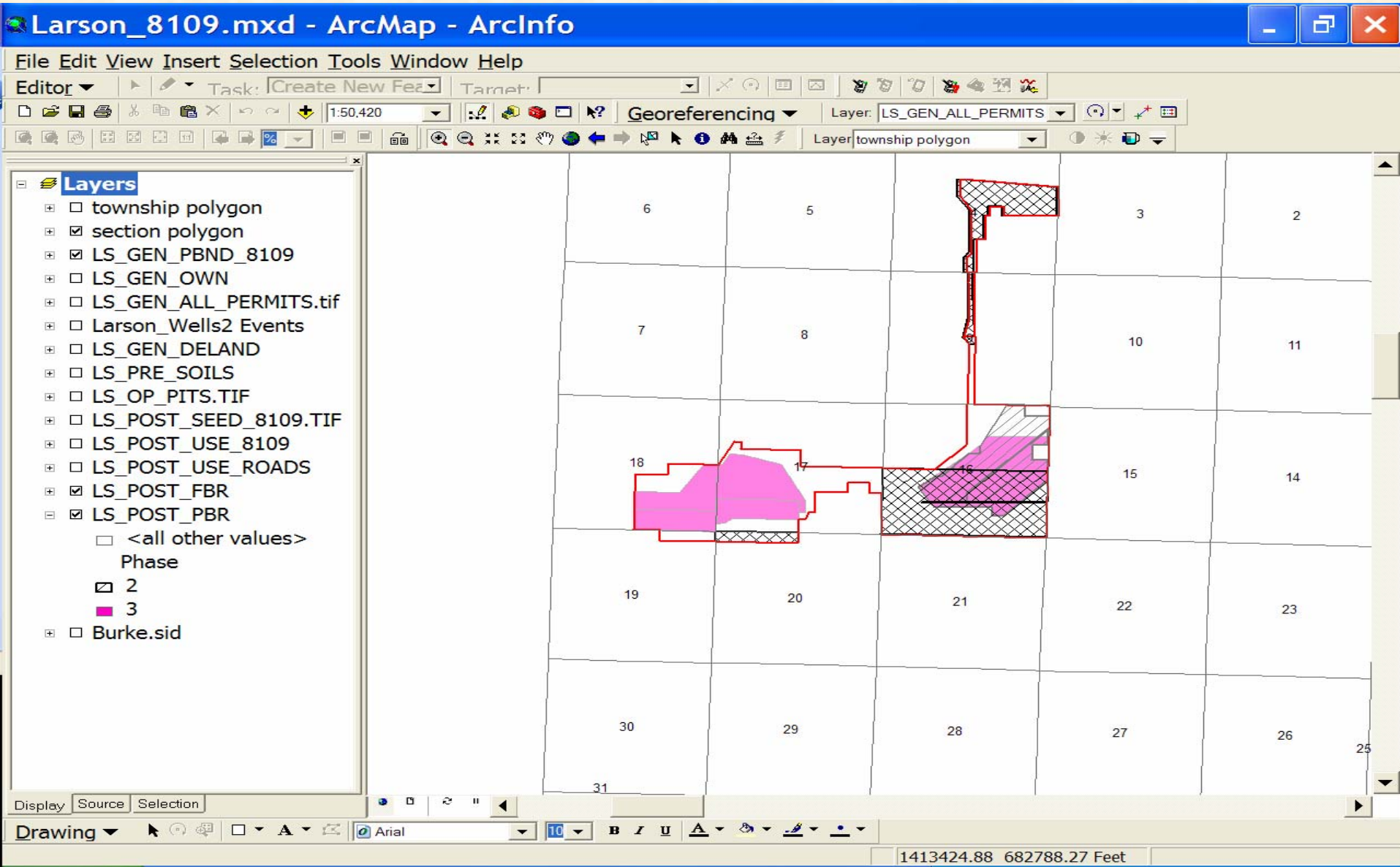
Problems

- Permit boundary doesn’t match the air photo due to “bogus” coordinate system used by the mine (they couldn’t get the real ones to work)
- Engineers like square sections but DOT doesn’t agree
- Varying stages of bond release and not always the same area

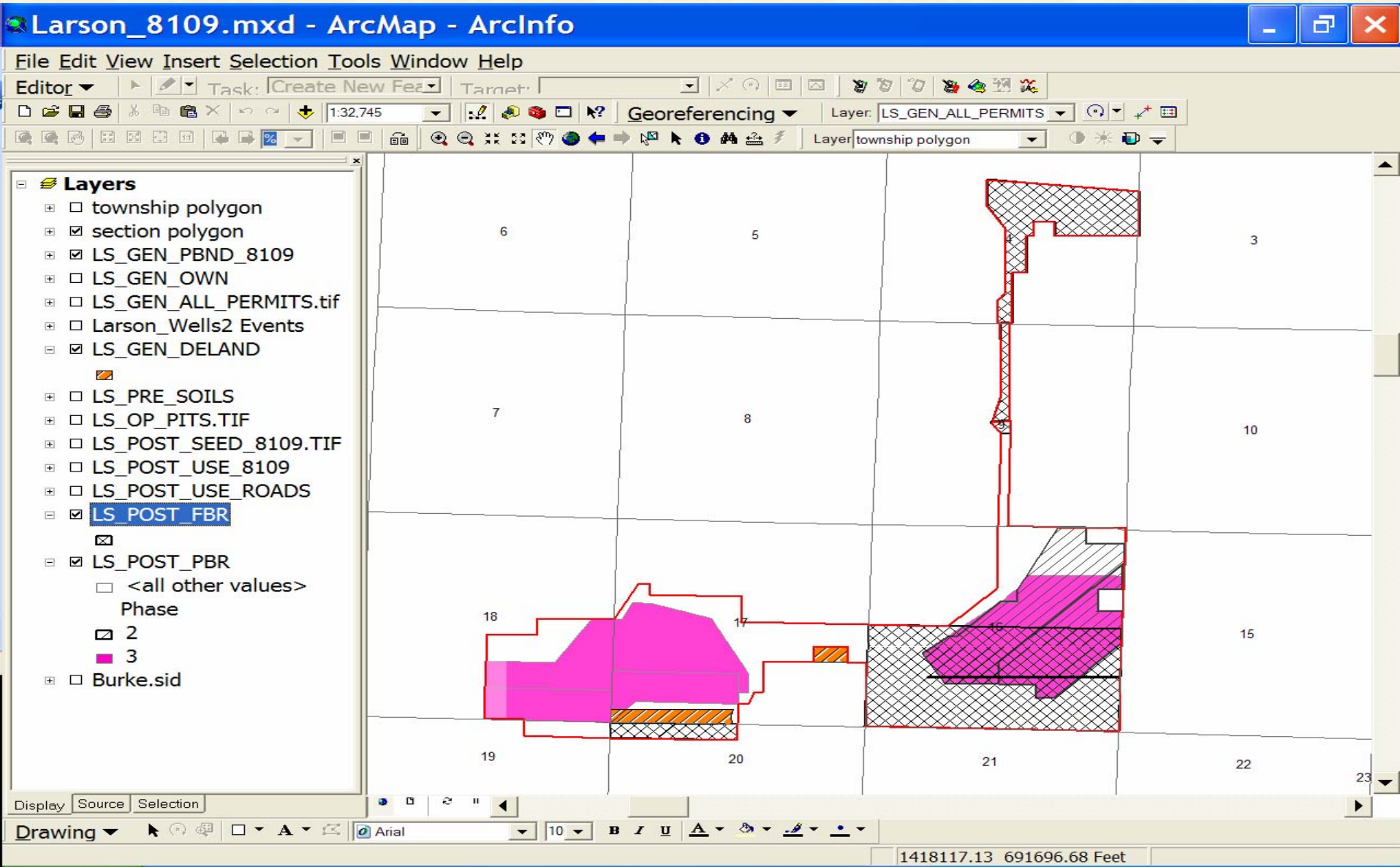
Partial Bond Releases



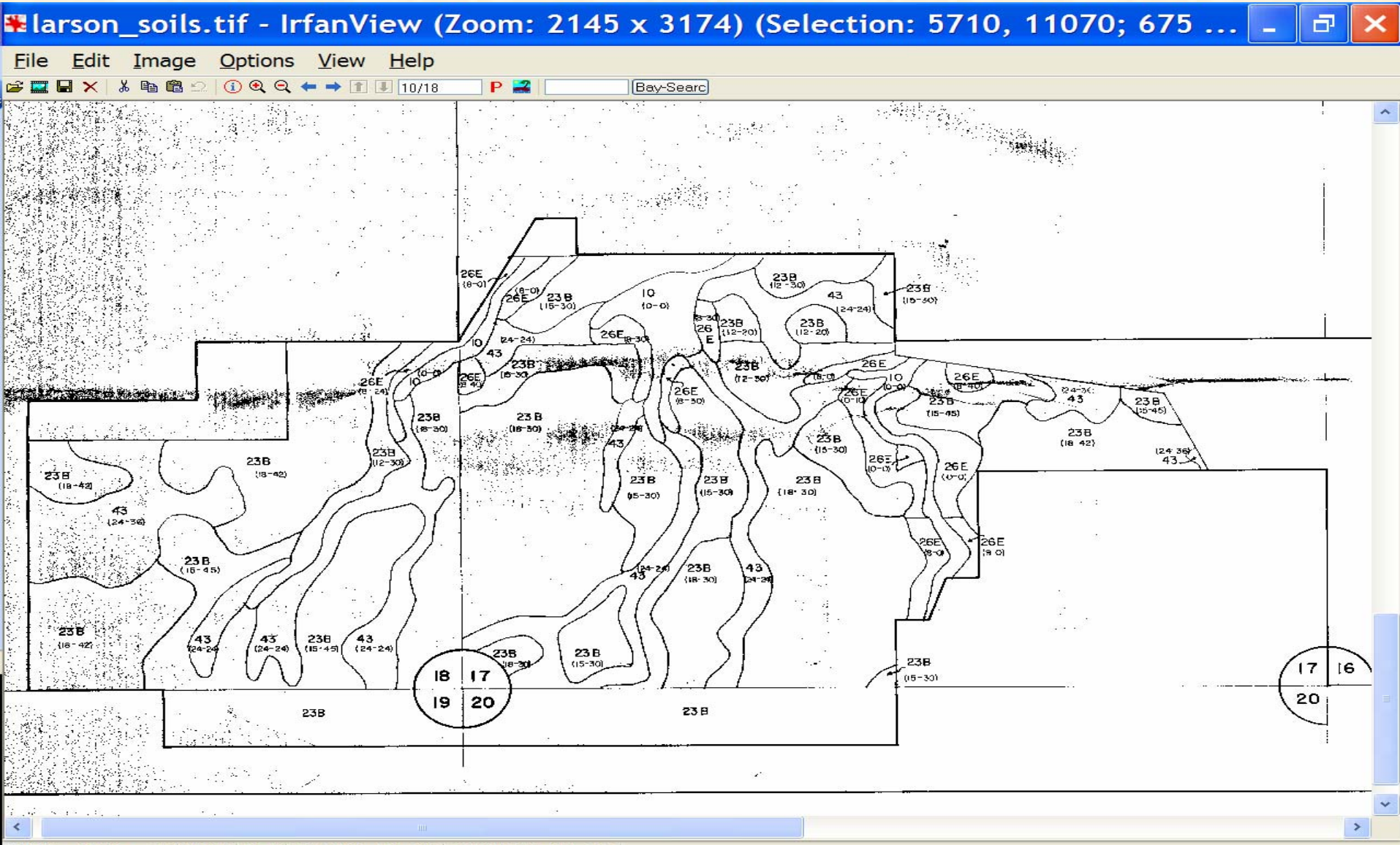
Add Final Bond Releases



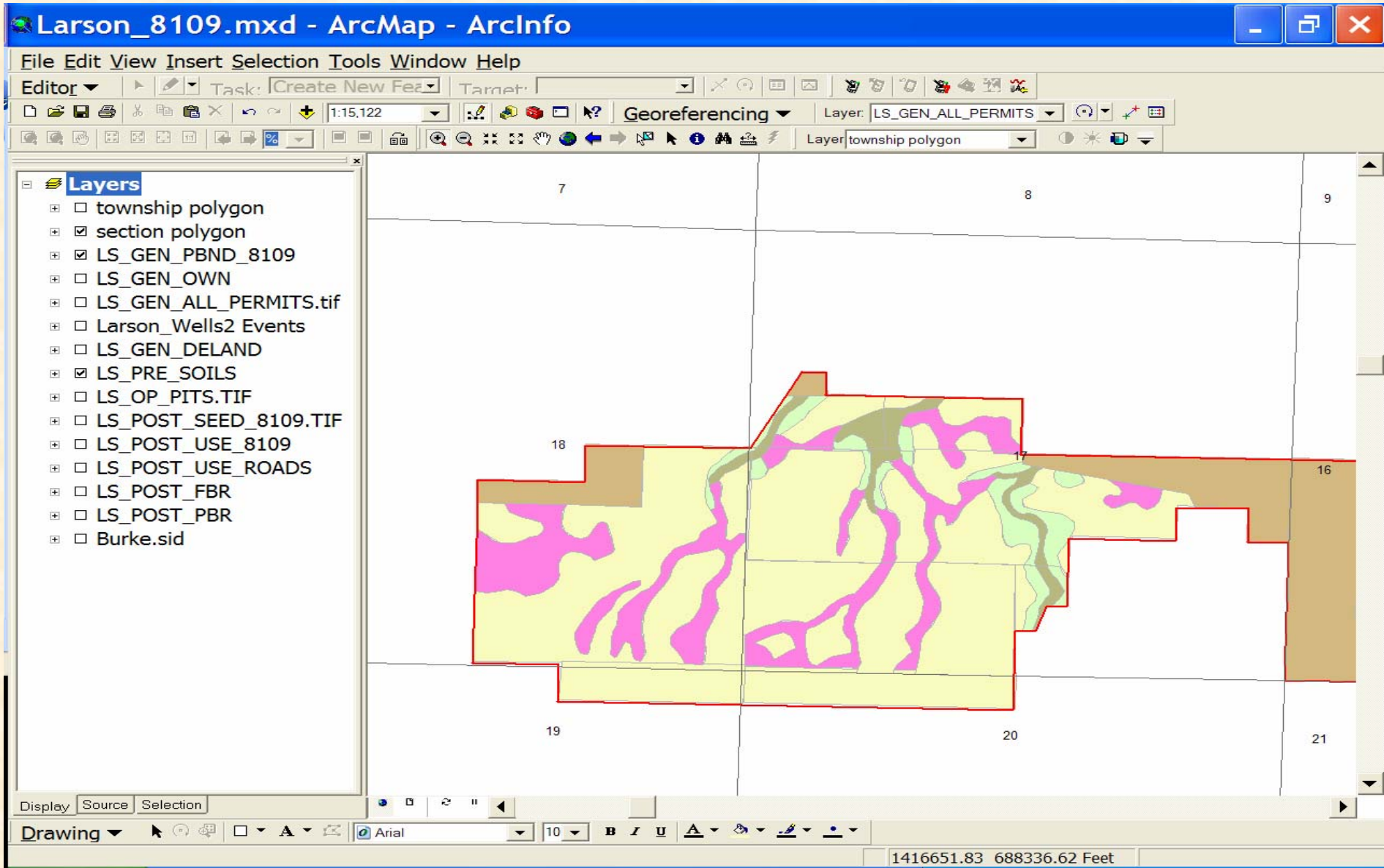
Plus Deleted Areas



Permit Soils Map



Premine Soils



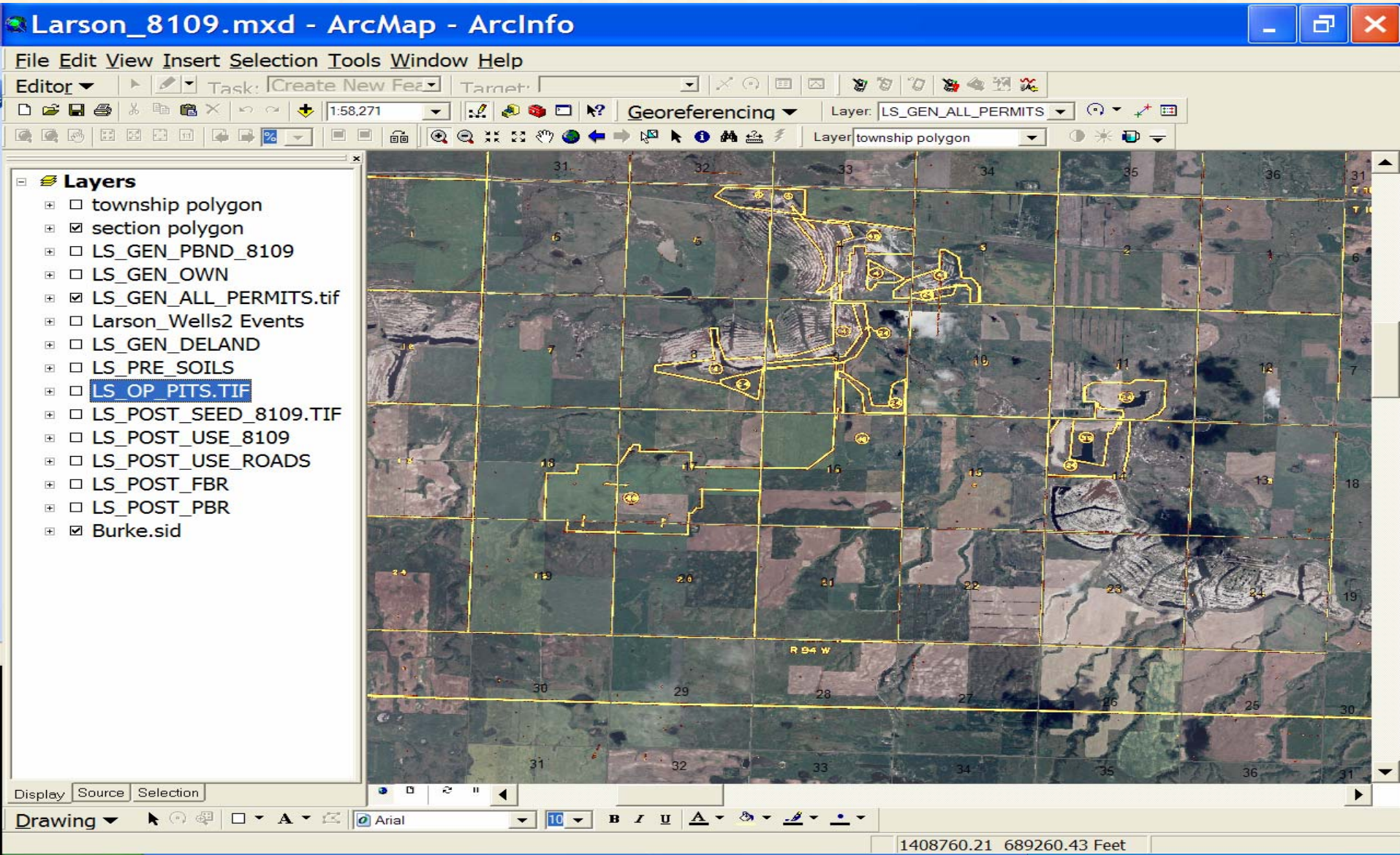
Area Calculations

Attributes of LS_POST_FBR

Fed Coal	Acres	Est Acres	Landuse	Effective	Aprvl Date	Year	Phase	Rec Law
no	12.55	11.99	road	10/27/2000	September 27, 2000	2000	4	1969
no	101.72	105.15	industrial, pond	10/27/2000	September 27, 2000	2000	4	1969
no	2.36	2.37	hayland, road	2/14/2003	January 15, 2003	2003	4	1969
no	26.24	24.39	cropland, co. road	2/14/2003	January 15, 2003	2003	4	1979
no	319.39	318.08	cropland, road, undist	2/14/2005	January 12, 2005	2005	4	1979
no	0.65	1.82	shelterbelt	2/14/2005	January 12, 2005	2005	4	1979

Record: 0 Show: All Selected Records (0 out of 6 Selected.) Options

Excellent Features (Old Permits)



SUMMARY

- GIS is a tool that is only as good as the inputted materials
- Some “give and take” must be used in using some of the data
- Excellent tool for retaining historical information that might otherwise be lost