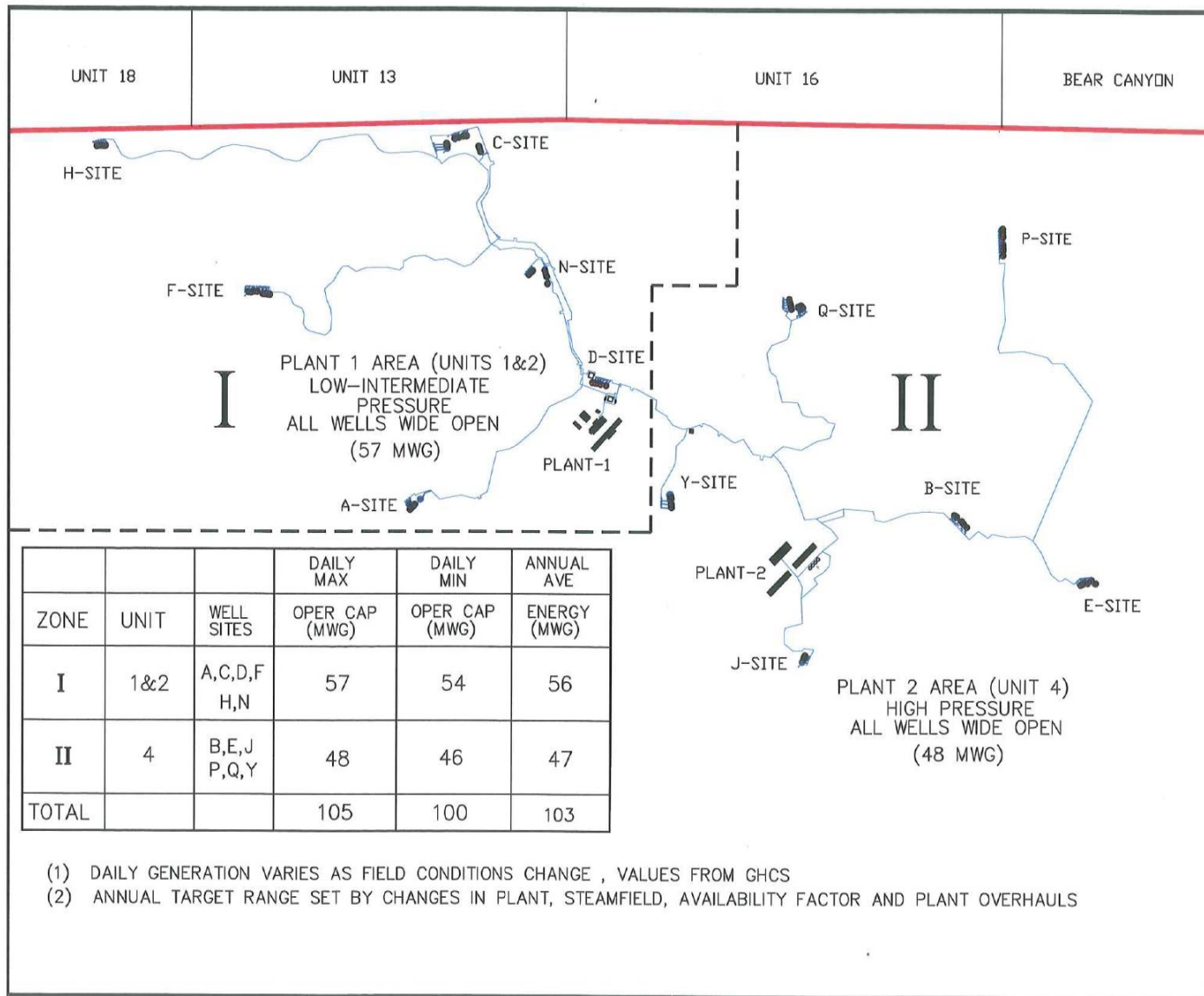


Geothermal Steam Field - Well Status



Figure 5. GEOTHERMAL OPERATIONAL PLAN 2016



P-Site Well Pad

Flow – 210 kph of steam
~ 27% of flowrate to Plant #2
Net Generation ~ 11 MW

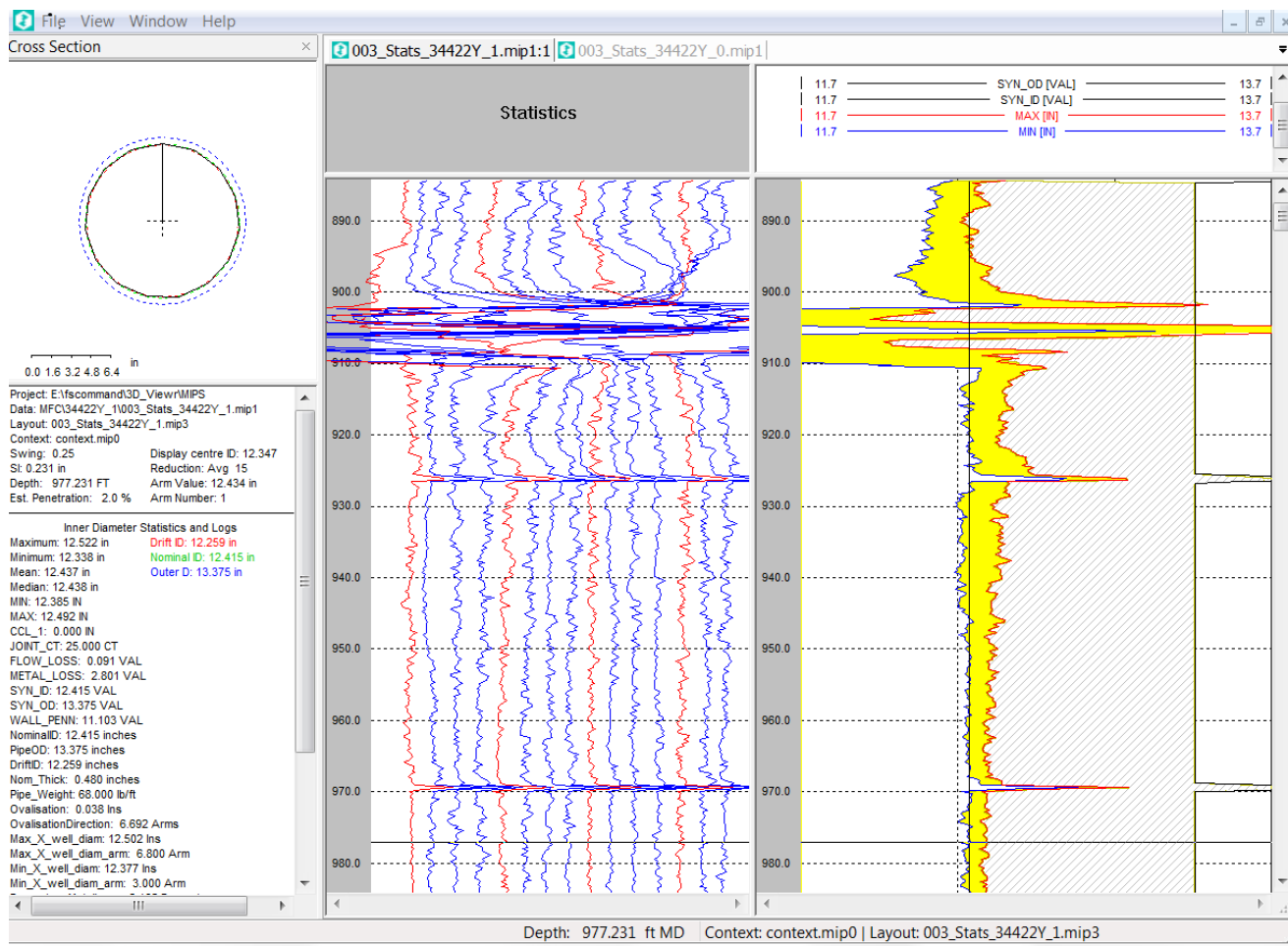


Google Earth

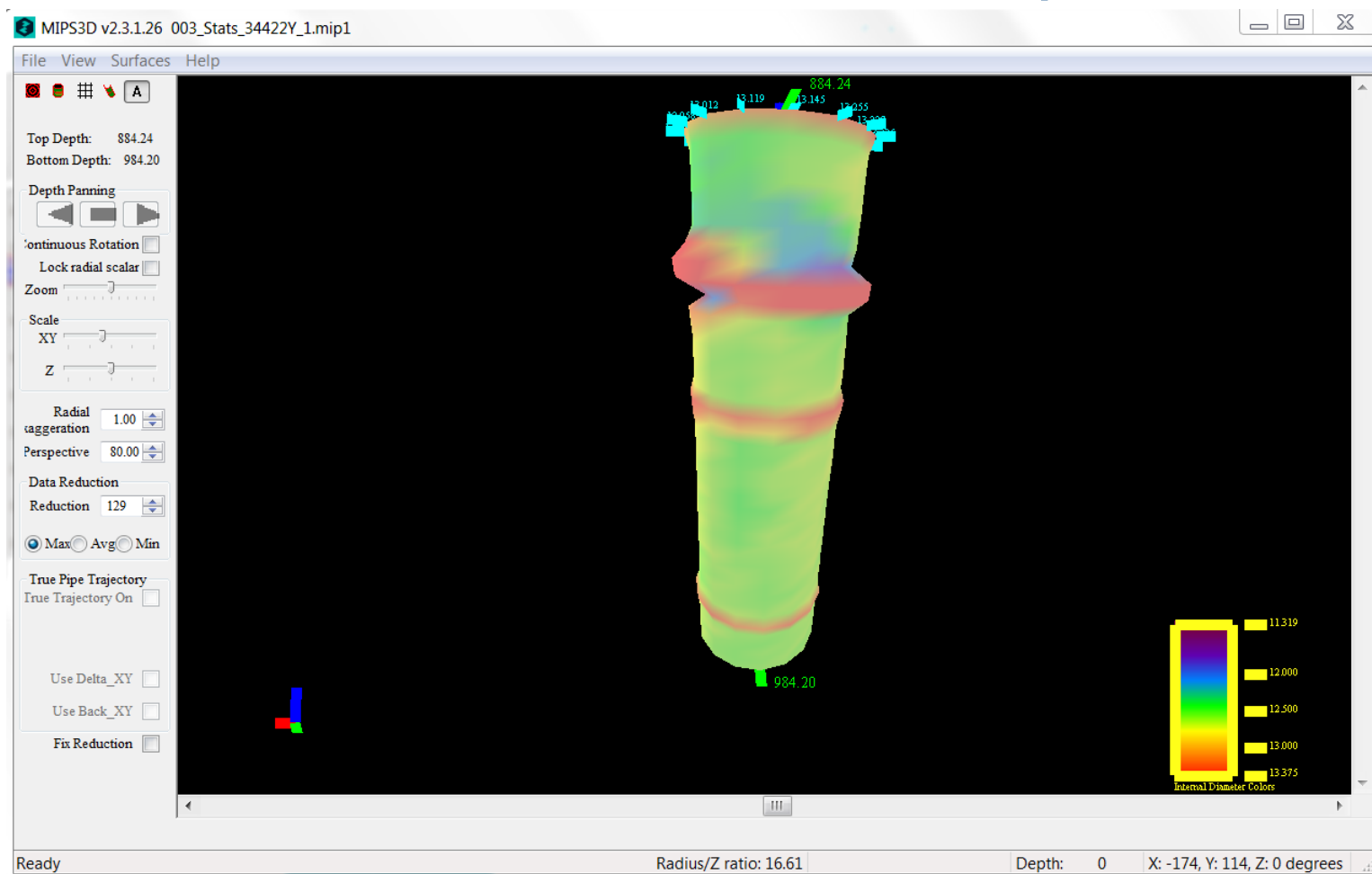
Kinley Casing Caliper Tool



Production Well P- 4, June 2016 Deformation is consistent with every well logged on P-Site



Production Well P-4, June 2016 3D Rendition of the same deformation as the previous slide



P-Site Well Pad



Slope moving downhill

Casing Damage/Repair

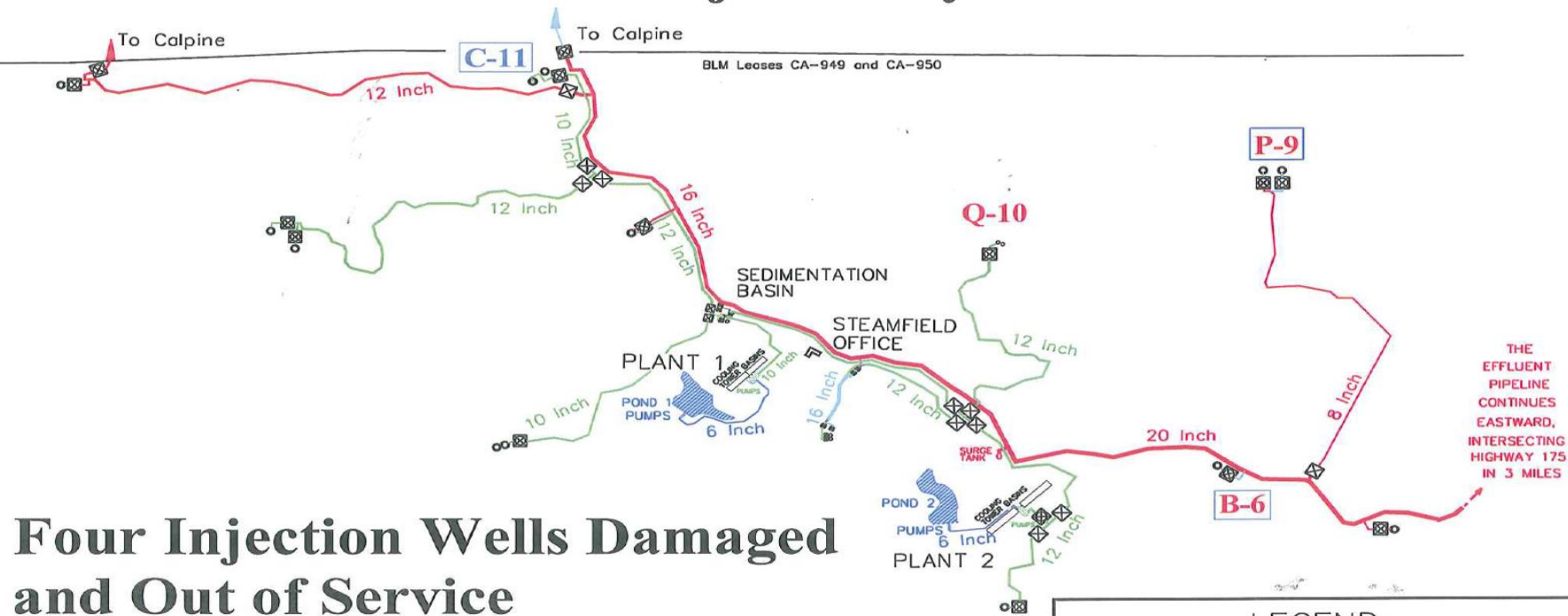
- **Well Workovers are problematic.**
 - Greater the damage, less probability of success
- **Repair methods**
 - Swedge or mill casing, then line with new casing
 - Set cement plug, sidetrack and re-drill
- **Workover costs range \$2 to \$6 million**

Injection System

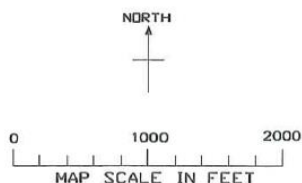


2014 – 13 Injection Wells
2016 – 10 Injection Wells

NCPA Injection System



Four Injection Wells Damaged and Out of Service



LEGEND

Collection/Pipeline Systems

- Rain Water Collection/Pipeline System
- Condensate Pipeline System
- SE Geysers Effluent Pipeline System

F-1 Injection Well	X Control Valve (CV)
P-9 Effluent Injection Well	+ Block Valve (BV)

Maintenance Reserves

Reserve Activity	Beginning Balance	FY 2018	FY 2019
Unit 1 Overhaul			(\$1,300,000)
Unit 2 Overhaul			(\$1,600,000)
Well Workovers	\$3,982,719		(\$3,100,000)
Projected Requirement			(\$6,000,000)
Annual Funding Requirement			\$2,100,000
Balance	\$6,232,719	\$6,232,719	\$2,332,719

Summary

- **P-Site – Ongoing well deformation ~ 1000 ft.**
- **Plan to monitor the wells and develop plans to repair if flow becomes inhibited.**
- **Injection System – Four wells are out of service since 2014.**
 - **Workover existing well, \$2 to \$6 million**
 - **Drill new “SLR” well, \$1 to \$2 million**
- **Maintenance Reserve - \$6.2 million to cover drilling and overhauls in FY2019**