

Abnormal Operating Conditions Process Flow

- Abnormal Operating Condition Acknowledged by Pipeline Controller**
- I. Unintended closure of valve or unintended shutdown
This will cause a pressure increase upstream of the closed valve or pump/compressor in shutdown state and an immediate reduction in system flow rate
Reference "Unintended valve closure" process flow chart
 - II. Increase or decrease in pressure or flow rate outside of normal operating limits
An abnormal change in flow rate or pressure that can not readily be attributed to a planned system throughput change such as a change in receipt or delivery rate.
An unplanned event that involves an increase or decrease in pressure that exceeds High High pressure alarm settings or Low Low pressure alarm settings.
An event that involves an increase in flow rate that exceeds meter capacity.
Reference "Increase or Decrease in Pressure or Flow Rate Outside of Normal Operating Limits" process flow chart
 - III. Loss of SCADA communications
Communication loss that has the potential to cause an unsafe condition
Reference "Loss of communications" process flow chart
 - IV. Operation of any safety device such as the following
FSH Shutdown
PSL Shutdown
Pressure Safety Valve activation
LSH Shutdown
LSL Shutdown
Gas Detector Shutdown
Fire Detector (flame, heat, or smoke) Shutdown
Fusible Plug Shutdown
ESD Loop
Reference "Operation of any Safety Device" process flow chart
 - V. Any other foreseeable malfunction of a component, deviation from normal operation or personnel error, which may result in a hazard to persons or property
Reference this general "Abnormal Operating Condition" process flow chart

Respond, investigate and control condition by securing or restoring to normal. Dispatch Field Personnel as needed.
Document action taken.

Notify CSC Team Leader and Field Team Leader.

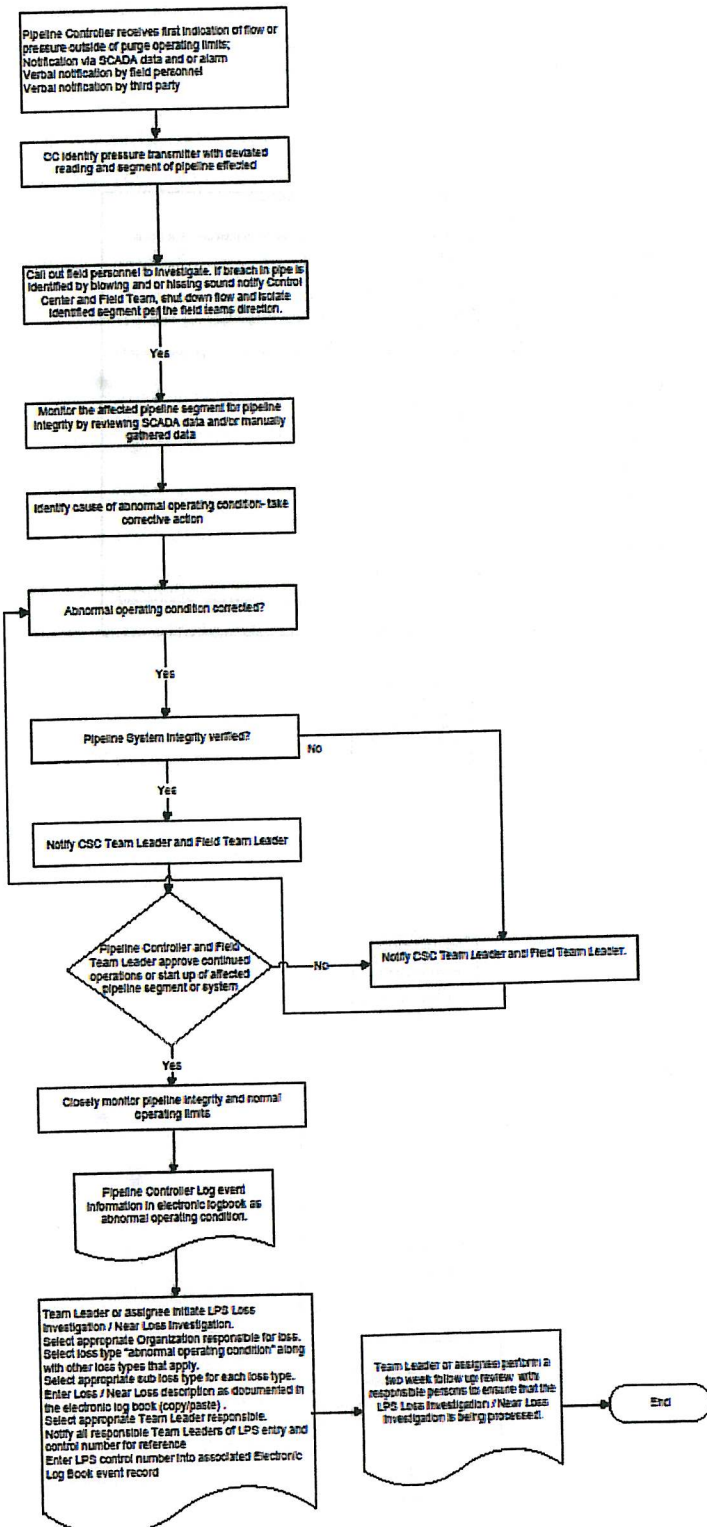
Pipeline Controller Document order of events in electronic logbook, identify event as an AOC - "abnormal operating condition".

Team Leader or assignee initiate LPS Loss Investigation / Near Loss Investigation. Select appropriate Organization responsible for loss. Select loss type "abnormal operating condition" along with other loss types that apply. Select appropriate sub loss type for each loss type. Enter Loss / Near Loss description as documented in the electronic log book (copy/paste). Select appropriate Team Leader responsible. Notify all responsible Team Leaders of LPS entry and control number for reference. Enter LPS control number into associated Electronic Log Book event record.

Team Leader or assignee perform a two week follow up review with responsible persons to ensure that the LPS Loss Investigation / Near Loss Investigation is being processed.

End

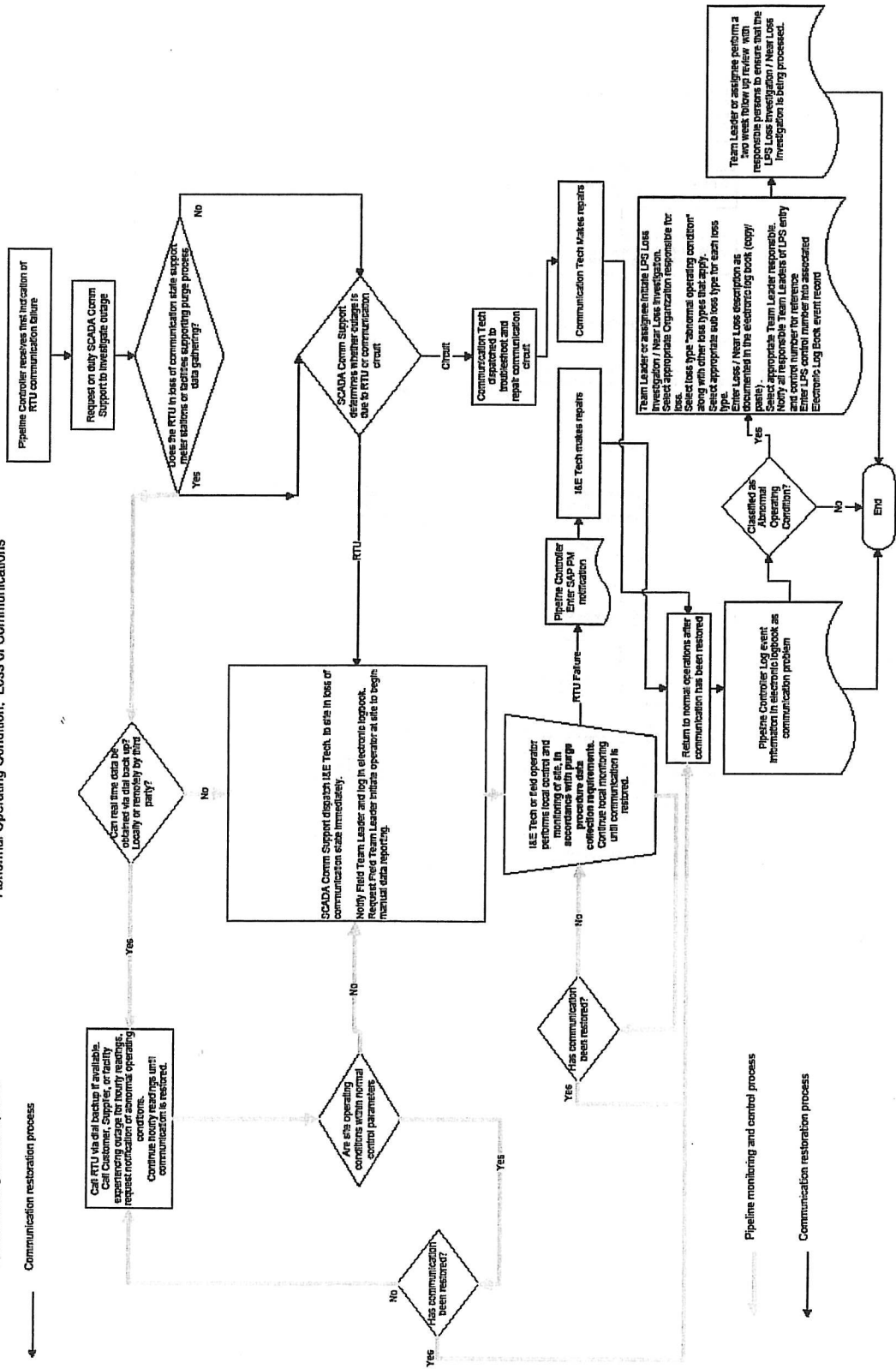
Abnormal Operating Condition: Increase or Decrease in Pressure or Flow Rate Outside of Normal Operating Limits



Abnormal Operating Condition: Loss of Communications

Pipeline monitoring and control process

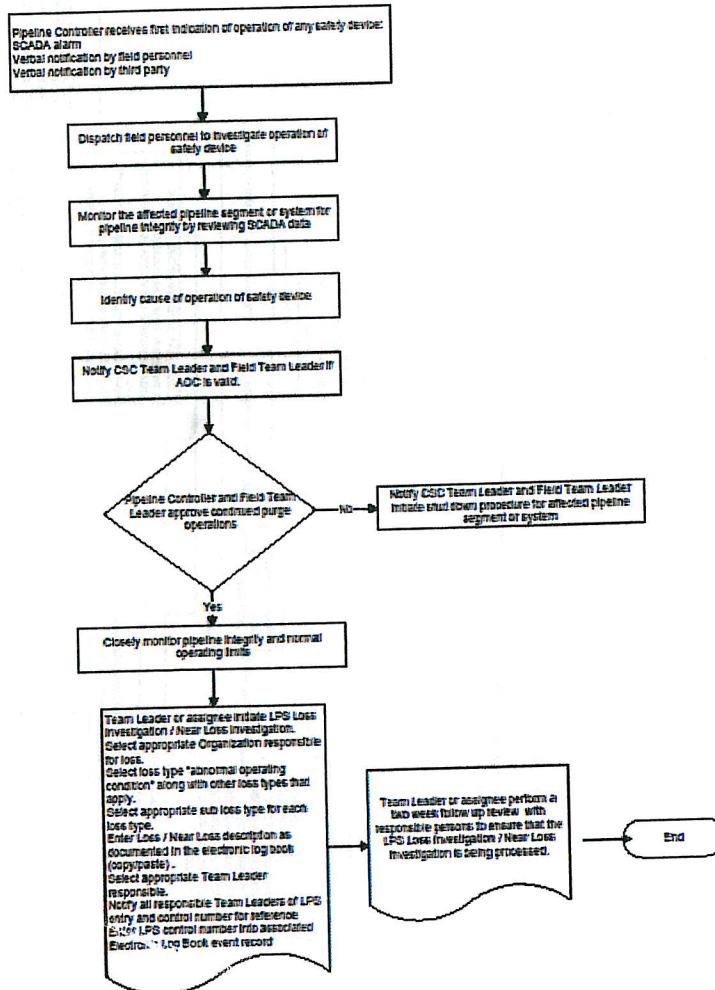
Communication restoration process

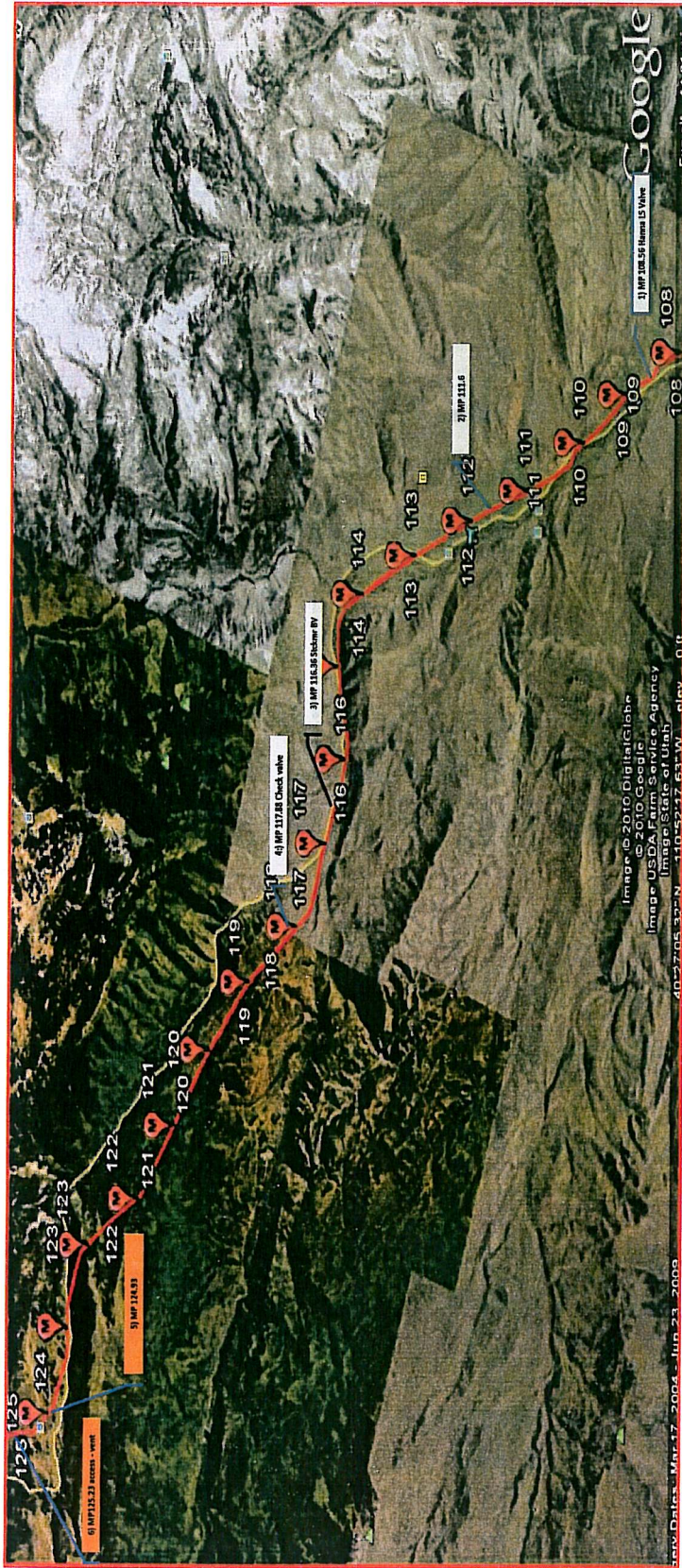


Pipeline monitoring and control process

Communication restoration process

Abnormal Operating Condition: Operation of any Safety Device

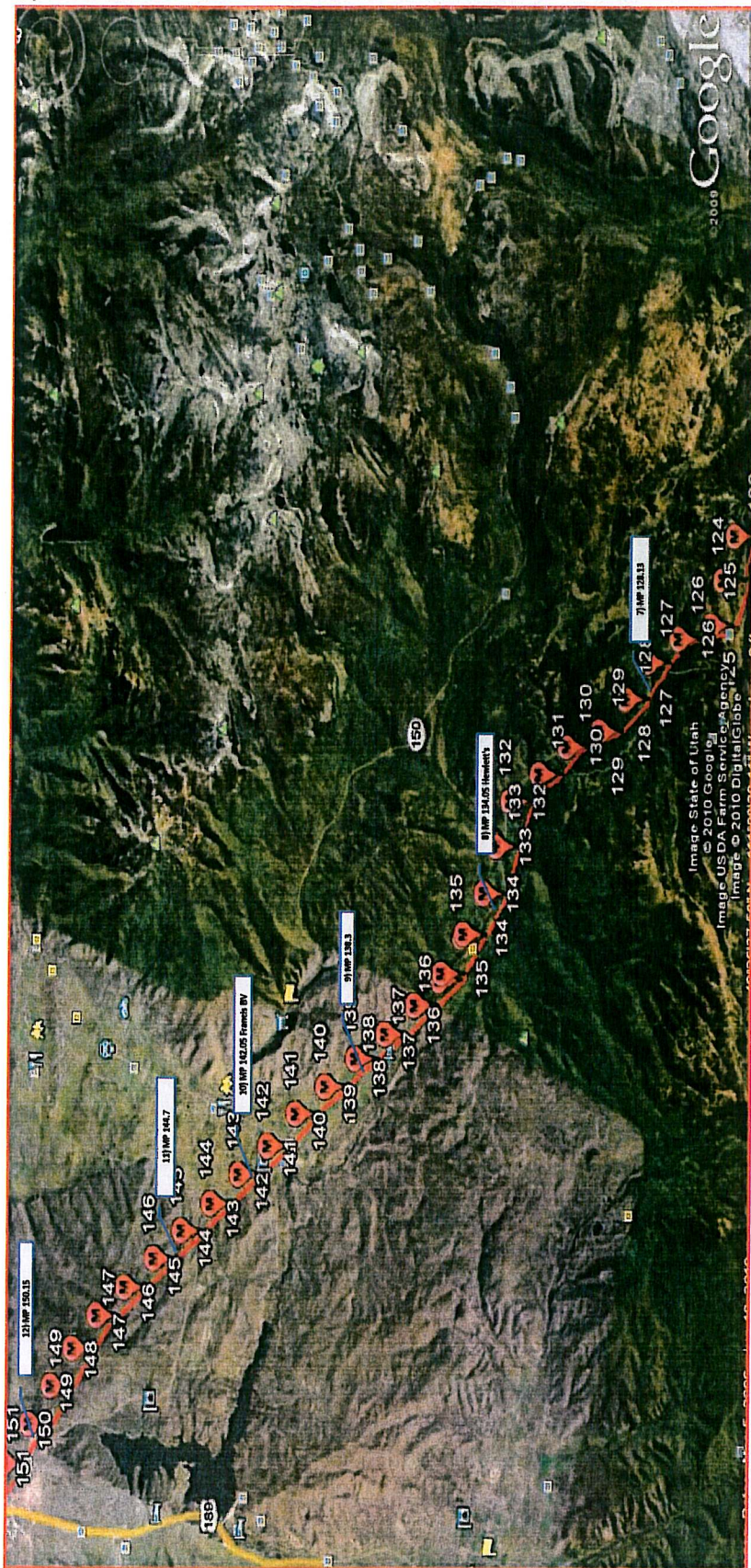




- 1) Hanna Station launch valve
- 2) North on Hwy 35 1.1 miles; turn right on dirt road. Dirt road curves. Follow road 150 ft. past curve to ROW. AGM @ TS
- 3) North on Hwy 35 1.0 miles to Stockmore Block Valve on Right side of 35. AGM on U.S. side of valve
- 4) North on Hwy 35 4 miles; Left on West Fork of Duchesne road 1.0 Miles to ROW. Turn right @ ROW and drive U.S. to valve box
- 5) From Tim's Hide turnout, drive North on Hwy 35 2.0 miles to ROW. AGM on U.S. side of 35
- 6) Follow ROW North 3/10 miles to Top of Wolf Creek. (May need to walk from AGM 20 because of Snow)

Snowmobile / track vehicle access only

Hanna PS - MP 126



Snowmobile / track vehicle access only

MP 126 - MP 151

- 7) North on Hwy 35 1.5 miles to ROW crossing. On D.S. side of 35 about 100 feet from road. AGM @ T.S.
- 8) North on Hwy 35 1.1 miles on Left inside the Hewlett Block Valve Fence, AGM on U.S. side of Vale
- 9) 100 yards North of River Rd on U.S. side of Bench Creek Rd. AGM @ T.S.
- 10) Francis Block Valve North on South Willow Way 7/10 miles; through 4-way stop 1/10 of a mile to ROW. AGM on U.S. side of road.
- 11) Northwest on Lambert Ln 7/10 miles; Left on 200 South 3/10 miles; AGM on U.S. side of 200 South on fence line @ T.S. (100 yards West of Kansas rectifier)
- 12) Return all the way to Hwy 246; from Garff Ranch Rd. drive West on 248 5.2 miles; right on Deer Mountain Blvd 6/10 miles; right on Slalom Run Way 7/10 miles to ROW. AGM on U.S. side of road D.S. of Aerial Marker 15C



Snowmobile / track vehicle access only

MP 151 - MP 182.5

- 13) Return to Hwy 248 and continue West to Frontage Rd; Right on Frontage rd to Silver Creek Block Valve; AGM D.S. form valve on D.S. side of road
- 14) From Home Depot exit of US 40, turn left/West on Trailside Rd 2.0 miles (passing elementary school and winding through subdivision); Left on Old Ranch rd 9/10 miles to ROW @ 5200 North. AGM 200 U.S. form Old Ranch Rd @ T.S
- 15) Kimball Station. AGM at valve in the South West corner
- 16) Return to Frontage Rd. West on Frontage Rd 4/10 miles; left on Aspen Dr; follow Aspen Drive South, then it curves to the West to ROW near address 640 Aspen Dr. AGM on D.S. side of Aspen Dr.
- 17) Return to Quester ROW and follow out to main road. AGM @ U.S. side of Little Mountain Block Valve
- 18) West on Emigration Canyon rd 1.2 miles where Lines #1 and #2 meet back together. AGM 45 ft on the D.S. side of road @ T.S.
- 19) Red Butte Block Valve
- 20) Follow Bonneville Blvd around to ROW on West side of Memory Grove. AGM is on The D.S. side of road @ T.S.
- 21) North on 9th West 8/10 miles across Rail road track. AGM @ T.S.
- 22) Beck Street Block Valve. AGM on U.S. side of Valve
- 23) MP 182.5 CL Station.

Contingency Plan:

Lost / Stuck Swab or Ice Plug During Commission of the Hanna to Salt Lake #2 Crude Line.

In the event of a **lost or stuck swab** as well as an **ice plug**:

1. If the commissioning swab is 45 minutes late between identified tracking locations (Hanna to Salt Lake) and trackers are not able to hear the swab moving utilizing Geo phones and transmitter, shut down crude oil injection into pipeline.
2. Block the first valve downstream of last known swab location to prevent continued flow of crude oil toward Salt Lake City Refinery.
3. Trackers will then walk / travel the ROW back to the last known swab position to identify where the swab is located. Swab location will be determined utilizing tracking device.
4. When the swab has been located, an approved action plan will then be developed to address swab removal or restart of commissioning operations.
5. All work will stop until this plan has been developed and reviewed by the appropriate parties.