

Re-start #2 Crude Pipeline from Hanna to Salt Lake Station

Communication Plan

This plan outlines the communication processes to be utilized during the re-start of the #2 Hanna to Salt Lake crude pipeline. This plan will be tested prior to introduction of crude into the pipeline to ensure all communication devices function from the various locations.

All employees must have a communication device either a cell or satellite phone.

Each location with pressure monitoring capability will be called by the CSC every 30 minutes. Personnel at pressure monitoring locations will record the pressure at the top of the hour and the bottom of the hour regardless of when the CSC calls.

Personnel stationed at river crossings or block valve site will be called by the CSC every hour to verify your safety and well being.

If a release of crude occurs you must call the CSC immediately.

MP	Location Type	Personnel	Cellular Phone Number	Satellite Phone Number
108.5	Hanna Station			
110.3	Duchesne River - any response will be handled out of Hanna Station, response equipment staged at Hanna			
116.35	Stockmore Block Valve Install a pressure gauge			
133.63	Provo River			
134.05	Hewletts Ranch Block Valve 0-1000 pressure gage			
134.56	Provo River			
135.67	Woodland Block Valve Pressure transmitter - CSC			
137.7	Provo River			
142.1	Francis Block Valve 0-1000 pressure gage			Confined space permit and LEL monitor needed
143.4	Weber Canal - exposed pipe in a casing			
150	Jordanelle Reservoir			
153.36	Silver Creek Junction Block Valve 0-1000 pressure gage			Motor operated by now power Will need to engaged the clutch
158.4	Kimball Junction Block Valve Pressure transmitter - CSC			
167.46	Mountain Dell Creek			
168.4	Little Mountain Block Valve Pressure transmitter - CSC			
174.7	Fort Douglas Block Valve (Red Butte) 0-1000 gage			Seven day coverage required
175.6	Dry Creek Exposure			
178.1	City Creek Exposure			
179.9	Beck Street Gravitometer Pressure transmitter - CSC			
181.5	I-15 Block Valve (Beck Street) 0-1000 pressure gage			
182.5	Salt Lake Terminal CPL Operators			

Emergency Equipment Staging Locations			
Provo River Crossing - Bench Creek Rd - manned response truck and vacuum truck			
Little Mountain - manned response truck			
	CSC		
	Field Coordinators		
	Trackers - WPFI		
	Runners - Salt Lake Side		
	Runners - Hanna Side		
	Engineering		
	Operations		
	Salt Lake City		
	IPWI Day Shift Foreman		
	IPWI Night Shift Foreman		

Block valve site	Type of valve site (Block or check or gravitome tier)	Mt. valve drained of water (Y/N) - quantity?	Bypass valve(s) normally closed? Y/N	Bypass valve drained of water (Y/N) - quantity?	NC Bypass valve purged with anti-freeze? (Y/N)	Quantity Anti-freeze injected / idle valves only	Transmitter connection 1 (Y/N)	Transmitter connection quantity? (Y/N)	Other connections - describe	Other connections - water drained? (Y/N) - quantity?	Comments	Inspection conducted by / Date:
Salt Lake Sta. I-15	Block	N - (10/10)	Y	N - (10/10)	N*		Y	Y - 0oz.	PRV root & 2" Tap on side	Y - from 2" tap - 1 oz	*upgraded to Ball valves no H2O threat or glycol injection reqt. Per mfg.	MDRU 12/10
Red Butte	Block	Y - 0 oz	Y	Y - 0 oz	Y	24 oz	N	NA	N	NA		MDRU 12/14
Little Mtn.	Block	Y - 0 oz	Y	Y - 0 oz	N*		Y	Y - 0oz.	Y - PRV root	Y - 11/17/10 0 oz.	*upgraded to Ball valves no H2O threat or glycol injection reqt. Per mfg.	MDRU 12/10
Rimhall's Act	Block	Y - 0 oz	N	NA	NA		Y	Y - 0oz.	N	NA		MDRU 12/10
Silver Creek	Block	Y - 0 oz	N	NA	NA		N	NA	N	NA		MDRU 12/10
Francis	Block	Y - 0 oz	N	NA	NA		N	NA	N	NA		MDRU 12/10
Woodford	Block	Y - 0 oz	Y	Y - 0 oz	Y	16 - 24 oz	N	NA	N	NA		MDRU 12/14
Hewlett's	Block	Y - 0 oz	N	NA	NA		N	NA	N	NA		MDRU 12/10
Check V site	Check	NA	N	NA	NA		N	NA	N	NA		MDRU 12/10
Stockmore	Block	Y - 0 oz	Y	N	Y	24 oz	N	NA	N	NA		MDRU 12/14
Hanna Sta.	Block	Y - 0 oz	Y - 2	1st...no drains 2nd...Y...0 oz	Y	24 oz	N	NA	N	NA		MDRU 12/14

Rangely Crude – Hanna to Salt Lake Station Line Fill Schedule

Time to Milestone*	Milestone
0	Pig is launched from Hanna Station
15 hours	Pig Passes Woodlands
+12 hours	Pig Passes Kimball Junction
+6 hours	Pig Crosses Little Mtn Valve Site
+7 hours	Pig Passes Red Butte Valve Site
+1 hour	Pig arrives in Salt Lake Station Trap
+0.5 hours	Oil to meter @ Salt Lake Station

*assumes a flow rate of 1000 BPH.

Times will be recalculated based on actual flow rates attained for each milestone.

Mitigation for missing milestone:

If time to pump oil to the next milestone location exceeds the expected value by 45 minutes, shutdown the pump. Begin pipeline surveillance from milestone location missed back toward the last milestone location, using ground and air methods, as appropriate, to find any pipeline issues.

In the event of an Abnormal Operating Condition (AOC), CPL will implement actions identified in the "Emergency response plan, Utah Appendix" and the Salt Lake Area "Tactical Response Guide".

Chevron Pipe Line Co. will implement the "Chevron Incident Command System".

Spill recovery equipment will be positioned in three locations including...

- The Hanna Pump Station – Company owned equipment (Duchesne River)
- The LDS church parking lot at Woodland, UT – OSRO owned / staffed equipment (Provo River).
- Little Mtn. Summit parking area – OSRO owned / staffed (Mt. Dell & Emigration drainage).

All of the recovery equipment will be staffed by one person who will be dispatched in the event of a crude oil release.

In the event of a crude oil release, the Restart operation will be immediately halted and Hazwoper Level IV trained personnel, including Chevron Pipe Line Co., CPL Contractors and CPL OSRO contractors, who are being utilized during this operation, will be dispatched to the spill site as Emergency Responders.

Notifications in the event of an Emergency will be per CPL's Emergency Notification Procedure. Communications to the responders will be via the existing communications plan. Considerations for the placement of the recovery equipment include:

- Timely response to a potential Crude oil release into sensitive waterways (Duchesne River, Provo River, Mt. Dell Creek) which are drinking water supply sources.
- Centrally located to respond to all locations, including block valve sites, in a timely manner.
- Consideration of the possibility that the Wolf Creek pass is closed.
- Ability to ensure reliable cellular telephone communications.
- Ability to access passable roads during winter driving conditions.

Hourly/Daily and LT1 Surveillance and Response Plans

Every day patrol: Every above ground facility. First 48 hours of startup of the #2 crude line. Daily patrols will continue until hydrocarbon detectors or other leak detection enhancements are installed at predetermined block valve compounds and we have received approval from PHMSA to cease daily patrols.

- CPL employees will drive to these locations daily (every valve site) from Salt Lake Pump Station to Hanna, Utah eliminating the need for daily air patrol.

IMPORTANT: If inclement weather prevents CPL from patrolling the pipeline, CPL must contact PHMSA Western Regional Director [redacted] before 9:00 am of the same day notifying PHMSA of the expected time for stopping and resuming the patrols.

PHMSA Phone Number [redacted] (Business hours only)

PHMSA Phone Number [redacted] (After business hours)

Every two hour observation sites (Becky/City/Jim) requested surveillance of additional sites throughout SLC and at Little Dell Reservoir that would aid in early detection in the event of a release. Four contract employees will be identified to monitor the following areas every two hours. Two during the day shift and two during the night shift.

- City Creek MP 178.1
- Dry Creek MP 175.6
- Red Butte MP 174.7
- Emigration River Crossing MP 169.5
- Mountain Dell Creek Crossing MP 167.5

Every LT1 (CPL) Five divisions will be inspected by five responders. Each responder will drive to the first location identified in that division. They will then inspect each division in the order identified below. If hydrocarbon release is observed contact CSC and implement Emergency Response Plan. If route is completed and no hydrocarbon release is identified contact the CSC for further instructions.

Division 1

- City Creek Pipeline Exposure/River Crossing MP 178.1
- Dry Creek Pipeline Exposure MP 175.6
- Drive/Inspect pipeline route back to MP 181.5

Division 2

- Red Butte Creek Pipeline Crossing MP 174.5
- FT Douglas Block Valves MP 174.58
- Dry Creek Pipeline Exposure MP 175.6
- Emigration Canyon Pipeline Creek Crossing MP 169.5
- Little Mountain Block Valve Compound MP 168.5
- Mountain Dell Creek Pipeline Crossing MP 167.5

Division 3

- Parley's Summit – Summit Park Subdivision MP 163
- Pinebrooke Subdivision MP 161 – MP 160
- Kimball Station MP 158.25
- Drive/Inspect pipeline route to Silver Creek Block Valves MP 153

Division 4

- Provo River MP 128 Diamond Bar X Crossing
- Upper Bench Creek Road Crossing MP
- Lower Bench Creek Road Crossing
- Drive/Inspect pipeline route to Silver Creek Block Valves MP 153

Division 5

- Duchesne River Crossing MP 113.8
- Duchesne River Crossing MP 115
- Duchesne River Crossing MP 116
- Drive pipeline route Stockmore Block Valves MP 116.5
- Drive/Inspect pipeline route to West Fork Check Valve at MP 118

In the last ten years have "Depth of Coverage" surveys been performed on the pipeline segment? And, if so, in what locations? What were the results of these surveys?

Yes, depth of coverage surveys are conducted on an as needed basis. For example the most recent survey was conducted this fall by URS along the Provo River crossing (MP 133.6) where the Provo River jumped its bank last spring and ran over our ROW. Other examples of when surveys may be conducted include third party pipeline crossings, borings or potholing. Whenever the line is exposed depth of survey information is entered into our field data collection (FDC) device to be included in our new mapping systems.

Appendix A

As part of PHMSA overall comments regarding the Restart Plan, PHMSA requested additional information regarding leak detection, valve activity, pipeline repairs, and field verification activity. Below are CPLs responses:

1. what work was done to enhance leak detection

- a. e.g. where video has been installed or
- b. where another form of immediate leak detection has been installed

a. e.g. where video has been installed

Web Cameras

We have installed the leak detection cameras at the following sites: Beck street gravitometer site, Little Mountain block valve site, Kimballs block valve site. Red Butte Creek block valve site camera will be installed prior to startup.

b. where another form of immediate leak detection has been installed

Additional Ground Surveillance has been added as well as the cameras.

Leak Detection Systems:

The NWCP is enabled with a Telvent SCADA PLM leak detection software package. The PLM system automatically analyzes the H-SLC loss/gain deviations and provides alarms to the controller. As a result of recent system modifications and further analysis, the primary line deviation alarm has been reduced by 33%.

Leak Detection Procedures:

The LT1, LT2, and LT3 alarms are programmed with the intent to provide accurate and prompt notification of leak indication. Upon receipt of the LT deviation alarms, the NWCP will implement more stringent shut down protocols as defined below:

- a. **LT1:** SHUT DOWN H-SLC per standard procedure to include verification optimal drain of line is achieved. Communicate to field team and Console Supervisor (CS) as per emergency response plan. Field team initiates remote site surveillance plan. Stand up test planned and initiated.
- b. **LT2:** SHUT DOWN H-SLC per standard procedure to include verification optimal drain of line is achieved. Communicate to field team and Console Supervisor (CS) as per emergency response plan. Field team initiates remote site surveillance plan. Stand up test planned and initiated.
- c. **LT3:** SHUT DOWN H-SLC per standard procedure to include verification optimal drain of line is achieved. Communicate to field team and Console Supervisor (CS) as per emergency